



INTERNATIONAL CONFERENCE ON BUSINESS INNOVATION



PROCEEDINGS

INNOVATING FOR RESILIENCE: REDEFINING BUSINESS AND EDUCATION BEYOND BOUNDARIES



ORGANIZED BY THE FACULTY OF BUSINESS | 17 OCTOBER 2025





8TH INTERNATIONAL CONFERENCE ON BUSINESS INNOVATION

INNOVATING FOR RESILIENCE: REDEFINING BUSINESS AND EDUCATION BEYOND BOUNDARIES

FOCUSING

Accounting and Finance

Technology Enhanced Language Learning and Education Practices

Adaptive Learning and Education Practices

Entrepreneurship, Innovation, and Economic Transformation

Marketing, Media and Communication

Sustainable Tourism, Events, and Global Business Management

Governance, Compliance and Legal Enforcements

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Strategic Business Transformation, Project Development and Operations
Management

Operations, Logistics, and Supply Chain Management

Marketing and Branding

ORGANIZED BY
FACULTY OF BUSINESS

NSBM GREEN UNIVERSITY, COLOMBO, SRI LANKA - OCTOBER 17, 2025

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PREFACE

On behalf of the organizing committee of the International Conference on Business Innovation (ICOBİ) 2025, it is our great pleasure to welcome all the authors and delegates of this esteemed event hosted by the Faculty of Business of NSBM Green University, Sri Lanka. We trust that the contents within will prove to be not only insightful but also transformative. For the eighth consecutive year, NSBM Green University proudly hosts the International Conference on Business Innovation (ICOBİ), pushing the boundaries of academic discourse. This conference is a testament to the continuous commitment towards addressing the pressing global challenges through research and innovation while exploring the intersection of business and technology.

This year, under the theme “Innovating for Resilience: Redefining Business and Education Beyond Boundaries,” the conference provides a dynamic platform for academics, researchers, and professionals to present and exchange their ideas, and discuss cutting-edge research that spans a wide range of disciplines to reshape communities and industries. Over the course of the event, we aim to foster dialogue and explore innovative solutions on a variety of themes that drive progress in the modern world. ICOBİ 2025 serves as a vital platform to bring together local and international researchers, academics, and industry experts to discuss the profound impact of redefining business in the global innovative landscape.

The papers included in these proceedings underwent a rigorous double blind review process, ensuring that the contribution reflects the highest standards of scholarship and innovation.

We are also pleased to highlight that the highest-scoring papers will be published in a special issue by Taylor & Francis, further amplifying the impact of research presented at the conference. These efforts demonstrate the conference’s commitment to academic integrity.

We extend our heartfelt gratitude to our keynote speakers, panelists, and participants whose insights and experiences have greatly enriched our discussions. We also wish to acknowledge the tireless efforts of the organizing committee, the reviewers and the volunteers who made this conference a success. We are confident

that the research shared here will inspire new ideas and collaborations that will pave the way for more sustainable and innovative future in business.

We wish all participants a stimulating and rewarding conference experience.

The Conference Organizing Committee
ICOBİ 2025

Message from the Vice-Chancellor



It is with great honour and pride that I extend my warmest welcome to the International Conference on Business Innovation (ICOBI) 2025, organized by NSBM Green University. As we gather for the eighth edition of this distinguished conference, we are reminded of the vital role academic inquiry and innovation play in shaping resilient and sustainable futures.

The theme of ICOBI 2025, “Innovating for Resilience: Redefining Business and Education Beyond Boundaries,” reflects the pressing need to strengthen our ability to adapt and thrive amidst global uncertainties. In today’s interconnected world, resilience has become a cornerstone for businesses, economies, and educational institutions alike. This conference provides a timely platform to explore how innovation can

break traditional boundaries and redefine the way we approach challenges in business and education. Building on the successes of previous conferences, ICOBI 2025 brings together scholars, researchers, and industry experts from diverse disciplines to share insights and foster dialogue on strategies that cultivate resilience. In doing so, we collectively contribute to advancing knowledge and practices that are not only innovative but also impactful in addressing contemporary global challenges.

Universities bear a profound responsibility to be hubs of research, knowledge creation, and transformation leadership. At NSBM, we remain committed to nurturing an environment where such discourse can flourish and where academic excellence directly informs societal and economic progress. ICOBI 2025 stands as a reflection of this commitment, serving as a platform where new ideas and cross-disciplinary collaborations can emerge.

I extend my heartfelt appreciation to the organizing committee for their dedication to hosting this year’s conference, as well as to all the presenters and participants whose contributions enrich the quality and impact of ICOBI. Your valuable research, innovative thinking, and shared expertise are essential in building a future that is resilient, inclusive, and forward-looking. May ICOBI 2025 inspires fruitful collaborations and pioneering solutions that will redefine the boundaries of business and education, ultimately shaping a world better prepared to face the challenges of tomorrow.

Thank you.

Prof. E. A. Weerasinghe

Vice Chancellor

NSBM Green University

Message from the Deputy Vice-Chancellor



It gives me immense pleasure to extend my warm greetings to all participants of the eighth International Conference on Business Innovation (ICOBI 2025), hosted by NSBM Green University. This year's theme, "Innovating for Resilience: Redefining Business and Education Beyond Boundaries," reflects a bold and forward-looking vision at a time when the world is being tested by rapid transformations and unforeseen challenges.

Resilience is no longer a passive response to adversity but a proactive pursuit of strength, adaptability, and innovation. Through ICOBI 2025, we aim to highlight how research and knowledge creation can inspire solutions that cross geographical, disciplinary, and institutional boundaries, paving the way for sustainable progress in both business and education.

NSBM takes pride in its commitment to nurturing a culture of research and development. Conferences such as ICOBI not only provide an arena for academic discourse but also encourage the building of networks that connect ideas with action. This gathering is a testament to our shared belief that collaboration and innovation are vital to overcoming global challenges and reimagining the future.

I extend my heartfelt gratitude to the organizing team for their tireless efforts and to every contributor for enriching this event with your valuable insights. I trust that ICOBI 2025 will be an inspiring experience that sparks resilience-driven innovations and long-lasting collaborations.

Thank you.

Prof. Chaminda Rathnayake

Deputy Vice Chancellor

NSBM Green University

Message from the Head of Academic Development and Quality Assurance



It is my great pleasure to welcome all participants, scholars, and industry experts to the eighth International Conference on Business Innovation (ICOBI 2025), hosted by NSBM Green University. This year's theme, "Innovating for Resilience: Redefining Business and Education Beyond Boundaries," emphasizes the need to rethink traditional approaches and embrace forward-looking strategies in both business and education.

In today's rapidly changing world, resilience is more than an aspiration - it is a necessity. Businesses and educational institutions must continuously adapt, innovate, and collaborate to navigate uncertainties and emerging challenges. ICOBI 2025 offers an ideal platform to showcase research, share insights, and explore innovative solutions that transcend conventional boundaries. At NSBM, we are committed to fostering a culture of academic excellence, critical inquiry, and applied innovation. Conferences like ICOBI not only provide opportunities to disseminate knowledge but also inspire actionable ideas that can transform organizations, industries, and communities.

I would like to extend my sincere appreciation to the organizing committee, and all contributors whose efforts have made this event possible. Your dedication ensures that ICOBI continues to serve as a hub for meaningful dialogue, cross-disciplinary collaboration, and pioneering thought leadership.

I encourage all participants to engage fully in the conference sessions, exchange ideas freely, and cultivate connections that will foster long-term collaborations. May ICOBI 2025 inspire creativity, innovation, and resilience that extend far beyond the confines of this conference.

Thank you.

Prof. Baratha Dodankotuwa

Head of Academic Development and Quality Assurance
NSBM Green University

Message from the Dean, Faculty of Business



It is my great pleasure to welcome you to the eighth International Conference on Business Innovation (ICOBI 2025), organized by NSBM Green University. This year's theme, "Innovating for Resilience: Redefining Business and Education Beyond Boundaries," reflects the urgent need for organizations and educational institutions to adapt, innovate, and thrive in a rapidly changing global environment.

The concept of resilience goes beyond merely responding to challenges, emphasizing the capacity to anticipate, innovate, and transform in the face of uncertainty. ICOBI 2025 provides an invaluable platform to explore how businesses and educational institutions can embrace innovative strategies, leverage cross-disciplinary knowledge, and redefine conventional practices to ensure sustainable success.

The papers, presentations, and discussions shared during this conference will highlight diverse perspectives and creative approaches that are shaping the future of business and education. From building adaptive organizational cultures to integrating novel technologies and methodologies, the insights generated here will inspire actionable solutions that extend well beyond the academic sphere.

I encourage all participants to actively engage in dialogue, share their expertise, and cultivate meaningful collaborations. It is through such knowledge exchange that we can collectively address complex challenges, foster resilience, and drive positive change across industries and societies.

I extend my sincere gratitude to the organizing committee, speakers, and participants for their dedication in making ICOBI 2025 a success. I am confident that this conference will spark innovative ideas and pave the way for a resilient, forward-looking, and boundary-breaking future in business and education.

Thank you.

Thilini De Silva

Dean, Faculty of Business
NSBM Green University

Message from the Conference Chair



It is my honour and privilege to extend this message for the Eighth International Conference on Business Innovation (ICOBI 2025), to be held on 17 October 2025 at NSBM Green University of Sri Lanka. ICOBI has been convened annually since 2018, evolving into a premier forum for exploring cutting-edge intersections of business innovation, education, and sustainable development.

This year's conference is themed "Innovating for Resilience: Redefining Business and Education Beyond Boundaries." In a world marked by rapid change, uncertainty, and disruption, we believe that resilience is no longer optional; it is essential. Through this theme, ICOBI 2025 seeks to foster exploration of how business models, educational systems, and institutional practices can be reimagined to thrive across borders, constraints, and unpredictable environments.

ICOBI 2025 is attended by academics, industry leaders, entrepreneurs, and policy-makers from around the globe. We have invited submissions across a broad set of domains, including Economics & Business Analytics, Entrepreneurial Ecosystems, Governance & Compliance, Human Resource Management, Logistics & Supply Chain, Marketing & Branding, Strategic Business Transformation, Global & Sustainable Business, Adaptive Learning and Education Practices, Technology Enhanced Language Learning, and more.

I owe a deep gratitude to the organizing committee for their dedication and perseverance in bringing this event to life. I wish to extend my heartfelt thanks to our esteemed leadership, Prof. E. A. Weerasinghe, whose continuous guidance has been instrumental to the success of this event. I am also grateful to Prof. Chaminda Rathnayake, Deputy Vice Chancellor, and Prof. Baratha Dodankotuwa, Head of Academic Development & Quality Assurance, for their support in strengthening the research culture at NSBM. A special note of thanks is also due to Ms. Thilini De Silva, Dean of the Faculty of Business, whose leadership and guidance have been a driving force behind this endeavor.

I also wish to recognize our keynote speakers, Prof. Pavithra Kailasapathy (University of Colombo), Prof. Linda Bradley (University of Gothenburg), and Dr. Christopher Agyapong Siaw (Plymouth Business School), whose expertise will greatly enrich the discourse. On behalf of the Organizing Committee, I offer my sincere thanks to all authors, reviewers, panelists, presenters, and attendees. I encourage you to engage fully, challenge assumptions, share bold ideas, and build collaborations that extend beyond this conference.

Let us together make ICOBI 2025 a catalyst for new thinking and resilient innovation, reimagining business and education beyond boundaries for a better tomorrow.

Dr. W A Piyumi Udeshinee
Conference Chair
ICOBI 2025

KEYNOTE ADDRESS 1



Pavithra Kailasapathy (PhD)
Professor
Department of Human Resources Management
Faculty of Management and Finance
University of Colombo, Sri Lanka

Growth Through Adversity: The Architecture of Resilience

Abstract

In a world marked by volatility, uncertainty, and rapid change, resilience is no longer a luxury—it is a necessity. This talk explores the transformative power of resilience across individual, organisational, and Societal levels, drawing on stories from Sri Lanka and beyond to illustrate how adversity can become a catalyst for innovation and growth.

This talk explores the dynamic and multifaceted nature of resilience, positioning it as a critical capability for individuals, organisations, and communities navigating adversity. Drawing from Sri Lanka's post-tsunami recovery in 2004, grassroots innovation and collective action, illustrating how resilience sometimes can emerge organically in the absence of formal plans. The talk then traces the etymology of resilience and synthesizes key scholarly definitions, framing it as the ability to rebound, adapt, and grow stronger through setbacks.

At the individual level, the talk highlights the pivotal role of mindset—particularly Carol Dweck's growth mindset theory—as a foundational element of resilience. It argues that resilience is not innate but developable, supported by both natural mechanisms (e.g., emotional regulation, supportive relationships) and induced mechanisms (e.g., training, coaching, mindfulness). The feedback we give to children and employees.

Organisational resilience is examined through case studies, including Toyota's post-tsunami supply chain restructuring and Sri Lankan apparel firms' move to PPE production during the COVID-19 pandemic. These examples underscore resilience as a strategic advantage, enabling firms to adapt, innovate, and thrive under pressure. The talk draws on contemporary research to show how resilience enhances organisational performance, competitiveness, and long-term sustainability.

The talk also articulates the innovation–resilience loop, where resilience fuels innovation and vice versa, creating a continuous cycle of adaptation and growth. Practical frameworks are proposed for building resilience at both individual and organizational levels, including anticipation, absorption, recovery, and growth.

The Sri Lankan context is woven throughout, from ancient irrigation systems to modern-day educational goals, reinforcing that resilience is embedded in the nation’s cultural and historical DNA. The talk concludes with a call to action: in an era of volatility and uncertainty (VUCA), resilience must be cultivated intentionally across all sectors of society. It is not merely about bouncing back—but bouncing forward, stronger and wiser.

KEYNOTE ADDRESS 2



Linda Bradley (PhD)
Associate Professor in Education
Department of Education, Communication and Learning
University of Gothenburg, Sweden

Empowering students through adaptive pedagogies and technology-enhanced learning: Strategies for inclusive and reflective higher education

Abstract

This keynote addresses the evolving landscape of higher education confronting challenges of digital transformation and increasingly diverse student populations. It is essential to reimagine teaching, learning, and assessment in ways that promote engagement, inclusion, and lifelong learning. The focus is on strategies that foster critical teaching, student agency, and professional development for educators. Central to this discussion is the integration of collaborative and inclusive pedagogies, where students take responsibility for their learning, co-construct knowledge in diverse groups and develop a sense of belonging. These approaches support both cognitive and social development, reinforcing student engagement and motivation.

Drawing on technology-enhanced learning environments, the importance of active student participation and the dynamic interplay between teaching and learning will be highlighted. The role of student-led projects and reflective practices in higher education will be addressed, showing how learning activities can align with content while promoting autonomy. Digital tools are not peripheral but essential to fostering inclusive classrooms, supporting differentiated instruction, and expanding access. Examples from academic professional development courses and international master's programs in information technology provide insights into cross-cultural communication and multilingual learning, illustrating how technology bridges geographic and linguistic boundaries.

A particular emphasis is placed on student-led projects and reflective practices-including podcasts, video journals, and peer response work that promote autonomy, intercultural competence, and linguistic development. These activities exemplify how content, communication, and critical reflection can be meaningfully aligned in diverse educational settings.

Technology-enhanced language learning is also addressed for its transformative potential, enabling institutions to personalize instruction, promote multilingualism, and support engagement beyond the classroom. From mobile apps and learning management systems to AI-driven platforms, digital tools are showcased as catalysts for inclusive and adaptable learning. A key focus is placed on inclusive teaching practices, where differentiated instruction and formative assessment strategies can create equitable learning environments. The role of generative AI is critically examined with attention to how it can be designed as a tool for learning.

Throughout, the keynote emphasizes reflective practice, for both students and educators, as a cornerstone of effective pedagogy. By integrating reflection into the curriculum through portfolios, peer review, and metacognitive tasks, higher education can nurture deeper learning and professional development. In conclusion, the role of higher education is shaping inclusive, collaborative, and future-ready learning environments. This calls for adaptive and technologically enhanced practices as core elements of a dynamic, globalized, and learner-driven educational environment that empower learners to thrive.

KEYNOTE ADDRESS 3



Christopher Agyapong Siaw (PhD)
Lecturer in Marketing
Plymouth Business School University of Plymouth, UK

Building Collective Resilience through Co-Creation and Innovation

Abstract

The consequences of the Covid-19 pandemic and recent global geopolitical tensions have revealed an undeniable fact that disruptions ripple everywhere. If what affects one affects all, recovery cannot be individual, it must be collective. Accordingly, resilience cannot be built in isolation, it must be built together. Lessons from the Covid-19 pandemic remind us that resilience is no longer about bouncing back to the past, but bouncing forward to something stronger, smarter, and more sustainable through innovation. As policymakers, managers, academics, or students facing disruptions from Artificial Intelligence (AI) and the demands of sustainability, our resilience will come Not from silos, but from how we collaborate, reimagine, and reinvent together. This is why redefining business and education beyond boundaries, through the co-creation of innovation, is not just important—it is essential for building true resilience.

Innovation today is no longer the work of lone geniuses, single labs, or isolated firms. It is co-created in ecosystems where problems are defined with users, expertise is pooled across suppliers, partners and manufacturers, and researchers collaborate with managers and entrepreneurs. Ecosystems thrive on networks— firms, customers, researchers, regulators, governments, and communities—because no single actor holds all the resources to tackle today’s challenges, whether in low-carbon technologies, artificial intelligence, or global value chains. Co-creation in ecosystems provide the scaffolding—social, economic, and governance structures—that brings interdependent capabilities together. Co-creation mechanisms make ecosystems resilient because ecosystems reconfigure when one actor fails, absorb shocks through shared risks, adapt through continuous learning, and stay agile with modular platforms.

To thrive in resilient ecosystems, businesses need to develop dynamic capabilities—the ability to adapt, reconfigure, and renew from within—more than ever before. Nonetheless, in today’s networked digital economy, Internal agility alone is not enough. Bouncing forward with resilience that drives innovation also depends on openness—the ability to connect, exchange, and co-create value across boundaries. This is the essence of open innovation. Firms must develop dynamic Exchange capabilities (DEC) that allow them to collaborate meaningfully with universities, start-ups, suppliers, and even competitors. DEC means building connectivity with the right partners, creating mutual value through shared action, and sustaining long-term participation that fuels continuous co-innovation.

For universities to thrive in resilient ecosystems, stronger ties with industry that go beyond one-way knowledge transfer is essential. Platforms like Konfer in the UK, which connects academics and businesses to co-create solutions in the UK innovation ecosystems show how digital tools can accelerate innovation and create vital feedback loops. These loops ensure industry insights inform curricula, while university research fuels new products, services, and policies. With strong industry ties, universities must evolve from one-time destinations into lifelong learning hubs. That means offering flexible format short courses, modular programmes, and part-time study—that meet the needs of professionals who are time-poor but knowledge-hungry. Crucially, these formats must cultivate adaptive mindsets with a resilience curriculum that teaches adaptive leadership, systems thinking, and crisis management across disciplines to prepare learners not just to perform, but to pivot in a world of constant disruption.

Today, the most critical disruptions to education and business come from the growth of AI technologies and demands of sustainability. Clearly, these challenges cannot be addressed in isolation. Rather, they require co-created innovations that build resilience not to return to old ways, but to leap forward towards a smarter and a more sustainable future.

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The Mediating Effect of Authenticity on the Effectiveness of Influencer Marketing on Purchase Intentions for Skin Care Products, with Special Reference to Generation Z

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Abstract— Influencer Marketing has grown in popularity as a technique to promote goods and services by using different digital platforms. Further, there are a dearth of studies that were conducted in this context testing the mediating effect of authenticity on the influencer marketing effectiveness and purchase intentions. This study investigated how the authenticity of the influencer impacts their credibility and consumers' purchase decisions in the Sri Lankan context of skincare consumers, with special reference to Generation Z. A quantitative study was conducted, and the data were analyzed using SPSS. Furthermore, Regression analysis and Correlation analysis were conducted in order to statistically examine the direct relationships and mediated relationships from Authenticity, and they had positive results which showed significant positive impact from Authenticity towards the relationship between influencer marketing effectiveness and consumers purchase intentions. Moreover, a sample of 247 Generation Z respondents were taken as the sample. Adding value to the Influencer marketing context is essential nowadays to satisfy consumers and build strong relationships with customers. This Research paper aims to validate the impact of Authenticity on the relationship between the dimensions of Expertise, Attractiveness, and Trustworthiness (Source credibility model) towards purchase decisions of skincare consumers and this study comes up with a novel finding of Authenticity which is significant to all the skincare influencer marketers and skincare manufacturers.

Keywords— Authenticity, Generation Z, Influencer Marketing, Expertise, Attractiveness, Trustworthiness

I. INTRODUCTION

Among the world's popular multibillion-dollar businesses the cosmetic industry has become one of the leading ones [1]. As mentioned in Euromonitor International (2016), the global value of the beauty industry is known to be \$444 billion and the skincare segment has a share of US\$ 120 billion. Moreover, Influencer Marketers are normal people but have a huge number of followers due to their talent to make high-quality content and expertise in specific areas such as fashion, fitness, or lifestyle as cited in [2]. According to [2] Ohanian's source credibility model

(1990) is utilized to measure the effectiveness of influencer marketing based on credibility sources such as Trustworthiness, Attractiveness, and Expertise.

Furthermore, people born between 1997 and 2012 are called Generation Z people [3] and tend to be the target segment for influencer marketing. As cited in [4] the main reason for their ability to use digital platforms and much more likability for social media. This study focused on identifying the mediating effect of authenticity on the effectiveness of influencer marketing and purchase decisions of skincare consumers with special reference to Generation Z.

This is because, according to a study conducted by [5] states that perceived authenticity is growing in importance because they have examined self-acceptance, mindfulness, and perceived authenticity of influencers in carving behavior appearing in self-discrepancies and they expressed that these variables should be further examined in the future in much more detail. Not only that in a study conducted by [6], the author stated that it would be a valuable contribution to conduct a study on testing the mediating effect of authenticity using different product categories and specializations to see whether there are any differences in consumers' perceived authenticity in addition to the authors study conducted on social media and mediating role of authenticity in covert celebrity endorsement.

Furthermore, the purpose of this study was to identify the mediating effect of authenticity on the effectiveness of influencer marketing on purchase intentions for skincare product consumers with special reference to Generation Z. To achieve this purpose the following research questions were addressed, What is the impact of Authenticity on the relationship between Expertise and purchase intentions of Generation Z skincare consumers?

1. What is the impact of Authenticity on the relationship between Expertise and purchase intentions of Generation Z skincare consumers?

2. What is the impact of Authenticity on the relationship between Attractiveness and purchase intentions of Generation Z skincare consumers?
3. What is the impact of Authenticity on the relationship between Trustworthiness and purchase intentions of Generation Z skincare consumers?
4. What is the direct impact of Authenticity on the purchase intentions of Generation Z skincare product consumers?

This study is significant for every skincare manufacturing business that manufactures skincare for Generation Z, the findings will be beneficial in identifying the most appropriate influencers for marketing in different digital platforms. On top of that authenticity is integrated into this model as a mediating variable in order to explain the relationship between influencer credibility and consumers' purchase decisions hence adding authenticity promotes a deeper understanding of how influencer marketing effectiveness correlates purchase intentions significantly.

II. LITERATURE REVIEW

A. Influencer Marketing

According [7] Influencer Marketing can be explained as a marketing strategy that utilizes the supremacy of key individuals or opinion leaders to navigate consumer brand awareness and their purchasing decisions. As stated by [8] 94% of marketers who have utilized influencer marketing have identified that the return on investment is 11 times higher than traditional marketing.

B. Generation Z

Generation Z tends to be the age group to has a genuine connection with influencers. The main reason for this is that Generation Z was born in the time that the internet was evolving, and this generation grew up watching YouTube stars that are similar to them. Therefore, these generations mostly prefer the chance to engage with them [9]. Further, [10] analysed the characteristics of Generation Z. She explained that this is a generation that spends much of their time on the internet, they prefer to follow an influencer who has similarities that match their lifestyle, values, and beliefs. Not only that, but she also identified that this generation is more likely to share their product thoughts and experiences with others by using the internet in the forms of Reviews, comments, etc.

C. Source Credibility and Purchase Intention

According to [11] state that the expertise of an influencer elucidates the anticipated value of the information they contribute. On the other hand, as explained by [11] the expertise of an influencer can impact purchase intentions in two different ways

Firstly, it is necessary to make sure whether an influencer possesses an unequivocal level of acquaintance with a product or prevalent expertise, and secondly, it is compulsory to note whether an influencer can be anticipated to be a valuable etymology of knowledge regarding the purchase decision-making process.

H1 There is an impact from Expertise to Purchase intentions

Moreover, as cited in [12] celebrity endorsement depends on several models such as source credibility and source attractiveness. Further, according [11] states that the consistency theory and halo effect propounds that influencers who are physically attractive are seen as smarter and designated higher on other traits.

H2-There is an impact from Attractiveness to Purchase intentions

Further, according to [12] trustworthiness can impact purchase intentions, this is because credibility means the value of information given by their product recommendations. Not only that, according [13] mentions that the majority of researchers have grounded that there is a positive relationship between trustworthiness and purchase intentions.

H3- There is an impact from the trustworthiness to purchase intentions

D. Expertise

Expertise stipulates the "scope to which a speaker becomes aware as a fount of valid assertions" according to [14]. A communicator's expertise can be discerned from the quantity and quality of information, the degree of ability, education, and professional achievement, and the plausibility of the communicator's astuteness [14].

When evaluating the relationship between expertise and influencer marketing. For instance as cited in [13] states that the expertise of an influencer positively affects the purchase intention, however, as cited in [14] The Authors concluded that effectiveness varies according to authenticity, this is because brands are highly concerned about their image and the content shared by the influencer. Influencers will represent the credibility of the brand in addition to his/her self-credibility.

H4- There is an impact from Expertise to Purchase intention via Authenticity

E. Attractiveness

The Attractiveness of an influencer enlarges the impact of communication by resulting in substantial attention and espousal, according [14]. Further, when a communicator is attractive, the audience will be inclined to give credence to the communicator's message [15]. Moreover, a large number of past studies indicate that attractiveness will contribute positively to purchase intention [13]. However, influencers becoming attractive will not always contribute to

positive purchase decisions, this will be mediated by Authenticity.

H5- There is an impact from Attractiveness to Purchase intentions via Authenticity

F. Trustworthiness

Trustworthiness can be determined by the individual's level of credibility such as the source of information portrayed, whether it is their real and genuine thoughts, or whether they are impacted by different influencers [12]. Moreover, Trustworthiness can be defined as the degree of sincerity and honesty the influencer marketer exhibits. According to [16] consumers on Instagram assess or rate an influencer's trustworthiness regardless of whether their opinions are reliable, transparent, truthful, and open-minded.

Moreover, multiple research studies have concluded that trustworthiness and consumer purchase intention have a strong positive correlation. As per the research conducted by [17], Trustworthiness positively influences the consumer purchase intention of cosmetic products. However, the authors [14], state that the effectiveness varies on their authenticity. In addition, to the image and content shared the credibility of the influencer will have a collision on the credibility of the brand.

H6- There is an impact from Trustworthiness to purchase intentions via Authenticity.

G. Mediating Influence of Authenticity

According to [5] perceived authenticity has been tested as a moderator to identify the exposure to influencer content, whereas, in a study conducted by [18], perceived celebrities' authenticity is being measured by three components such as originality, Naturalness and continuity with influencer credibility utilized as a mediator to identify how this will affect Positive word of mouth. Not only, [6] states that authenticity has been examined in many disparate contents such as celebrity authenticity, Advertisement authenticity, brand authenticity, authenticity in social media, tourism authenticity and authenticity in politics. Additionally, this suggests that the authenticity variable is growing in importance and should be further measured, therefore this study will measure the mediating effect of authenticity on influencer marketing effectiveness towards purchasing intentions of skin care products, with special reference to Generation Z. This would support existing literature related to Authenticity, influencer marketing effectiveness, and Generation Z with novel results.

H7- There is an impact from Authenticity on purchase intentions

H. Purchase Intentions

Purchase intention is evidenced as cited in [7] which is "an individual's conscious plan to make an effort to buy a brand". Further, [19] explained purchase intention as "what we think we will buy". Not only that as cited in

[20] described purchase intention as the great inclination to buy a product shortly. Even more important, purchase intentions consist of the possibility or conceivability that consumers will be inclined to purchase an irrefutable product.

In conclusion, according to a study administered [19] failed to manifest a positive relationship between influencer marketing and purchase intention, and this was determined after conducting a blog content. However, other past studies that were conducted on influencer marketing and purchase intentions asserted that there is a positive relationship between them according to [19].

The success of the marketing message created by the influencer depends upon authenticity. This outlines a Gap in influencer marketing engaging with truthful and authentic communication and connections with existing and potential consumers. Furthermore, a study conducted on Social media and the mediating role of perceived Authenticity in covert celebrity endorsement by [6] states that it would be a valuable contribution to conduct a study on this context with different product categories and different specializations, to see whether there is any differences of consumers perceived authenticity. Despite the growing prevalence of Authenticity, there is a lack of studies examining the impact of Authenticity [20].

Therefore, this study aims to explore the Gap of how authenticity mediates the impact of Gen Z consumers' purchase intentions for skincare care products.

III. METHODOLOGY



Fig. 1. Conceptual model (author)

This study consisted of 6 hypotheses, and the deductive approach was utilized [6]. Further, this study follows a quantitative research design, and a survey was conducted to gather primary data. Moreover, the purposive sampling technique was used, and data was analyzed using SPSS.

A. Measures

Purchase intentions was operationalized using 5 items with 5-point Likert scale, Authenticity was operationalized using 6 items with 7-point Likert scale, Trustworthiness was operationalized using 5 items with 7 point Likert scale, Attractiveness was operationalized using 4 items with 7 point Likert scale and Expertise was operationalized using 5 items with 7 point Likert scale.

B. Data and variables

1) Sample and Variables

A sample of 247 Generation Z respondents were taken as the sample. This study focused on evaluating the mediating effect of authenticity on the effectiveness of influencer marketing on purchase intentions for skin care products. The study consisted of 3 independent variables such as attractiveness, trustworthiness, and expertise. A mediator Authenticity and the dependent variable purchase intentions.

Further to move on with the findings of this study, all the objectives that were set before data collection and analysis were achieved effectively.

For example: Findings showed that there is a significant impact on authenticity for the relationship between expertise and purchase intentions, where the regression for the direct relationship (Expertise to purchase intentions) showed a beta value of 0.109 and the mediated relationship (Expertise- Authenticity- Purchase intentions) showed a beta value of 0.1677, therefore the change in the beta values shows the mediating effect.

Meanwhile, the other 2 variables trustworthiness and attractiveness have a significant impact on authenticity and the findings proved it.

IV. DATA ANALYSIS

The survey was distributed among 247 respondents and 233 were taken for analysis as the rest were removed during the outlier treatment, out of the 233 respondents 132 were males and 101 were females. The Age group was solely based on Generation Z which is 12-27 years. In the Education analysis the majority were people with bachelor's, and it was 177 respondents.

Additionally, the occupation had a higher frequency among university students, and it was 185 and income had a higher frequency for people who are earning less than 50,000 and it is 165 respondents.

A. Normality test

According to the normality test, the probabilities of Kolmogorov-Smirnov and Shapiro-Wilk tests are respectively 0.200 and 0.513. both P values of the tests are insignificant since P values are greater than 0.05. This demonstrates that residuals are normally distributed with zero means and residuals are highly valid.

B. Reliability Test

The independent factors of expertise, attractiveness, and trustworthiness and the mediating factor of authenticity with a dependent factor of purchase intention have a Cronbach value which is greater than 0.7 (reliable), which shows that there is a higher level of internal consistency.

Table 1. Reliability Analysis

Variable	Cronbach Alpha	No of items
Expertise	0.911	5
Attractiveness	0.917	4
Trustworthiness	0.956	5
Authenticity	0.924	6
Purchase Intentions	0.779	5

C. Correlation analysis

Since the Pearson correlation value is positive there is a positive relationship between the variables and all the variables are significant as the significant value should be less than 0.05.

Table 2. Correlation Analysis

Correlations					
	EX	AT	T	AU	PI
EX Pearson Correlation	1				
AT Pearson Correlation	.623**	1			
T Pearson Correlation	.727**	.651**	1		
AU Pearson Correlation	.772**	.734**	.823**	1	
PI Pearson Correlation	.646**	.617**	.747**	.708**	1

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

D. Multiple Regression and Hypothesis Testing

This statistical technique proved that all the independent variables have a positive and a significant impact on the dependent variable since all the significance values are below 0.05.

Table 3. Regression Analysis

Variables	β Value	Significance value
Mean Expertise	0.109	0.013
Mean Attractiveness	0.109	0.001
Mean Trustworthiness	0.253	0.000
Expertise on Authenticity	0.8699	0.000
Attractiveness on Authenticity	0.7120	0.000
Trustworthiness on Authenticity	0.6737	0.000

The current study aimed to investigate the mediating effect of authenticity on the effectiveness of influencer marketing on purchase intention for skin care products, with special reference to Generation Z. The study's results indicate that authenticity mediates the relationship between an influencer's Expertise, trustworthiness, and attractiveness and has a favorable influence on purchase intentions. This implies that consumers will purchase skin care products positively if the influencer is authentic.

The findings of this study are consistent with previous studies that have highlighted the significance of the mediating effect of Authenticity for purchase intention. For instance, previous research conducted

by [7] found that the perceived authenticity of celebrity endorsers has a positive influence on brand attitudes and behavioural intentions in covert social media marketing. Further as cited in [7] states that an infamous authentic celebrity will have a higher influence and success than a popular celebrity who is less authentic.

The current study used a model with 3 independent variables including Expertise, Trustworthiness, and Attractiveness. A mediator Authenticity and the Dependent variable purchase intentions. The study's findings suggested that there is a significant positive influence in the direct relationships and mediating relationships. The results will be discussed in detail on the topics below.

H1: Impact of Expertise on Purchase Intentions of Generation Z Skin Care Product Consumers: Accepted

The Expertise beta coefficient has a value of 0.109 and a significance value of 0.013, indicating a positive and statistically significant effect on purchase intention among skin care product consumers in Generation Z because under the hypothesis testing a significant relationship is when the significance value is lesser than 0.05, where the null hypothesis is rejected, and the alternative hypothesis is accepted. The results indicate that if Expertise changes by 1% the purchasing intention changes by 10.9%.

H2: Impact of Attractiveness on Purchase Intentions of Generation Z Skin Care Product Consumers: Accepted

H2 states that the Attractiveness of an influencer has a positive and significant impact on the purchase intentions of Generation Z skin care product consumers. As the beta coefficient of attractiveness is 0.109 and the significance level is 0.001 the regression analysis supports this hypothesis because under the hypothesis testing a significant relationship is when the significance value is less than 0.05, where the null hypothesis is rejected, and the alternative hypothesis is accepted. According to an international study on influencer marketing in social media, when a communicator is attractive, the audience will be inclined to give credence to the communicator's message. So, this has been further proved by the results of this current study. Especially in the practical scenario of skin care products, the influencer should be attractive to consumers to trust on their message.

H3: Impact of Trustworthiness on Purchase Intentions of Generation Z Skin Care Product Consumers: Accepted

H3 states that the Trustworthiness of an influencer has a positive and significant impact on the purchase intentions of Generation Z skin care product

consumers. As the beta coefficient of trustworthiness is 0.253 and the significance level is 0.000 the regression analysis supports this hypothesis because under the hypothesis testing a significant relationship is when the significance value is less than 0.05, where the null hypothesis is rejected, and the alternative hypothesis is accepted. Further, an international study that was conducted by [12] on social influencers winning formula states that the trustworthiness of the influencer tends to be one of the most considered factors when implementing an influencer and this study proves it in the Sri Lankan context for skin care product consumers in Generation Z.

H4 - Impact of Expertise on Authenticity for Generation Z Skin Care Product Consumers - Accepted

H4 states that there is a significant partial mediation effect from Authenticity for the direct (Path A) and indirect (Path B) relationship for Purchase Intentions. After the mediation, the beta coefficient of expertise is 0.4408 and the significance level is 0.000 the regression analysis supports this hypothesis because under the hypothesis testing a significant relationship is when the significance value is less than 0.05, where the null hypothesis is rejected, and the alternative hypothesis is accepted.

This suggests that before making a purchase decision for skin care products Sri Lankan Generation Z consumers consider whether the influencer is authentic in addition to his/her expertise in the field, further an international study conducted by [21] states that a celebrity's perceived expertise will positively influence a celebrity's perceived authenticity when endorsing products related to his/her expertise covertly in social media. The current study has accepted the hypothesis in the influencer's context, yet another type of social media endorser.

H5 - Impact of Attractiveness on Authenticity of Generation Z Skin Care Product Consumers – Accepted

H5 states that there is a significant partial mediation effect from Authenticity for the direct (Path A) and indirect relationship (Path B) for purchase intentions. After the mediation, the beta coefficient is 0.3623 and the significance level is 0.000 the regression analysis supports this hypothesis because under the hypothesis testing a significant relationship is when the significance value is lesser than 0.05 the null hypothesis is rejected, and the alternative hypothesis is accepted.

Before making a purchase decision for skin care products the people in Generation Z will consider whether the influencer is authentic, they will not

directly decide on the attractiveness of the influencer. Hence this study corresponds to international studies that are conducted on celebrity endorsement, yet another type of social media endorser [22]. According to [21] a celebrity's perceived attractiveness will positively influence a celebrity's perceived authenticity when endorsing attractiveness-enhancing products covertly in social media. This study discovered that attractiveness positively influences influencer authenticity when consumers make purchase decisions.

H6 - Impact of Trustworthiness on Authenticity of Generation Z Skin Care Product Consumers – Accepted

Findings from the regression analysis have shown that this hypothesis is accepted as there is a significant partial mediation effect from Authenticity for the direct (Path A) and indirect relationships (Path B). After the mediation, the beta coefficient is 0.3703 and the significance level is 0.000, therefore under the hypothesis testing a significant relationship is when the significance value is lesser than 0.05 the null hypothesis is rejected, and the alternative hypothesis is accepted. This finding suggests that when Sri Lankan Generation Z consumers make purchase decisions on skin care products, they don't always believe that an influencer is trustworthy, without he/she is being authentic in terms of their character. For example- a consumer may accept the information communicated by an influencer not only if he/she is trustworthy but should be authentic too.

V. CONCLUSION

This study accentuates the significance of the Mediating Effect of Authenticity for the credibility components of an influencer (Expertise, Attractiveness, and Trustworthiness) affecting the purchasing intentions of Skin care product consumers. Moreover, marketers should concentrate more on the genuineness of an influencer when selecting to market skin care products on different digital platforms. Furthermore, the findings of this study showed that authenticity plays a mediating role between influencers' credibility and the purchase intention of skin care product consumers, therefore the business must create efficient plans to exploit and guide online communications about skin care products. This might consist of interacting with the influencers, monitoring and responding to customer reviews, and motivating satisfied consumers by using skin care products to post positive reviews on social media.

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Artificial Intelligence (AI) in Enterprise Resource Planning (ERP) Systems: Systematic Literature Review

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Abstract— Enterprise Resource Planning (ERP) systems are crucial in optimizing business processes by integrating various organizational functions such as finance, supply chain, human resources, and customer relations. Integrating Artificial Intelligence (AI) into ERP systems has revolutionized decision-making, automation, and predictive analytics, enhancing efficiency and strategic planning. This systematic literature review examines the current state of AI applications in ERP systems. By analyzing peer-reviewed articles, industry reports, and case studies, this review identifies trends, gaps, and future research directions in AI-enhanced ERP systems. The findings highlight how AI transforms traditional ERP functionalities into intelligent, adaptive platforms, while also addressing barriers to adoption.

Keywords— Artificial Intelligence (AI), Enterprise Resource Planning (ERP), Sustainable Business Models (SBMs), Knowledge Management Systems (KMS)

I. INTRODUCTION

Enterprise Resource Planning (ERP) Past, Present, and Future, a comprehensive overview of the evolution of ERP systems, detailing their transition from earlier systems like integrated control packages and material resource planning systems to modern iterations influenced by digital innovations, particularly cloud computing and artificial intelligence. Research discusses recent developments in ERP systems, including cloud ERPs and postmodern ERPs, while highlighting the growing necessity for integrated enterprise-wide functionalities in various business areas such as accounting, sales management, customer relationship management, and supply chain management. Finally, the article poses observations based on the reviewed literature and the historical context of ERPs from the 1940s to the present[1].

A systematic literature review was conducted using Google Scholar to identify relevant research on the topics of "Enterprise Resource Planning (ERP) Systems and Artificial Intelligence" and "Artificial Intelligence and Business." An initial search yielded 60 research papers. After removing duplicates and applying inclusion criteria, a total of 17 research papers were selected for in-depth analysis.

II. LITERATURE REVIEW

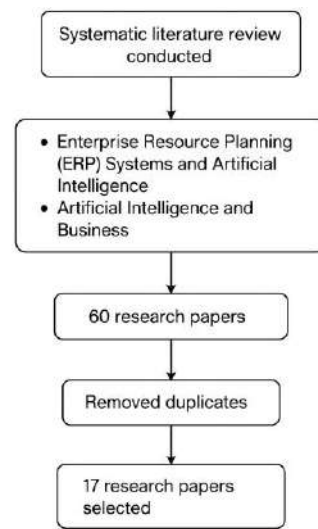


Fig. 1 Systematic Literature Review Model

According to the research AI in ERP systems, the study presents a systematic evaluation of the intersection of AI and ERP systems. The study describes how integrating AI with ERP can enhance business processes, improve efficiency, and provide competitive advantages. The analysis was conducted on 837 publications from the Scopus database, and a more detailed bibliometric analysis was performed on 296 publications. The findings highlight the most popular AI keywords in ERP studies, which include genetic algorithm, fuzzy logic, and machine learning, while identifying leading institutions such as Tsinghua University and Obuda University for their contributions. The study aims to guide future research in the area[2].

The AI canvas is a strategic tool designed to facilitate the integration of artificial intelligence (AI) into business operations. It aims to bring together data scientists and business experts to collaboratively discuss and define all relevant aspects necessary for the successful implementation of AI-based systems within a digital enterprise[3].

The distinction between general AI and narrow AI has significant implications for business strategies. While general AI is capable of exhibiting intelligent behavior similar to human intelligence across a wide range of scenarios, it remains largely elusive and not yet available for practical business applications. Conversely, narrow AI specializes in solving specific problems and executing singular tasks, which has already seen notable successes in industry applications, such as playing complex games or medical diagnosis[3].

Understanding the capabilities and limitations of these two types of AI guides businesses in their strategic planning, allowing them to leverage narrow AI for specific, high-impact applications while preparing for potential future developments in general AI[3].

Businesses must focus on how to generate value for customers and stakeholders by implementing narrow AI solutions where they can provide the most impact. As stated by P. Sondergaard from Gartner, "algorithms define action," highlighting the importance of algorithmic decisions in capturing value. This means that businesses need to identify use cases where narrow AI can create tangible value and integrate it effectively into their operations[3].

The research discusses[4] the significant paradigm shift in technology and management in Germany, particularly through the lens of artificial intelligence (AI). It emphasizes that AI is transforming various aspects of business, including models, processes, and stakeholder management. This transformation is referred to as "AI-driven management," which is essential for organizations to gain competitive advantages. The paper illustrates how different industries, such as the automotive sector, are merging traditional functions with AI capabilities to create innovative products and services. Additionally, the challenges of implementing such transformations, alongside security and safety concerns, are also addressed.

The research highlights several challenges related to the implementation of AI in management. Traditional organizational and process structures, along with stakeholders who prefer outdated methods, can serve as barriers to innovation. This is often due to historical successes that lead to resistance against new technologies. The lack of proper implementation of AI-driven management can result in technological limitations, causing companies to fall behind competitors. Domain-fixed forecasts are often imprecise and irrelevant in a rapidly changing environment, leading to poor competitive decisions.

According to the research [5] the implementation of artificial intelligence (AI) in business enterprises, highlighting a readiness model to assist companies in overcoming challenges associated with AI integration. The research identifies seven key dimensions essential for AI readiness. Employee and culture, Technology management, Organizational governance and leadership, Strategy, Infrastructure, Knowledge and

information, and Security. The research emphasizes that while many companies globally are adopting AI technologies, significant opportunities remain untapped. The framework was developed through systematic literature reviews, intending to inform businesses on how to effectively implement AI to transform their operations and maximize the benefits of this technology.

The accounting field has significant advancements and challenges brought about by AI, including its capability to enhance productivity, improve the reliability of accounting information, and reduce instances of fraud. Despite its benefits, the document also points out the potential disadvantages, such as the risk of disclosing trade secrets and technical vulnerabilities. Various applications of AI in accounting work, such as document management, inventory control, payroll processing, and financial analysis, are elaborated upon to showcase its value in enhancing the efficiency and effectiveness of accounting practices[6].

Smart Financial Information System that integrates ERP and AI for data analysis. It highlights the importance of agent technology and communication among agents to effectively complete tasks and construct a comprehensive data analytic model. The framework aims to improve business management processes by enhancing data sharing and resource allocation. The study emphasizes the role of trust mechanisms in multi-agent systems to facilitate cooperation and improve overall efficiency in financial information management[7].

The importance of accurate sales forecasting for businesses. Traditional forecasting methods often fail to keep pace with the dynamic nature of consumer behavior and market trends. The research explores how integrating Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems with Artificial Intelligence (AI) techniques, such as predictive analytics and machine learning, can improve sales forecasting accuracy. This integrated approach allows businesses to gain insights into customer behaviors and market dynamics, leading to better decision-making, personalized marketing, and enhanced customer engagement. The paper includes practical implications, a review of relevant studies, and recommendations for businesses seeking to optimize their sales forecasting processes[8].

The integration of AI in ERP systems emphasizes its potential to optimize business processes. It highlights various applications of AI across different dimensions of ERP, including customer relationship management, supply chain management, production, product lifecycle management, human resources, and financial management. The document underscores the importance of digitalization in industrial production and the role of ERP systems in improving efficiency, decision-making, and the overall integration of business processes. The advancements in AI technology present significant opportunities for enhancing the effectiveness of ERP systems[9].

The research explores the transformative effects of artificial intelligence (AI) in enhancing demand forecasting within Enterprise Resource Planning (ERP) systems. It emphasizes how AI-based predictive analytics can significantly improve forecasting accuracy, optimize inventory levels, and support data-driven decision-making across various industries like fashion retail, biopharmaceuticals, energy management, and transportation. The study highlights the limitations of traditional forecasting methods and showcases the advantages of integrating AI technologies in ERP systems for better organizational decision-making and competitiveness[10].

The research discusses the impact of artificial intelligence (AI) on the fulfillment of the purchasing function within Enterprise Resource Planning (ERP) systems, particularly focusing on SAP. It highlights the integration of AI throughout the entire lifecycle of ERP systems to enhance efficiency, decision-making, and overall performance. The paper notes that companies are increasingly adopting AI technologies to streamline processes, eliminate redundancy, and increase productivity across various operational areas. The implementation of AI in ERP systems offers several specific advantages, particularly in enhancing the purchasing function. Demand Forecasting, Supplier Selection and Evaluation, Purchase Order Automation, Cost Optimization, Supplier Risk Management, Inventory Management, Purchase Approval Workflow, Data Analytics and Reporting, Fraud Detection, Market Intelligence[11].

The research provides a technical review of the integration of ERP AI in the textile industry[12], particularly focusing on companies located in Lima, Peru. It highlights the advantages of these technologies, such as enhanced productivity, cost reduction, and improved operational efficiency through centralized management. However, the adoption of ERP and AI faces challenges, including resistance to change, a lack of skilled personnel, and high implementation costs. The research emphasizes the transformative potential of these technologies while calling for further investigation into barriers like workforce training and change management. The key benefits of integrating ERP systems and AI in the textile industry, product customization, Market trend prediction, waste reduction, enhancement of strategic decision-making, Increase in customer satisfaction, improvement in product quality, and Automation of preventive maintenance.

The research study introduces[13] an AI-based chat toolset designed to enhance the insights derived from Enterprise Resource Planning (ERP) systems using OpenAI's text-generation model. It aims to improve the interpretability of complex ERP data, facilitating more efficient decision-making processes and organizational productivity. The toolset allows users to interact with ERP systems via natural language queries, eliminating the need for traditional reporting and direct system access. The research details the steps for developing this innovative toolset, including data extraction, preprocessing, and an interactive chatbot system. The

findings emphasize the toolset's potential for significantly improving user experience and efficiency in data retrieval while suggesting avenues for future research into its applicability across various ERP platforms.

The research outlines the complexities involved in embedding Generative AI into ERP solutions, which serve as central repositories for business processes across various functions such as finance, supply chain, and marketing. The paper addresses the systematic development and operation of Generative AI applications in ERP through use case analysis, business requirement derivation, solution framework design and implementation, and effectiveness evaluation. Benefits of Generative AI include improved user experience, streamlined content creation, and enhanced developer productivity[14].

ERP software customization discusses the concept of algorithm bias. The research aims to provide insights into the types of design biases encountered during ERP customization and presents a new AI version of a customization algorithm that utilizes machine learning techniques. The study further illustrates potential biases inherent in existing algorithms and offers a roadmap for mitigating algorithmic bias in practice[15].

It highlights how AI, particularly machine learning and deep learning, is being utilized to enhance customer experiences, improve operational efficiency, manage supply chains, and maintain product quality control. The use of these technologies is aimed at predicting and analyzing data, which aids businesses and government entities in various functions such as sales growth, fraud detection, inventory management, and portfolio management.

Systematic literature review on the interplay between AI and SBMs within the context of the Sustainable Development Goals (SDGs). The research conducted a bibliometric analysis of 73 publications dated from 1990 to 2019, aiming to explore AI's role in influencing production and consumption patterns for sustainable resource management, particularly aligned with SDG #12. The paper addresses the challenges linked to innovation, which encompass ethical, social, economic, and legal dimensions. It also highlights the significance of Knowledge Management Systems (KMS) in promoting the integration of AI into SBMs and identifies a gap in the literature regarding this integration. The findings suggest that AI could serve as a crucial element in the cultural shift necessary for achieving sustainable objectives, prompting companies and policymakers to advance AI applications in their sustainability efforts.

The Light and the Darkness discusses the dual nature of artificial intelligence (AI) - its potential benefits and its darker implications. The authors categorize AI's advantages into business-to-consumer (B2C) and business-to-business (B2B) settings, highlighting that B2C benefits primarily arise from customized experiences, while B2B benefits manifest through improved efficiencies. The paper also identifies key drivers of the dark side of AI, which include a lack of

trust and power asymmetries, with trust issues being more pronounced in B2C contexts and power disparities in B2B environments. The authors aim to enhance understanding of both the positive and negative aspects of AI, particularly focusing on the underexplored dark side in B2B scenarios[17].

The research paper[18] explores the integration of Artificial Intelligence (AI) in Enterprise Resource Planning (ERP) systems, emphasizing the transformative potential and challenges associated with this evolution. It highlights significant opportunities such as enhanced predictive analytics, intelligent automation, and personalized user experiences that can increase user satisfaction and productivity. However, it also addresses challenges like data quality issues and organizational resistance to change. The paper notes a trend where over 50% of organizations plan to incorporate AI capabilities over the next two years. Finally, it provides guidelines for aligning AI initiatives with broader business objectives to achieve sustainable competitive advantages[18].

The research[19] investigates the integration of Artificial Intelligence (AI) technologies into disaster recovery strategies for SAP S/4HANA systems deployed in cloud environments. The study emphasizes three main aspects: proactive failure prediction, automated response mechanisms, and optimization of Recovery Time Objectives (RTO). It highlights how advanced machine learning models, predictive analytics, and intelligent automation can transform disaster recovery strategies, enhance system resilience, reduce downtime, and achieve significant improvements in recovery times. The research also points out the importance of continuously refining AI models and addresses ethical considerations in autonomous decision-making.

III. CONCLUSION

This systematic literature review explores the integration of Artificial Intelligence (AI) technology with Enterprise Resource Planning (ERP) systems, emphasizing both its potential benefits and limitations. The review process involved an initial identification of 60 research papers from Google Scholar using the keywords "Enterprise Resource Planning (ERP) Systems and Artificial Intelligence" and "Artificial Intelligence and Business." After removing duplicates and applying selection criteria, 17 high-quality research papers were selected for in-depth analysis. This process is visually summarized in the accompanying flowchart Fig. 1.

The findings reveal that integrating AI with ERP systems significantly enhances organizational productivity and operational efficiency. It also strengthens customer-organization relationships by enabling more responsive, data-driven decision-making and personalized service delivery. Despite a few challenges, such as implementation complexity and data security concerns, the overall impact of AI integration is positive.

This review provides a strategic roadmap for business leaders, offering insights into how AI technologies can be effectively leveraged to transform ERP systems and drive sustainable business growth.

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Factors Affecting the Migration Intention of IT Undergraduates in Sri Lanka during the Crisis Recovery Period

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Abstract—Sri Lanka’s ongoing economic and political crises have significantly intensified migration intentions among its educated youth, particularly among final-year undergraduates in the Information Technology (IT) sector. This study investigates the primary factors influencing migration intention during the crisis recovery period by applying Lee’s Push-Pull Migration Framework. A structured quantitative survey was administered to a sample of 350 IT undergraduates from both state and non-state universities. The data collected were analysed using statistical methods including correlation, regression, and analysis of variance (ANOVA) through SPSS. The findings indicate that economic and political push factors, such as low wages, unemployment, and perceptions of corruption, are strongly associated with students’ intentions to migrate. In contrast, pull factors related to better income prospects, enhanced quality of life, and political stability in destination countries significantly contribute to the attractiveness of migration. Social push factors were found to exert a comparatively limited influence. The regression model accounted for 79.6 percent of the variance in migration intention, indicating a strong explanatory capacity. These results highlight the need for comprehensive policy reforms in areas such as education, employment, and governance in order to address the root causes of migration and reduce the outflow of skilled human capital. The study offers evidence-based recommendations for policymakers and higher education stakeholders seeking to improve talent retention and support sustainable development in Sri Lanka’s IT sector.

Keywords— *Brain Drain, Economic Crisis, IT Undergraduates, Migration Intention, Push-Pull Framework*

I. INTRODUCTION

Human migration has historically been driven by the pursuit of better opportunities, influenced by social, economic, and political conditions [7] found that nearly 64% of final-year IT undergraduates from private and public universities had strong intentions to emigrate, with few career opportunities available locally and a declining quality of life being major determinants.

The Push-Pull Migration Framework [10] remains a robust framework for analysing these patterns. Push factors such as economic status, unemployment, and dissatisfaction among individuals drive students away from Sri Lanka, while pull factors such as the availability of higher remunerations, better career prospects, stability in politics, and superior educational facilities in countries such as Australia, Canada, and the UK serve as attractive alternatives [19]. Fresh data point to a 28% increase in the volume of student visa applications by Sri Lankan undergraduate students to OECD countries during 2023 alone [13].

This study examines the migration intentions of final-year IT undergraduates in Sri Lanka by applying the push-pull model to assess the relative impact of these factors. The findings aim to provide insights for policymakers and educational institutions to implement strategies that enhance local career prospects, improve higher education quality, and mitigate talent loss in the IT sector.

The Main research question addresses how economic, social, and political push and pull factors influence IT undergraduates’ intentions to migrate?

The main objective is to identify the critical push and pull factors affecting the migration intentions of Sri Lankan IT undergraduates during the crisis recovery period. By understanding these dynamics, the study aims to inform policymakers and educational institutions on how to retain talent and mitigate the adverse effects of brain drain [5].

A deeper evaluation of the literature defines the groundwork for the research, and methodologies are chosen accordingly. According to the literature, migration among qualified professionals, particularly in emerging countries, is becoming more motivated by economic, social, and political instability. The push-pull framework is often employed to explicate these migratory patterns [10] [19]. Economic instability, high inflation, and political uncertainty are important push factors for IT professionals in Sri Lanka, whereas higher wages and better job opportunities overseas are pull factors [5].

Economic factors are a significant motivator of migration choices, especially in nations facing economic insecurity. In Sri Lanka, high inflation rates, limited career opportunities, and low wages have driven many IT graduates to contemplate relocating for better opportunities overseas [20]. A recent study by [14] indicates that 74% of IT undergraduates surveyed had concrete plans to migrate, primarily due to economic dissatisfaction and a lack of career development. These conditions have severely eroded confidence in the local labour market, particularly among highly qualified youth. Economic pull factors, such as greater earnings and better work possibilities in Canada, Australia and UK stimulate migration even more [13]. According to studies, 71% of IT graduates in Sri Lanka are drawn to greater economic prospects overseas, demonstrating the importance of economic pull factors [18].

Inadequate healthcare, poor infrastructure, and limited access to job opportunities have all been cited as key push factors impacting migration decision-making [21]. Furthermore, political instability and corruption in Sri Lanka have influenced IT graduates' migration aspirations, with 43% stating political issues as a key reason for leaving the country [15]. Political stability and improved governance in destination countries, on the other hand, are important pull factors, with 50% of respondents in a recent study claiming that political stability in their intended destination was a crucial factor in their migration choice [15].

While considerable study focuses on migration among professionals, less emphasis has been paid to IT students during crisis recovery period. This research aims to address this gap by investigating the particular motivations of IT students, providing policymakers with insights on how to reduce brain drain in the field [3].

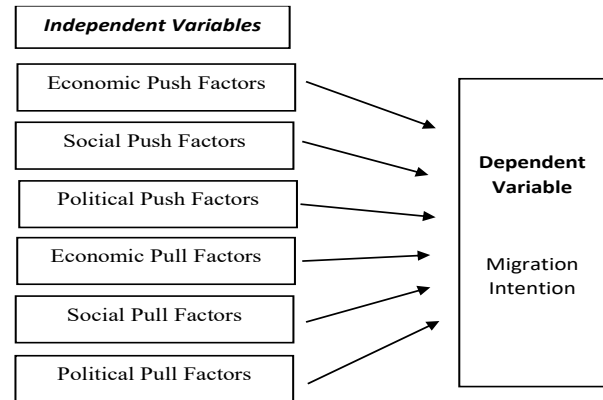


Fig.1 Conceptual framework

II. MATERIALS AND METHODOLOGY

In this research, a quantitative approach was employed to examine the migration intentions of IT undergraduates in Sri Lanka during the crisis recovery period. Structured questionnaires were used for data collection, following the guidelines of [1] for quantitative research methods to gather large-scale data for statistical analysis. This method enabled a comprehensive evaluation of the determinants of migration intentions within the framework of [10] push-pull theory.

The sampling strategy involved selecting 350 final-year IT students from both state and non-state universities, and convenient sampling method was used ensuring representativeness as recommended by [5].

Statistical software the survey data was analysed by using SPSS. Descriptive statistics, which give a short overview and explanation of the data, and correlational analysis, which investigates the relationships between characteristics such as job satisfaction and the desire to migrate, are two often used analytical techniques. Regression analysis is used to determine how different factors influence migration intentions [1].

The main objective of this study is to identify the critical push and pull factors that influence the migration intentions of IT undergraduates in Sri Lanka during the crisis recovery period.

H1: Economic push factors significantly affect migration intention.

H2: Social push factors significantly affect migration intention.

H3: Political push factors significantly affect migration intention.

H4: Economic pull factors significantly affect migration intention.

H5: Social pull factors significantly affect migration intention.

H6: Political pull factors significantly affect migration intention.

III. RESULTS AND DISCUSSION

A. Descriptive Analysis

With 350 collected data, both descriptive and inferential statistics were tested using SPSS. Demographic profile for the study and hypotheses testing along with discussion are stated as below.

Table 1: Descriptive Figure (Author's Survey Data, 2024)

	Mean	Std. Deviation	Skewness	Kurtosis
Economic_push_factors	4.516	0.5230	-	1.049
Social_push_factors	4.238	0.5082	-	12.74
Political_push_factors	3.832	0.3539	-	20.31
Economic_pull_factors	4.505	0.4869	-	7.553
Social_pull_factors	4.470	0.5253	-	9.781
Political_pull_factors	4.579	0.5127	-	6.602
Migration_intention	4.654	0.6036	-	10.17

According to the results shown in table 1, the high mean scores, for all factors indicate that economic conditions and social and political issues play a significant role in migration intention and finding supported by earlier studies that highlight economic instability and political turmoil as major reasons, for migration. The higher standard deviation and kurtosis, in migration intentions indicate that there is some variation in how respondents are considering migration. Even though many acknowledge their desire to migrate some individuals may feel more resolute or unsure, about their decision. Accordingly, the findings show that although political and economic aspects play a role, in driving migration intention, social factors also have an effect.

The study involved data collected from 350 respondents of which (53.6%) were male respondents while (46.4%) were female respondents. Out of the total participants, the majority of them belonged to the age group of 22-25 years (93.4%), which was followed

by a smaller number of respondents within the age group 18-21 years (2.9%). Number of respondents representing the age groups 26-30 years (3.7%) respectively.

B. Hypotheses Testing Results & Key Findings

The analysis reveals significant insights into the migration intentions of IT undergraduates in Sri Lanka. The correlation analysis shows that all push and pull factors, especially economic, social, and political elements, play a critical role in influencing migration decisions. Notably, economic push factors ($r = 0.726, p < 0.01$) and economic pull factors ($r = 0.792, p < 0.01$) strongly correlate with migration intentions. This indicates that financial instability in Sri Lanka, such as unemployment and low wages, heavily influences students' desire to migrate. On the other hand, the allure of better job prospects and higher wages abroad acts as a key motivation for migration [5].

Table 2: Correlation Results (Author's Survey Data, 2024)

Independent Variable	Dependent Variable	Correlation Results		Coefficient Results	
		Pearson Correlation Value	P-Value	Beta Coefficient Value	P-Value
Economic Push factors	Migration Intention	0.726	0.000	.231	.000
Social Push factors	Migration Intention	0.686	0.000	-.027	.654
Political Push factors	Migration Intention	0.555	0.000	.261	.000
Economic Pull factors	Migration Intention	0.792	0.000	-.469	.000
Social Pull factors	Migration Intention	0.764	0.000	.161	.007
Political Pull factors	Migration Intention	0.864	0.000	1.054	.000

Based on study results shown in the table 1, there are significant positive relationship among variables and effects also statistically significant, which accepts the H1, H3, H4, H5 and H6. These findings align with migration theories, such as Lee's push-pull model, which suggest that economic hardship and political instability serve as "push" factors, while better job prospects and political stability abroad act as "pull" factors. The analysis reveals that economic and political push factors significantly contribute to the decision of IT undergraduates to migrate. On the other hand, the social push factors did not show significant. Regarding pull factors, political stability and social

benefits in destination countries are the most attractive features, suggesting that students prioritize governance and living standards when considering migration [5].

C. Regression and ANOVA Analysis

The key objective of this research was to identify the reasons behind Sri Lankan Fresh graduates' migration. According to the study results shown in table 2, In order to determine the relative influence on the dependent variable, desire to migrate, a regression analysis was conducted using 6 independent variables. According to the model summary of the analysis, push and pull variables have a significant influence on students' decisions accounting for 79.6% of the variation in migration intentions ($R^2 = 0.796$). Additionally, the substantial p-value of the ANOVA table, which is shown below, corroborated the model's fitness.

Table 2: Regression and ANOVA results

R- Square	R ² -Value	Adjusted R- Square	ANOVA Table P- Value
0.892 ^a	0.796	0.792	0.000

According to the ANOVA results, H_0 is rejected because the F statistic's P value is less than 0.05. The model is statistically significant at a 95% confidence level. As a result, this model is suitable. Consequently, it is possible to conclude that the economic factors in their desired overseas destination and the unfavorable social and political conditions in Sri Lanka are the primary drivers of the migration intention of Sri Lankan Final Year IT Undergraduates.

The research emphasizes how important economic, social, and political issues are in influencing Sri Lankan IT students' migration intention. Echoing other studies on migration from developing countries owing to economic instability, economic push factors such as unemployment and low salaries appeared as significant drivers of migration [20] [3]. This result emphasizes the need of salary increases, job growth, and economic changes in order to lessen these pressures. Previous research has shown the impact of poor public services on migration intentions, highlighting the relevance of social issues such as dissatisfaction with healthcare, education, and social mobility [11]. Global migration patterns are further supported by the fact that political unrest is driving students to seek stability abroad [15]. Additionally, the internal consistency of the scale used in this study is represented by the Cronbach's Alpha score. With an

excellent reliability grade of 0.943, the survey questions measuring political, social, and economic matters are mostly consistent with each other.

And also, some sort of limitations on this research. The sample may not be entirely representative of the wider student population or migration patterns since it is limited to 350 IT students from state and non-state institutions in Sri Lanka [15].

Future research could expand beyond IT undergraduates to include students from other disciplines (e.g., healthcare, engineering). Additionally, comparisons between skilled professionals and students could provide a more comprehensive view of the brain drain phenomenon. According to the previous researcher, [20] emphasizes the need to study migration across multiple professions to develop a national retention strategy.

And also, Future studies could incorporate interviews or focus groups to gain more qualitative insights into the emotional and psychological factors influencing migration decisions. This could uncover more personal or cultural reasons behind the decision to leave or stay. Previous Researcher, [5] suggests that qualitative studies are essential in understanding deeper social dynamics that quantitative data might overlook.

Furthermore, since the data was gathered over a two-month period, it may have missed temporal variations in migration intentions brought on by continuous political and economic turmoil [16]. The research emphasizes the actual reasons for migration since it mainly uses self-reported data, which might be skewed by social desirability bias [2].

In order to overcome these obstacles, the report suggests a multifaceted strategy to prevent brain drain, which includes investments in healthcare and education as well as economic changes to increase employment opportunities and wages for IT experts [20].

According to the [21], these tactics further encourage Sri Lanka's long-term economic recovery and diminish inequality by being in connection with the Sustainable Development Goals (SDGs 8 and 10)

IV. CONCLUSION

This study concludes by highlighting the complex factors influencing Sri Lankan IT students' migration intention throughout the crisis recovery phase. The push-pull model of migration [10] was used to identify important economic, political, and social elements that influence migration choices. Strong push factors included economic hardship including poor salaries and unemployment [20], which were made worse by the nation's persistent political unrest [8] [9]. On the

other hand, students were thrilled to look for possibilities abroad by pull factors such as better job opportunities and greater living standards [19].

Economic push and pull variables and migration intentions were shown to be significantly correlated by quantitative analysis, which is consistent with earlier results that skilled migration is driven by differences in economic conditions across nations [3].

Understanding the variables impacting migration aspirations among Sri Lankan IT graduates, especially during the nation's crisis recovery era, was the key objective of the study. While employment opportunities and political stability overseas were powerful pull factors, the research was able to identify economic and political challenges as key push causes. The goals were accomplished as the data analysis showed how these variables significantly affected migration intentions and provided insightful information to help policymakers solve the talent loss. The findings point to the need of legislative measures aimed at preserving IT expertise by resolving financial difficulties and enhancing political stability [15].

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AI Chatbots as Virtual Conversation Partners: Revolutionizing English Language Learning to Enhance Interactive Communicative Proficiency

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Abstract—Chatbots present a unique opportunity to support language acquisition through interactive conversation in a time when digital technologies are increasingly becoming essential to education. This study's purpose was to investigate the integration of chatbot technology into English language learning and its impact on enhancing student engagement and interactive communication skills of the undergraduates in Sri Lanka. This mixed-methods research involved a convenience sampling of 100 second year undergraduates and 2 ESL lecturers from the Faculty of Computing and Technology, from a state university, aiming to assess how chatbot interactions can enhance communication skills. Data was collected through pre- and post- tests focused on speaking proficiency based on selected academic and professional contexts. Further, qualitative data gathered by distributing a questionnaire on students' perceptions of chatbot usage in their learning process on their experience with interactive communicative proficiency. The analysis utilized analytical models of several paired SPSS t tests and thematic analysis. Results indicated significant improvements in key speaking factors like vocabulary, speaking level, accent, and stress patterns before and after the intervention of the chatbot system. It could be noted that the students benefited from communicating with the AI chatbot and saw a considerable improvement in their abilities, indicating that the technology could be utilized as an effective and practical learning tool that provides real-time practice and feedback. Further, the study was conducted over a short period, which highlighted a crucial limitation as the capacity to examine the ongoing generality of the developments. As for the recommendations, it can be mentioned that future research can be focused on the differences in the research-design and features of the chatbot for better understanding of enhancements of the target language skills.

Keywords—Chatbots, English language learning, Interactive Speaking Proficiency

I. INTRODUCTION

Chatbots and Artificial Intelligence (AI) technologies have recently attracted a lot of interest in the language teaching industry, mostly due to their shown ability to improve students' English-speaking skills. Research on advanced natural language processing (NLP)

techniques has sparked discussions among academics and educators on the usefulness of tools like ChatGPT in the context of teaching foreign languages (FL) and second language (L2) acquisition [1]. Several AI-powered chatbots can help improve English speaking skills by offering interactive conversations, personalized feedback, and various practice exercises. Some popular options include ELSA Speak, Talkpal AI, SmallTalk2Me, and Loora.com [2, 3, 24]. These chatbots can mimic real conversations, provide pronunciation feedback, and help build vocabulary and grammar skills [2, 3, 4]. As the complexity of language training increases, the undergraduates show that they can overcome the typical difficulties encountered in traditional language instruction. It is widely acknowledged that artificial intelligence systems are essential tools for facilitating speaking practice, which has a great capability in assisting undergraduates in overcoming the above-mentioned obstacles [5, 6, 7]. Furthermore, it should be mentioned that empirical research is limited in this study area, yet research is still ongoing in diverse and dynamic contexts.

According to studies that are conducting now [8, 9, 24], AI technologies named as speech recognition and virtual instructors could help students improve their speaking and pronunciation abilities. AI-driven feedback produced improvements when compared to non-AI feedback. Speaking abilities are fundamental to language proficiency since they are the main means of communication in daily life. Developing strong speaking skills is typically one of the largest barriers to language acquisition for L2 learners [9, 10, 11]. This difficulty is brought on by several factors, including a lack of quick feedback, fear, and limited practice opportunities. Conventional classrooms may place more emphasis on reading and writing than speaking, which results in undergraduates having worse oral skills, as Hong [12] points out. Additionally, they usually engage in artificial language activities that are different from real-world interactions in exam-focused educational systems, which limit their ability to

participate in natural conversations [12, 14]. So that, it can be mentioned task-based language teaching and scenario-based language assessment are two among many approaches to bring the real world into the classroom and assessment activities, regardless of AI. Free AI chatbots like ChatGPT and DeepSeek also can help bridge this gap by giving students the opportunity to practice speaking in a flexible, low-stress setting. With the help of these freely available online resources, students can engage in conversations that mimic real-world exchanges (even if they couldn't obtain premium versions, they had the opportunity to sign in online for free). This boosts their confidence, fluency, and accuracy in speech [13]. Additionally, chatbots provide immediate feedback, which is important for improving general language correctness and pronunciation that is occasionally overlooked in traditional courses [12].

One of the most innovative technologies employed in recent years to incorporate technology into language instruction is chatbot technology, which enables students to communicate with artificial intelligence. Chatbot technology allows students to practice speaking without feeling under a lot of pressure, which encourages them to communicate more clearly and concisely to improve their competency [11, 14]. Given the growing emphasis on communicative competence in English Language Learning (ELL), it is imperative to investigate the effects of technology aids on speaking proficiency results. The learning environment also affects how students' experiences and results are formed. In a nurturing and resource-rich setting that promotes language practice and learning, taking risks is encouraged. Peer contact and teacher support are two of the many aspects that contribute to the overall quality of the learning environment. Understanding how these components connect to speaking skill is necessary to optimize educational processes [14, 15].

Another important component of ELL is instructor support. The learning process has been greatly enhanced by teachers' tailored instruction and positive feedback. ELL is enhanced by chatbot technology, which takes user input, interprets it using natural language processing, and then creates a response while integrating learning analytics to track student development [17, 18, 19]. Students' comprehension of the characteristics of language usage appears to be strengthened when teachers engage with them and offer helpful criticism. This helps students become more proficient speakers and confident language masters. Furthermore, studying time is quite important for learning outcomes. There is strong evidence to support the common link between practice time and language acquisition [20].

More study time gives students the chance to practice speaking skills more deeply, which typically raises their confidence and fluency levels. If ELL students

dedicate time to speaking practice, their proficiency will significantly increase [2, 5, 7]. Enhancing any successful language learning strategies requires a thorough grasp of the connections between the foundations. The situation is further complicated by the mediating effects of student participation. High levels of student involvement will open doors to improved methods, which will enhance the students' language proficiency. An essential and all-encompassing component of ELL is indicated by the dynamic interaction between chatbot technology, the learning environment, instructor support, and study time.

The relationship between chatbot technology and learning outcomes offers important insights into enhancing the ELL experiences of students, as the educational landscape is ever evolving. Because of its sophisticated natural language processing (NLP) skills, the chatbot used in this study was able to effectively comprehend and interpret the verbal inputs of the pupils [5, 24]. The chatbot provided tailored feedback and instruction by mimicking real-life encounters, focusing on common speaking issues such stress patterns, intonation, pronunciation, and fluency.

The chatbots also included gamification components to boost student motivation and engagement, which improved the effectiveness and enjoyment of the learning process. The purpose of this paper was to investigate how the use of chatbots in the ELL domain enhances undergraduates' learning and communication interactions as well as their general speaking abilities in a variety of educational contexts.

Further, as an example it can be mentioned that chatbots' potential in Vietnamese language instruction in Vietnam, speaking English is increasingly seen as essential for both international communication and economic development. High class sizes, lack of resources, and an exam-focused approach that prioritizes reading and writing over speaking abilities are common problems in English education [22, 23]. Therefore, chatbots with artificial intelligence offer a scalable solution that enables students to participate in authentic English conversations outside of the classroom [22, 23, 24]. According to Rudolph et al. [15, 16], chatbots can lessen teachers' workload by automating tasks like coming up with discussion themes and expressing perspectives. This enables educators to focus on more challenging assignments, such as facilitating discussions and offering tailored assistance.

Teachers in Vietnam could improve the efficacy of language instruction and assist students in meeting the demands of a rapidly globalizing world by incorporating artificial intelligence technologies into English classes [23]. For instance, the use of chatbots

driven by artificial intelligence, such as ChatGPT, is one potential remedy for ongoing issues with teaching spoken communication skills. These technologies foster an adaptable and relaxed atmosphere where students may develop their confidence, receive personalized feedback, and have genuine conversations [5, 9, 23]. As technology advances, children will have more possibilities to develop the oral competency required for success in global communities, which will encourage creative approaches to language instruction.

A. Research Objectives

To investigate the effectiveness of chatbot technology to enhance the interactive communication skills of second-year undergraduates.

To examine undergraduate perceptions about the use of chatbots as a supportive tool to improve speaking proficiency.

B. Research Questions

How does interaction with chatbot technology influence the development of undergraduates' communication skills?

What are students' perceptions of using chatbot technology in developing interactive communication skills?

II. MATERIALS AND METHODOLOGY

A. Research Design

This study employed a mixed-methods research design to comprehensively examine the impact of chatbot technology on English language learning, particularly focusing on undergraduates' interactive communication skills and their perceptions of chatbot usage in the process of learning English and other subjects/course work in the degree program. The method used in this research involved both quantitative and qualitative research to enable a more nuanced understanding of both the effectiveness and experiential aspects of the above-mentioned intervention.

B. Participants

University learners who joined an English module were involved and they were selected to the study through convenience sampling, as the researcher found it was effective to involve the undergraduates from the selected degree program (*Bachelor of Science in Computer Science*). The sample consisted of second-year undergraduates enrolled in the Faculty of Computing and Technology at a state university in Sri Lanka. A total of 100 undergraduates ($n=100$) participated in the study. These undergraduates were engaged in English language learning module called "*English for the Professional World*" as part of their academic curriculum at the time. The participants were

divided into control and experimental groups, containing 50 undergraduates per each. Furthermore, two ESL lecturers, who were from the same university, oversaw both groups during the intervention period.

C. Research Instruments

Pre- and Post-Test Assessments (Appendix A)

The quantitative data gathered using pre test and post test assessments, involving the utilization of t tests to establish improvements in students' speaking skills, namely, fluency, pronunciation, intonation, and stress patterns. The same test was given as pre and post tests for both groups for clear results. The students answered structured tests, which covered all the different tasks and performances of the students. These tests assessed communication skills within academic and professional contexts, focusing on:

- Vocabulary usage
- Fluency and coherence
- Pronunciation
- Interactive communication strategies

The tests were evaluated using a standardized set of rubrics aligned with CEFR (Common European Framework of Reference for Languages) speaking descriptors.

Student Perception Questionnaire (Appendix B)

A structured questionnaire was distributed at the end of the intervention for both control and experimental groups to gather students' qualitative insights on their experience on using the chatbots for communicative proficiency. The questionnaire included:

- Likert-scale items on ease of use, perceived usefulness, and engagement
- Open-ended questions on perceived challenges and benefits
- Items addressing motivation, confidence, and autonomy in speaking

This integrated approach made a comprehensive comparison between numerical results and personal perceptions to view how chatbot technology can promote and enhance communication skills and engagement in the undergraduates learning process in the university context.

D. Intervention Procedure

The intervention was conducted over a short period of [8-10 weeks], during which undergraduates in the experimental group engaged with an AI-powered chatbot specifically designed for the usage of authentic and professional conversations. They interacted with the chatbot for an hour per session and 2 sessions per week. Moreover, the selected chatbot provided immediate feedback on the student's pronunciation, vocabulary choices, and grammatical accuracy including the syntax and semantics usage according to the provided context. The interaction tasks included role plays, short conversations, and scenario-based dialogues and a few monologues as well to break the monotony of the lessons included in the intervention

session. Furthermore, the goal was to offer students with consistent, interesting and authentic-contextual opportunities to practice speaking in English, thereby promoting real-time learning and self-correction. The control group had the conventional method of learning/ teaching with no AI-powered chatbots added.

E. Data Collection

Quantitative data was collected through pre and post tests, which were administered in a controlled classroom environment. The speaking tests were audio-recorded and assessed by two trained raters to ensure inter-rater reliability.

Qualitative data was collected via the questionnaire, which was distributed electronically through a Learning Management System (LMS) after the intervention period. Responses were anonymized to protect student identities.

F. Data Analysis

Quantitative Analysis

The pre and post test scores were analyzed using four paired sample *t* tests via SPSS to determine the statistical significance of the developed skills in speaking proficiency. Additionally, the analysis focused on changes in vocabulary use, pronunciation, grammar, and overall speaking score. Although repeated measures ANOVA would be statistically more robust, paired sample *t* tests were used due to the specific design and analysis scope of the study. Future research is encouraged to apply ANOVA to capture interaction effects more comprehensively.

Qualitative Analysis

The responses gathered from the questionnaire items were analyzed using thematic analysis and they were related to students' perceptions. Coding was done manually and verified through cross-checking by a second researcher to ensure validity.

G. Ethical Considerations

In this study, the researcher provided the participants of the study with information about the study, after receiving ethical approval from the faculty. An informed consent letter was sent to get permission to gather consent from the participants. They were provided with enough information to make an informed decision about whether to take part in the study. Further, information included on how and for what purposes the data was used. The participants were also provided with a consent form as a google form. The researcher then contacted the ESL lecturers to participate in the study based on volunteer status and provided detailed consent forms for them. The researcher-maintained participants' confidentiality; personal details were not mentioned, and data were stored and disposed of securely.

III. RESULTS AND DISCUSSION

A. Sample Collection – Quantitative Data Analysis

One of the most popular statistical techniques for comparing the control and experimental groups' means and determining whether they differ from one another is the *t* test. Four paired sample *t* tests were used in this study to examine the ELL students' pre and post tests results after using a chatbot during the English module. This test is very useful for evaluating how well educational interventions work because it enables researchers to measure the impact of a chatbot as a teaching aid on students' communication abilities. The *t*-test offers solid insights into how the chatbot has affected students' speaking abilities over time by evaluating several variables, including fluency, pronunciation, intonation, and stress patterns. The *t*-test findings are shown in Table 1 below, which also shows the mean scores (M) and standard deviations (SD) for each speaking skill before and after the intervention.

As mentioned, to measure the effectiveness of the chatbot intervention on students' speaking proficiency in the experimental group, SPSS paired sample *t* tests were conducted. The mean score of the pre-test was significantly lower than the post test, showing and implying the improvement in students' speaking performance. Moreover, *t* tests showed statistically significant differences across all key speaking factors, suggesting that the chatbot technology usage had a positive impact on learners' communicative abilities. These results confirmed that the chatbot intervention significantly enhanced students' speaking proficiency in academic and professional contexts. Given the use of multiple comparisons, a Bonferroni correction was applied to control Type I error, adjusting the significance threshold to $p < .0125$.

Table 1: *t*-test results of the pre and post tests

Component	Pre-Test Mean	Post-Test Mean	<i>t</i> -value	<i>p</i> -value
Vocabulary	3.2	4.1	6.25	$p < .001$
Fluency	2.9	3.8	5.89	$p < .001$
Pronunciation	2.7	3.9	7.02	$p < .001$
Stress Patterns	3.0	4.0	6.68	$p < .001$

B. Sample Analysis – Qualitative Data Analysis

The thematic analysis from the questionnaire revealed several key insights based on the student opinions. The intervention had increased engagement, as many students noticed that the chatbot offered a non-

judgmental, interactive environment for them during the course along with the teacher feedback as well that encouraged frequent practice to improve their proficiency. Also, it affected the students to build confidence, as participants reported feeling more confident in speaking English due to real-time feedback and repeated practice opportunities whenever they did less to perform and that being compared to the previous experiences they had in their past classroom sessions, the chatbots made it much easier. Moreover, the chatbot integration made the students perceive improvements as they obtained marked improvements in pronunciation and vocabulary usage, which highlighted with the quantitative results which were shown above in table 1.

Additionally, the limitations that were noted were that a few students expressed challenges in understanding complex chatbot responses and expected more human-like conversation features which made it difficult for them to follow yet many of the students who were familiar with the technological interactions helped with the weak students. Overall, the chatbot can be considered as an effective learning tool according to the students as they appreciated the immediacy of feedback and flexibility of access outside formal classroom settings which made many of them follow it autonomously as well outside the classroom for their own language improvement. The themes generated were, increased engagement, confidence building, perceived improvements in language, and certain technological limitations.

C. Discussion

Research Question 1: How does interaction with chatbot technology influence the development of undergraduates' communication skills?"

The quantitative results of this study provide a significant amount of evidence in favor of chatbot technology's efficacy in enhancing ELL learners' speaking abilities. The results from the SPSS paired sample *t* tests demonstrated statistically significant improvements in all measured aspects of speaking proficiency: vocabulary, fluency, pronunciation, and stress patterns. These findings confirmed that the chatbot intervention contributed positively to students' oral performance both inside and outside of the classroom along with their learning in the degree program. For instance, vocabulary scores rose from a mean of 3.2 to 4.1, while fluency increased from 2.9 to 3.8. All components showed *p*-values < 0.05, showing and indicating that these gains were not due to chance.

These results show and align with previous studies that emphasized the value of chatbot technology in developing speaking skills. The study by Li, Cummins, and Deng [1] demonstrated that AI-driven conversational tools significantly enhance and improve interest in learners' vocabulary acquisition

and oral fluency just by offering contextualized dialogue practice. Similarly, Wang and Petrina [2] argued that teachers offering real-time feedback foster more accurate and confident speech production, which was evident in this study as well.

Moreover, chatbots provide interactive, low-pressure environments that reduce learners' anxiety and low-confidence of making mistakes—a common barrier in second language acquisition according to Krashen [5]. The students in this study benefited from practicing speaking without fear of judgment, which allowed for greater risk-taking and experimentation with language as they interacted with the chatbots and when they needed help the teacher in charge of the course helped them to go along with the instructions. These conditions were conducive to enhancing communicative competence as defined by Canale and Swain [4, 6], which included grammatical, sociolinguistic, and strategic components.

The consistent improvement (Figure 1) across all speaking components also supported the idea that chatbot interventions could meet the specific needs of academic and professional communication which can hardly be done in the classroom, as there are many students who seek to hide from speaking even in individual phase. According to Satar and Akcan [5, 8], regular exposure to simulated real-life dialogues can significantly improve learners' ability to engage in structured academic discussions and workplace-based contexts in their practice and authentic conversations. Given the structured and contextualized nature of the chatbot dialogues in this study, learners were likely better prepared for real-world communication tasks compared to what they have done in the classroom so far, and which made them grow an interest in the intervention.

It can be mentioned that the findings for the research question 1 validate that chatbot integration enhances speaking proficiency significantly. This further confirmed the achievement of Objective 1, as the intervention resulted in measurable improvements in language performance which was relevant to the academic and professional domains.

Research Question 2: What are students' perceptions of using chatbot technology in developing interactive communication skills?

The qualitative findings, derived from thematic analysis of questionnaire responses, revealed that students generally perceived chatbot-based learning as beneficial and engaging. It can be mentioned that four major themes emerged based on the thematic analysis: increased engagement, confidence building, perceived improvements in language, and certain technological limitations.

Increased engagement was one of the most prominent themes that occurred. Students frequently reported that the chatbot made learning more interactive and enjoyable. According to the findings from the questionnaire, the researcher concluded that chatbots were preferred by these students in the experimental group because they were more convenient than the traditional platform. When they used the chatbots during the intervention they found them to be more efficient and supportive than books; a chatbot based on their responses – many students proved effective. This finding was supported by the study done by Huang et al. [12], who found that chatbot-supported learning environments promoted higher levels of learner engagement due to their interactive and responsive design. Learners felt motivated to use English more frequently and independently, which contributed to language practice beyond the classroom. According to the study students further preferred using chatbots as language learning tools for a variety of reasons, and which was supported by Kim [22], including the following: through interactive learning sessions, chatbots enabled students to actively connect with the language. Chatbot conversations and dialogues offered real-life discussion, making learning more dynamic and enjoyable. According to this study, when asked about participants' practice routine, they spent 5-15 minutes in their free time conversing with the AI voice chatbots.

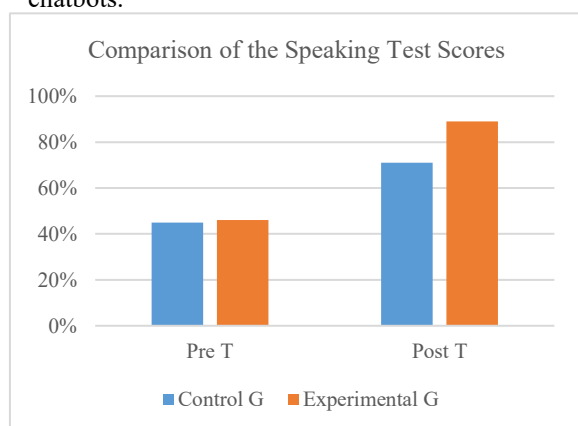


Fig. 1: Comparison of the Speaking Test Scores

"Normally I practiced speaking English with the AI voice chatbot for about 10-15 minutes when I was free." (Participant 2)

"When I had free time, I usually spoke three or four times a week. I often used the AI speech chatbot for ten to fifteen minutes at a time." (Participant 5)

The theme of confidence building also aligned with prior literature. Many students indicated that the chatbot helped reduce anxiety and increased their willingness to speak in English. When compared to the previous experience based in the physical classrooms and in online classrooms, there was a major issue that the language teachers were familiar with when it came

to speaking sessions, that the students did not intend to speak due to their lack of confidence and anxiety of getting negative feedback. However, with the integration used in the experimental group, it was made clear that the students found it rather convenient and effective as they can develop themselves with the use of technology at any time and place, they prefer. This perception was supported by the study of Reinders and Wattana [8, 9], who found that learners interacting with chatbots, or game-based digital agents felt more comfortable and interested in taking linguistic risks, thereby enhancing their speaking skills.

In this study, participants seemed to gain confidence which was grown from repeated exposure to authentic language use in a judgment-free environment through AI-powered chatbots. The reasons were that they needed to improve their skills and that they often faced difficulties with speaking fluently and using English language. According to the researcher's perspective, the pupils used the chatbot as a learning aid because they received assistance from it. Conversely, chatbots might be able to offer immediate feedback on grammar, pronunciation, and language use. The learning process was accelerated because prompt corrections allowed pupils to learn from their errors and promote proper language usage.

Students also expressed perceived improvements in vocabulary usage and pronunciation while intervening with the chatbots they have used. These self-assessments corresponded with the objective test results, indicating a correlation between learners' perceived progress and actual performance improvements. As emphasized by Godwin-Jones [9], learners' metacognitive awareness of their progress was a vital aspect of autonomous language learning, which the chatbot environment appeared to have encouraged. Moreover, students largely felt that the chatbot platform affected both their learning experiences and their preparedness to communicate in English when it came to their openness to be persuaded. According to the researcher's findings, which were corroborated by a previous study by Cakmak [10], interacting with a chatbot may increase learners' confidence in their ability to speak English since chatbots offer a low-pressure, nonjudgmental setting for language practice. Additionally, based on the data, many students reported that the chatbot's ability to provide audiovisual aids, provide clear instructions, and translate into other languages helped them learn something new. Consequently, the study addressed the reality that chatbots replicated conversations in real life, enabling the usage of linguistic skills. For students who wish to utilize the language in authentic contexts, this could be quite helpful.

Most students stated positive through the questionnaire that there were two reasons why they could talk with better pronunciation. First, because the AI voice chatbot sounded like a native speaker, people could practice pronouncing words correctly by listening to the speaking voice several times. Second, participants had to try speaking more attentively and pronouncing words correctly once they saw the words on the screen change when they pronounced a sentence incorrectly. According to the students, the AI voice chatbot's usage of several new words throughout talks, as well as its ability to recommend and clarify new phrases for them to learn during conversations, helped them expand their vocabulary. It should be mentioned that while speaking with the use of AI voice chatbots students learnt more vocabulary and grammar and the Connectivism paradigm was linked with an expert source of language information. Additionally, to help students become more familiar with a virtual English language environment, the chatbot could speak repeatedly in a native voice. Students could get inspired to talk more and overcome their speech barriers in this setting [9, 15, 17, 20].

This study demonstrated that the AI voice chatbot has enhanced students' accuracy and fluency in speaking English while also giving them a comfortable atmosphere to do it. The study makes recommendations for further research as well as some implications for the usage of AI voice chatbots in the classroom. Teachers are advised to incorporate the AI voice chatbot into their lesson planning for teaching and learning activities to address pedagogical concerns in the university context. Nonetheless, the planned operations must adhere to certain goals and objectives. When students are interacting with the AI voice chatbot, for instance, teachers can establish clear speaking objectives for them, such as how many times they should repeat their words for the chatbot to comprehend and react appropriately [15].

However, students noticed several limitations as well, such as challenges in understanding complex or contextually inaccurate responses from the chatbot if they were not much familiar with the chatbots even though they were following a computer science degree. This was consistent with Fryer and Carpenter [11, 12], who cautioned that overly scripted or unnatural chatbot responses could hinder authentic communication. Further, some students wanted, and they expected more human-like responses and cultural relevance, suggesting that chatbot design needed to be continually refined to meet learner expectations and context-specific needs which were questionable yet accepted. Despite these limitations, the overall perception was positive, with students recognizing the chatbot as a valuable supplement to traditional instruction as they felt difficult while learning in the classroom and trying to correct themselves in the classroom.

Therefore, the analysis confirmed that students did not only accept but also appreciate the role of chatbot technology in improving their communicative competence as that made them aware of how to improve themselves even after the intervention autonomously in and outside the classroom. These perceptions fulfilled the second objective by providing insight into how learners experienced chatbot-assisted language learning and highlighting both the strengths and areas for improvement of the undergraduates.

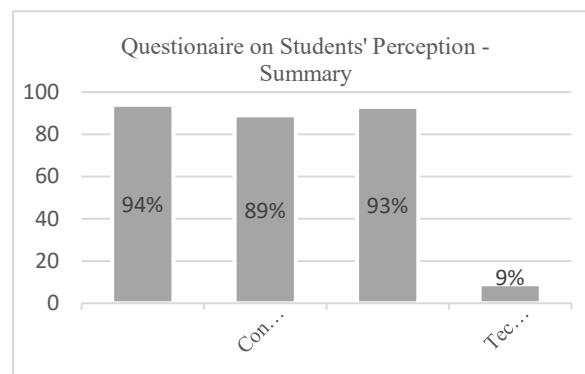


Fig. 2: Questionnaire Results of Students' Perception

IV. CONCLUSION

In conclusion it can be mentioned that teaching English as a second language has improved speaking abilities among students in the university context with the usage of AI. The study showed notable gains in important speaking variables such as vocabulary, speaking level, accent, and stress patterns both before and after the chatbot system intervention through the evaluations and mixed-methods approach. Beginner, intermediate, and advanced students all benefited from speaking with the AI chatbot and saw a significant improvement in their speaking abilities, indicating that the technology could be used as an effective and practical learning tool that provided authentic practice and feedback. The study contained several limitations despite these findings. First, it was important to note the very brief follow-up duration. Further, the study was conducted over a short period, which highlighted a crucial limitation as the capacity to examine the ongoing generality of the developments. Future studies should try to circumvent or lessen these restrictions by utilizing more objective language assessment techniques and lengthier follow-up tests on the durability of the acquired skills. Furthermore, to better understand how to improve the learning process for different learners, future research may concentrate on the variations in the chatbot's features and design. The study can improve ELL's growth and support the continuous improvement of teaching methods by incorporating more elements.

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The Effect of Green Supply Chain Management Practices on Organizational Performance of Hospitality Industry in Sri Lanka: A Case Study Based on Six Best Five Star Hotels in Sri Lanka

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Abstract— The rapid growth of the hospitality industry has imposed significant environmental costs, including increased waste generation, greenhouse gas emissions, and resource consumption. Consequently, achieving sustainable development without incurring substantial environmental issues is imperative. This study investigates the implementation of green supply chain management practices and evaluates their impact on the organizational performance of Sri Lanka's hospitality sector. This research was conducted using a case study approach and a qualitative methodology. Data were collected through in-depth interviews with managers from six prominent five-star hotels in Sri Lanka which implement green supply chain management practices. Thematic analysis was used to examine the interview data. Findings reveal a positive relationship between green supply chain management practices and organizational performance. The hospitality industry in Sri Lanka is increasingly committed to sustainability through waste reduction, energy efficiency, and community engagement. The study emphasizes benefits such as enhanced reputation, cost savings, and competitive advantage. It also aligns with key sustainable development goals, including good health and well-being, decent work and economic growth, sustainable cities, and responsible consumption & production. This research offers valuable insights for hospitality professionals, aiming to improve performance and industry standing.

Keywords—five-star hotels in Sri Lanka, green supply chain management practices, hotel performance, supply chain, sustainability

I. INTRODUCTION

The hospitality industry is one of the fastest growing sectors globally and is often characterized as a resource dependent industry. Sri Lanka, recognized as one of the most attractive island destinations, is distinguished by its unique natural beauty, rich cultural heritage, and historical significance. In recent years, the country has increasingly prioritized the development of its hospitality industry as a major

source of economic revenue, generating numerous direct and indirect employment and investment opportunities. With the growing global awareness of environmental sustainability and the rising demand for responsible tourism practices, it is imperative that Sri Lanka adopts and integrates sustainable practices to remain competitive on the international stage. Furthermore, achieving sustainable development must be a national priority, ensuring long-term economic growth without causing significant harm to the environment. [1]

In 2018, Sri Lanka's tourism industry generated approximately USD 4.4 billion in revenue and accounted for 5.6% of the nation's Gross Domestic Production. This demonstrates that the hospitality industry makes a substantial contribution to Sri Lanka's GDP [2].

The growth of the hospitality industry has become a cost to the environment, because hospitality industry being responsible for large amount of waste, greenhouse gas emission, and waste consumption, etc. Therefore, adopting green supply chain management practices is essential to reduce its negative environmental effects [3].

In this context, it is important to understand the nature of energy and water consumption patterns of tourist hotels. Sri Lanka's hotel industry consumes 2% of its total electricity usage and 1% of water of total consumption. On average 50% of hotels' electricity use is accounted for by air-conditioning, 20% for lighting and the rest for kitchen, laundry and other purposes. 38% of typical water usage in tourist hotels is by guests in their rooms and 21% by kitchens (IFC, 2013). In terms of waste generation, the IFC reports that 46% of the waste generated by hotels is food and non-recyclables (solid waste), 25% paper and the rest is in

the form of cardboard, plastics, glass and metal. Energy, water and waste are therefore the major areas being improved by hotels in their efforts to become ecofriendly in their operations.[4]

The problem area of this research is hospitality industry generate lot of costs to the environment. To reduce these costs hotels should follow GSCMP or sustainable practices throughout their whole operations. Here the questions are ‘what is the impact of GSCMP on the hotel performance in Sri Lanka and also how can these practices be implemented effectively to enhance the performance of the hospitality organizations while decreasing their environmental footprint?’.

All national and international organizations try to protect the environment from unnecessary things. As well as all the organizations try to improve their performance through reducing various cost factors. Therefore, lot of organizations in the world now try to come up with green practices with their business activities. Despite the increasing global focus on sustainability, there is a notable lack of research investigating the implementation and impact of green supply chain management practices within Sri Lanka’s hospitality industry, particularly in five-star hotels. Existing literature provides limited guidelines tailored to the unique local context, resulting in uncertainty for industry stakeholders seeking to adopt and benefit from sustainable practices. Furthermore, the factors influencing the successful adaptation and execution of green supply chain initiatives in Sri Lankan hotels remain underexplored. This study addresses these gaps by examining both the effect of green supply chain management practices on organizational performance and the key determinants influencing their implementation in top-tier hotels in Sri Lanka.

This study addresses two research questions: the identification of green supply chain management practices in Sri Lanka’s hospitality industry and the assessment of their effect on organizational performance. The primary objectives are to systematically identify significant GSCMP including green purchasing, internal environmental management, collaboration with suppliers and employees, eco-design, green operations, and waste management and to evaluate how these practices influence hotel performance. By investigating these relationships, the research fills a gap in the existing literature concerning the integration and outcomes of sustainability initiatives in the Sri Lankan hospitality context. Moreover, the implementation of GSCMP is positioned as a pathway for the hospitality sector to contribute to key sustainable development goals, specifically good health and well-being, decent work and economic growth, sustainable cities and communities, and responsible consumption and production.

II. MATERIALS AND METHODOLOGY

A. Materials

To comprehensively investigate the impact of green supply chain management practices on the organizational performance of the hospitality industry, qualitative research is deemed the most suitable approach, as data primarily comprises non-numeric forms such as texts, transcripts, and field notes.

The population for this research comprises all-star-class hotels in Sri Lanka. Employing a case study approach, the study focuses on six distinguished five-star hotels, Heritance Kandalama, DoubleTree by Hilton Weerawila, Araliya Beach Resort & Spa Unawatuna, Cinnamon Grand Colombo, Shangri-La Colombo, and Jetwing Yala. These hotels were purposively selected to align with the research objectives, ensuring relevance to the research’s focus on green supply chain management practices. The organization serves as the unit of analysis, and the selected sample represents leading five-star hotels recognized for their commitment to sustainable operations. The primary aim is to evaluate the impact of green supply chain management practices on organizational performance within Sri Lanka’s hospitality industry.

To gather data, both primary and secondary sources are utilized. Primary data collection methods involve in-depth interviews with relevant managers in the selected hotels, providing insights into the implementation and effects of green supply chain practices. Secondary data is sourced from published materials such as books, research papers, hotel annual reports, articles, and official publications, particularly from the hotels’ official websites and annual reports.

B. Methodology

This section provides an overview of the research methodology. This study employs a qualitative approach to investigate the effect of green supply chain management practices on organizational performance within Sri Lanka’s hospitality industry. An interpretivist research philosophy was adopted to align with the qualitative nature of the study. The research approach is deductive, utilizing a case study strategy. Data analysis was conducted through thematic analysis, following the guidelines established by Braun and Clarke (2006). This method facilitates the identification and examination of recurring themes and patterns within the qualitative data, enabling a thorough exploration of the research objectives. Ethical considerations were considered throughout data collection, with all participants informed about the study’s purpose. [5]

III. RESULTS AND DISCUSSION

A. Sample Collection

Population of the research is all the star class hotels in Sri Lanka. The study's research strategy scenter on conducting an in-depth investigation of single organizations, specifically six renowned five-star hotels in Sri Lanka. In-depth, semi-structured interviews were conducted with hotel managers from six renowned five-star hotels in Sri Lanka: Heritance Kandalama, Double Tree by Hilton Weerawila, Araliya Beach Resort & Spa Unawatuna, Cinnamon Grand Colombo, Shangri-La Colombo, and Jetwing Yala. The study involved 12 participants, including general managers, operations managers, and sustainability coordinators. Each interview lasted 45 to 60 minutes and was performed either in person or through virtual meeting platforms, depending on the participant's availability. All interviews were carried out in English and some were recorded with the participants' permission. Ethical guidelines were followed to assure confidentiality and voluntary involvement.

B. Sample Analysis

This chapter presents the data analysis of a qualitative inquiry into the interplay between green supply chain management (GSCM) practices and the organizational performance of the hospitality industry in Sri Lanka. To address the research questions, a qualitative research approach was employed, focusing on in-depth interviews with experienced managers representing six of the foremost five-star hotels in Sri Lanka. The data collected through these interviews underwent rigorous thematic analysis, revealing multifaceted insights into the green supply chain practices shaping the Sri Lankan hospitality landscape. This analysis done according to the Browns & Clark 2006. According to the analysis finally, there are seven main themes. They are, GSCM practices, Strategic Management Efforts, Effect of GSCMP on Hotel Performance, Future Challenges & Solutions to Implement GSCMP, International Standards, Advantages of GSCMP For Hospitality Industry and Importance of GSCMP For the Hospitality Industry.

1. Green supply chain management practices

Table 1 shown as an example for first main theme and its sub themes only. Likewise for all the main themes, sub themes and second sub theme there are tables.

Under the main theme of GSCMP there are five sub themes. They are, green procurement, waste and water management, use energy efficient technologies, eco-friendly transportation, and community engagement.

Table 1: Main and sub theme

Main Theme	Sub Theme
Green Supply Chain Management Practices	Green Procurement
	Waste & Water Management
	Use Energy Efficient Technologies
	Eco Friendly Transportation
	Community Engagement

Under the sub theme of green procurement there are five second sub themes. They are, procurement side initiatives, central purchasing unit, local sourcing and plastic reduction, central purchasing unit and sustainable sourcing of food and materials. As an example, interviewee one said that “We have solid agreement with the service suppliers as well. We have contracted suppliers who closely work with us for getting various services (e.g., maintenance services). It is really an agreement procedure”.

Under the waste and water management there are five second sub themes. They are, proper mechanism for waste disposal, focus on recycling waste including producing biogas from food waste, implementation of a water reuse system to save fresh water consumption, waste audit and implementation of rainwater harvesting as a luxury ecofriendly practice. As an example, interviewee one said that “waste disposal is a big problem for any organization. We have to have proper mechanism to dispose these waste materials. For Cinnamon hotels we have CEA that mean Central Environment Authority aggregated waste collector base who are closely working with us. they ensure that this waste ended up with the recycling process rather than put that into the land fill area. It ensures the life cycle assessment of the waste. Food waste we use to produce the bio gas as well. So, it is sustainable method of disposal”.

Under the sub theme of use energy efficient technologies there are five second sub themes. They are, minimizing electricity costs through solar panels, building design to maximize natural lighting inhouse areas, LED lighting, smart HVAC systems, and solar water heating. As an example, interviewee two said that “We use solar panel for saving electricity and also, we have water reuse system to save our fresh water consumption. We design our building to get natural lights into lot of inhouse areas”.

Under the sub theme of ecofriendly transportation there are three second sub themes. They are, electric vehicle charging stations, shuttle services, and bulk purchasing and distribution to minimize packaging and transportation costs. As an example, interviewee three said that “Our hotel provides shuttle services to nearby attractions and the airport, reducing the need for individual guest vehicles and lowering overall emissions”.

Under the sub theme of community engagement there are three second sub themes. They are, engagement with suppliers, engagement with employees, and engagement with customers. As an example, interviewee four said that “we collaborate closely with suppliers to source eco-friendly products and packaging materials, ensuring they align with our environmental goals”.

2. Strategic management efforts

Table 2: Main and sub theme

Main Theam	Sub Theme
Strategic Management Efforts	Supplier Collaboration
	Employee Awareness & Engagement for GSCMP
	GSCM Into Vision & Mission
	Reporting system

Under the main theme of strategic management efforts there are four sub themes. They are, supplier collaboration, employee awareness and engagement for green supply chain management practices, green supply chain management into vision and mission and reporting system.

If we consider supplier collaboration, under this there are two second sub themes. They are supplier management and collaboration with suppliers for sustainability. Hotels try to collaborate with suppliers to achieve their sustainable goals or improve their organizational performance. Hotels collaborate with suppliers in various manners. Some of them are, collaborating with suppliers for waste recycling, to source sustainable products, reduce packaging waste, and increase transportation efficiency, etc.

As an example, Interviewee three said that, “We actively collaborate with our suppliers to source sustainable and locally-produced goods. We also encourage them to adopt eco-friendly practices and provide incentives for doing so”.

3. Effect of green supply chain management practices on hotel performance

Table 3: Main and sub theme

Main Theme	Sub Theme
Effect Of GSCMP On Hotel Performance	Reduction & Cost Saving From GSCMP
	Impact Of GSCMP On Organizational Performance

Third main theme of this research is the effect of green supply chain management practices on hotel performance. Under this main theme there are two sub themes. They are, reduction and cost saving from green supply chain management practices and impact of green supply chain management practices on organizational performance.

Under the sub theme of reduction and cost saving from GSCMP, there are seven second sub themes. They are, cost saving from GSCMP, notable cost saving, reduced electricity costs, upcycling projects, energy and cost savings, reductions from GSCM initiatives and reduction from green supply chain practices.

Due to implementation of the GSCMP hotels can experience lot of reductions and cost savings. As an example, In-house wastewater treatment for water reuse and cost reduction, Success of centralized logistics in reducing greenhouse gas emissions, Cost savings with a local supplier base, Cost savings with a central purchasing unit for logistics, Use of solar panels for electricity savings, Implementation of a water reuse system to save fresh water consumption, building design to maximize natural lighting in-house areas, Cost savings achieved through green supply chain practices, Waste disposal cost reduction, Energy consumption reduction (Example of LED lighting savings), Reduced water usage costs (example of water-saving measures), Maintenance cost reduction (Example of extended LED bulb lifespan), Notable cost savings, particularly in reduced energy consumption, Reductions in carbon emissions, etc.

As an example, Interviewee two said that, “Our best GSCM practices are those that combine operational effectiveness and sustainability. For instance, the installation of energy-efficient HVAC and lighting systems has resulted in significant cost savings while also reducing our energy use”.

4. *Future challenges and solutions to implement GSCMP*

Table 4: Main and sub theme

Main Theme	Sub Theme
Future Challenges & Solutions to Implement GSCMP	Challenges & Solutions

Under the main theme of future challenges and solutions to implement GSCMP, there is only one sub theme and under that sub theme there are eight second sub themes.

Hotel management noted a number of obstacles to implementing GSCMP, including a lack of resources, apprehension about change, requirement for specialized training, changing the conventional mindset of suppliers, need for behavioural change among stakeholders, current economic crisis, and the financial component associated with GSCMP and the need to allocate funds, etc.

As an example, Interviewee one said that “When it comes to the future there might be biggest challenges due to these economic crises. Every organization they are having a really hard time at the movement. Incurring some kind of budget for these GSCMP. Another problem we can take from the measurement angel. In the Sri Lankan context, when it comes to logistics arrangement, we don’t have a system to quantify the greenhouse gas emission associated with their transportation. So, we cannot quantify the emission associated with our supply chain or other service providers.”

5. *International standards*

Table 5: Main and sub theme

Main Theme	Sub Theme
International Standards	Internationally Recognized Standards

Fifth main theme is international standards. There are some international standards that organizations need to adhere. Here mainly talk about ISO 14001 standards. ISO 14001 is an internationally agreed standard that sets out the requirement for an environmental management system. It helps organizations to improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders.

As an example, Interviewee three said that, “We have actively implemented ISO 14001 standards as the foundation of our environmental management system. ISO 14001 is an internationally recognized framework for developing and maintaining an effective environmental management system and we initiated the process by conducting a thorough environmental audit to identify significant environmental aspects and impacts within our hotel operations”.

6. *Advantages of GSCMP for hospitality industry*

Table 6: Main and sub theme

Main Theme	Sub Theme
Advantages of GSCMP For Hospitality Industry	Advantages Of Implementing GSCMP Competitive advantage gained through GSCMP

This is also a main theme that was taken through the analysis. Under the advantages of GSCMP for hospitality industry there are two sub themes. They are advantages of implementing GSCMP and competitive advantage gained through GSCMP. The benefits of implementing GSCMP include financial savings, environmental advantages, improved brand perception, and a competitive edge, according to interviewees in every hotel.

As an example, Interviewee one said that, “The main advantage is protecting the environment and saving money. Apart from that adhering to GSCMP is really vital to enhancing our competitive advantage. It is really good for empowerment of our community. Because it is embedded with the social responsibility as well.

7. *Importance of GSCMP for hospitality industry*

Table 7: Main and sub theme

Main Theme	Sub Theme
Importance of GSCMP For the Hospitality Industry	Importance of GSCMP for the Hospitality Industry

According to the thematic analysis there are lot of codes to mention about the importance of GSCMP for the hospitality industry. It includes, alignment with rising global awareness of social responsibility and environmental sustainability, role of sustainability in enhancing the entire guest experience, meeting the expectations of travellers seeking ethical and meaningful experiences, sustainability's role in reducing environmental impact, enhancing brand reputation, and ensuring profitability, and importance of GSCM in the hospitality industry for conserving

resources, enriching communities, and fostering goodwill.

As an example, Interviewee three said that, “Green supply chain practices involve integrating sustainability into every aspect of the supply chain, from sourcing to disposal. In the hospitality industry, these practices are crucial for reducing environmental impact, enhancing brand reputation, and ensuring long-term profitability by appealing to eco-conscious travellers and meeting evolving regulatory requirements. They are essential for ensuring the industry's sustainability in the face of global environmental challenges”.

C. Results

The analysis consistently showed a positive relationship between the implementation of green supply chain management practices and the overall organizational performance of hospitality industry in Sri Lanka.

Firstly, hotels were able to effectively reduce their operational costs through improved resource efficiency and waste reduction. Moreover, the integration of green supply chain management practices resulted in a substantial decrease in carbon emissions, thereby lessening the environmental footprint of these establishments. This, in turn, contributes to environmental sustainability and aligns with global efforts to combat climate change.

Importantly, the research identified that hotels implementing green supply chain management practices experienced an enhancement in their reputation. By visibly committing to eco-friendly initiatives, hotels were able to attract a larger customer base of environmentally conscious consumers, further improving their financial performance. The findings also indicate that these sustainable practices provided hotels with a competitive advantage in the hospitality industry in Sri Lanka.

In sum, the thematic analysis underscores the multiple advantages associated with the adoption of green supply chain management practices in the hospitality industry. These practices have the potential to not only reduce operational costs, minimize environmental impact, and attract more customers but also foster overall performance improvements. Ultimately, this research highlights the strategic significance of green supply chain management practices in the Sri Lankan hospitality industry, not only for business growth but also for the greater environmental good.

D. Discussion

This research aims to identify what is the impact of implementing green supply chain management practices on the organizational performance of the hospitality industry in Sri Lanka. So, to analyse the effect, this study used six prominent five-star hotels as

a sample. Data were collected through interviews with well experience managers in those hotels. This research is qualitative research. So, to analyse data this research used thematic analysis. According to the analysis, it has provided valuable insights into the dynamics of sustainability within this vital sector. The findings of this research highlight several key points that merit attention:

First and foremost, it is evident that the adoption of green supply chain management practices in the hospitality industry can yield significant benefits for organizations. These practices encompass a wide range of strategies, including waste reduction, energy efficiency, sustainable sourcing, and eco-friendly operations. Implementing these practices not only aligns with global environmental concerns but also improves the overall performance and competitiveness of hospitality businesses in Sri Lanka.

And also, this study explains the importance of collaboration and cooperation within the supply chain network. Green supply chain management requires close coordination between suppliers, manufacturers, distributors, and hospitality providers. Establishing strong relationships and communication channels among these stakeholders is essential for the successful implementation of sustainable practices.

Furthermore, it is clear that customers are increasingly valuing eco-conscious choices when selecting accommodation and dining options. Green initiatives not only enhance a hospitality organization's reputation but also attract environmentally conscious customers who are willing to pay a premium for sustainable services. Therefore, the adoption of green supply chain management practices not only benefits the environment but also contributes to improved financial performance.

However, it is essential to acknowledge that implementing green supply chain management practices in the hospitality industry in Sri Lanka may face challenges. These challenges include initial investment costs, regulatory hurdles, and resistance to change within organizations. Nevertheless, the long-term benefits, both in terms of cost savings and enhanced reputation, outweigh these obstacles.

In conclusion, the research demonstrates that green supply chain management practices have a positive and significant impact on the organizational performance of the hospitality industry in Sri Lanka. By embracing sustainability, hospitality businesses can reduce their environmental footprint, attract a broader customer base, and ultimately achieve better financial results. As global awareness of environmental issues continues to grow, it is imperative for the Sri Lankan hospitality industry to prioritize and invest in green supply chain

management practices to secure a sustainable and prosperous future.

This study has several limitations. First, it focuses only on six prominent five-star hotels in Sri Lanka due to time constraints, limiting the sample size. Second, it excludes other star-class hotels, which restricts the generalizability of the findings across the entire hospitality sector. Third, the research is geographically confined to Sri Lanka, which may limit the applicability of results to other countries. Additionally, the limited existing literature on green supply chain management practices (GSCMP) in the Sri Lankan hospitality industry presents a challenge. Most GSCMP research has been conducted in manufacturing sectors, with relatively few studies focusing on hospitality. Furthermore, much of the available research is quantitative, making qualitative insights on this topic scarce. These limitations highlight the need for further, broader, and more diverse studies in this area.

For future research, they should consider larger sample sizes to enhance the generalizability of findings. It is advisable to extend studies beyond a single country to capture diverse contexts and improve applicability. Additionally, more qualitative studies focusing on green supply chain management practices are needed, particularly within service sector organizations such as the hospitality industry. Expanding this research to include various industries will also provide valuable insights into the broader implementation and impact of green supply chain management.

IV. CONCLUSION

Sri Lankan tourism industry is a diverse and growing sector that offering visitors a mix of rich history, attractive and most beautiful landscapes, and warm hospitality. this research is about the topic of the effect of green supply chain management practices on organizational performance of hospitality industry in Sri Lanka. Sri Lanka's tourism industry plays a significant role in Sri Lankan economy, contributing 12 percent of the nation's gross domestic production. And also, tourism is third largest source of foreign exchange in Sri Lanka.

The hospitality industry's growth has led to increase concerns towards the impact on the environment & society. So now a days the concept of sustainability takes the major concern or high priority in the hospitality industry in Sri Lanka. The problem area of this research is the growth of the hospitality industry has become a cost to the environment, because hospitality industry being responsible for large amount of waste, greenhouse gas emission, and waste consumption, etc. All national and international organizations try to protect the environment from unnecessary things. As well as all the organizations try

to improve their performance through reducing various cost factors. Therefore, lot of organizations in the world now try to come up with green practices with their business activities

This research aims to fill the gap in the past literature through investigating the impact of GSCMP on the organizational performance of hospitality industry in Sri Lanka. This research focuses to answer two questions. They are, what are the green supply chain management practices in the hospitality industry in Sri Lanka and what is the impact of green supply chain management practices on organizational performance of the hospitality industry in Sri Lanka? To answer this question qualitative research was conducted. Both primary and secondary data were used. Data were collected through interviews with well experienced managers in six best five-star hotels in Sri Lanka. To do the analysis this research used thematic analysis.

In conclusion, the research demonstrates that green supply chain management practices have a positive and significant impact on the organizational performance of the hospitality industry in Sri Lanka. By embracing sustainability, hospitality businesses can reduce their environmental footprint, attract a broader customer base, and ultimately achieve better financial results. As global awareness of environmental issues continues to grow, it is imperative for the Sri Lankan hospitality industry to prioritize and invest in green supply chain management practices to secure a sustainable and prosperous future.

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Impact of Using Project Management Software towards Project Success in Sri Lankan IT Project-Based Organizations

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Abstract—This paper examines the impact of project management software usage on the success of projects in Sri Lankan IT organizations. Using project management software is critical for ensuring project success in the dynamic environment of IT project-based organizations. This study focuses on key performance challenges such as scope creep, missed deadlines, and budget overruns, which means not driving projects within the triple constraints, and examines how a specific range of software features and ease of use contribute to overcoming these challenges. This study used quantitative data consisting of 139 respondents including project managers and project team members working in the Sri Lankan IT organizations. Correlation and regression analysis were conducted to examine the relationship between the Range of features and Ease of use in project management software toward project success. The findings prove that feature-rich means the range of features in PMS, user friendly software significantly enhances project success or project performance, with 77% of projects succeeding when PMS is used effectively. This study contributes to understanding the effectiveness of using project management software in project management practices and offers insights to organizations that are seeking to optimize their project performance.

Keywords—Project management software, IT projects, project success, software usability, Sri Lankan IT organizations, project management tools.

I. INTRODUCTION

The Sri Lankan IT industry had a rapid boom in recent years by focusing on new technologies. Sri Lankan economy by grabbing foreign investments, foreign companies, foreign clients and foreign projects which simply means the IT industry attracts more dollars to the Sri Lankan economy. This growth has driven the successful execution of IT project-based organizations in Sri Lanka. At the same time, Sri Lankan IT project-based organizations have faced many challenges in managing their projects which can be affected by scope creep, missed deadlines, and budget overruns. According to the PMI records 30% of projects only get success which means only 30% of projects are within the planned scope, time, and budget. That percentage also can apply to the IT sector projects in Sri Lanka

due to many reasons. The main reason that can be clearly identified is not accepting and using proper project management software, methodologies, tools, and techniques. Using proper project management software can minimize the effect which means that project management software emerged with powerful tools and techniques involving planning, resource allocations, monitoring, and controlling to ensure successful project delivery on time. Complex IT projects require methodologies to keep projects on track within budget while achieving the desired outcome. Project management software should offer essential features such as task tracking, collaboration, cost tracking, time scheduling, reporting, and analysing to get success the project on time. With all above factors using project management software in Sri Lankan IT project-based organizations may vary due to organization culture, management support, technical support, and team skills. Understanding the above factors and their impact on project success is essential to guide project management software. This paper addresses the question: How does the use of project management software affect the success of IT projects in Sri Lankan organizations? Study examines the impact of using project management software towards project success or how PMS impacted to enhance the project performance in Sri Lankan IT project base organizations. Moreover, the study reveals that project management software helps optimize the use of limited resources. By using the insights from this research, managers can better allocate resources to ensure that teams are working efficiently, thereby maximizing productivity and minimizing waste. This has significant implications for organizations looking to increase their return on investment in projects.

II. LITERATURE REVIEW

This literature review outlines the impact of project management software usage towards project success and what factors affect it. Also, this study was not conducted during the Sri Lankan contest and all literature reviews are based on other countries and generalized for the world. In the past 30 years, project

management (PM) has developed substantially as a discipline and significantly increased its visibility and importance [1]. Over this period, many tools and techniques have been developed, covering all aspects of PM from conception to completion [2]. But Project Management remains a problematic endeavor. Despite the advance in PM processes, project success rates have not significantly improved, and projects still fail to live up to the expectations of stakeholders who continue to be disappointed by their results [3]. From these factors we can highlight important of having project management practices in a organizations. The value of project management is a function of what is implemented and how well it fits into the organizational context [4]. Project management value is created (or destroyed) depending on the extent to which an organization's strategic drivers "fit," or not, with the characteristics of its PM system. [5]. They criticize the reckless use of PM standards, and a "misfit" between specific project characteristics and the chosen management approach is seen as a significant cause of project failure [4]. PM is highly contingent on the organizational context, such as the business's structure, size and environment, as well as on the project type, it is essential to study the PM tools and techniques applied in particular areas of activity or business sectors [4]. Project management software is fundamental and primary thing in this study. From this study finding facts to prove that using project management software is impacted to the project success rate in the organization. The proper implementation of PM best practices should improve PM performance, thus resulting in enhancing the speed and quality of project delivery, fewer mistakes, lower costs because of less need for reworking, fewer delays and snags, more efficient use of time and increased customer satisfaction [6]. According to all above findings, in the world IT field evaluating day by day in parallel project management software is also evolving but until now there having percentage of projects going to fail or can't complete within the triple constraints. Through this study proven in Sri Lankan contest High rate of projects going to be success because of using project management software in the IT project base organizations in Sri Lanka.

III. METHODOLOGY

This study adopts a positivist research philosophy, which is appropriate for understanding the impact of project management software on project success in a quantifiable manner. Positivism is based on the belief that knowledge should be derived from objective observations and measurements, free from subjective interpretation. By applying this philosophy, the research aimed to produce unbiased, reliable findings through the collection and analysis of empirical data. This approach aligns with the goal of the study, which was to determine the relationship between project management software features and ease of use, and

their impact on this study, as it seeks to test existing theories related to the use of project management software and its influence on project success. The deductive method is well-suited for this research because it starts with hypotheses derived from established models of project management and software usage. The study then gathered data to test these hypotheses in the context of Sri Lankan IT organizations. This approach allowed the researcher to either confirm or challenge existing theories by applying them to a specific setting, ultimately contributing to the broader body of knowledge. A survey-based strategy was selected as the primary method of data collection. Surveys are an effective tool for gathering large amounts of data quickly and efficiently, which was necessary given the focus on IT project managers and team members across multiple organizations. The survey was designed with structured questions to explore variables such as software features, ease of use, and project success. This strategy was particularly appropriate for obtaining quantifiable data that could be statistically analyzed to explore the relationships between key variables. Google Forms was used to distribute the survey, ensuring broad reach and ease of participation. As the unit of analysis in this study was focused on both the individual and organizational levels. At the individual level, data were collected from project managers and team members working in Sri Lankan IT project-based organizations to examine how they utilize project management software in their day-to-day tasks. At the organizational level, the research sought to understand how the overall use of such software within teams influences broader project success, including the ability to meet deadlines, stay within budget, and manage project scope effectively. By analyzing both individual and organizational perspectives, the study provided a comprehensive view of the role of project management software in enhancing project outcomes. This structured research design ensured that the study systematically addressed its objectives while providing a robust framework for examining the influence of project management software on project success in Sri Lanka's IT sector.

A. Conceptual Diagram

Fig. 1 presents the model or conceptual framework that is going to be examined in the study. The research model assesses the extent of project management software usage by project professionals and the impact of its use on their perceived performance. The model posits that project management software acceptance is a function of perceived information quality, software functionality, ease of use, project complexity, project size, organization size, user training level, education level, and experience. The model also proposes that the use of the project management software has a direct and positive impact on the user's perceived performance. (Impact of Organizational and Project Factors on Project Management Software, n.d.)

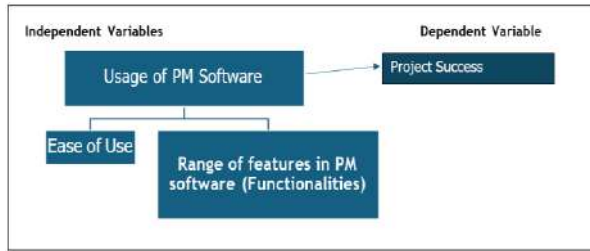


Fig. 2- Conceptual Framework

Hence, the following hypotheses are proposed:

H1 - There is a positive relationship between ease of usage of PM Software and project success [7] [8].

H2- Range of Features/Functionalities in PM Software has a positive relationship with Project Success [7] [8].

H3- Types of PM Software used has a positive relationship with Project Success [7] [8].

IV. RESULTS AND DISCUSSION

A. Sample & Collection Data

The sample size for this study was determined based on Morgen's table, which is widely used to estimate sample sizes for a given population with a specific confidence level. For a population of approximately 150,000 IT professionals in Sri Lanka, the table suggests a sample size of 139 respondents to achieve a 95% confidence level and a 10% margin of error. This sample size was selected to ensure that the study's findings could be generalized to the broader population of Sri Lankan IT project-based organizations while maintaining statistical reliability. The selection of the sample was done using a non-probability sampling method, specifically convenience sampling. Convenience sampling was chosen due to the practical constraints of reaching a large, dispersed population in a limited timeframe. This method allowed the researcher to target individuals who were readily accessible and willing to participate in the study. The survey was distributed to project managers and project team members within Colombo-based IT organizations, as Colombo is home to a significant concentration of IT companies, making it an ideal location for data collection. The data collection process for this study was conducted using a quantitative survey method to gather relevant data from project managers and project team members working in Sri Lankan IT project-based organizations. The survey was the most appropriate tool for this research as it allowed for the efficient collection of large amounts of data from a broad audience, enabling statistical analysis of the relationship between project management software usage and project success.

The survey was administered online using Google Forms, a platform chosen for its accessibility and ease of use. The online format allowed respondents to

participate at their convenience, thereby increasing the likelihood of a higher response rate. The survey was distributed primarily to employees in IT project-based organizations located in Colombo, a region recognized as the center of Sri Lanka's IT

industry. The target respondents were reached through professional networks, industry associations, and direct contact with companies, ensuring a diverse range of participants from various roles within the IT sector. The questionnaire was designed with closed-ended questions, allowing respondents to provide quantifiable data that could be analyzed statistically. The survey was divided into several sections, each addressing different aspects of the research objectives. These sections included questions on demographic information, project management software usage, software features, ease of use, and the perceived impact of these tools on project success. Specific questions were included to assess how often the respondents used project management software, the types of software they used, and their perceptions of how the software impacted project outcomes in terms of time, budget, and scope.

To ensure the validity and reliability of the data collection process, a pilot test was conducted prior to full-scale distribution of the survey. This pilot involved a small group of respondents, and feedback from the pilot was used to refine the questionnaire to ensure clarity and relevance of the questions. After adjustments, the final survey was distributed, and responses were collected over a period of several weeks to ensure that an adequate number of participants had time to complete the survey. The data collected was automatically compiled into a dataset via Google Forms, which was then exported to SPSS for analysis. Using this dataset, statistical techniques such as correlation and regression analysis were applied to test the hypotheses and explore the relationships between project management software usage and project success.

B. Sample Analysis

1) Descriptive Analysis

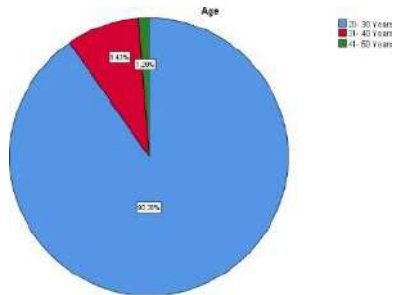


Fig. 2- Age

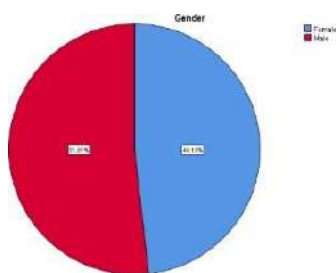


Fig. 3- Gender

Around 90% of those who participated in the study are in between 20-30 years old also very few participants are in 31- 40 years old. Around 51% are male participants and around 48% are female participants which means data have been gathered in equal proportions among male and female participants.

This study focuses on proving that using project management software impacts project success and project performance in the organization. To prove that has been gathering data at least the respondent should have 1-year experience as a project manager or project team member in Sri Lankan IT industry, therefore from the respondent around 54% have 1 year- 3-year experience as a project manager or project team member-related to the IT project-based organizations within Sri Lanka also 38% of respondents having less than 1-year working experience as a project manager or project team member within the IT organizations in Sri Lanka.

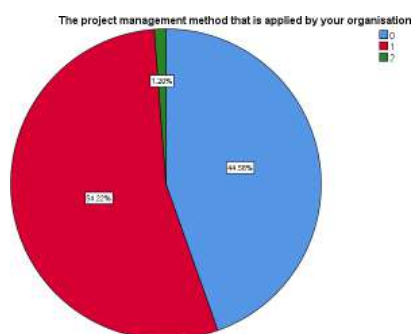


Fig. 6- PM method applied by the Org.

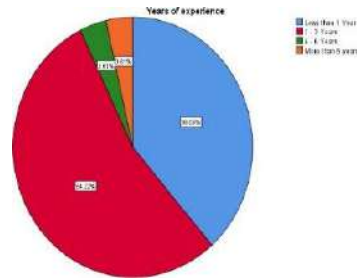


Fig. 4- Years of experience

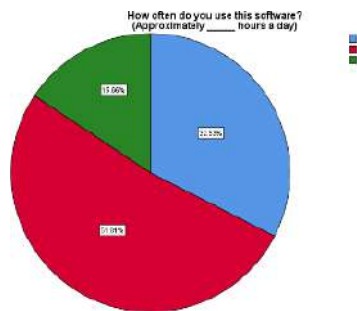


Fig. 5- Usage of PM Software (Hours)

The study focuses on proving the impact of using project management software toward project success within Sri Lanka, therefore to prove that the selected sample must use Project Management software, and also to prove that should need to identify whether project management software helps to improve team collaboration and communication. Around 96% of respondents are already using project management software for their day-to-day work and also around 98% of participants mentioned that using project management software helps to improve their team collaboration and communication within the team. Therefore we can accurately prove the results by using these respondents. In IT project management what project management method respondents are using is the impact to get an understanding of their interaction within the project management software, therefore around 54% of respondents are using the Agile project management method and around 45% of respondents are using Project Management Standards (initiation, planning, execution, control, closeout) which means traditional method. Through this data is equally proportionate within agile and waterfall methods. To prove the impact coming from using project management software towards project success crucial to identify project team members' typical interaction with the project management software and what time there integrated with the project management software.

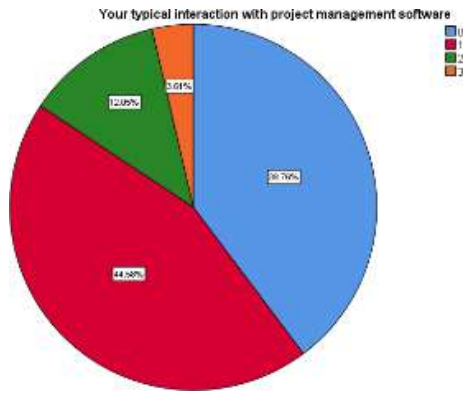


Fig. 7- Typical interaction with PM Software

According to the analysis around 45% of team members interacted with the computer as an intermediary to provide information to others, and around 40% of team members' subordinates interacted with the computer systems and provided them with the information and 12% of team members interact with the computer primarily to obtain information for their own purposes.

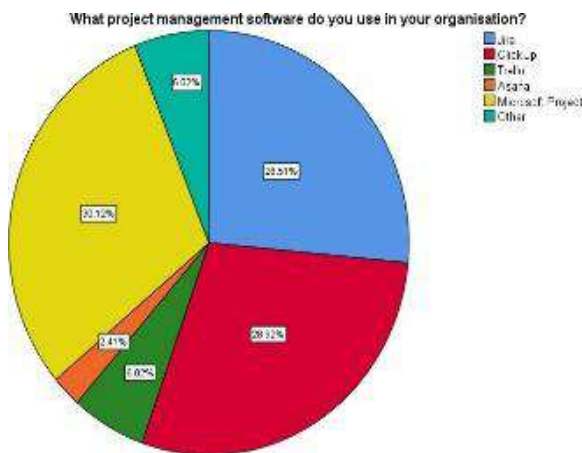


Fig. 8- Types of PM Software that Org. are used

Also, around 52% of team members interact for 3 - 6 hours within the project management software that they used, 33% of team members are integrated within less than 3 hours, and 16% of team members interact with project management software more than 6 hours, with the previous data can assume those 16% respondents are project managers because they are the ones most needed project management software to manage their project team [7]. To get understanding about the exact project management software that the respondent are used asking a question by giving five options as Clickup, Microsoft project, Trello, ASANA, Jira and Other. From those five options Clickup is the most usable software among project team members because it provide range of features within the software also

Microsoft project is the other most used software assume it's the basic user friendly software within the respondents.

2) Reliability Analysis

All items that measure the performance impact and project success of project management software loaded on independent variables have greater than 0.7 Cronbach's value and for dependent variable also have greater than 0.7 Cronbach's value as shown in below summary table. Factor loadings range from a low of 0.65 to a high of 0.89. Based on interpretation scale, the factor loadings within the research model are considered to be excellent factor loadings [7]. Cronbach's alpha test was performed to examine the reliability of the measurement scale. All the variables were found to have a high reliability measurement that exceeds 70% [7]. Therefore, all the Cronbach's alpha coefficients were greater than 0.70, indicating an adequate level of internal consistency and analysis proven all the used questions are reliable to the study.

Table 1- Reliability of pilot test (n- 60)

Reliability Statistics	
Cronbach's Alpha	No. of Items
0.927	15

Table 2- Result from the Pilot Test

Variable	No. of Items	Cronbach's Value
Range of features in PMS	5	0.866
Ease of use in PMS	5	0.956
Performance/Success of Project	5	0.958

3) Correlation Analysis

According to the correlation analysis can claim that there having a strong relationship between each independent variable towards dependent variable individually. Which means Range of features in the using project management software having 0.846 correlation value towards project success, therefore can claim Range of features in the project management software having strong relationship with the project success. Ease of use in the project management software having 0.756 correlation value towards project success, therefore can claim Ease of use in the project management software having strong relationship with project success. In conclusion can claim all independent variables have strong relationship with dependent variable individually which means there having impact of using project management software towards project success in Sri Lankan IT project based organizations. In summary, A Pearson correlation analysis showed the following relationships:

- **Range of features and project success:** 0.846 (strong positive correlation)
- **Ease of use and project success:** 0.756 (strong positive correlation)

These results suggest that the more features a PMS offers, the more likely it is to contribute to project success. Similarly, ease of use plays a crucial role in ensuring the effectiveness of the software.

4) Regression Analysis

To identify the relationship between both independent variables to dependent variable used the supportive hypothesis as,

H0- There is no significant impact of Range of features and Ease of use in the project management software towards project success or project performance.

H1- There is a significant impact of Range of features and Ease of use in the project management software towards project success or project performance.

According to the P value approach, Alpha value- 0.05 and P value – 0.00

Therefore, according to the study conducted 95% confident to claim that model develop to ease of use and range of features in project management software towards project success or project performance is significant (P value < Alpha Value) which means according to sample data gathered within the Colombo district IT project base organizations employees can generalized there having a significant relationship between project management software that going to use which include range of features and easiness of use are impacted towards the project success in the particular IT organizations and performance of the projects in Sri Lanka. This result empirically confirms for the first time that project management software does make a difference in the perceived performance of project managers and projects, it appears over their projects, and achieve project success [7].

According to the findings below *MODEL* were created,

Project Success = 0.592(Range of features in the project management software) + 0.349(Ease of use in project management software)+ 0.276

In summary, Regression test and Analysis of Variance (ANOVA) show that the Range of Features in the Project Management Software and the Easiness of use the Project Management software towards project success or the project performance in Sri Lankan IT project base organizations are having a strong relationship with each other and Range of features and the ease of use in the project management software significantly impacted to the project success or project performance.

From the *MODEL* table identified how independent variables are fit to the dependent variable which means the whether the changes in the dependent

variable is that because of independent variables or not. Simply study about the changers in the project success or project performance are happen is that because of the use of project management software or not. According to R square, can identify created model are fit to the dependent variable (R square – 0.764). According to the study based on the sample can generalized in Sri Lankan IT Industry contest project success or project performance changers otherwise the project failures or low performance not just because of using project management software means the Range of features in the project management software and Ease of use in the project management software not impacted to the changers or the failures in the projects (R square value > 0.7). According to the result proven when using project management software around 77% of projects going to be success in Sri Lankan contest and remaining 23% of projects going to failure due to other factors affecting to the projects without considering to the study.

V. DISCUSSION & CONCLUSION

A. Discussion

The results of this study indicate that the features and ease of use of project management software are crucial determinants of project success. Tools that offer a wide range of features such as task tracking, collaboration, and reporting help project teams stay organized and meet their goals. Additionally, user-friendly software reduces the learning curve for project teams and improves overall efficiency, contributing to higher project success rates. This finding is consistent with previous research, which emphasizes the importance of both the functionality and usability of project management tools in complex environments like IT projects. Sri Lankan IT organizations can benefit significantly from investing in PMS that is tailored to their specific needs, enhancing their ability to manage resources, monitor project progress, and ensure timely delivery.

Furthermore, the study highlights the importance of continuous training and technical support for users to maximize the benefits of project management software. Teams that are better equipped to use these tools are more likely to experience successful project outcomes.

B. Conclusion

In conclusion according to the Sri Lankan contest there is no prior research or study about to study the effectiveness of using project management software towards project success in Sri Lankan IT project base organizations. According to the study using project management software consider within two independent variables as Range of Features in the project management software and Ease of Use in the project management software and consider project success or

project performance as dependent variable to the study. Through the study try to prove using project management software directly impacted to the project success or project performance in the organization. Consider IT employees in Sri Lanka as a population and based on the population selected 139 participants working in Colombo District IT Organizations as a sample to collect the responses. Colombo is the district that having high number of IT project base organizations and also it is the easy accessible area for researcher. According to the demographic data all the respondents are equally proportionate with male and females also most of the respondents are in younger age and 96% percent of respondents used any kind on Project Management software within their work time. It proven this study are accurate just because of 96% of respondents are working within any kind of IT project base organization and around 33% of them are project managers. There having around 62% of respondents are project team members which they job role may be Business Analyst, Software Developer, UI/UX Designer or Quality Assurance Engineer. However when considering the project team members are in the IT project base organizations including all of them which means they also using the software that the particular IT organization used. Considering all the facts around 95% of respondents are working within any kind of project management software within their worktime. Also through other earlier mentioned demographic data proven the respondents are highly gathered with any kind of project management software within their worktime. According to the analysis proven that the considered independent variables such as Range of Features and Ease of use in the project management software are directly impacted to the project success in Sri Lankan IT project Base organizations.

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The Impact of Computer Literacy on Pedagogy: A Case Study of English Teachers in Sri Lanka

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Abstract—Recent years have seen a growing emphasis on the integration of digital competencies in education, particularly in the context of English language teaching. This study explores the role of computer literacy as a critical factor influencing pedagogical effectiveness among English teachers in Sri Lanka. Drawing on both theoretical and empirical perspectives, the study examines how digital proficiency shapes teaching methodology and its effectiveness. A mixed-method, case study design was employed in the research, involving 55 participants, with data collected through structured questionnaires and semi-structured interviews. Quantitative data were analyzed using SPSS, while qualitative data underwent thematic analysis. The findings revealed a significant correlation between teachers' computer literacy and their teaching performance, while qualitative insights highlighted persistent challenges such as limited access to resources, insufficient training, and institutional constraints. While the quantitative results confirmed the predictive value of digital skills, qualitative data suggested that contextual and infrastructural barriers often mediate their practical application. The study concludes by recommending targeted professional development and policy reforms to enhance digital integration in teaching.

Keywords—computer literacy, digital competencies, teaching methodology

I. INTRODUCTION

In the 21st century, digital literacy has become a fundamental requirement for educators across the globe; particularly those teaching English as a second language (ESL). The integration of Information and Communication Technology (ICT) into education systems has transformed traditional teaching methodologies, placing new demands on teachers to be proficient in digital tools and platforms.

Numerous international studies have emphasized the importance of digital competence in ESL teaching. Son, Robb, and Charismiadji [1] highlighted the need for Indonesian English teachers to develop computer literacy to effectively use online learning platforms. Similarly, Dashtestani [2] found that Iranian EFL teachers faced significant challenges in integrating technology due to limited training and institutional support.

In Taiwan, Yu [3] observed that pre-service English teachers exhibited varying levels of computer literacy, with positive attitudes toward technology integration. This diversity in skill levels underscores the need for differentiated training programs. Cote and Milliner [4], studying Japanese university instructors, emphasized the necessity of continuous professional development to keep pace with evolving digital tools. In Sri Lanka, the government has made considerable efforts to embed ICT into the national curriculum, aiming to enhance both teaching quality and student learning outcomes [1], [2]. However, the success of these initiatives is largely dependent on the digital competencies of teachers, particularly in rural and semi-urban regions where access to resources and training may be limited [3].

In the South Asian context, studies from Pakistan [5], Nepal [6], and Sri Lanka [7] reveal similar challenges. Teachers often lack access to infrastructure, face limited training opportunities, and struggle with institutional barriers. In Sri Lanka specifically, the Department of Census and Statistics [8] reported that while general computer literacy among teachers has improved, disparities remain between urban and rural areas.

Therefore, this study focuses on the Godakawela Divisional Secretariat in the Sabaragamuwa Province of Sri Lanka, a region that exemplifies the challenges and opportunities of ICT integration in public education. English language teachers in government schools within this area play a critical role in shaping students' academic and communicative abilities. Yet, there is limited empirical evidence on the extent to which these educators possess and apply computer literacy skills in their instructional and educational practices. This gap in knowledge is particularly concerning given the increasing reliance on digital tools for language instruction and assessment [4], [5].

Despite national policies promoting ICT in education, many English teachers in government schools face barriers such as inadequate training, limited access to technology, and insufficient institutional support [6]. These challenges hinder their ability to effectively integrate digital tools into their teaching. Moreover, there is a lack of standardized metrics to assess teachers' computer literacy, making it difficult to

design targeted interventions. This study addresses these issues by evaluating the current level of computer literacy among English teachers in Godakawela and examining how these skills influence pedagogical effectiveness and student learning outcomes.

Research Questions

1. To what extent does computer literacy influence the teaching effectiveness of English language teachers in Sri Lanka?
2. What are the contextual and institutional barriers that affect the practical application of digital competencies in English language teaching?
3. To what extent can professional development and policy reforms enhance digital integration in English language classrooms?

II. MATERIALS AND METHODOLOGY

A. Methodology

This study adopts the Technology Acceptance Model (TAM), introduced by Fred Davis in 1989, as its theoretical foundation to examine the adoption of digital tools among English language teachers. TAM posits that two primary factors—perceived usefulness and perceived ease of use—determine an individual's intention to adopt and utilize technology. In the context of this research, these constructs are applied to understand how English teachers in government schools perceive the value and accessibility of computer literacy in enhancing their instructional practices. The model further incorporates external variables such as access to training, institutional support, and availability of technological resources, which influence users' attitudes and behavioral intentions. By integrating these elements, the study develops a conceptual framework that elucidates the factors shaping teachers' acceptance and application of digital tools in the classroom. This framework provides a structured lens through which to analyze the facilitators and barriers to technology integration in public education, particularly within the Godakawela Divisional Secretariat. The application of TAM thus enables a deeper understanding of how digital competencies are acquired and operationalized in educational settings.

The conceptual framework for this study is designed to examine the interrelationship between computer literacy skills and teaching performance among government school English teachers in the Godakawela Divisional Secretariat. The framework identifies computer literacy skills and educational background as key independent variables, while teaching performance serves as the dependent variable.

Computer literacy skills encompass teachers' proficiency in using digital tools, including hardware, software, and online platforms, to support instructional practices. Educational background refers to formal qualifications and training in computer-related disciplines, which are expected to influence the

development of digital competencies. Teaching performance is defined by the effective integration of technology into classroom instruction, contributing to enhanced student engagement and learning outcomes.

By analyzing these variables and their interactions, the framework provides a structured basis for understanding how digital proficiency and academic preparation shape pedagogical effectiveness in technology-enhanced learning environments.

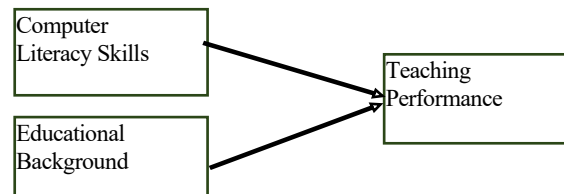


Fig. 1 conceptual framework

B. Hypotheses

H1-There is a relationship between computer literacy skills and teaching performance.

H0: There is no relationship between computer literacy skills and teaching performance.

H2-There is a relationship between educational background and teaching performance.

H0: There is no relationship between education background and teaching performance.

The methodology adopted for this study was designed to comprehensively address the research questions concerning the influence of computer literacy on teaching effectiveness, the barriers to digital integration in English language teaching, and the potential of professional development and policy reforms to enhance digital practices in Sri Lankan classrooms. A mixed-methods approach was employed, combining both quantitative and qualitative techniques to ensure a holistic understanding of the research problem.

Quantitative data were collected through a structured questionnaire distributed to 50 government school English teachers in the Godakawela Divisional Secretariat. This instrument was used to assess the current level of computer literacy, its correlation with teaching effectiveness, and perceptions of digital integration. To complement this, qualitative data were gathered through semi-structured interviews with five purposively selected teachers. These interviews provided deeper insights into the contextual and institutional challenges faced by educators, as well as their views on the effectiveness of existing training and policy frameworks.

The data collected were analyzed using both statistical and thematic techniques. Quantitative responses were processed using SPSS software, with descriptive statistics, correlation analysis, and regression models applied to explore relationships between variables. The

qualitative data were subjected to thematic analysis, allowing the researcher to identify recurring patterns and themes related to digital barriers, professional development needs, and policy implications.

Ethical considerations were carefully observed throughout the study. Participants were informed about the purpose of the research, assured of their anonymity and confidentiality, and given the freedom to withdraw at any stage. The study also acknowledged its limitations, including the restricted geographic scope, potential self-reporting bias, and the cross-sectional nature of the data, which limits causal inference. Nonetheless, the methodology provided a robust framework for exploring the digital competencies of English teachers and the systemic factors influencing their integration into classroom practice.

III. RESULTS AND DISCUSSION

A. Sample Collection

This study employed a stratified random sampling method to select 50 government school English teachers from the Godakawela Divisional Secretariat in Sri Lanka. Stratification was based on relevant factors such as school type and teaching experience to ensure proportional representation across key subgroups. This approach enhances the reliability of the findings by capturing the diversity within the target population. While the sample size was determined based on logistical feasibility and accessibility, it provides a meaningful snapshot of the region's educational context. However, due to the relatively small sample size and the localized scope of the study, caution should be exercised when generalizing the results to broader populations or different geographic regions. The sampling strategy was designed to balance representativeness with practical constraints, offering valuable insights while acknowledging the study's contextual limitations.

B. Sample Analysis

Table 1 Descriptive Statistics

Descriptive Statistics					
	N	Min	Max	Mean	Std. D.
Com. literacy skills	55	3	5	4.0364	0.32555
Edu. background	55	3	5	4.0675	0.39061
Teach. performance	55	3	5	4.1727	0.43029
Valid N (listwise)	55				

The dataset comprises responses from 55 government school English teachers, focusing on three key variables: computer literacy skills, educational background, and teaching performance. The analysis shows that computer literacy skills have a mean score of 4.03 (on a scale of 3 to 5) with a standard deviation of 0.325, indicating a generally high level of digital proficiency with moderate variability. Educational background also scored highly, with a mean of 4.06 and

a standard deviation of 0.390, suggesting consistent academic qualifications related to computer literacy. Teaching performance recorded the highest mean at 4.17 with a standard deviation of 0.430, reflecting strong and consistent integration of technology into instructional practices across the sample. Overall, the data suggests that the teachers surveyed possess solid computer literacy and educational foundations, which are positively associated with effective teaching performance.

Table 2 Reliability Analysis

Variable	Items	Cronbach alpha	Status
Computer Literacy Skills	5	0.792	High
Educational background	5	0.888	Very High
Teaching Performance	5	0.861	Very High

The reliability analysis of the dataset indicates strong internal consistency across all measured variables. Computer literacy skills demonstrated a Cronbach's alpha of 0.792, reflecting high reliability. Educational background and teaching performance showed even higher reliability, with alpha values of 0.888 and 0.861 respectively. Since all values exceed the commonly accepted threshold of 0.6, the measurement scales used in the study are considered statistically reliable and free from significant bias, supporting the validity of the data collected.

Table 3 Validity Analysis

Items	KMO Coefficient	Bartlett's Test [Chi-Square]	Significance	Status
Computer Literacy Skills	0.78	77.616	0	Good
Educational background	0.761	172.341	0	Good
Teaching Performance	0.657	178.667	0	Mediocre

The results of the validity analysis indicate that all variables in the study are suitable for factor analysis. The Kaiser-Meyer-Olkin (KMO) values for computer literacy skills (0.780), educational background (0.761), and teaching performance (0.657) all exceed the minimum threshold of 0.5, confirming sampling adequacy. Additionally, the significance level for Bartlett's Test of Sphericity was 0.000 for all variables, indicating that the correlations between items are sufficiently large for factor analysis. These results validate the inclusion of both independent and dependent variables in the model, supporting the robustness of the study's measurement framework.

Table 4 Correlational Analysis

		Correlations		
		Teaching performance	Computer literacy skills	Education background
Teaching performance	Pearson Correlation	1	.669	.677
	Sig. (2-tailed)		0	0
	N	55	55	55
Computer literacy skills	Pearson Correlation	.669	1	.732
	Sig. (2-tailed)	0		0
	N	55	55	55
education background	Pearson Correlation	.677	.732	1
	Sig. (2-tailed)	0	0	
	N	55	55	55

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

The Pearson correlation between computer literacy skills and teaching performance is 0.669, which falls within the range of a strong positive relationship ($0.50 < r < 0.75$). This indicates a significant positive association between computer literacy skills and teaching performance. Therefore, Hypothesis 1 is accepted.

The Pearson correlation between education background and teaching performance is 0.677, which falls within the range of a strong positive relationship ($0.50 < r < 0.75$). This indicates a significant positive association between education background and teaching performance. Therefore, Hypothesis 2 is accepted.

Table 5 Multiple Regression Analysis

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.723 ^a	0.523	0.505	0.30287	2.152
a. Predictors: (Constant), education background, Computer literacy skills					
b. Dependent Variable: Teaching performance					

According to the table, the R square is 0.523, and the adjusted R Square is 0.505. Therefore, it can be concluded that 52% of the variation in teaching performance can be explained by computer literacy skills and educational background. Also, the R-value

was 0.723 and it concluded that strong correlation between the independent variable and dependent variable, and it is in a strong level.

Finally the findings of this study reveals a significant relationship between English teachers' computer literacy and their pedagogical effectiveness within the Godakawela Divisional Secretariat. Quantitative analysis demonstrated that teachers with higher levels of digital proficiency exhibited stronger teaching performance, as evidenced by positive correlations and regression outcomes. These results affirm the hypothesis that computer literacy is a key determinant of instructional quality and other educational practices, particularly in the context of English language education where digital tools are increasingly integral to curriculum delivery and student engagement.

The qualitative responses from five English teachers offer valuable insights into their instructional approaches and strategies for addressing literacy development in English language classrooms. A consistent theme across all interviews is the emphasis on student-centered teaching, where reading and writing activities are integrated into lessons to foster authentic communication and engagement. Teachers reported using a variety of diagnostic tools, including formal assessments and informal observations, to evaluate students' literacy levels and tailor instruction accordingly.

Differentiated instruction emerged as a key strategy, with teachers employing flexible grouping, scaffolding, and targeted support to meet the diverse needs of learners. They also highlighted the use of explicit instruction, modeling, and guided practice, supported by authentic texts, multimedia resources, and culturally relevant materials to enhance language acquisition. A strong consensus was observed regarding the correlation between literacy proficiency and students' ability to comprehend complex English language concepts, reinforcing the importance of foundational literacy skills in second language learning.

Teachers acknowledged the challenges of teaching English as a second language, particularly in addressing literacy gaps, and emphasized the need for language-rich environments and structured support. They also identified effective resources such as leveled readers, digital platforms, and authentic materials as essential tools for improving literacy outcomes. These qualitative insights complement the quantitative findings, illustrating how digital competencies and pedagogical strategies intersect to support literacy development and student achievement in English language education.

However, the study also identified persistent barriers that mediate the practical application of computer literacy. These include limited access to technological infrastructure, insufficient training opportunities, and institutional constraints that hinder the effective integration of digital tools. Despite these challenges, teachers demonstrated a proactive attitude toward

professional development, often relying on peer collaboration and self-directed learning to enhance their digital skills.

Overall, the findings underscore the dual importance of individual teacher competencies and systemic support in advancing digital integration in education. The evidence suggests that while computer literacy significantly enhances teaching effectiveness, its impact is contingent upon contextual enablers such as access to resources and institutional backing. These insights highlight the need for targeted interventions, including structured training programs and policy reforms, to bridge existing gaps and promote sustainable digital transformation in Sri Lanka's public education system.

IV. CONCLUSION

This study underscores the pivotal role of computer literacy in enhancing pedagogical effectiveness among English language teachers in Sri Lanka. Through a mixed-methods approach, the research revealed a strong correlation between digital proficiency and teaching performance, while also highlighting the contextual and institutional barriers that hinder the practical application of these skills. The findings suggest that while individual competencies are essential, systemic support—such as access to infrastructure, targeted professional development, and policy-level interventions—is equally critical to realizing the full potential of digital integration in education. As Sri Lanka continues to advance its ICT

agenda in the education sector, this study provides timely insights for stakeholders seeking to bridge the digital divide and foster a more inclusive, technology-enabled learning environment. Future research should expand the geographic scope and explore longitudinal impacts to further inform sustainable digital transformation in teaching practices.

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The Mediating Role of Green Finance on the Relationship between Fintech Adoption and Banks' Sustainability Performance

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Abstract—The relationship between fintech adoption and Sri Lankan banks' sustainability performance is examined in this study, with a focus on the mediating function of green finance. The potential of fintech innovations to advance social and environmental sustainability has drawn more attention as they revolutionize the financial services industry. Simultaneously, green financial tools that assist ecologically conscious projects have become a key tool for sustainable development. Nevertheless, little is known about how fintech and green finance interact to impact banks' sustainability outcomes. This study employs a cross-sectional survey of 228 banking professionals from systemically important banks in Sri Lanka, grounded in the Resource-Based View (RBV) theory. The study demonstrates that fintech adoption significantly improves sustainability performance, with green finance serving as a partial mediator, using SPSS and Hayes' PROCESS macro. These findings suggest that fintech not only increases accessibility and operational efficiency but also helps banks better execute green financial practices. The findings support the strategic importance of green fintech in emerging economies by providing banking management with practical advice on how to match digital transformation with sustainable finance objectives. This study adds to the body of knowledge by evaluating bank performance in a developing nation context by combining environmental and technical factors.

Keywords—Fintech adoption, green finance, sustainability performance, banking sector, mediation, resource-based view theory

I. INTRODUCTION

Researchers and industry professionals have paid close attention to recent developments in financial technology, or fintech[1]. Fintech is acknowledged for transforming the financial industry as a leading technology that creates cutting-edge financial goods and services. It is one of the most innovative and disruptive sectors of the contemporary economy[2]. Green finance, fintech growth, and sustainability are emerging as key features in Sri Lankan banking. Green finance has nonetheless been viewed as a high-risk sector, and in the absence of a powerful regulatory push, has been discouraged from

flight. Fintech, on the other hand, has recorded a remarkable rate of uptake, especially in the post-COVID-19 pandemic era. Mobile banking applications, digital wallets, and cashless payment systems, such as Lanka QR, have been investments worth it to the banks. These technologies not only make banking possible but also make environmental goals possible via the saving of paper and branch visits. Still, there exist drawbacks like deficits in digital literacy and cybersecurity concerns, particularly for rural and isolated locations. When it comes to overall sustainability performance, foreign-linked and larger banks are in the lead, releasing detailed sustainability reports and adopting standards such as the Global Reporting Initiative (GRI).

However, small finance companies and banks are increasingly struggling to keep pace, primarily due to the increased costs and capital requirements. Overall, in the period of assured green finance development, fintech adoption, and sustainability for Sri Lankan banks, progress in all these areas is lagging behind the overall industry and requires sustained support and policy intervention to propel the industry further and continue innovating. Fintech has revolutionized traditional financial services by providing new channels for accessibility, efficiency, and inclusivity through its creative digital solutions[3]. And, by promoting circular economic principles, the incorporation of fintech solutions can improve a company's sustainability performance[4]. At the same time, there is a growing awareness of the need to address pressing social and environmental issues, which has increased interest in sustainability in many industries, including finance. Currently, organizations have more opportunities to incorporate environmental, social, and governance (ESG) factors into their operational frameworks, investment plans, and decision-making procedures, thanks to the convergence of fintech and sustainability[5]. Fintech adoption can enhance environmental sustainability by promoting eco-friendly investment practices. It leads to reducing carbon emissions and optimizing the usage of resources[6]. Its convergence with sustainability has enabled greater integration of ESG considerations into financial operations [7]. However, while fintech and green finance have been studied individually, there is

limited research exploring how green finance mediates the link between fintech adoption and sustainability outcomes. Instruments such as green bonds, sustainability linked loans, and carbon trading platforms do more than support environmental projects. They serve as a bridge connecting digital innovation to environmental impact [8], [9]. This study fills this gap by investigating green finance as a mediating mechanism in the fintech-sustainability relationship. The Sri Lankan context, where fintech is growing but green finance remains underdeveloped, makes this inquiry particularly relevant for guiding banking strategies that align digital transformation with the Sustainable Development Goals.

Although Fintech and Green Finance are gaining popularity, there remains a lack of research on their relationship and their impact on organizational performance and sustainability outcomes. Although other studies have examined the effects of these constructions separately, little is known about how they interact and affect one another in the financial industry [10], [11]. This study is motivated by the growing need to align fintech innovations with environmental goals in emerging economies, such as Sri Lanka. It is significant as it provides practical insights for banks and contributes to academic literature by examining how green finance can mediate the fintech-sustainability relationship and connections between fintech adoption and sustainable performance in Sri Lanka's banking industry.

RO1: To investigate the impact of Fintech Adoption on Banks' Sustainability performance.

RO2: To examine the mediating role of green finance on the relationship between fintech adoption and Banks' sustainability performance.

The opening of the article, which outlines the research goals, follows a standard pattern. A literature study provides background information on sustainable performance, green finance, and the acceptance of fintech. Research design, data gathering, and analysis are all thoroughly covered in the methodology. The results demonstrate the relationships between the various constructions. Results are interpreted, and implications are discussed. Key findings are finally summarized in the conclusion

II. REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

A. Literature Review

1) Fintech Adoption

Since digital connectivity is essential for sustainability performance and operational efficiency, fintech is a quickly developing industry and a source of innovation that promises to spur research across several disciplines[6]. According to the literature, fintech, a sector of Industry 4.0, can help SMEs transition to more sustainable business models[12], especially by being essential in granting SMEs financing[7]. Furthermore, by using mobile money services to reach unbanked and

underbanked populations, particularly in areas without traditional banking infrastructure, fintech is advancing financial inclusion. The majority of high-growth SMEs mostly use debt-based financing rather than equity capital[13]. By providing financial solutions that include information technology and streamline loan and transaction procedures for SMEs, fintech has accelerated the adoption of supply chain finance [14]. According to empirical data, one of the key factors influencing corporate environmental sustainability is financial availability [15]. However, little is known about how institutional financial support might improve business sustainability performance.

2) Green Finance

Green finance comprises financial products, services, and investments that support ecologically friendly projects and aid in the transition to a low-carbon and more sustainable economy[16]. It comprises incorporating environmental considerations into financial decision-making procedures with the goal of allocating funds to initiatives and endeavors that benefit the environment[17]. One strategic financial method for allocating funds to initiatives that support ecological preservation and sustainable development goals is the use of Green Bonds [18]. Banks and other financial organizations provide loans specifically designed for sustainability-related initiatives, including the installation of renewable energy, energy-efficient structures, sustainable agriculture, and the development of clean technologies[19]. Even as green financing is becoming increasingly crucial in promoting sustainability, little is known about its complex effects on various industries. There is a dearth of research on how well various financial mechanisms support sustainability activities [20].

3) Bank's sustainability performance

Sustainable performance refers to the ability of an organization to achieve long-term success while simultaneously minimizing negative environmental and social impacts[6]. It encompasses the integration of ESG factors into business strategies and operations, to create value not only for shareholders but also for other stakeholders, including employees, customers, communities, and the planet[21]. In the context of the banking sector, sustainable performance involves banks adopting practices and initiatives that align with environmental and social goals, while maintaining financial stability and profitability [22]. Banks can contribute to sustainable performance by adopting environmentally responsible practices. Threats to sustainable development have arisen from the rapid industrialization, population growth, and economic expansion that have increased energy consumption and degraded the environment[23]. The use of primary energy sources increased by 1.3% worldwide in 2022[24]. Environmental deterioration is directly caused by the known relationship between economic growth and energy use, with greenhouse gas emissions from energy use being a key cause of climate change[25]. Banks may improve their sustainable performance to lower GHGs, comply with global

sustainability agendas, and satisfy changing investor, regulatory, and consumer expectations by utilizing Fintech technologies. Fintech enables banks to offer cutting-edge products and services, integrate sustainability into their core business processes, and contribute to a more sustainable banking industry that promotes social progress, economic growth, and environmental preservation. Sri Lankan banks are widely adopting sustainable banking techniques to address both economic and environmental issues. By creating the BASEL Accords, the Bank for International Settlements (BIS) influenced sustainable finance by establishing international banking norms. BASEL II states that banks can use international ratings to assess the risks associated with green investments. In Sri Lanka, the practice of integrating climate-related financial exposure to risk assessments with BASEL III is being progressively implemented. BASEL IV introduced capital frameworks for climate risk stress testing[26]. Climate risk assessments for green loans were employed by Commercial Bank and Sampath Bank[27].

4) Fintech Adoption and Banks' Sustainability Performance

Sustainability performance is significantly impacted by the incorporation of financial technology (Fintech) into conventional financial systems[28]. Digital banking, blockchain, and artificial intelligence (AI)-powered financial services are examples of fintech advancements that enhance operational efficiency and transparency, leading to more sustainable business practices [29]. By maximizing energy use and decreasing waste, these technologies facilitate improved resource management and lessen environmental impacts [29]. Furthermore, by making it simpler for investors to direct funds toward sustainable projects, FinTech solutions promote the development of green financing [30]. By enhancing financial inclusion and underprivileged populations' access to financial services, this shift not only helps environmental sustainability but also social and economic sustainability [31]. Fintech enables individuals and businesses to access financial services without the need for a physical bank, thereby enhancing economic participation, reducing poverty, and promoting sustainable development in communities[32]. Previous research has also suggested that Fintech solutions provide advanced analytics and risk management tools that can assist banks in evaluating and mitigating social and environmental risks associated with their lending and investment portfolios[33]. Adoption of Fintech can also result in improvements in energy efficiency within banks' operations [34]. Banks can lower their energy use and carbon emissions related to operating data centers and IT infrastructure by utilizing cloud-based computing, virtualization, and other technical innovations. As a result, the following is the first hypothesis that has been developed for the study:

H1: There is a significant positive impact of FinTech adoption on banks' sustainability performance.

5) Green Finance as a Mediator between FinTech Adoption and Banks' Sustainability Performance

The integration of Fintech solutions to promote sustainable results is facilitated by green finance, which serves as an intermediary mechanism [8] And it gives banks the financial tools they need to direct resources into sustainable projects and initiatives, such as green bonds or sustainable investment funds[35]. Banks can acquire real-time environmental performance data, automate risk assessments, and enhance their investment processes by implementing fintech solutions. Green finance mediates the link by making it easier for Fintech-driven investment decisions to be in line with sustainable goals [36]. This, in turn, leads to better sustainability performance in the banking industry. Current research indicates that green financial practices in Fintech adoption also operate as a mediator for sustainable lending. This also offers recommendations for incorporating environmental factors into loan decisions[17]. Banks can enhance their capacity to identify and finance ecologically friendly projects and promote sustainability in their loan portfolios by integrating fintech skills with green finance concepts[37]. Green finance improves banks' sustainability performance by assisting them in identifying and reducing environmental hazards through the use of Fintech adoption [38]. Banks can acquire and analyze ESG-related data through the adoption of financial technology, which lays the groundwork for ESG integration [19]. Banks may efficiently evaluate and integrate ESG considerations into their decision-making processes by fusing Fintech skills with green finance frameworks [19]. This mediation enhances the integration of sustainability factors into banks' operations, enabling them to perform more effectively overall. Therefore, the following statement is the hypothesis of this investigation.

H2: Green finance mediates the relationship between FinTech adoption and Banks' sustainability performance.

B. Conceptual Framework

The Resource-Based View (RBV) theory serves as the foundation for this research. In 1991, Barney created this theory[39]. Resources that are rare, valuable, unique, and non-substitutable (VRIN) are considered sources of competitive advantage according to the RBV[40]. To gain a sustained competitive edge, one must establish unique values, which include creating a strategy that no other current or potential competitor can simultaneously copy or propose, and, finally, making sure that the strategy cannot be replicated for a long time [40], [41]. A resource-based strategy aligns a company's vision, purpose, goals, and objectives with its internal analysis to obtain a competitive edge.[42]. Organizations must stay informed about changes in the resources available to them to maintain a competitive edge in a rapidly evolving environment[40], [43].

Intangible assets comprise non-physical resources, such as copyrights, trademarks, goodwill, and intellectual property, whereas tangible assets include physical items, such as machinery and goods [40]. Theory offers valuable insights into how formal and informal institutions, as well as internal resources, influence environmental and sustainability projects across various fields, including green finance.

Green funds should be distributed efficiently, sectors with the greatest sustainable performance gains should be prioritized using RBV, industrial sustainability should be promoted, and the 2030 Sustainable Development Agenda should be supported[41]. RBV is the best strategy for gaining a competitive advantage by giving green resources priority[39]. Based on past empirical studies and the hypothesis, the theoretical framework of the study is as follows:

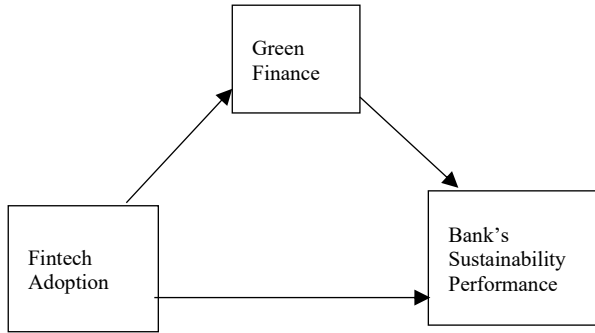


Fig. 1 Conceptual Framework

B. Methodology

Positivism is an appropriate research philosophy for this study because it enables the testing of hypotheses on how the adoption of green finance and fintech affects the sustainability performance of Sri Lankan banks. The deductive method was selected as the research approach, and the choice is a monomethod.

To investigate the connections between fintech adoption, green finance, and banks' sustainable performance, a cross-sectional research approach was used. Seven items were specifically modified [44] to highlight various aspects of the adoption process and perspectives on fintech in the banking industry. The five items used to evaluate green finance [39]. Nine criteria are used to evaluate the bank's sustainability performance [39], [45]. These questions were selected because they were pertinent and aligned with the study's goals and theoretical framework. Every item was evaluated using Chen et al.'s "5-point Likert scale," where 01 denotes "strongly disagree" and 05 represents "strongly agree" based on the existing Literature [39] Before finalizing the questionnaire for the survey, the authors discussed it with the head of sustainable managers in both banks to assess the content validity of the survey instrument.

Table 1: Structured Questionnaire

VARIABLES/DIMENSIONS/INDICATORS	
Banks' Sustainability Performance (BSP)	
BSP1	My bank improves banks' compliance with environmental standards
BSP2	My bank reduces energy consumption in our bank
BSP3	My bank reduces paper usage and other materials
BSP4	My bank improves the revenue and market share of our bank
BSP5	My bank decreases the operational expenditure of our bank
BSP6	My bank improves resource management efficiency in our bank
BSP7	My bank has a positive effect on the image of our bank
BSP8	My bank maintains a better relationship between the community and stakeholders
BSP9	My bank increased compliance with applicable social laws and regulations
Fintech Adoption (FA)	
FA1	My bank uses fintech regularly at our organization
FA2	My bank is using fintech for merchant services payments
FA3	My bank is using fintech for salary payments of employees
FA4	My bank is using fintech for government payments
FA5	My bank uses fintech for microfinance and crowdfunding
FA6	My bank is using fintech for loan payments
FA7	My bank is using fintech for insurance payments
Green Finance (GF)	
GF1	My bank tries to increase its investment in sustainable industrial growth
GF2	My bank has increased its investment in recyclable resources
GF3	My bank is actively working to increase its investment in waste management
GF4	My bank raises its investment in advancing the green industry
GF5	My bank is expanding its investment in alternative energy resources

III. RESULTS AND DISCUSSION

C. Sample Collection

Out of five systematically important banks, one state-owned and one private bank were chosen for the sample due to the banks' internal policies related to the data restriction. Our considered banks are the Bank of Ceylon (BOC) and Hatton National Bank (HNB).

D. Sampling

A thorough understanding of the dynamics at work in financial institutions is also ensured by incorporating participants from various managerial hierarchy levels (junior level management, Mid-level management, senior level management, top-level management), which adds depth and richness to the study. Due to its accessibility and practicality, convenience sampling was selected as the sampling method, resulting in a sample size of 228 individuals out of a total population of 807.

Data is gathered using a cross-sectional time frame, and it examines data on a single movement rather than a longer time frame[46]. Because it provides a comprehensive view of Sri Lanka's current green initiatives and fintech adoption scenarios, a cross-sectional analysis was the most appropriate temporal

horizon for this study. From February to April of 2025, an online survey form was used to collect data. Online surveys are a practical and effective way to gather data, as they allow respondents to respond at their convenience and facilitate the quick collection of a sizable and varied dataset.

E. Sample Analysis

According to our selected sample, 47% of female and 53% of male employees are represented in our sample. Considering their education level, 68.7% represent those with a bachelor's or master's degree. Most of the responding managerial employees have more than five years of working experience in the industry.

F. Data Analysis

In this study, we analyzed 228 valid responses from bank managerial employees using SPSS software to conduct a comprehensive analysis. Before testing the hypothesis, we conduct several statistical tests to ensure the validity and reliability of the dataset. First, Missing values were examined and ensure the completeness of the dataset. Outlier analysis was used box plot, and some adjustments were made to avoid it.

Table 2: Model Summary [Source: SPSS Result Output]

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.460	1	33.460	146.093	.000 ^b
	Residual	51.762	226	.229		
	Total	85.222	227			

a. Dependent Variable: SBP_Fin

b. Predictors: (Constant), FA_Fin

Table 3: ANOVA Table [Source: SPSS Result Output]

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.627 ^a	.393	.390	.47858

a. Predictors: (Constant), FA_Fin

Normality was assessed through skewness and kurtosis values, all of which fell within acceptable thresholds, indicating a normal distribution. Multicollinearity was tested using the Variance Inflation Factor (VIF) values, which confirmed the absence of multicollinearity. Linearity and homoscedasticity were examined through residual plots, which demonstrated linear relationships and constant variance, respectively, across all constructs. Next, test Harman's single-factor test, and a value below 50% indicates no significant common method[47]. KMO and Bartlett test confirm that this data set indicates adequate sampling and sufficient variable correlation. Furthermore, internal

consistency reliability was assessed using Cronbach's Alpha among all key factors. All three key constructs demonstrated high reliability, with Cronbach's Alpha values as follows: Green Finance (GF) = 0.865, Banks' Sustainability Performance = 0.906, and Fintech Adoption = 0.888. Those factors confirmed strong reliability with an exceeding 0.7 threshold[48].

Table 4: Coefficient Table [Source: SPSS Result Output]

Model		Coefficients ^a			Sig.	Collinearity Statistics	
		Unstandardized Coef.	Standardized Coef.	t			
		B	Std. Error	Beta		Tolerance	VIF
1	Constant	1.67	.195		8.591	.000	
	FA_Fin	.608	.050	.627	12.087	.000	1.000

a. Dependent Variable: SBP_Fin

This SPSS result represents the positive direct relationship between fintech adoption and banks' sustainability performance. To test the first hypothesis, we conducted a simple linear regression analysis. When analyzing this SPSS result, the regression model demonstrated a moderately strong relationship, with an R value of 0.627. It reflects a substantial correlation between independent and dependent variables. The R² value is 0.393. It indicates that approximately 39.3% of the variance in Sustainability Bank Performance (SBP_Fin) can be explained by Fintech Adoption (FA_Fin) [49]. The model's F-statistic was 146.093 with a significance level of $p < 0.001$. This confirms that the model is statistically significant, and that FA_Fin is a meaningful predictor of SBP_Fin. The unstandardized regression coefficient (B) for FA_Fin was 0.608, with a standard error of 0.050 and a t-value of 12.087 ($p < 0.001$). The corresponding standardized beta coefficient was 0.627. This SPSS result reflects that Fintech Adoption (FA_Fin) has a significant and strong positive effect on Sustainability Bank Performances (SBP_Fin). This represents that banks are more adept at advanced fintech tools, such as digital banking, AI-powered services, and blockchain applications. And Sustainability Banking Performance improves considerably. Further, multicollinearity diagnostics showed a Tolerance value of 1.000 and a VIF of 1.000. It confirms that no multicollinearity was present in the model [50]. These results provide strong empirical support for H1, validating that fintech adoption leads to improved environmental, social, and economic performance in banking institutions. Using Hayes' PROCESS macro (Model 4) with 5,000 bootstrap samples and 95% confidence intervals, and evaluate the mediating role of green finance (GF_Fin) and its relationship with fintech adoption (FA_Fin) and banks' sustainability performance (BSP_Fin). First, the effect of fintech adoption on green finance was tested.

It is a significant regression coefficient of 0.5867 ($p < 0.001$), indicating that fintech adoption positively affects green finance practices.

Next, the model examined the mediating effect of fintech adoption and green finance on sustainability performance. Both variables significantly predict the sustainability performance of Banks, with the direct effect of fintech adoption reduced to 0.2968 ($p < 0.001$). It reflects that green finance reflects a partial mediation between independent and dependent variables. Green finance had a strong, significant effect (coefficient = 0.5308, $p < 0.001$). It highlights the key role in linking fintech to banks' sustainable outcomes. The indirect effect is 0.3114, with a bootstrap confidence interval of 0.2360 to 0.3906 [51]. These values confirm the mediation effect as statistically significant and support Hypothesis 2.

In conclusion, this section provides strong statistical support for the proposed framework, reflecting that fintech adoption improves banks' sustainability performance both directly and indirectly through green finance.

G. Discussion

The purpose of this study is to investigate the relationship between Fintech Adoption and Bank Sustainability Performance, with Green Finance as a mediating variable. The model was developed using the Resource-Based View (RBV) theory, confirming both Hypotheses 1 and 2 from the SPSS result analysis.

The first hypothesis (H1) proposed that fintech adoption has a positive impact on sustainability performance. Regression results confirmed this with a standardized beta coefficient and an R^2 value indicating that Fintech Adaptation explains 39.3% of the variance in Bank Sustainability performance. This confirms that digital innovations such as mobile banking and AI tools improve operational efficiency and reduce environmental impact. Significant empirical evidence supported Hypothesis H1, which proposed that FA has a favorable effect on banks' sustainable performance (SP), which is consistent with earlier studies[4], [38], [53], which emphasizes the critical role that FA plays in boosting banks' sustainability. According to RBV theory, these technological capabilities are value created for bank customers, and those rare resources provide a competitive advantage when strategically utilized. In the Sri Lankan context, banks such as HNB and BOC have adopted digital solutions, including HNB SOLO, BOC Smart Pay, and online and mobile banking services (e-banking statements). Those practices promote paperless banking, digital onboarding, and environmentally friendly financial services. These innovations not only reduce resource use but also enhance customer access and financial inclusion, and fintech enhances sustainability through greater efficiency and reduced emissions.

The second hypothesis (H2) suggested that Green Finance mediates the relationship between Fintech

Adoption and Bank Sustainability Performance. This was tested using Hayes' PROCESS macro, and these results confirmed a significant indirect effect of 0.3114, with a bootstrapped confidence interval that did not include zero. Fintech Adoption was a significant predictor of Green Finance ($B = 0.5867$), and both Fintech Adoption ($B = 0.2968$) and Green Finance ($B = 0.5308$) significantly influenced Bank Sustainability Performance. It means that Green Finance partially mediates the relationship [6]. Theoretically, this supports RBV's assertion that when internal capabilities, such as fintech, are linked with strategic mechanisms like green finance, overall organizational performance improves. In Sri Lanka, banks such as HNB and BOC have integrated fintech tools into their sustainable lending practices, including green bonds, green savings, and renewable energy financing programs, demonstrating how technology facilitates environmental accountability.

1) Managerial implications

These findings provide valuable insight for banking managers in Sri Lanka. First, it provides fintech adoption as a strategic enabler of sustainability and should not be treated as a digital transformation tool [31],[54]. Managers should expand digital banking platforms and AI-powered services, while promoting environmental efficiency and social inclusivity. Second, fintech adoption should not be an isolated effort; it should be aligned with the green finance strategies of banks. Banks should develop green financial products such as sustainability-linked loans, ESG-based investments like renewable energy projects, and green bonds. These offerings can be enhanced through the use of fintech tools. Fintech tools can be used for crowdfunding green projects, enabling real-time risk assessments and data analytics. Furthermore, managers must align their green fintech strategies with national policies, such as the Central Bank of Sri Lanka's Sustainable Finance Roadmap. This alignment will not only ensure compliance but can unlock incentives and funding opportunities. Finally, banks should establish cross-functional teams that integrate sustainability, digital innovation, and credit operations. When banks implement an integrated strategic approach, they can position their brand in the industry, gain a competitive advantage through operational efficiency, and enhance their reputation.

In summary, fintech adoption directly affects improving banks' sustainability performance and does indirectly through the adoption of green finance practices. Overall, these capabilities provide a strong foundation for banks to advance their environmental and social agendas, particularly within emerging markets like Sri Lanka.

2) Theoretical Implications

This study contributes to the theoretical conversation by extending the Resource-Based View (RBV) framework to the intersection of sustainability performance, green finance, and financial technology (fintech) in the banking industry. Internal resources that

are valuable, rare, unique, and non-substitutable (VRIN) are the source of competitive advantage for businesses, according to the RBV. According to this study, in the context of contemporary banking, fintech capabilities—such as mobile applications, digital payment systems, and analytics driven by artificial intelligence—are strategic assets that meet these requirements. The results show that allowing banks to reduce paper use, boost energy efficiency, and expand financial inclusion directly improves sustainability performance through fintech adoption. Furthermore, through strategic financial tools such as green bonds, sustainable loans, and ESG-aligned investments, green finance's mediating role demonstrates how these technological advancements can align with sustainability objectives.

By demonstrating how integrating digital and green capabilities generates synergistic value, this mediating impact supports the RBV viewpoint. By combining environmental and technological resources into a single theoretical framework that explains sustainable performance, the study contributes to the existing body of knowledge. This study also helps to contextualize RBV theory in Sri Lanka, an emerging market with different regulatory demands and resource constraints compared to industrialized nations. It demonstrates how banks in these settings can utilize fintech and green financing to meet sustainability standards while also becoming more resilient and differentiating themselves in a competitive market. As a result, the study provides a nuanced perspective on the application of RBV in the digital transformation of financial institutions.

III. CONCLUSION

The purpose of this study is to analyze the mediating role of green finance in the relationship between fintech adoption and sustainability performance in Sri Lankan banks. The Resource-Based View (RBV) is used as the theoretical foundation for this study. The findings acknowledge that fintech adoption significantly enhances banks' economic, social, and environmental performance. Green finance partially mediates this relationship between both independent and dependent variables. It reflects the value of integrating digital innovation with sustainable finance. Theoretically, the study extends RBV by positioning fintech and green finance as strategic internal resources that contribute to long-term competitive advantage. Practically, the study offers guidance and suggestions for banking leaders to focus on fintech as a driver of sustainability through coordinated green finance strategies, rather than merely as a digital tool. These insights are particularly valuable for developing economies like Sri Lanka, due to these Banks are facing operational and regulatory challenges. Overall, this study emphasizes the importance of "green fintech" in shaping sustainable banking practices.

A. Future Direction

Future studies suggest expanding this model by incorporating Financial Literacy and Regulatory

Support as moderating variables and examining how those variables influence the effectiveness of fintech adoption on sustainability outcomes in the Sri Lankan context. Our model may have overlooked additional factors that could have an impact on these relationships by focusing only on the direct and indirect effects of FA on BSP. To enhance the comprehensiveness of the model, future studies should incorporate additional variables, including financial resources (FR), technological infrastructure (TI), and regulatory frameworks (RF). The methodology used in this study was quantitative. Future research may employ a mixed-methods approach, integrating quantitative and qualitative methods, to better understand the complexities of the relationships under study.

B. Limitation

This study is limited to the banking industry in Sri Lanka and does not consider other financial institutions. And data was collected from only two systemically important banks in Sri Lanka, as other key banks declined participation due to internal data confidentiality policies. Those conditions may limit the generalizability of the findings. Our ability to conclusively prove our reliance on cross-sectional data limits our ability to establish causation. Conducting longitudinal research would provide a deeper understanding of the temporal dynamics at play and more fundamental insights into how the variables' associations change over time.

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Impact of Employees' Intercultural Competencies on Job Performance. A Case Study of a Sri Lankan Banking Sector

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Abstract- This study investigates the impact of intercultural communication competences on job performance among bank employees in Sri Lanka, addressing a significant research gap in the Sri Lankan banking context. Despite the increasing multicultural nature of Sri Lankan banking environments, limited empirical evidence exists on how intercultural skills of banking employees influence employee effectiveness and organizational outcomes. The problem arises from the sector's reliance on Western-centric studies and the underutilization of formal intercultural training, which hampers the full potential of a diverse workforce. The aim is to explore the relationship between intercultural competencies—such as cultural sensitivity, communication skills, adaptability, and cultural empathy—and job performance in Sri Lankan banks.

The study's population comprises approximately 52,263 employees in government and public commercial banking sectors, with 100 participants selected through convenience sampling based on age (20–55 years) and willingness to participate. Data collection involved online surveys with data analysis, including multiple regression, correlation, and descriptive statistics, complemented by reliability and validity assessments.

Key findings reveal a significant positive correlation between intercultural competencies and job performance, notably in interpersonal skills and team effectiveness. Interestingly, a positive relationship between cultural uncertainty and performance was observed, suggesting that comfort with ambiguity fosters adaptability and innovation. The results imply that enhancing intercultural training can improve customer satisfaction, reduce conflicts, and increase employee engagement. Practically, banks should prioritize targeted intercultural development initiatives to harness workforce diversity, leading to improved service quality and organizational performance. The study contributes valuable localized insights, emphasizing the strategic importance of intercultural competence in the evolving Sri Lankan banking sector.

Keywords—Intercultural competencies, Job Performance, Banking sector, Employees

I. INTRODUCTION

At present, globalization is pervasive in all aspects of life. With this increased connectivity across the world, there is also an increasing presence of diversity in the workforce of organizations and customers. Multicultural teams comprise individuals representing different national and cultural backgrounds working together towards a shared goal [1]. Cultural diversity in the workforce brings new perspectives and ideas to the status quo and improves the performance of the team and the wider organization [2]. In this context, effective management of diversity among the workforce, including cultural diversity, is a source of competitive advantage to organizations [3]. These multicultural teams are also, however, exposed to problems and obstacles like subtle cultural differences and ethnocentrism when working in culturally diverse workplaces [1]. The banking sector in Sri Lanka has seen a significant evolution in customer diversity over recent years. Traditionally dominated by a narrow demographic, the sector has broadened its reach to accommodate a more varied clientele. Sri Lankan banks are expanding their services beyond urban centers to cater to rural and semi-urban areas. This expansion includes the introduction of mobile banking and rural branch networks to reach underserved communities. The range of services has broadened to include products for both high-net-worth individuals and lower-income groups. This includes microfinance options for small-scale entrepreneurs and savings products tailored to various income levels. There's a growing focus on serving different age groups and life stages. For instance, banks are offering specialized products for the youth, such as student loans and digital banking solutions, as well as for retirees, including pension accounts and investment options. Sri Lanka is home to various ethnic groups, including Sinhalese, Tamils, and Muslims, among others. Banks are increasingly tailoring their products and services to accommodate cultural and linguistic differences, including providing services in multiple languages and supporting community-specific financial needs. As digital banking becomes more prevalent, there is an increasing emphasis on reaching tech-savvy customers who prefer online and mobile banking solutions. This

shift is also helping to include tech-savvy younger generations and expatriates who need access to banking services from abroad. Banks are also focusing on gender inclusivity, with products and initiatives aimed at empowering women, including tailored financial literacy programs and support for women entrepreneurs. Overall, the Sri Lankan banking sector is actively working to address and embrace its growing customer diversity, adapting its offerings to better serve a broader and more varied population.

Job performance is one of the most important variables in human resource management as a predictor of human development. Job performance is generally what a person does at work. Employee performance significantly enhances an organization's growth and profitability [4]. The success of the banking sector relies on motivated employees, constant information exchange, and fulfilling employee needs and wants to enhance skills, knowledge, performance, and job satisfaction. Various researchers are attempting to construct accurate measures of job performance, which is still an incomplete task. The nature, complexity, and different stages of a job can affect the overall performance of employees. Definitions of managers' job performance have evolved from a fragmented literature. [5], [6] defined managers as 'an individual who achieves enterprise goals through the work of others. Managers are responsible for the control or direction of people, a department, or an organization. This study seeks to address the existing research by identifying the dimensions that underlie managers' performance. Managers' performance consists of multiple dimensions, and it is necessary to measure these dimensions, including contextual and task performance. The study also aimed to determine if the managers' performance dimensions can be generalized across different occupations. [7].

Intercultural communication competence, the ability to communicate effectively in a multicultural setting, allows members of teams to understand and empathize with cultural differences [8]. Moreover, learning communication skills has gone beyond the exchange of information. It mostly focuses on establishing relationships. Further, intercultural communication competence could be delineated along several dimensions. These dimensions have been shown to affect the performance of culturally diverse teams differently [8].

A. Research Problem

Globalization has accelerated the integration of diverse cultures in every facet of business operations. In today's interconnected world, organizations, especially in the banking sector, face increasing cultural diversity among both their workforce and clientele. Multicultural teams bring new perspectives and innovative ideas that can boost team performance [1]. More recent studies [9],[10] have further emphasized that effective management of cultural diversity provides organizations with a competitive edge by fostering enhanced problem-solving, innovation, and customer service.

In the Sri Lankan banking context, the sector has evolved from serving a relatively homogeneous customer base to addressing a more diversified market. Banks are now extending their services into rural areas, offering digital banking solutions, and tailoring products for various demographic segments. Bank employees in Sri Lanka are encountering significant challenges in performing their tasks within culturally diverse teams and with a diverse customer base. Despite possessing high levels of human capital, including specialized skills and knowledge, the performance of these employees in multicultural settings remains suboptimal.

[11] highlights that while numerous articles discuss sales performance, few specifically focus on frontline employees in the banking sector. [12] examined the relationship between intercultural communication competence and job burnout among employees. Another study identified that intercultural communication motivation (ICM), which is a specific component of intercultural communication competence (ICC), significantly contributed to job satisfaction among global workers in a multinational organization. This research highlights that while some aspects of ICC (like motivation) have been studied in relation to job performance indicators such as satisfaction [13]. A significant association was found between ICC (knowledge-based and skill-based attributes) and intercultural communication effectiveness, which is often linked to job performance. There is a notable lack of research that focuses on the whole spectrum of intercultural communication competencies. While numerous studies have explored selected components of intercultural competencies (e.g., motivation, knowledge, skills) rather than examining the full spectrum of competencies outlined in comprehensive ICC models. There is a notable gap in research specifically examining their impact on job performance, particularly within the banking sector. Although intercultural competencies such as cultural awareness, communication skills, and adaptability are widely recognized as critical for effective cross-cultural interactions, their direct influence on the job performance of employees in banking remains underexplored. This lack of focused research is significant given the sector's increasing need for employees to navigate diverse customer interactions and collaborate within multicultural teams.

The study will attempt to identify dimensions of intercultural communication competence that will influence an employee's job performance in the culturally diverse Sri Lankan banking sector.

B. Research Questions

1. Does the intercultural communication competence of Sri Lankan bank workers impact their job performance in a multiculturally diverse setting?

1.1 How does the interpersonal skill influence on job performance?

1.2 How does team effectiveness influence on the job performance?

1.3 How does cultural uncertainty influence on the job performance?

1.4 How does cultural empathy influence on job performance?

C. Significance of the study

This study is significant for several reasons. First, the researcher adopts the intercultural communication competence model (ICC) to investigate the relationship between the full competencies and employee's job performance. This study offers valuable information for researchers regarding the ways in which workers' job performance and overall effectiveness are impacted by their capacity to navigate and interact with varied cultural environments. Second, the study also adds to the larger body of knowledge on how intercultural competencies of frontline bank workers directly interact with multiculturally diverse customers. Third, this study's focus is on the banking industry of Sri Lanka, which is a multicultural setting. Covering these comprehensive dynamics may demonstrate how intercultural competencies improve customer service, customer satisfaction, teamwork, communication, and performance. This information is critical for creating training programs that are specifically targeted, refining recruitment tactics, and promoting inclusive workplace policies.

II. . LITERATURE REVIEW

A. Job Performance

Although the standard metric in academic studies is that performance involves actions resulting from the actions and what employees gain from their actions and behavior, there have been numerous attempts over the past few decades by scholars to explain and clarify the conceptualization of job performance [14]. Performance is the degree to which an organization's goals, objectives, vision, and mission, as articulated via the development of its business strategy, are realized through the implementation of a program of activities. Employee performance has a big impact on an organization's success, and organizational abilities in managing employee performance are one factor that determines how well an organization performs [15]. Efficiency, teamwork skills, and the amount and quality of work produced are frequently used to measure job performance. Over the past few decades, competencies have been a common foundation for evaluating job performance in many organizations [15]. Analysis of job performance is based on the skills and knowledge of the individual performing the job as well as behavioral characteristics.

[16] distinguished between two types of job performance: task performance and contextual performance. Accordingly, task performance essentially refers to an individual's competency with which one carries out activities that constitute the company's "technical core," while contextual performance includes activities that do not contribute to the technical core but serve as supporting factors to the social, organizational, and social environment in

which organizational objectives are pursued. According to recent studies, good intercultural communication improves task and contextual performance [17][18].

B. Cross cultural communication competence

Cross-cultural communication in a culturally varied workplace, particularly in multinational corporations, has a number of challenges that are constrained by cultural boundaries and filters. The capacity to think, recognize differences, handle situations appropriately, and develop successful communication in the most appropriate manner with people from various cultures in a multicultural setting is referred to as intercultural communication competence (IC)[19]. Intercultural intelligence demonstrates a person's capacity to receive, realize, and respond to these varied cues in order to work across cultures effectively. It implies that individuals with higher levels of intercultural competence are more able to understand different aspects of cultures, such as languages, traditions, norms, cuisine methods, etc. Eventually, people with higher IC show high responsiveness with more respect for culturally diverse people, and they react to unusual or curious situations and behaviors without displaying obvious or perceptible discomfort and politely apply their understanding of other cultures to anticipate different expectations in a variety of circumstances [20]. It suggests that one of the key components of cultural intelligence is the willingness to treat others with respect regardless of their cultural background. More effective cross-cultural communication is the result of cultural intelligence. Good personal adjustments, good interpersonal relationships with culturally different people, and completion of task-related goals are the characteristics of effective intercultural communication [21]. Thus, we would anticipate that cultural intelligence would be based on personal relationships and task efficacy results.

[22] showed that metacognitive and behavioral cultural intelligence were directly correlated with contextual and assignment-specific performance. Another study with academic expatriates found that psychological capital, when combined with higher cultural intelligence, leads to better work performance [23]. The managerial importance of these abilities in multicultural workplaces was highlighted by a study of Saudi Arabian hospital employees in the banking and service sectors, which found that all facets of cultural intelligence significantly impacted job performance [24]. A recent regression-based study using a global workforce sample found that cultural intelligence enhances work adaptation, job satisfaction, and overall performance [25].

C. Theoretical background

1) Cross cultural communication competence model

[8] argue that high intercultural communication competence has a direct and advantageous impact on managers' capacity for making decisions and

addressing problems. They have introduced a cross-cultural competence model, and it includes four dimensions: interpersonal skills, team effectiveness, cultural uncertainty, and cultural empathy. This model reflects the argument that the cross-cultural communication competency includes not only knowledge of the culture and language but also affective and behavioral abilities, including charisma, empathy, and the capacity to control fear and uncertainty [26].

III. METHODOLOGY

This explanatory study views reality and grants assumptions using the positivistic philosophy. Following the deductive approach, the hypothesis will be developed based on ICC model and the previous literature. They were tested using empirical data.

A. Conceptual framework

The conceptual framework of this study indicates the relationship between the intercultural communication competencies of Sri Lankan bank workers and job performance. Four primary communication competencies have been identified based on existing literature on intercultural communication competencies: Interpersonal skills, Team effectiveness, Cultural uncertainty and Cultural empathy. The Cross-cultural Communication Competence Model (CCC Model) by [8] supports these four primary competencies which are chosen for this study.

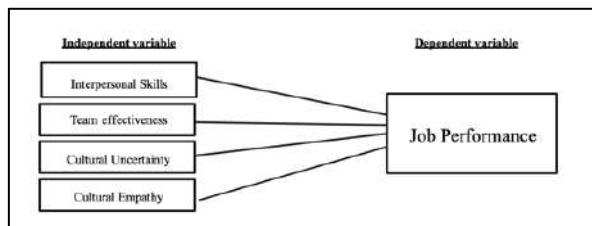


Figure 1. Conceptual framework

B. Model Specification

$$JP = \beta_0 + \beta_1 IS + \beta_2 TE + \beta_3 CU + \beta_4 CE$$

Where,

JP = Job Performance

IS = Interpersonal Skills

TE = Team Effectiveness

CU = Cultural Uncertainty

CE = Cultural Empathy

C. Hypothesis development

Interpersonal skills such as communication, conflict resolution, and relationship building are consistently linked to enhanced job performance across various sectors. Employees with strong interpersonal skills are better able to collaborate, resolve conflicts, and foster a positive work environment, all of which contribute to higher individual and team performance. [27].

H1: There is an impact of interpersonal skills on job performance.

Team effectiveness, characterized by clear goals, mutual trust, and efficient communication, has a direct and positive impact on job performance. Effective teams leverage diverse skills and perspectives, leading to improved problem-solving and productivity [28][29].

H2: There is an impact of team effectiveness on job performance.

Due to increased stress, misunderstandings, and mistakes, cultural uncertainty—which frequently results from unclear or strange cultural contexts—can have a detrimental impact on job performance. Workers who encounter a lot of cultural ambiguity might find it difficult to adjust, which could reduce their productivity. [30],[31].

H3: There is an impact of cultural uncertainty on job performance.

In diverse workplaces, cultural empathy means the capacity to recognize and value cultural differences, which improves collaboration, lowers conflict, and improves communication. Workers with a high level of cultural empathy perform better on the job because they are more flexible and productive in multicultural settings [32].

H14: There is an impact of cultural empathy on job performance.

D. Operationalization

In this section, the researcher operationalizes the factors influencing job performance in multicultural teams, particularly among Sri

Lankan bank workers. The variables and indicators are defined, along with their measures and sources.

E. Research Design

The target population for this study consists of 52, 263 bank employees working in both the government and private commercial banking sector in Sri Lanka. These individuals are the focus of the research due to their involvement in multicultural work settings and the importance of effective intercultural communication in their roles. A total of 100 participants was selected for the study. This sample size is chosen to balance feasibility with the need for a representative cross-section of employees working in the selected sectors. The sample size is consistent with similar studies, which supports its validity for exploratory research purposes. A convenience sampling method was used to select the participants. This technique is often employed in exploratory studies due to its practicality and efficiency. Primary data about intercultural communication competencies and job performance was collected from bank employees using a structured online questionnaire.

Table 1. Measurement Model

Variable	Indicator	Measure	Source
Interpersonal skills	• Ability to acknowledge differences in communication and interaction styles	5-point Likert Scale	Matveev et al. (2001); Chen (2019)
	• Ability to deal with misunderstanding		
	• Comfort when communicating with foreign nationals		
	• Awareness of your own cultural conditioning.		
	• Basic knowledge about the country, the culture and language of the team		
Team effectiveness	• Ability to understand and define team goals, roles and norms	5-point Likert Scale	Matveev et al. (2001); Cui & Awa (1992)
	• Ability to give and receive constructive feedback		
	• Ability to deal with conflict situations		
	• Ability to display respect for other team members		
	• Participatory leadership style		
Cultural uncertainty	• Ability to work cooperatively with others	5-point Likert Scale	Matveev et al. (2001); Patel (2022)
	• Ability to deal with cultural uncertainty		
	• Ability to display patience		
	• Tolerance of ambiguity and uncertainty due to cultural differences		
	• Openness to cultural differences		
Cultural empathy	• Willingness to accept change and risk	5-point Likert Scale	Matveev et al. (2001); Gudykunst (1998)
	• Ability to exercise flexibility		
	• Ability to see and understand the world from other's cultural perspectives		
	• Exhibiting a spirit of inquiry about other cultures, values, beliefs and communication patterns		
	• Ability to appreciate dissimilar working styles		
Job performance	• Ability to accept different ways of doing things	5-point Likert Scale	Mark et al. (2009); Rebecca et al. (2015)
	• Non-judgmental stance towards the ways things are done in other countries.		
	• Customer satisfaction scores.		
	• Efficiency and productivity.		

IV. DATA ANALYSIS

Collected data was analysed using Multiple regression model followed by descriptive statistics and correlation test.

Author name/s should be in 9pt size, centered, not italicized. The family name should be written as the last part of each author's name (e.g. ABC Perera or Amal BC Perera). Degrees and other qualifications should NOT be shown with the author/s name/s. Author affiliation/s should be in 9pt Italic, centered. Email address is compulsory for the Corresponding author, which should follow the affiliation lines, in 9.5pt size, non-italic.

A. Preliminary analysis

1) Demographic analysis

Employee responses from a variety of Sri Lankan licensed commercial banks, such as Nations Trust Bank PLC, Sampath Bank PLC, Hatton National Bank PLC, and others, make up the dataset. National Development Bank PLC accounting for the majority (49.61%). The next highest percentage is 10.24% for Bank of Ceylon, followed by 4.72% for Commercial Bank of Ceylon PLC, Hatton National Bank PLC. Most responders (56.69%) are between the ages of 20 and 29, with 29.13% in the 30- to 39-year-old age range. Lower percentages include 4.72% in the 40–49 age range and 9.45% in the "Above 50" category. With more than half of the responders under 30, this suggests that the workforce is primarily younger. The participants, who

range in age from 20 to 49, have a variety of titles, including senior manager, executive officer, and managerial level positions.

Undergraduate, graduate, and professional courses comprise their highest educational credentials. The respondents' gender distribution, not their pay

categories, is depicted in the pie chart. It reveals that 36.22% of respondents are women and the bulk of respondents (63.78%) are men. The majority of individuals completed a professional course (40.94%), followed by a bachelor's degree (29.13%) and postgraduate studies (15.75%). Those with A/L qualifications (7.87%), O/L qualifications (1.57%),

All four independent variables are highly unidimensional, with the first component explaining 78.81% of the variance in each case. This suggests that each independent variable can be effectively represented by a single factor, indicating strong internal consistency and a focused construct. The dependent variable shows a more multidimensional structure, with two components explaining 81.137% of the variance. This indicates that the dependent variable is influenced by at least two underlying factors, which could reflect a more complex construct (e.g., multiple dimensions or influences). The high percentage of variance explained by the first component in the independent variables and the first two components in the dependent variable suggests that the data is well-suited for factor analysis, as confirmed by the earlier KMO and Bartlett's Test results. The extracted components capture most of the variability, making the results reliable for regression model.

3) Descriptive statistics

Table 3: Descriptives

Variable	Mean	Std. Error (Mean)	Std. Deviation	Variance	Skewness	Std. Error (Skewness)
IS	3.8031	0.0852	0.9602	0.922	-1.596	0.215
TE	3.8268	0.0776	0.8748	0.765	-1.413	0.215
CE	3.8819	0.0803	0.9055	0.820	-1.535	0.215
CU	3.8281	0.0757	0.8621	0.743	-1.462	0.215
JP	3.846	0.0674	0.760	0.578	-1.035	0.215

The means of all variables are around 3.8, suggesting that respondents generally rated these constructs positively. JP (dependent variable) has the smallest standard deviation and variance (0.760 and 0.578), indicating more consistent responses compared to the independent variables. IS shows the most variability (standard deviation = 0.9602, variance = 0.922), suggesting less consistency in responses.

bachelor's degree candidates (1.57%), and undergraduates (3.15%) make up smaller percentages.

2) Validity of Data

The KMO values range from 0.811 to 0.907, all above 0.6, indicating that the data for each variable is suitable for factor analysis (with 0.811 being "meritorious" and values above 0.9 being "marvelous").

Bartlett's Test shows a significance value (Sig.) of 0.000 for all variables, rejecting the null hypothesis and confirming that the correlation matrices are not identity matrices, making factor analysis appropriate.

Table 2: Validity test

Variable	KMO	Approx. square	Chi-Sig
IS	0.907	571.651	0.000
TE	0.906	904.326	0.000
CU	0.866	735.550	0.000
CE	0.811	615.597	0.000
JP	0.896	2999.520	0.000

All variables are significantly left-skewed (negative skewness), meaning respondents tended to give higher ratings, with fewer low scores. IS is the most skewed (-1.596), while JP is the least (-1.035), though still significantly skewed. However, this level of skewness is often acceptable, especially since the KMO and Bartlett's tests already confirmed the data's suitability.

4) Correlation Test

Table 4: Correlation Analysis

Variable	Pearson Correlation	Sig. (2-tailed)
JP with IS	.455	.000
JP with CU	.594	.000
JP with CE	.593	.000
JP with TE	.553	.000

All relationships are statistically significant ($p < 0.01$), meaning the results are not due to chance. Cultural Uncertainty and Cultural Empathy have the highest correlations with Job Performance. This suggests that employees who are better at handling cultural uncertainty or who demonstrate cultural empathy tend to perform better at their jobs. Team Effectiveness also shows a strong, statistically significant correlation. Employees working in effective teams tend to have higher job performance. Interpersonal Skills show a moderate but significant correlation. Good interpersonal relationships are clearly important, but their influence on job performance is slightly less than cultural factors or team dynamics.

B. Hypothesis Testing

1) Multiple Regression

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.553	.306	.300	.6358

Sum of Squares	Sum of Square	F	Sig.
Regression	22.26	55.066	0.000
Residual	50.53		
Total	72.789		

The R Square value shows that this model explains approximately 30.6% of the variance in the dependent variable. This suggests that the model is nicely fitted.

Since $p < .001$, the regression model is statistically significant. This means that all four independent variables significantly predicts job performance.

Table 6: Coefficients

B	Standardized		
	Beta	Std. Error	Sig.
(Constant)	-0.440	.137	0.000
IS	.216	.037	0.000
TE	.288	.040	0.000
CU	.314	.041	0.000
CE	.299	.039	0.000

All coefficients are statistically significant ($p < 0.05$) at the indicating that each independent variable (IS, TE, CU, CE) has a significant positive effect on Job Performance.

Estimated regression model

$$JP = -0.440 + 0.216 \cdot IS + 0.288 \cdot TE + 0.314 \cdot CU + 0.299 \cdot CE$$

IS (0.216): For a 1-unit increase in Interpersonal Skills, Job Performance increases by 0.216 units, holding other variables constant. TE (0.288): For a 1-unit increase in Team Effectiveness, Job Performance increases by 0.288 units. CU (0.314): For a 1-unit increase in Cultural Uncertainty, Job Performance

increases by 0.314 units. CE (0.299): For a 1-unit increase in Cultural Empathy, Job Performance increases by 0.299 units.

V. CONCLUSION

A. Summary of key findings

The purpose of this study was to investigate how employees' intercultural competencies affected their performance on the job in the banking industry in Sri Lanka. The study used a quantitative approach, collecting data from banking employees. The findings suggest a significant positive impact of interpersonal skills, team effectiveness, and cultural empathy on job performance. An unexpected positive relationship between cultural uncertainty and job performance, warrants further expansion. Higher levels of cultural sensitivity, flexibility, and communication abilities among employees made them more successful in their positions, which improved customer satisfaction and operational effectiveness. Additionally, the study found that the industry underutilized intercultural training programs, indicating a possible area for improvement to further improve worker performance.

By focusing on the Sri Lankan context, this research fills a critical gap in the literature and provides actionable insights for bank management. It contributes to both theory and practice by integrating global findings with local realities.

B. Implications of the study

By providing insights on how cultural characteristics affect job performance in a non-Western setting, it closes a significant vacuum in the literature where most of the attention has focused on Western banking environments. The study emphasizes how important it is for banks to spend money on intercultural training as a tactical instrument to enhance customer interactions and employee performance. Furthermore, it offers a framework for further study to investigate intercultural competences in many industries and cultural contexts, expanding our knowledge of their influence on organizational success.

The study's conclusions highlight the growing significance of intercultural competencies in the banking industry, where workers must increasingly negotiate a dynamic and varied workplace. Banks are encountering employees, customers, and partners from diverse cultural backgrounds as globalization continues to influence business processes and client demographics. Effective communication, conflict resolution, and cross-cultural collaboration are no longer merely "nice-to-have" skills; rather, they are now critical success factors.

Additionally, the study indicates a substantial relationship between team efficiency and intercultural competence. Workers with higher intercultural competency scores were more at ease offering helpful criticism to coworkers from other cultural backgrounds, assisting with problem-solving techniques, and preserving harmonious team dynamics in the face of disagreement. These results suggest that

intercultural training may improve productivity, team cohesion, and the workplace atmosphere. This could be accomplished by combining workshops, in-person and online training sessions, and experiential learning activities that enable staff members interact with people from different cultural backgrounds. Incorporating assessments of intercultural competencies into recruitment procedures can ensure hiring of employees better suited to diverse settings, thus enhancing team effectiveness and service quality. In a multicultural team, where varying work ethics and communication styles can frequently result in miscommunications, intercultural competencies aid in negotiating these differences and promote more productive and peaceful cooperation.

Intercultural competencies also have a significant impact on consumer satisfaction. Employees with the ability to interact with people from different cultural backgrounds will probably be in a better position to meet the needs of the increasingly diversified clientele that banks service. In the highly competitive banking industry, this might lead to increased market share, better client loyalty, and improved brand reputation.

The critical role that leadership plays in promoting intercultural competencies in the workplace was another noteworthy finding of the study. Leaders can foster a culture that motivates staff members to pursue continuous learning and development by setting an example of inclusive behaviour and highlighting the importance of diversity. Employees at all levels of a bank are likely to acquire similar views towards cross-cultural interactions if the bank fosters cultural inclusion across its leadership teams. Additionally, mentor-ship programs, in which senior staff members who possess exceptional intercultural competency advise others, may also be a successful means of cultivating these abilities.

C. Limitations and future research areas

Limitations include the use of a non-probability sampling technique and reliance on self-reported data. Future studies could use larger, randomized samples and incorporate qualitative methods to further elucidate the dynamics of cultural uncertainty. By offering empirical support for the significance of intercultural competencies in the banking industry, especially in the setting of Sri Lanka, this study adds to the body of current material.

Looking ahead, the demand for strong multicultural competencies will increase as technological innovations like artificial intelligence and machine learning become increasingly integrated into financial operations. Intercultural skills will be essential for both in-person and virtual interactions as banks depend more and more on automation and digital platforms. This is because cultural differences can appear in a variety of ways in digital settings. In this regard, future studies ought to concentrate on how intercultural competency interacts with new technical developments and how it might be used to enhance consumer experiences in a society that prioritizes digitization.

In a marketplace that is becoming more globalized and culturally varied, banks that place a high priority on intercultural competencies will be better positioned to prosper. The way these competencies are changing in response to global banking trends, technology breakthroughs, and the shifting demographics of the workforce should all be the subject of future research.

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The Impact of Green Packaging of Fast-Moving Consumer Goods on Customer Purchase Intention – A Special Reference to Supermarkets in Colombo District

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Abstract— The main purpose of this research study is to investigate the impact of customer purchase intention on fast-moving consumer goods in supermarkets in the Colombo district. To achieve the main purpose of this study has three research questions: -What is the relationship between green packaging and customer purchase intention? How is the customer's awareness of green packaging? How do demographic factors of consumers affect the purchase intention of green-packed FMCG? This study only investigated the consumers who use green-packaged fast-moving consumer goods in supermarkets in the Colombo district. The research model is created to investigate the relationship between three key independent factors (willing to pay, environment concern and customer attitudes) and customer purchase intention (dependent variable). The main aim of this study identifies the relationship between green packaging and customer purchase intention. 322 responses from fast-moving consumer goods consumers who utilize green packaging served as the basis for statistical analysis. The reliability of the scale was tested using standard statistical techniques. The hypothesis was tested using regression analysis. Physically distributed questionnaires were used to capture primary data and secondary data were collected through articles, books. Data obtained were analyzed using SPSS version 26 (Statistical Analysis Tool) and Microsoft Excel.

Keywords- Green packaging, Customer purchase intention, Customer attitudes, Environment Concern, Fast Moving Consumer Goods

I. INTRODUCTION

Environmental pollution is a main pressing problem because of globalization and industrialization. Due to the increase of environmental pollution, in the past two decades, the world community has given a lot of attention to the environment similar to many other Asian nations, Sri Lanka is experiencing rising levels of air hazardous waste, exposure to noisy traffic, high levels of waste disposal and rapidly decreasing landfill space in most urban areas [1]. As environmental risks become a concern for local governments and residents across Asia, the power of "going green" is already spreading there. Environmental contamination is a

very complicated issue nowadays and many environmentally concerned people are becoming more and more aware of this [2].

Eco-unfriendly packages can pollute the environment in various ways. The biggest problem with them is the use of environmentally unfriendly packaging materials [3]. Packages that are not environmentally friendly are very long-lasting environmental pollutants. Unfriendly business practices have led to increasing environmental concerns. Therefore, many organizations are implementing environmentally friendly concepts as green supply chain practices. Green supply chain techniques are still a recent phenomenon in Sri Lanka. Companies are making a sincere effort to green their supply chains by implementing green concepts throughout their organizations and supply chains. Green packaging is a key component of green supply chain practices.

Green packaging is often referred to as eco packaging, eco-friendly packaging and sustainable packaging. Eco-friendly packages are the best alternative to wasteful packaging materials like plastic. Green packages are made from recyclable and biodegradable substances. Their manufacturing techniques are used to reduce energy. Green packages minimize the negative environmental impacts. Mushroom packaging, organic fabric, recycled cardboard and cornstarch packaging are examples of green packaging. Australia produced 50 million tons of waste in 2016, of which only 58% was recycled. Packaging pollutes the environment and adversely affects it in various ways, including the production of solid, liquid and gaseous pollutants [4]. Packaging supports businesses' marketing initiatives [5]. The packaging type could boost an organization's brand recognition and attract a new customer base. Green packaging and consumer purchase intention are influenced by several key factors. Such as a person's perspective on eco-friendly packaging and their familiarity with it [4].

Regarding their purchasing intention, retailers take into account consumers' views and inclinations to pay for a specific buying activity [4]. Green purchase intention refers to the consumer's ability and inclination to choose an environmentally friendly product over conventional products when the consumer is concerned about the environment and is aware of these concerns. The global "green concept" including green economies and sustainability is becoming increasingly popular and many nations are beginning to embrace it. As a result of the consumer's acquisition of green information, their view of the world changes, which affects their behavior and ultimately their purchasing intentions [4]. Today's consumer purchase intention is tied to eco-friendly concepts. Over time, both the need for environmentally friendly products and consumer loyalty have intensified [5].

The main issue of the study is how green packaging affects consumer purchase intention of fast-moving consumer goods in supermarkets in the Colombo district. This study examined how green packaging utilizing specific criteria affects consumer purchase intentions. The main objective of this study is to identify the relationship between green packaging and customer purchase intention. This study examined consumer awareness of green packaging as well as how demographic factors affect consumers' intentions to buy FMCG with green packaging. Few studies have been conducted to examine the impact of green packaging from the consumer's perspective. The findings of recent studies frequently disagree with one another. As a result of heavy environmental pollution in the last two decades, many countries have faced high air pollution, global warming and various diseases. Nowadays, many countries and people are moving fast to adopt green concepts. Compared to European countries Asian countries are late adopters of the green concept. Being "green" or "eco-friendly" has gained considerable popularity in recent years. Several businesses try to increase sales of their products by branding their products as "eco-friendly" [6]. Multinational corporations also are embracing the green idea in the current world and putting a lot of effort into establishing green supply chain processes inside their businesses. According to the Association of Plastics Manufacturers, the three main markets for plastics and polyethylene are packaging (39.6%), building and construction (20.3%), and automotive (8.5%) (Plastics Europe, 2014/2015). The process of globalization is still going full speed ahead but it has also created several problems [3]. The main problem with them is the packing, which isn't environmentally friendly.

Materials that can break down carbon, hydrogen and oxygen are used in eco-friendly packaging. Green packaging offers additional advantages. Such as lowering the carbon footprint, making recycling

simple and enhancing the reputation of the company. Green packaging can be reused and recycled easily. In today's market, consumers are becoming more environmentally friendly [6]. Previous researchers have investigated how green packaging affects consumer purchase intention for various industries in various countries. According to [7] examined how eco-packaging affects consumer purchase intention in the clothing industry of Pakistan. Studies on the effects of green packaging on consumer purchase intentions are extremely rare in the Sri Lankan context.

II. LITERATURE REVIEW

The following section outlines general (non-formatting) guidelines to follow. These guidelines are applicable to all authors and include information on the policies and practices relevant to the publication of your manuscript.

A. Theory of Planned Behavior

Ajzen developed the Theory of Planned Behavior (TPB) in 1985 by adding a new predictor to reasoned action (TRA) that was consistent with the predictors in the theory [7]. A more comprehensive model that allows social psychologists to predict behavioral intention is the Theory of Planned Behavior (TPB), an extension of the Theory of Reasoned Action [8]. The theory of planned behavior gives us a perfect framework to investigate the factors that influence people's decisions to engage in environmentally responsible behaviors such as recycling and it can also be used to systematically understand the various factors that influence people's purchasing behavior for environmentally friendly goods [9]. The theory proposed that behavioral intentions influence individual behavior, are primarily triggered by attitudes and subjective norms, and focus on predicting human behavior (such as purchasing or decision-making) based on circumstances or subjective context [8].

The theory of planned behavior (TPB) advances the theory of reasoned action by addressing the original model's shortcomings of dealing with insufficient voluntary control [9]. According to the TPB, the likelihood that someone will copy a behavior increases in direct proportion to how positively they feel about it [10]. The TPB has also been widely applied to understanding ethical behavior. Purchasing green or environmentally friendly products are also an ethical choice [9]. As [11] explained as, according to the theory of planned behavior, attitude is the main factor that determines whether a consumer will make a purchase and is therefore defined as "an individual's mental tendency to judge the behavior in question favorably or unfavorably. In various fields, the TPB has been used to predict intention and behavior [10]. The TPB has been used in prior studies and extended in several ways to examine consumers' purchase

intentions for green items [12]. According to the TPB, if a person has a favorable attitude toward a behavior, is accepted by others for engaging in it, and has more control over it, he is more likely to engage in a behavior [13].

The TPB has been used effectively as an explanatory aid and is frequently used to predict intentions and behavior [14]. For example, TPB has been used to study topics including green products, energy efficient items, and green hotels and restaurants. The findings of this research demonstrated the relevance and robustness of the TPB and provided strong empirical support for the theory's use in anticipating pro-environmental behavior [10]. In addition to attitude and subjective norms, TPB adds perceived behavioral control to predict purchase intention [13].

B. Green Supply Chain Management

Green supply chain management (GSCM) is one of the most important organizational concepts for mitigating environmental risks [14]. Scholars and practitioners are proposing the idea of GSCM as a potential means of enhancing environmental performance [16]. A "green supply chain" or "sustainable supply chain" refers to a supply chain that incorporates environmentally sound procedures along with standard, timely procedures [17]. GSCM was first proposed in the early 1990s, however it is currently growing in popularity as evidenced by the growth of scholarly publications in the 2000s [16].

Faced with emerging environmental challenges and intense business competition, Sri Lankan supermarket chains have recognized the importance of implementing the "green" concept in their business [15]. These environmental processes can include any number of activities, from choosing environmentally friendly suppliers to purchasing environmentally friendly materials, from developing environmentally friendly products to manufacturing them, from sustainable distribution to managing them until the end of their useful life [17]. Similar practices are followed by GSCM, but in a more creative, cost-effective, widely recognized and socially and environmentally responsible manner [18]. Green supply chain management is the use of business procedures from the acquisition of raw materials through the delivery of products or services and after-sales delivery in an environmentally friendly and green manner [19]. Traditional supply chain management (SCM) has expanded to include green supply chain management (GSCM) which takes environmental concerns into account [18].

C. Green Supply Chain Practices

Everyone is now focused on creating a sustainable and eco-friendly environment. Global warming and environmental degradation have increased because of the environmental impact of technological advancement in the modern world. As a result, people

today are more aware of the environment. Given the growing severity of environmental problems caused by human activities such as the greenhouse effect, water scarcity, air pollution, noise pollution and species extinction, it is very important to reduce the adverse effects of human activities on the environment [20]. Due to those reasons, the world is moving towards greening. The adoption of environmental sustainability and the prioritization of green supply chain practices, according to various research, can help supply chains and businesses become more environmentally friendly [21]. In the supply chain context, "green practices" is a contemporary concept that protects the sustainability of the environment [22].

Protecting the environment, mostly by reducing pollution caused by carbon footprints, is one of the main goals that businesses pursue in going green [23]. Green supply chain management practices are part of organizations that examine the environmental management efficiency of goods bought and sold, as well as the cost of waste disposal and the calculation of emissions from enterprises [24]. The term "green supply chain practices" (GSCP) is often used to refer to the various actions taken by an organization to reduce its negative impact on the environment. Supply chains work to maintain their internal sustainability and environment by having the ability to self-correct based on information from the external environment [25]. Implementing green supply chain practices primarily aims to reduce waste and carbon emissions. Customer awareness of the environment has grown during the last two decades. Due to that reasons, businesses are under increased pressure to cut back on hazardous chemicals, emissions and embrace green supply chain practices [22]. Green supply chain management practices are used to reduce waste, promote environmental conservation, develop partner collaborations, reduce costs and increase operational efficiency [24]. Green purchasing, investment recovery, cooperation with customers, green packaging, green transportation are some of the green supply chain practices [18]. Green packaging is a key factor in green supply chain practices.

D. Green Packaging

Over the past 20 years, human awareness of environmental issues has grown steadily with major economic development. People are now beginning to see how environmental changes are affecting their lives and are taking steps to combat them [19]. People are starting to demand eco-friendly products and they are more concerned about their health, wealth and environment [26]. Based on their tastes, consumers of all ages evaluate the quality of the product and its packaging [27]. Packaging is not just the attractive face of the product. Everything from shipping breakdown rates to retailer stocking decisions can affect package design [28]. According to [27] among Malaysians, there is an increasing desire for better

packaging and the function of packaging has become increasingly important in attracting consumers to purchase the product.

The global "green concept" concern, which includes green economies, sustainability and marketing initiatives, is becoming more commonly known [4]. Using materials that are least harmful to the environment and living organisms is called "green packaging" [29]. Sustainable packaging is referred to using various names such as "green packaging design", "sustainable design", "eco-design", "design for the environment" and "eco-relevant design". Further, green packaging is defined as packaging made from environmentally friendly, biodegradable or composite materials that can naturally degrade and recombine into common earth components such as carbon, oxygen and hydrogen. Green packaging, eco-packaging, eco-friendly packaging is defined as being made entirely from natural plants, recyclable or reusable, degradable and promoting sustainable development throughout its life cycle and safe for the environment as well as for people and livestock health [30]. Green packaging is recognized as a sustainable method of packaging products with a less negative impact on the environment or energy use [31]. Green packaging is being introduced primarily to safeguard both people and the environment [32].

Manufacturers are required under eco-design to create goods using minimal energy and materials, as well as to encourage the reuse, recycling and recovery of component materials and parts [25]. Sustainable packaging improves the overall well-being of society by raising consumer health protection standards, reducing package waste and minimizing environmental impact [33]. In addition to being eco-friendly in nature, green packaging is made from sustainable materials created using eco-friendly processes and energy-efficient stages [31]. The materials used to create green packaging can be divided into oxygen, hydrogen and carbon [31]. When designing green packaging, consider the use of non-toxic, safe materials, transportation efficiency, waste reduction, logistics and storage costs and consumer safety [33]. The "4R1D" principle - Reduce, Reuse, Reclaim, Recycle, and Degradable is connected to green packaging [30]. Choosing eco-friendly packaging has many benefits, including a less carbon footprint, ease of disposal, biodegradability, flexibility and versatility, safety and improved brand image, cost savings, recyclability, reuse and reduction, increased customer base, low cost and no use of plastic [31].

Green packaging has 5R'S as remove, reduce, recycle, renew, re-use. Consumers perceive green packaging and their purchase intention is significantly influenced by certain factors. Among them are, for example, attitudes towards environmental issues and familiarity with green packaging [4]. Green packaging gives customers a positive impression, thereby

developing customer loyalty and trust in the product [31]. According to [4], reusable packaging increases customer satisfaction. Packaging costs 30% per ton to recycle 10% of all high-cost products that are thrown away after use. Several key factors influence how consumers perceive green packaging and their purchasing habits. They include things like attitudes towards environmental issues and familiarity with green packaging.

E. Purchase Intention

Purchase intention is simply "what customers expect they will buy" [34]. Green purchase intention is conceptualized as a consumer's ability and desire to prioritize environmentally friendly features over conventional ones in their purchasing decisions. According to [35], the definition of perception is the act of understanding using the senses and thinking. Cognition is the intentional recognition and interpretation of sensory stimuli that forms the basis for understanding, learning and knowledge or that direct a specific action or reaction. Purchase intention is defined as consumers who are knowledgeable about a product and are prepared to research it and get feedback from other consumers are said to have made a consumer purchase choice. Consumers' perception of eco-friendly products begins to influence their purchasing decision [36].

Many factors have been shown to influence consumer choice in purchasing environmentally friendly products, including values, beliefs/knowledge, needs and motives, attitudes and demographics [37]. Purchase intention is influenced by emotional and rational evaluations of an environmentally friendly package [38]. How consumers feel about packaged goods usually influences their purchase decision [38]. A person's willingness to purchase and use environmentally friendly packaged goods is known as green packaged consumer goods purchase intention [29]. Green purchasing is a unique pro-environmental behavior that consumers engage in to show their concern for the environment. Considering how packaging affects environmental degradation is one of the many factors influencing consumer purchasing intentions today [39]. Many consumers now pay more attention to what they buy because it directly affects ecological issues.

Green purchase intention is defined as an individual's likelihood and desire to prioritize products with environmentally friendly characteristics over more conventional products when making a purchase decision [37]. An individual's willingness to evaluate and favor a green product over a traditional or conventional product throughout the decision-making process is called "green purchase intention" [40]. Egyptian consumers were asked to answer questions about their intentions to make green purchases, and the results show that their attitudes toward such purchases

can have a direct impact on both their intentions and their actual behavior [37].

III. METHODOLOGY

This chapter includes the conceptual framework of the study, the hypotheses generated within it and the methodology used to test them. This deductive nature study discusses the impact of green packaging on customer purchase intention of fast-moving consumer goods in supermarkets. The deductive technique relies on what is previously known and done on the topic of study as well as relevant ideas related to the topic to help the researcher create a hypothesis [24]. This research indicated the relationship between green packaging and consumer purchase intention on environmental concern about green packaging, customer attitudes towards eco-packaging, willing to pay for eco-packaging.

This study used a cross-sectional research design. Data from numerous cases must be collected for the cross-sectional approach. When conducting cross-sectional research, we must use two or more variables and collect all the data at the same time. The data evaluation process is done using a quantitative method. Because we chose to adopt a quantitative strategy and consequently develop a social survey, the sampling technique used in the research process is an important consideration [24]. Primary data have been gathered via a survey questionnaire. Specific information defines a significant relationship that can be predicted between variables and occurs in the desired outcome; therefore, the overall research techniques should be justified by verifying the appropriate study approach and methodology in this investigation. Descriptive statistics were used to measure all the collected data. Multiple regression analysis is used to assess the relationship between dependent and independent variables. The statistical data analysis software package SPSS, also known as IBM SPSS Statistics. This study used SPSS software version; 26. In this case, this research used SPSS Statistics, a specialized program for logical statistical analysis, to perform statistical tests.

A. Sampling Method

The initial stage of the sampling process is in which a sample is selected from a population [34]. This investigation focuses on the convenience sampling method. The convenience sampling method is a non-probabilistic sampling method. Convenience sampling will be used due to the feasibility and schedule constraints of the study.

This strategy was chosen due to the difficulty of data collection in the current situation. The researcher distributed physical surveys to consumers. The "Sample Frame" included only the top 4 supermarkets in the Colombo district including Cargills Food City, Keells, Arpico and Glomark supermarket.

IV. FINDING AND DISCUSSION

A. Correlaion Analysis

The correlation coefficient is a measure of how closely the movements of two variables are related to each other. A positive relationship can be determined if the correlation coefficient is greater than zero. If the correlation value is 0, there is no relationship between the variables, and if it is negative, there is a negative relationship between the variables. This type of study is useful when a researcher wants to find out if there are potential relationships between variables. Correlation coefficient measures the strength of the linear relationship between two variables.

A positive relationship can be determined if the correlation coefficient is greater than zero. If the correlation value is 0, there is no relationship between the variables, and if it is negative, there is a negative relationship between the variables. The values of the correlation coefficient vary from -1 to +1. To put it another way, the value cannot be greater than +1 or less than -1. +1 indicates a perfect positive correlation between the variables, and -1 means a perfect negative correlation between the variables.

Correlation between customer purchase intention and willing to pay for eco-packaged fast-moving consumer goods.

Table 3 ; Correlation between customer purchase intention and willing to pay for green packaged fast moving consumer goods

Dependent Variable	Independent Variable	Pearson Correlation	Significance of Relationship
Purchase Intention	Willing to pay for eco-packaged fast-moving consumer goods	0.902	0.000

Table 1 shows that customer purchase intention and willingness to pay for green-packaged fast-moving consumer goods in supermarkets of the Colombo district have a positive and strong relationship. Furthermore, the correlation is 90.2%. As the significance value is less than 0.01 ($0.000 < 0.01$), there is a significant relationship between customer purchase intention and willingness to pay for eco-packaged fast-moving consumer goods.

Correlation between customer purchase intention and environmental concern about green-packed fast-moving consumer goods.

Table 4 ; Correlation between customer purchase intention and environmental concern about green-packed fast-moving consumer goods

Dependent Variable	Independent Variable	Pearson Correlation	Significance of Relationship
Purchase Intention	Environment concern about green-packed fast-moving consumer goods	0.924	0.000

Table 2 shows that there is a positive and strong relationship between consumer purchase intention and environmental concern about fast-moving consumer goods in supermarkets in the Colombo district with green packaging and the relationship is 92.4%. There is a significant correlation between consumer purchase intention and environmental concern about fast-moving consumer goods with green packaging as the significance value is less than 0.01 ($0.000 < 0.01$).

Correlation between customer purchase intention and consumer Attitudes towards Green Packaged Fast-Moving Consumer goods.

Table 5 ; Correlation between customer purchase intention and consumer Attitudes towards Green Packaged Fast-Moving Consumer goods

Dependent Variable	Independent Variable	Pearson Correlation	Significance of Relationship
Purchase Intention	Consumer Attitudes Towards to Green Packaged Fast-Moving Consumer goods	0.916	0.000

Table 3 shows that there's a positive and strong relationship between customer purchase intention and consumer attitude towards fast-moving consumer goods with green packages in supermarkets in the Colombo district. The relationship is 91.6%. As the significance value is less than 0.01 ($0.000 < 0.01$), there is a significant relationship between customer purchase intention and consumer attitude toward green-packaged fast-moving consumer goods.

B. Regression Analysis

A more advanced version of simple linear regression is multiple regression analysis. Effects of changes in independent variables on the dependent variable were explained using regression analysis(32).The coefficient of correlation relates to the R value of a summary of a multiple regression model. The R value simply indicates the accuracy of the prediction of the dependent variable. R square is a statistical technique used to quantify how well a model fits the data(4).

The number of independent variables considered in the model is considered while adjusting the R square value. The coefficient of determination (R squared) shows the amount of variation in the outcome of the dependent variable that can be explained by changes in the independent variable.

Table 6 ; Regression and hypothesis testing

Model Summary			
R Square	0.875		
Adjusted R square	0.874		
Model Significance	0.000		
Hypothesis test	B Coefficient (Beta)	Significance	Accept/Reject
H1: Willing to pay for green packaged fast moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.	0.280	0.000	Accept
H2: Environment concerns for green packaged fast-moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.	0.594	0.000	Accept
H3: Customers' attitudes for green packaged fast-moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.	0.036	0.776	Reject

According to the table 4, R square value is 0.875 which is greater than 0.5. Therefore, there's a strong model fit. This R-squared value accounts for 87.5% of the variance of the dependent variable when all three independent variables are considered. All three independent variables in this model have an adjusted R squared of 0.874, which explains 87.4% of the explanatory power. This study's significant value is 0.000, which is less than 0.01 ($0.000 < 0.01$).

C. Hypothesis Testing

A statistical approach known as hypotheses testing is used to test hypothesis established using a conceptual framework. If the P value for the alternative hypothesis is less than 0.01, it is accepted. If the value exceeds 0.01 then the null hypothesis is accepted.

H1: Willing to pay for green packaged fast moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.

In the regression results, the value for willingness to pay for eco-packaged fast-moving consumer goods is less than 0.01 at a significant level ($0.000 < 0.01$). Therefore, the hypothesis is accepted.

In addition, the beta coefficient is 0.280, which indicates that willingness to pay for green-packaged fast-moving consumer goods has a 28% impact on consumer purchase intentions in supermarkets in the Colombo district.

According to the table 4, customer purchase intention of green packaged fast-moving consumer goods in supermarkets in the Colombo district can increase 0.280 units therefore willing to pay for green-packaged fast-moving consumer goods can enhance by unit 1.

H1: Environment concerns for green packaged fast-moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.

In the regression results, the value for environmental concern about green-packed fast-moving consumer goods is less than 0.01 at a significant level ($0.000 < 0.01$). Therefore, the hypothesis is accepted. In addition, the beta coefficient is 0.594, which indicates that environmental concerns for green-packaged fast-moving consumer goods have a 59.4% impact on customer purchase intention in supermarkets in the Colombo district.

According to table 4, customer purchase intention of green-packaged fast-moving consumer goods in supermarkets in the Colombo district can increase by 0.594 units therefore Environment concerns about green-packaged fast-moving consumer goods can enhance by unit H1: Customers' attitudes toward green-packaged fast-moving consumer goods have a positive effect on customer purchase intention of supermarkets in the Colombo district.

In the regression results, the value for customer attitude toward green-packaged fast-moving consumer goods is higher than 0.01 ($0.776 > 0.01$). Therefore, the hypothesis is not accepted. But Beta value of this hypothesis is positive. It is key to disproving the hypothesis that consumers are not much knowledgeable about this area.

V. LIMITATIONS AND RECOMANDATIONS

Although this research study has significant limitations, it has the potential to explore an area of further interest. This research is conducted in the Colombo district in Sri Lanka. Therefore, this research can be conducted in other cities in Sri Lanka. The population of this study was drawn from supermarkets only, but similar research could be conducted on consumers in other industries. There're many other types of packaging, but we did not research any of them; Future studies should focus on a specific type of packaging so that the findings are more realistic and companies can focus on more practical forms of packaging.

VI. CONCLUSION

After globalization, environmental pollution has become a major problem. Therefore, organizations adopt green supply chain practices for their organizations. Green packaging is one of main components of green supply chain practices. According to Singh and Pandey (2018) green packaging is defined as packaging made from environmentally friendly, biodegradable or composite materials that can naturally degrade and recombine into common earth components such as carbon, oxygen and hydrogen. This research is about how impact green packaging of fast-moving consumer goods to the purchase intention in supermarkets in Colombo district. Primary data for this research collected from 322 individuals through a physical survey and secondary data collected from previous research papers / books and articles.

RQ1. What is the relationship between green packaging and customer purchase intention?

According to the previous kinds of literature, green packaged products and customer purchase intention have a positive relationship. This study measures the relationship between green packaged products and consumer purchase intention using the variables which are willing to pay more for eco-packaged fast-moving consumer goods and environmental concern towards eco-packaged fast-moving consumer goods. Correlation analysis shows strong positive relationship with 0.902 Pearson correlation for willingness to pay and 0.924 for environment concern. Significant value for both variables are less than 0.01 (Significant value – 0.000). According to the regression analysis, willingness to pay and environment concern have a positive impact on purchase intention of FMCG in Colombo district supermarkets.

RQ2. How is the customer's awareness of green packaging?

In this research consumer awareness measures using the variable which is consumer attitudes towards green packaged goods. According to the correlation analysis of the consumer attitude variable, Pearson's correlation value is 0.916 which is 91.6%. The significance value is 0.000. That means the purchase intention of green-packaged fast-moving consumer goods and consumer attitude has a strong positive relationship. That means consumers have a positive attitude toward green packaging products. According to the hypothesis testing, the relevant hypothesis's significant value is 0.776 which is more than 0.01. Here significance value is higher than the Alpha value. Therefore, the hypothesis is rejected.

RQ3. How do demographic factors of consumers affect the purchase intention of green-packed FMCG?

The study found that consumers' purchase intentions are influenced by demographic characteristics.

According to the frequency analysis of this study, females are more buying green packaged fast-moving consumer goods than males. That means female consumers have more attention and knowledge about the concept of green packaging than males. As a percentage of the sample size, 56.5% of females are buying green-packaged fast-moving consumer goods from supermarkets in the Colombo district. From the sample size, bachelor's degree holders are buying green-packaged fast-moving consumer goods more than others who have other educational qualifications. Consumers who have a monthly income of Rs.110 000 to Rs.175 000 buy more green packaged goods than others. That means high-income consumers use products with green packaging more than others.

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Towards an Artificially Intelligent Pedagogy: A Case Study of Tertiary-Level Educators

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Abstract— In the ever-evolving technological arena, change is expected. In such a context, different fields – including pedagogy are subject to continual change. Accordingly, Artificial Intelligence (AI), has been positioning itself within this realm, and there seems to be no one unaware of AI at present. In the tertiary level education context, AI is seen in the limelight. With the objective of understanding the perception of educators and observing the manner in which pedagogy is connected with AI, this study was undertaken. The study takes a qualitative stance, using six case studies of lecturers at NSBM Green University, selected through convenient sampling. The data was collected through initial and extended interview sessions, after which it was analyzed thematically. The results yielded state that AI integration in pedagogy is a major concern. The participants reported that as educators, students need to be educated on the proper use of AI. However, it was noted that the students' over reliance on AI is quite challenging. Thus, it is highlighted that AI was positively addressed by the case study respondents. As the research study was limited to a small number of participants and a single institution, it is recommended that the study be extended to other institutions with higher numbers of participants. Nevertheless, among the educators that are reluctant to promote the use of AI, the participants of this research study were acknowledging it. Therefore, it is essential to compare the findings with other studies thereof. In conclusion, as technology continues to revolutionize education, moving towards an Artificially Intelligent pedagogy seems to be increasingly seen as a necessity.

Keywords— artificial intelligence, pedagogy, tertiary, educators, technology.

I. INTRODUCTION

Since the beginning of its existence, technology has never seized from evolving. In this tech-savvy era, the peak of technology, or even the articulation of the term being told, itself highlights one – Artificial Intelligence (AI). According to Chassignol et al. AI can be defined both as a field and a theory. AI as a field is a study area that aims at solving problems related to cognition mainly associated with the human intelligence that subsequently adapts. In theoretical terms, AI is defined as a theoretical framework that guides the development and use of computer systems with human capabilities such as intelligence and tasks that require it, including visual perception, speech recognition, decision-making, and translation between languages [1] (p.17)

At present, as Chen et al observes, AI-aided education includes intelligent education, innovative virtual learning, and data analysis and prediction [2] (p.75267). In terms of the application of AI in education, according to Sharma et al., it has taken the form of adaptive learning systems, intelligent tutoring systems, and other systems that improve the quality of administrative processes, instructions, and learning. [3] Along with this, it is imperative to identify the use of AI in educational settings. Many studies conducted on AI integrated pedagogy finds its possibilities to create a better classroom environment. However, as Buddhima and Keerthiwansha observes there has not been any attempt in Sri Lanka to familiarize this approach to the ESL classroom [4] (p.34). Within the period of the six years since this claim has been made, an exploration of Sri Lankan literature yet again supports the claim. A recent study by Jayasinghe states that Sri Lankan education systems lack transformation into AI-based personalized learning processes [5]. Similarly, Perera et al state that educators are divided on the views that AI tools are well known in the University [6]. In contrast to school level secondary education, technical devices and usage of such are prominent at university level tertiary education. Thus, it is necessary to explore the views of tertiary level educators.

At the onset of a background pertaining mixed views based on literature, this study was undertaken to answer the questions; what is the perspective of educators towards AI integrated pedagogy? To what extent do they promote the use of AI integrated pedagogy? and, how AI is integrated to classroom practices. In doing so, the acceptance and advocacy of AI in tertiary level classrooms were to be observed. Reasons being, in a country like Sri Lanka, where less prominence is given to classroom practices that do not involve technical devices, it is necessary to understand if the now controversial and debatable AI tools are advocated by the educators. Accordingly, this study could shed light to spread awareness on artificially intelligent pedagogy.

II. METHODOLOGY

Employing a qualitative stance, the study appropriated a case study approach. Case studies, according to Stake gives deeper understanding while allowing to explore the complexities of the research issue [8].

Consequently, six case studies were selected through convenient sampling representing all four faculties; Business, Computing, Science, and Engineering of NSBM Green University. The qualitative case study approach was employed in order to explore deeply into the incorporation of AI into pedagogy which otherwise would not have been possible with large samples. In addition, the fact that the sample being from all faculties could be considered representative of all. Consequently, interviews, both initial and extended, were employed as the data collection tool. Furthermore, as the study itself is a case study, interviews allow the researcher to deeply analyze the respondents. The initial interview was conducted to receive an understanding of the respondents' stance on AI integrated pedagogy while the extended interview was conducted to discuss classroom practices in connection with AI. The data collection process was done within a month's duration, with the initial interview being limited to 10 minutes for each participant while the extended spanning from 20-25 minutes each. Moreover, informed consent with regards to the maintenance of the respondents' anonymity was communicated with the sample prior to the data collection. Generally, a qualitative research design undertakes a thematic content analysis, likewise this study follows a thorough observation of each case study to identify recurring themes, which forms the basis for inferences and conclusions. To facilitate the thematic analysis, Hazzam and Wilkins' [7] educational skills approach was employed. Thus, in alignment with the scope of the study, the methodology undertaken deems suited.

III. RESULTS AND DISCUSSION

A. Initial Interview

The initial interview was conducted to gather data to answer the first research question, what is the perspective of educators towards AI integrated pedagogy. The results can be observed as follows.

Table 1. Initial interview results

Case Study Participant	Do you use AI tools as teaching aids?	Do you allow AI tools to be used by your students?	Do you think AI tools are necessary for education?	Would you advocate AI use in classrooms?
01	Yes	In some lessons	In some occasions	These days it is quite popular so students anyways use it.
02	Sometimes	Yes, for activities	For self-learning activities, it is good	I don't always promote it, but I think it should be learnt to use wisely and appropriately
03	Not all the time	Yeah, activities can be done	Yeah but students should know to use it correctly	Yeah, only the proper use

04	Yes, I do	Not all the time but for certain tasks	Now we can't really get away with it	Correct use is okay, I think
05	Sometimes I do	For some classroom activities	Nowadays, it is normal	Students don't know to use it properly
06	Sometimes	In Activities	It is, to a certain extent	Not to depend on it but for occasional help

Based on the results, it can be viewed that while most of the participants have a positive perspective towards the AI integrated pedagogy, there is a looming concern of their learners' over reliance and awareness on the appropriate use of it. However, educators showing a positive awareness, understanding and advocating the use of AI tools is a highlighting factor.

B. Extended Interview

In the second interview, following educational skills approach [7], the results were thematically analyzed as follows.

1. Interaction with AI tools

Participants 1 and 2 mentioned of facilities that could be provided with regards to other AI tools. For instance, "Through Virtual Reality that is VR we can give live experience learning for our students" – Participant 2

In addition, participant 6 mentioned, "Many are of the notion that ChatGPT is the only AI tool."

2. Technological proficiency

Most of the participants identified that to teach AI tools both educators as well as their learners should be technologically proficient.

3. Adaptability

Participant 4 stated that, "I find some students who are not aware of AI tools as well, so they should be made aware of it, which most of us don't think about."

While participant 2 stated, "Many of us here advocate AI tools whereas most outside don't like to adapt to this."

4. Charismatic leadership

All participants believed that their students should not be discouraged of AI. An interesting response was made by participant 3 stating, "If we say no to AI, they will think we're old school teachers who think old"

5. Strategic AI integration

All participants were of equal opinion that students lack awareness on how to use AI tools correctly rather they are dependent on it that hinders their creative. Therefore, participants 3 and 5 stated that they assist their students to use AI tools to find errors, gather information, and assess their work. For instance, "I ask them to feed their work to ChatGPT and get an analysis of their errors. Then correct it on their own using

suggestions. This promotes self-evaluation” – participant 5.

6. Training and development

All respondents stated of a training program headed as 21st century learning that was conducted to guide them on the adoption of AI in the classrooms. Participant 2 was of the opinion that training sessions on using AI tools is also important.

IV. CONCLUSION

AI integration at tertiary level being quite common in the current pedagogy, the educators’ perception as main stakeholders in the dissemination of knowledge, has been a growing concern. Perception, promotion and integration of AI tools were the key factors that led to the conducting of the study. In contrast to previous literature, the results yielded in this study took a positive note. The key findings revealed that the participants advocated the proper use of AI. In addition, they believed that more facilities for the use of AI tools, embracing AI integration to education, teaching the use of tools for the less aware and training programs were helpful. As a result, it is evident that, NSBM Green University is stepping towards artificially intelligent pedagogy. Nevertheless, this cross section alone is not a sufficient step rather, this awareness is a necessity in this rapidly evolving tech-savvy era. Therefore, it is recommended that comparative studies be done amongst other institutions. In conclusion, this study implicates that, the Sri Lankan educational system is broadening its limits towards an artificially intelligent pedagogy.

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Breaking the Chalk Ceiling: Challenges and Strategies for Female Teachers during Digital Transformation in Sri Lankan Education

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Abstract—In an era of rapid technological change, integrating digital technology into education has become essential, enabling innovation and progress. Examples include the use of learning management systems, online teaching platforms, digital curricula, and initiatives such as smart classrooms and teacher ICT training programs. However, this shift highlights the persistent digital gender gap, as women continue to be underrepresented in digital domains across the globe. This paper explores the evolving role of female teachers in Sri Lanka during the country's digital education transformation, focusing on rural school setting. It addresses two objectives: exploring gender-specific challenges faced by female school teachers and identifying strategies they can use to overcome these barriers. The study adopts a qualitative approach grounded in interpretivism and guided by a phenomenological strategy. Semi-structured interviews were conducted with twelve (12) female school teachers from diverse socio-cultural and professional backgrounds in Matale district. The data were analyzed using thematic analysis, to identify key patterns and insights. Findings revealed three main challenges: individual, institutional, and socio-cultural/economic. Individual challenges included lack of awareness, motivation and concerns around self-efficacy and self-esteem due to minimal digital exposure. Institutional issues involved inadequate support, outdated training, and biased decision-making influenced by favoritism and gender discrimination. Socio-cultural and economic factors were linked to traditional gender roles and stereotyping, hindering female teachers' engagement in digital education. To address these challenges, strategies highlighted included promoting female leadership in technology, providing tailored training, fostering support systems, promoting gender equality through schools. The study concludes by stressing the importance of gender-sensitive policies to empower female teachers in Sri Lanka's digital education transformation journey. Further research should explore urban-rural disparities, different stakeholder perception and their impact on female teachers' roles in digital education.

Keywords—Challenges, digital transformation, education, female teachers, strategies

I. INTRODUCTION

Digital transformation has become a universal imperative, reshaping every sector and industry in response to the unstoppable momentum of technological advancement. Education, as a cornerstone of societal progress, is no exception. It stands at the forefront of this shift, increasingly integrating digital tools and platforms to enhance teaching and learning. As technology continues to redefine how knowledge is delivered and accessed, the education sector must evolve to remain relevant and effective in a rapidly changing world. This aligns with the United Nations' Sustainable Development Goal 4 (SDG 4), which underscores the integration of technology to ensure inclusive, equitable, and quality education while promoting lifelong learning opportunities for all.

In alignment with these global trends, Sri Lanka has initiated its own digital transformation in education. Collaborative efforts between the Information and Communication Technology Agency (ICTA) and the Ministry of Education have resulted in a National Policy for Digital Transformation of Education. This policy targets the digitization of learning, industry alignment, the development of digital ecosystems, and the enhancement of digital skills among students, teachers, administrative staff, and parents [1]. Globally, digital transformation in education has not occurred evenly across all social groups. Not all individuals have the same ease of access to digital technologies a phenomenon referred to as the first digital divide [2]. Gender has been recognized as a key determinant in these inequalities. Beyond access, the second digital divide refers to disparities in the skills and usage patterns of digital technologies, which also tend to disadvantage women. [2] emphasized that teachers' digital engagement varies significantly based on gender, highlighting persistent asymmetries in both experience and outcomes. The digital gender gap is also linked to segregation in digital fields, where women remain underrepresented, as shown in global studies [3]. Even in countries with progressive gender equality plans, such as Finland, female professionals in digital technology fields continue to face underrepresentation and structural barriers [4]. This suggests that gendered

exclusion in the digital sphere is a pervasive and systemic issue, one that affects not only access to technology but also opportunities for development and leadership.

Despite the policy efforts, Sri Lanka continues to face significant challenges in achieving equitable digital transformation, particularly regarding gender inclusion. National statistics reveal a disparity in digital literacy levels between male and female teachers. While computer literacy among male teachers is reported at 63%, the corresponding figure for female teachers is only 48%. Furthermore, self-reported digital literacy stands at 39% for males and 30% for females [5]. This gender gap is concerning given that female teachers make up a majority (76%) of the teaching population.

These disparities may lead to a performance gap in tasks requiring digital competence between males and females, thus undermining the broader goals of inclusive digital transformation. Researchers confirm that digital literacy significantly influences teachers' willingness and ability to adopt online teaching and professional development platforms and when teachers are equipped with digital skills and receive adequate support, they are more likely to adopt new methodologies and integrate digital tools into their teaching. [6]; [7]. Accordingly, this research study aims to bridge the identified gaps by answering the following research questions:

1. What are the key challenges face by female teachers in Sri Lanka during the digital transformation in Sri Lankan education?
2. What are the strategies for overcoming the challenges face by female school teachers during digital transformation?

II. LITERATURE REVIEW

A. Digital Transformation in Education

Digital transformation in education encompasses the adoption of digital tools such as learning management systems, online teaching platforms, and digital content for pedagogical innovation. In Sri Lanka, the Ministry of Education has introduced several initiatives, including smart classrooms, teacher ICT training programs, and digital curriculum development, to support this transformation.

However, scholars argue that digital transformation is not only a technological shift but also a socio-cultural change that demands a rethinking of traditional pedagogical practices [8]. Hence, effective transformation requires technological infrastructure, training, motivation, and supportive institutional policies [9].

B. Gender Digital Divide in Education

The Gender Digital Divide (GDD) is a phenomenon that refers to the inequalities and differences between men and women in accessing the digital ecosystem in various environments such as the scenarios of Education 4.0. [10]. It indicates that women, including

female educators, are less likely to access, use, and benefit from digital technologies compared to men due to factors such as societal expectations, lack of confidence, time poverty, and unequal access to training [11].

Globally, female teachers face unique challenges in adapting to digital transformation. Although technology is considered a gender-neutral tool, its adoption often reflects existing social inequalities. Research in the Asian context highlights that cultural norms often dictate technology use within households and workplaces, limiting women's autonomy over digital tools [12]. Women are more likely to face scrutiny or skepticism regarding their technical competence and may have to work harder to establish credibility in digital domains. Furthermore, digital training programs are often designed without considering gender-sensitive needs such as flexible timings, childcare responsibilities, or women's learning styles.

C. Challenges Faced and Strategies Employed by Female Teachers

Female teachers face significant barriers to adopting digital teaching methodologies due to a combination of interconnected factors. Many educators, particularly those from rural areas or traditional schools, often have limited awareness of how to effectively integrate technology into their lessons. This is compounded by a cited lack of confidence in their technical capabilities [13] and lower self-efficacy, which can deter them from experimenting with new digital tools [14]. Furthermore, personal motivation is often reduced by a fear of failure and the absence of role models (Sang et al., 2010). These internal challenges are exacerbated by external problems, such as a lack of institutional support and mentorship and persistent gender-based stereotypes that view female teachers as less competent in technology, thereby discouraging their participation in digital initiatives [11].

Overcoming the challenges female teachers face in the digital transformation of education requires a multi-pronged approach. A primary strategy involves promoting female leadership in technology initiatives, which serves to dismantle stereotypes and establish visible role models within schools [15]. This should be supported by hands-on, contextually relevant training that enhances digital literacy and strengthens self-efficacy through experiential learning [16]. Furthermore, ensuring equitable access to digital tools and reliable internet is fundamental, as infrastructural barriers often disproportionately impact female educators [15]; [10]. For sustainable, long-term change, these efforts must be combined with the integration of gender-sensitive digital content and pedagogy into the broader educational framework, fostering a culture that actively questions and addresses gender disparities in technology.

III. METHODOLOGY

This study adopts an interpretivist research philosophy grounded in subjectivist ontology, recognizing that reality is socially constructed and shaped by individuals' experiences. Given the study's aim to explore the gender-specific barriers faced by female teachers during the digital transformation of education in Sri Lanka, the interpretivist lens enables the researcher to gain deep insights into participants' perspectives.

A phenomenological research strategy was selected to focus on the lived experiences of participants, making it suitable for understanding the emotional and social implications of digital transformation on female teachers. A mono-method qualitative design was employed to collect and analyze non-numeric data, allowing for rich narrative capture of participants' experiences.

Purposive sampling was used to select twelve (12) female teachers from rural schools in the Matale District, Sri Lanka who are working in government schools. The participants represented a range of subject areas, including Science, Mathematics, Information Technology, Business Studies, English, and Buddhism, ensuring coverage across both STEM and non-STEM disciplines. Their ages ranged from 20 to 60 years, allowing for diversity in both teaching experience and levels of digital exposure. Age emerged as an important factor, as younger teachers often had greater familiarity with digital tools, while older teachers faced more challenges in adapting to new technologies. This sampling approach ensured diversity in teaching experience and digital exposure among participants within the rural context. Sampling continued until data saturation was reached by the 11th interview, indicating that no new themes were emerging.

Semi-structured interviews were conducted to collect primary data, allowing flexibility to probe individual experiences while maintaining consistency across participants. Ethical considerations were carefully observed throughout the study, including obtaining informed consent, ensuring confidentiality, and emphasizing voluntary participation, given the sensitivity surrounding gender-related issues. The research was cross-sectional in its time horizon, providing a snapshot of female teachers' experiences during a specific period of digital shift in education.

Data were analyzed using thematic analysis, following a six-step process: transcription, keyword identification, coding, theme development, conceptualization, and model building [17]. This systematic yet flexible approach enabled the researcher to deeply explore and interpret the gendered challenges experienced by female teachers within Sri Lanka's digital education reform.

IV. RESULTS AND DISCUSSION

As per the findings, female school teachers in Sri Lanka face three main challenges during the digital transformation of education: personal, institutional, and socio-economic and cultural.

A. Personal Challenges

A prominent issue is their lack of awareness and limited familiarity with digital tools, often leading them to underestimate their own capabilities. This contributes to low self-confidence and confusion in selecting the right tools for teaching. Consequently, many show low interest in adopting new technologies, preferring to stick to traditional teaching methods, unlike their male counterparts who are often more proactive. As one respondent noted,

"They (Female) don't try to go out from their comfort zones and always try to stick to traditional teaching methods while males keep growing themselves."

This highlights a significant gendered disparity, where male teachers are often perceived as more proactive in adopting new technologies.

Concerns related to self-efficacy are also evident. Female teachers face discouragement from male colleagues, with comments undermining their confidence and reinforcing gendered perspectives on technology.

"When I once sought assistance to troubleshoot the smart-board, a male colleague's comment implied that I should stick to simpler teaching methods. He said me that women are only good at chalk and talk teaching techniques."

This also manifests as a hesitancy to experiment with new technologies, stemming from negative past experiences and a lack of vicarious experiences.

Furthermore, self-esteem issues arise from a strong reluctance to seek help, especially from male colleagues or male students, due to fear of appearing incompetent or reinforcing gender stereotypes. Public struggles with digital tools, such as failing to operate a smart board, lead to professional embarrassment and self-doubt. A perceived gender disparity in digital skills also contributes to feelings of inferiority and reduced self-esteem.

B. Institutional Challenges

Institutional structures and policies significantly influence teachers' experiences with digital transformation in Sri Lanka's education system. While institutions are expected to provide equitable access, training, and supportive environments, this study reveals that institutional shortcomings disproportionately hinder female teachers, creating gendered barriers within the digitalization process. Female teachers reported experiencing limited autonomy, confidence, and professional growth due to institutional neglect, particularly in three key areas: lack of support, lack of training, and a preference for male teachers in tech-related tasks.

Regarding the lack of support, a significant gender-based disparity in access to digital tools is evident. Male teachers often have autonomous access and control over technological resources, such as laboratory keys, while female teachers must seek permission. This ingrained gatekeeping system, coupled with male

dominance in managing digital infrastructure, marginalizes female teachers, limits their ability to experiment, and reinforces technology as a male domain. Additionally, a general lack of structured and ongoing guidance from the school affects all teachers, but older female teachers find it particularly challenging when integrating digital tools due to minimal institutional support. Furthermore, there's a clear institutional preference for male teachers in tech-related tasks. This is exemplified by the sentiment that,

“The administration of our school doesn't like to give the authority of even the media unit of the school to a female teacher since they believe that they do not have a good knowledge to handle that devices and they may not take any responsibility without knowing the value of those equipment”

This sidelines female teachers, even when qualified, reinforcing gendered stereotypes about digital competence and limiting women's professional advancement in digital education.

Concerning the lack of effective training, many female teachers reported insufficient training focused on digital tools, with their initial education centered on traditional methods, which disadvantages them in modern classrooms. While training is generally available to both male and female teachers, the study highlights that the core issue is not access but the ineffectiveness and lack of contextual relevance of the training provided. Existing workshops tend to be brief, subject-specific (often only for ICT teachers), and exclude general subject teachers. Training programs are also often outdated and irrelevant to current digital demands. This suggests a systemic training gap stemming from institutional failures to update content and provide practical, ongoing support, rather than explicit gender discrimination in training availability.

C. Socio-Cultural and Economic Challenges

Socio-cultural norms and economic limitations also play a crucial role, creating distinct challenges for female teachers. Gender-influenced spending priorities were highlighted as a significant barrier by many respondents. This is exemplified by one respondent's comment.

“Because we (females) are expected to manage household finances compared to males. Personal devices and internet access can be expensive, and it's hard to justify the cost when there are other household expenses to prioritize”

Due to traditional gender roles and societal expectations, married women often prioritize household and family expenses, limiting their ability to invest in personal digital devices or internet access. This economic constraint, coupled with cultural expectations, restricts women's independent access to digital resources.

Further, persistent gender stereotypes lead to doubt about females' digital skills, undermining their confidence and discouraging engagement with technology. This often results in male dominance in

tech-related tasks within schools, regardless of female educators' actual capabilities. Furthermore, gendered roles in Sri Lankan society place women in primary roles of managing household responsibilities and childcare, severely limiting their time and energy for professional development in digital literacy.

Finally, a notable generational gap in digital adaptation exists among female teachers. Younger educators demonstrate greater adaptability, while many older female teachers remain hesitant or resistant. This divide is not observed among male teachers, indicating a complex interaction between gender and age in digital participation, further hampering collective progress in digital integration.

D. Strategies to Overcome Challenges Faced by Female Teachers

Female teachers in Sri Lanka propose several strategies to overcome digital transformation barriers, aiming to empower women and create inclusive school environments. A key strategy is to promote female leadership in technology. Encouraging women to lead digital initiatives, like training or tech projects, can break stereotypes and boost confidence. Visible role models and institutional support for female leaders are crucial for digital inclusion. Secondly, targeted, gender-sensitive training programs are vital, especially in rural areas. These should build confidence and skills, offer mentorship, create safe learning spaces, and include joint sessions with male teachers to foster collaboration. Peer-learning groups are also important for ongoing support.

Third, developing support systems that promote gender equality is essential. This involves providing digital devices to female teachers (especially those with financial constraints), ensuring unbiased distribution of resources, and fostering a culture that actively encourages women's technology use and participation in digital decision-making. Finally, the study suggests using school systems to promote gender equality in society. Schools can drive social change through awareness campaigns, community discussions, and student engagement to challenge stereotypes, reshape public perceptions of female teachers' digital capabilities, and promote broader gender equality.

E. Discussion

This study uncovered a range of personal, institutional, socio-cultural, and economic barriers that affect Sri Lankan female teachers during the digital transformation in education. Compared to existing global literature, these findings highlight both unique and shared challenges in a culturally specific context.

On a personal level, female teachers were found to underestimate their digital competencies, aligning with studies by [18] and [7]. However, this underestimation is not simply due to a lack of skills but also due to limited awareness of their existing capabilities. Self-efficacy was found to be low among female teachers, with male teachers consistently perceived as the “technology experts” in school settings. This reinforces the international observations made by Jenson and [19]

where male teachers are more likely to be consulted for technological issues. While Gebhardt et al. (2019) observed higher levels of digital confidence among women in Russia, the Sri Lankan experience reveals a gendered gap in confidence that stems from cultural and institutional reinforcement of male authority in digital tasks. This lack of self-efficacy restricts women's chances to engage meaningfully with technology, reducing their opportunities to build competence through practice. Further, female teachers' self-esteem was also negatively affected by digital transformation. Unlike the findings of [20] who identified no significant gender-based differences in digital challenge perception, this study clearly reveals a deeper psychological burden carried by female teachers in Sri Lanka, rooted in social expectations, lack of institutional recognition, and motivational deficits.

Institutionally, this research diverges from studies such as those by [12], [21], and [22] which indicated gender-balanced support structures. In contrast, Sri Lankan schools reflect unspoken gender biases in task allocation, with institutional practices subtly favoring male teachers for digital engagement and leadership. Although training programs are available for all teachers, a major insight from this study is that their design is fundamentally flawed. Unlike [23], who emphasized the absence of training as a barrier, this study shows that while training exists, it is often theoretical, not subject-specific, and lacks practical follow-up. The ineffective nature of these sessions hinders female teachers, especially those already struggling with low confidence and experience. Importantly, the perception that men are inherently more tech-savvy has led to an observable preference for assigning male teachers to operate smart classrooms, manage ICT equipment, and handle technical troubleshooting. Even when female teachers hold comparable qualifications, their roles are limited due to such stereotypes. This results in unequal access to digital tools, reduced opportunities for hands-on learning, and a reinforcement of existing hierarchical structures. In many instances, female teachers must rely on students or male colleagues to perform basic digital tasks, not because of inability, but due to systemic exclusion. These disparities in access and institutional responsibilities are less emphasized in existing literature and represent a critical contribution of this study to understanding localized gendered inequalities.

Additionally, socio-cultural and economic challenges are deeply embedded in the experiences of female educators. While past studies like [23] noted time limitations due to domestic duties, this study extends those findings by highlighting economic constraints. Female teachers in Sri Lanka often prioritize family needs over their own digital development. They frequently do not own personal digital devices and must prioritize purchasing tools or internet access for their children or spouses. This financial angle of the digital divide rarely addressed in broader global literature emerges as a significant barrier in rural contexts. Furthermore, entrenched gender stereotypes

continue to cast male teachers as natural digital leaders, a trend confirmed in earlier research by [19] and [24]. These cultural beliefs inhibit women's digital confidence and professional recognition, reinforcing a cycle of exclusion. A novel insight is the generational variation observed in this study: older female teachers tend to avoid digital tools due to fear, unfamiliarity, or resistance to change, while younger teachers though facing similar structural limitations are more open to adopting technology. Interestingly, this age-based pattern was not observed among male teachers, who appeared to benefit from institutional and cultural support regardless of age. This nuanced interplay of gender and age in digital participation offers a fresh perspective that enhances current understanding of the digital divide in education.

This study builds upon existing literature [10]; [15]; [16] by proposing grounded, practical strategies rooted in the lived experiences of rural Sri Lankan female educators. Rather than offering broad or universal recommendations, the findings emphasize the importance of contextual sensitivity and institutional transformation.

A key recommendation is the promotion of female leadership in school-based technology roles. While [15] suggests leadership as a general strategy to confront stereotypes, this study takes it further by showing how the visibility of female ICT leaders can inspire peers, challenge established norms, and normalize women's participation in technical domains. These female leaders become role models who actively reshape perceptions and create pathways for others to follow.

Training programs, while commonly proposed in literature [16], are reconceptualized in this study as more than technical workshops. Effective digital upskilling requires gender-sensitive, psychologically supportive, and personalized training frameworks. Teachers recommended small-group mentoring, peer-learning models, cross-gender collaboration, and continuous follow-up, all of which contribute to safer and more inclusive learning environments. The focus should be on shifting away from isolated one-time workshops to building ongoing professional ecosystems that foster confidence and community among educators.

This study also highlights the need to reform institutional structures related to resource allocation. [10] discussed equal access to digital tools, but this study emphasizes that equitable distribution must address internal school practices that privilege male teachers. Transparent mechanisms are needed to ensure fair assignment of digital responsibilities, tools, and opportunities, particularly in environments where informal power structures disadvantage women. It is not enough to provide more devices; institutions must actively dismantle the barriers that prevent equal access to those devices.

Lastly, a significant and novel contribution of this study is the proposal to use schools as vehicles for broader societal change. Rather than acting solely as policy

implementers, schools can initiate community-level interventions such as parent workshops, female-led ICT training sessions, and local awareness campaigns. These efforts not only support female teachers but also work to shift entrenched gender norms within the wider community. Such bottom-up strategies, though underexplored in the literature, hold substantial potential for long-term cultural transformation toward gender equality in education and beyond.

V. CONCLUSION

Female teachers in Sri Lanka face unique social, cultural, institutional, and personal challenges limiting their digital engagement in education. A key finding is that gender stereotypes significantly impact their access to and use of digital tools; women are often seen as less tech-competent, affecting their role assignments and self-confidence despite their qualifications. Institutions frequently lack gender-focused policies, often favoring male teachers for technical tasks, while female teachers struggle with financial and household burdens that further restrict their digital involvement.

Overall, Sri Lanka's digital divide goes beyond technology access, rooted in complex socio-cultural barriers. Effective digital transformation requires gender-sensitive approaches. These must prioritize building female teachers' confidence, promoting their visible leadership in ICT roles, ensuring equitable resource distribution, and implementing inclusive policies. Empowering female educators is vital for their growth and for the success of Sri Lanka's digital education goals.

The study recommends fostering female leadership in school ICT, offering gender-sensitive, tailored training, and nurturing inclusive digital cultures that encourage collaboration. It also stresses equitable resource access and engaging schools in challenging gender norms within communities. Integrating gender equity indicators into education policy is crucial for lasting change.

However, the study is limited by its exclusive focus on female teachers, reliance on self-reported data, potential participant bias, and its specific rural context. It also lacks input from institutional stakeholders and a longitudinal view. Future research should compare urban and rural areas, include diverse perspectives, and explore mentorship's role.

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AI-Driven Reinvention: Strategizing Change in the Digital Enterprise

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Abstract—Artificial Intelligence (AI) is increasingly recognized as a transformative driver of strategic change in the digital enterprise landscape. As organizations face pressure to adapt to evolving market demands and technological disruptions, AI offers a pathway to reinvent business models, enhance operational efficiency, and improve decision-making. This research explores how AI is strategically integrated to facilitate organizational reinvention, focusing on its role in enabling agility, innovation, and sustained competitive advantage.

The study aims to quantify the relationship between AI adoption and strategic transformation outcomes in enterprises undergoing digital transition. It emphasizes the importance of aligning AI initiatives with organizational strategy and assesses the readiness of enterprises in terms of leadership support, workforce capability, and technological infrastructure. Particular attention is paid to how AI contributes to areas such as intelligent automation, predictive analytics, customer experience, and innovation-driven processes. A quantitative research methodology is adopted to provide empirical insights. Primary data was collected through a structured survey targeting digital transformation professionals, IT managers, and decision-makers across multiple industries. The findings contribute a data-backed framework for understanding AI's strategic role in digital enterprise evolution. By identifying success factors and barriers, the study offers practical insights for business leaders and policymakers seeking to implement AI not merely as a technological enhancement, but as a foundational element of strategic change. This research supports the growing consensus that AI is not just a tool for efficiency, it is a catalyst for rethinking enterprise strategies and unlocking new sources of value in the digital age.

Keywords— Artificial Intelligence (AI), Digital Enterprise, Strategic Change, AI Integration, Business Transformation

I. INTRODUCTION

Artificial Intelligence (AI) has emerged as a pivotal force reshaping the contours of modern enterprises. In a digital-first world, businesses are compelled to adapt rapidly to changing market dynamics, customer expectations, and disruptive technologies. Within this

context, AI offers more than operational enhancements. It provides a platform for strategic reinvention. AI technologies, such as machine learning, natural language processing, and computer vision, are being embedded into core business functions to enable predictive insights, intelligent automation, and customer personalization.

This paper explores the strategic integration of AI in enterprise transformation. It examines the role of AI in enabling organizational agility, driving innovation, and fostering sustainable competitive advantages. Additionally, the paper addresses the alignment of AI adoption with corporate strategy, leadership readiness, workforce capabilities, and technological infrastructure.

The main objectives of this research are:

1. To investigate how artificial intelligence (AI) is being strategically adopted in digital enterprises.
2. To quantify the relationship between AI integration and strategic transformation outcomes such as agility, innovation, and competitive advantage.
3. To assess the readiness of enterprises in terms of leadership support, workforce capability, and technological infrastructure for AI-driven transformation.
4. To identify the enablers and barriers associated with successful AI adoption in enterprise contexts.

While previous studies have extensively discussed the technical capabilities of AI and its role in improving business processes, limited empirical research exists on AI as a strategic driver in enterprise-level digital transformation. Most existing literature focuses either on operational enhancements or specific use cases rather than on the holistic integration of AI into organizational strategy. Additionally, there is a lack of industry-wide quantitative evidence detailing the relationship between AI adoption and measurable transformation outcomes. This research seeks to bridge that gap by providing a broader empirical

understanding of how AI contributes to strategic reinvention in diverse enterprise environments.

To address the above objectives and fill the identified gap, the study is guided by the following key research questions:

1. How is AI being strategically integrated into digital enterprise transformation efforts?
2. What measurable outcomes are associated with AI adoption in areas such as agility, innovation, and competitive advantage?
3. What organizational factors—such as leadership, skills, and infrastructure—influence the success of AI-driven strategic change?
4. What are the primary challenges and barriers organizations face in implementing AI at a strategic level?
5. How can organizations align AI initiatives with their long-term strategic objectives to maximize value?

There are relevant literature from authorized sources regarding the AI driven reinvention.

A. Artificial Intelligence as a Strategic Enabler

Artificial Intelligence (AI) is no longer viewed solely as a technological tool. It is increasingly recognized as a strategic enabler of organizational transformation. According to Davenport and Ronanki [1], AI facilitates the redesign of business models by enhancing capabilities in areas such as decision-making, operational optimization, and customer engagement. Strategic use of AI allows enterprises to innovate continuously and respond more dynamically to market changes.

B. AI and Digital Transformation

Digital transformation involves the integration of digital technologies into all aspects of business to improve value delivery. AI plays a central role in this transformation by supporting intelligent automation, personalized customer experiences, and real-time analytics [2], [3]. Literature highlights that organizations adopting AI within a clearly defined digital strategy are more likely to realize long-term gains in agility, competitiveness, and innovation [4].

C. Alignment of AI with Organizational Strategy

Strategic alignment is a critical success factor in AI adoption. Studies emphasize that organizations must embed AI initiatives within broader enterprise strategies to realize value beyond operational efficiency [5]. Misalignment between AI deployment and strategic goals often results in fragmented efforts, resource wastage, and employee resistance. Research by Kane et al. [6] underscores the importance of leadership vision and cross-functional collaboration in aligning AI investments with strategic priorities.

D. Organizational Readiness for AI

Successful AI adoption is contingent upon organizational readiness, including leadership

commitment, workforce capability, and technological infrastructure [7]. A lack of digital skills, inadequate data governance, and outdated IT systems are frequently cited as barriers [8]. Organizations that invest in AI-related training, leadership development, and digital infrastructure demonstrate a higher propensity to translate AI into tangible business outcomes.

E. AI in Intelligent Automation and Predictive Analytics

One of the most studied applications of AI in enterprises is intelligent automation, which involves using AI-driven systems to automate complex workflows. This goes beyond traditional automation by incorporating learning and adaptation [9]. In addition, predictive analytics powered by AI enables businesses to anticipate customer behavior, manage risks, and optimize resources with higher precision [10]. Both applications contribute significantly to improved strategic decision-making and operational agility.

F. AI-Driven Customer Experience and Innovation

AI contributes to innovation through its ability to analyze vast datasets, uncover trends, and personalize interactions at scale. In customer-facing domains, AI tools such as chatbots, recommendation engines, and sentiment analysis systems enhance the user experience and deepen customer engagement [3], [10]. The literature also identifies a strong correlation between AI-enabled innovation and sustained competitive advantage in rapidly evolving industries.

While there is growing interest in the strategic role of AI, empirical studies that quantify its relationship with enterprise-wide transformation outcomes remain limited. Most existing literature is either conceptual or focused on technical applications without adequately addressing organizational strategy, change management, or industry-specific readiness. This study addresses this gap by providing empirical data on how AI, when strategically aligned and organizationally supported, drives digital reinvention across sectors.

II. MATERIALS AND METHODOLOGY

This study employed a quantitative research methodology to examine the strategic integration of Artificial Intelligence (AI) in digital enterprise transformation. The choice of a quantitative approach was based on the need to collect structured, measurable data from a wide sample across diverse industries and job functions. Such an approach enables the use of statistical tools to explore relationships between AI adoption and specific strategic outcomes, including organizational agility, innovation, and sustained competitive advantage.

The research followed a descriptive, cross-sectional survey design, allowing for the collection of data at a single point in time across multiple sectors. The target population consisted of professionals engaged in digital transformation initiatives where AI technologies are either already implemented or are actively being considered for integration. This population was

selected because they are directly involved in strategic planning, decision-making, or execution of AI-driven projects, providing valuable insights into the organizational and strategic dimensions of AI adoption.

To gather data efficiently and ensure broad accessibility, the study employed convenience sampling. This method was chosen due to time constraints and the exploratory nature of the research. Participants were selected based on their availability and willingness to respond, which enabled the researcher to collect a sizeable dataset within a short time frame. The sampling pool included professionals from various industries such as IT, finance, healthcare, and manufacturing. Though convenience sampling limits the generalizability of the findings, it was suitable for capturing a diverse range of perspectives from experienced professionals actively engaged in digital transformation and AI deployment.

Data collection was carried out using a structured questionnaire administered online via Google Forms. The survey instrument was developed based on existing literature in the fields of AI, strategic management, and digital transformation. It included both closed-ended and Likert-scale questions to capture respondents' perspectives on a range of variables such as AI adoption level, strategic alignment of AI initiatives, leadership and organizational readiness, workforce capability, and perceived business outcomes.

The questionnaire comprised 28 items, grouped into five thematic sections. The first section collected demographic and professional information, including industry, job role, and years of experience. The second section focused on the extent of AI integration within respondents' organizations. The third section explored the degree of strategic alignment and support for AI from leadership. The fourth assessed technological infrastructure and skills readiness, and the final section measured perceived outcomes in areas such as agility, customer experience, innovation, and competitive positioning.

Participants were selected using a convenience sampling, with survey links distributed through LinkedIn, industry mailing lists, and professional networks. The inclusion criterion was involvement in AI-related projects or digital transformation initiatives, ensuring that all respondents had first-hand experience with the subject matter.

The quantitative methodology was chosen over qualitative approaches for several reasons. First, it allowed for statistical analysis of a larger, more diverse sample, enhancing the validity of findings. Second, it supported the identification of significant correlations between organizational readiness factors and AI-related strategic outcomes. Third, it provided a structured framework to compare perceptions across industries and job roles, offering a more comprehensive view of AI's strategic impact.

To analyze the data, responses were first coded and validated for consistency. Statistical analysis was conducted using SPSS and Microsoft Excel.

Descriptive statistics were used to summarize demographic data and key variables, while correlation and cross-tabulation analyses were performed to examine relationships between variables such as leadership support, infrastructure readiness, and perceived AI outcomes.

Moreover, the study sought to explore the opinion-based perspectives of respondents regarding AI's transformative potential. Respondents overwhelmingly expressed that AI is no longer just a technological investment but a strategic imperative. Many believed that the absence of AI in business planning may soon be considered a competitive disadvantage. This perception was particularly strong among senior IT executives and digital strategists, who highlighted the growing expectation from stakeholders for AI to deliver tangible innovation and efficiency gains.

In summary, the materials and methodology of this research were carefully designed to ensure empirical rigor and relevance. By targeting a specific, knowledgeable population and applying quantitative techniques, the study provides a reliable foundation for understanding AI's strategic influence on enterprise transformation.

III. RESULTS AND DISCUSSION

The results of this study offer strong empirical support for the strategic role that Artificial Intelligence (AI) plays in digital enterprise transformation, demonstrating that all four research objectives have been successfully fulfilled. Questionnaire has shared among 220 participants. Through a structured survey of 150 professionals across multiple industries, the research captured a comprehensive snapshot of current AI adoption trends, levels of enterprise readiness, and the strategic outcomes enabled by AI integration.

In addressing the first objective ; understanding how AI is strategically adopted survey responses from Sri Lankan digital professionals showed that AI implementation is in a rapidly growing stage. About 74% of respondents indicated that their organizations have initiated AI-related projects, primarily in sectors such as finance, retail, logistics, and telecommunications. The adoption is typically focused on customer support chatbots, basic automation, and data analytics for reporting. While only 52% of organizations reported formal alignment of AI initiatives with corporate strategy, this is indicative of a growing awareness and shift toward integrating AI into long-term planning. This suggests that although strategic AI adoption in Sri Lanka is still evolving, the direction is promising.

The second objective is to quantify the relationship between AI integration and strategic outcomes. That was achieved through correlation analysis. In Sri Lanka, AI adoption showed moderate to strong positive associations with organizational benefits, particularly in agility ($r = 0.64$), customer satisfaction ($r = 0.59$), and innovation ($r = 0.57$). These figures are slightly lower than global averages reported in similar literature, reflecting that while AI's potential is being

realized, the scale and maturity of implementations in Sri Lankan enterprises are still developing. Findings highlighted challenges in scaling these benefits nationwide due to infrastructure and talent disparities.

Regarding enterprise readiness, the third objective was to assess leadership support, workforce capabilities, and infrastructure availability. The survey revealed that 68% of executives expressed strategic interest in AI, showing a high degree of top-level commitment. However, only 46% of respondents believed their workforce had the required AI or data science skills, and 54% reported limitations in infrastructure such as cloud computing capabilities and real-time data platforms. These challenges are consistent with the broader digital divide between urban and rural areas in Sri Lanka, where larger firms in the Western Province are more equipped than SMEs or public-sector organizations in other regions. Therefore, Objective 3 is fulfilled, highlighting the uneven levels of readiness within Sri Lankan enterprises and the need for targeted capacity-building.

The fourth objective involved identifying enablers and barriers to AI integration. Enablers included leadership support (68%), partnerships with local universities and startups (44%), and access to open-source tools (39%). Conversely, significant barriers were found: shortage of skilled AI professionals (61%), high cost of AI tools and platforms (43%), and lack of internal AI strategy (41%). Regulatory uncertainty around data protection and cybersecurity also emerged as a growing concern, especially for sectors like finance and healthcare. These findings confirm that Objective 4 is achieved by mapping both support mechanisms and structural obstacles in Sri Lanka's digital economy.

The final objective was to develop a data-informed framework that aligns AI initiatives with organizational strategy. Based on aggregated findings and feedback, the research proposes a model that positions leadership vision, workforce capability, and technological infrastructure as foundational pillars. These elements support AI integration, which leads to measurable strategic benefits such as agility, innovation, and value creation. The model operates in a feedback loop where the outcomes of AI adoption inform and refine strategic direction. This outcome-based framework serves as a practical tool for organizations embarking on or refining their AI journeys. It confirms that Objective 5 is fulfilled by contributing a structured, evidence-backed approach to strategic AI planning.

Challenges identified include talent shortages, data privacy concerns, and integration complexity. Leadership support and a clear strategic vision were found to be critical enablers of successful AI adoption. The discussion emphasizes the need for a holistic strategy where AI is embedded not only in technology but in the organization's culture and processes.

In conclusion, this study aims that Sri Lanka's digital enterprises are actively exploring AI as a strategic enabler of business transformation. While full-scale maturity has not yet been reached, there is strong executive interest, rising adoption in key sectors, and a

budding ecosystem of academic, corporate, and startup collaboration. These trends point to a positive trajectory, provided that efforts to bridge skills gaps, strengthen infrastructure, and formulate AI governance policies continue. The findings not only reinforce global understandings of AI's strategic role but also provide Sri Lanka-specific evidence for business leaders and policymakers navigating digital transformation in a rapidly changing economic landscape.

IV. CONCLUSION

This research set out to examine the strategic role of Artificial Intelligence (AI) in the digital transformation of enterprises, with specific attention to the Sri Lankan business environment. As AI continues to reshape global industries, it is becoming increasingly critical for emerging economies like Sri Lanka to understand how this technology can be effectively aligned with strategic objectives to drive innovation, agility, and competitiveness. The study successfully addressed all four research objectives through a structured quantitative analysis involving digital transformation professionals and decision-makers across various sectors.

The findings clearly demonstrate that AI adoption in Sri Lankan enterprises is gaining momentum. While adoption levels vary, there is a growing trend of moving AI from pilot projects to more strategically aligned initiatives. Organizations are increasingly embedding AI into their core functions such as customer engagement, process automation, and analytics-driven decision-making. This highlights a fundamental shift from viewing AI as a mere technological add-on to recognizing it as a driver of strategic transformation.

One of the key insights from this study is the identification of a strong correlation between AI integration and strategic outcomes. Enterprises that have embraced AI reported improvements in operational agility, customer satisfaction, and their ability to innovate. These findings support the global narrative that AI is a powerful tool for achieving digital competitiveness, but they also reflect the unique challenges and constraints faced by organizations in Sri Lanka. Limited infrastructure, a shortage of AI-skilled professionals, and uneven digital readiness across regions pose significant barriers to AI scalability.

Despite these challenges, the study also identified several enablers that can support the strategic integration of AI in Sri Lanka. Leadership support, academic-industry collaboration, and increasing access to cloud and open-source platforms are driving adoption. However, continued efforts are required to develop national frameworks for AI governance, data privacy, and infrastructure investment.

Another important outcome of the study is the development of a contextualized framework for AI-driven strategic transformation. This framework places emphasis on three pillars: strong executive vision and alignment, workforce upskilling through collaboration, and infrastructure enhancement via public-private

partnerships. It serves as a practical guide for Sri Lankan enterprises to assess their readiness, align AI with strategic priorities, and scale adoption effectively.

In conclusion, this research reaffirms that AI is not just a tool for operational efficiency but a foundational element of strategic change. In the context of Sri Lanka, AI holds immense potential to help organizations reinvent themselves in the digital age. However, realizing this potential requires a holistic approach that includes leadership, investment in people and technology, and a supportive policy environment. As enterprises continue to evolve, the insights provided by this study offer a timely and valuable contribution to both academic literature and real-world digital transformation strategies in emerging economies like Sri Lanka.

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Behavioral Factors Affecting Investment Decision-Making in the Banking Sector: Evidence from the Colombo Stock Exchange

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Abstract—This study explores the influence of behavioral factors on investment decision-making in bank stocks listed in the Colombo Stock Exchange (CSE). The research utilizes a quantitative approach, analyzing data from 100 active investors. Results indicate that demographic factors such as age and education significantly impact investment behavior, while behavioral biases like overconfidence and herding behavior play a critical role in decision-making. This study suggests strategies to mitigate the effects of these biases, contributing to a more efficient market. The findings are significant for financial institutions, investors, and policymakers aiming to enhance market stability and investor results.

Keywords— behavioral finance, Colombo Stock Exchange, investment decision-making

I. INTRODUCTION

Investment decision-making has been traditionally grounded in the principles of rational choice theory [22], which assumes that investors make decisions by logically assessing available information to maximize their utility. Classical financial theories like the Efficient Market Hypothesis (EMH) and the Capital Asset Pricing Model (CAPM) rest on the idea that markets are efficient, and prices reflect all relevant information [9]. However, real-world observations often contradict these models, as investors frequently exhibit behaviors that deny rational logic. This deviation has led to the emergence of behavioral finance, which integrates insights from psychology to explain why investors sometimes act irrationally.

Behavioral finance is particularly important in emerging markets, where factors like information asymmetry, limited financial literacy, and market volatility can amplify irrational behavior [12]. The CSE has been a cornerstone of Sri Lanka's economic development, playing a crucial role in mobilizing capital and facilitating investment. Among the various sectors, banks' stock stands out due to their significant role in economic stability and growth. Understanding how and why investors make decisions in this sector is essential, not only for improving investment outcomes but also for ensuring market efficiency and financial stability.

The study aims to bridge the gap between traditional finance and behavioral insights by exploring the factors that influence investment decisions in the CSE, particularly in the banking sector. Through an examination of behavioral biases such as overconfidence, loss aversion, and herding, as well as demographic and economic factors, this research provides a comprehensive understanding of investor behavior in Sri Lanka.

II. MATERIALS AND METHODOLOGY

A. Materials

1) Investment Decision-Making in Financial Markets

Blending theories on investment decisions show that investment decisions depend on several factors such as economic factors, market factors and investor factors. The neoclassical theories bring it forth that the business decision-making process is rational with the primary objective of achieving higher returns with lower risks. However, according to behavioral finance, decisions are also based on psychological factors which result in irrational behavior of decision makers [11], [13]. Such complexity is exacerbated by factors such as the market mood, events, and communication in social networks.

There are several heeds that are cognitive and emotional that influence investments. For instance, overconfidence and anchoring cause investors to misunderstand estimates of risks and returns, while fear and greed result in unnecessary trading behaviours [8], [16]. Such biases can lead to irrational investment actions like over trading, copying others, and inadequate control of risks and these are capable of having negative impact on portfolio performance and overall market efficiency [3].

Decision in bank stocks involves several considerations since the sector is dominated by complexities and equally volatile to the prevailing macroeconomic factors. Stocks of a bank are comparatively riskier and need lot of analysis, so they are highly vulnerable to behavioral biases [17]. Such challenge risks tend to magnify biases and have severe implications for investors such as Regulatory shifts, Interest rate volatility and Geopolitical factors that affect the sector. Awareness of these factors enables successful

investment decisions as well as the achievement of a specific financial goal.

2) *Introduction to Behavioral Finance*

Behavioral finance is the branch of study that aims to identify the behavioral patterns and psychological characteristics that impact decisions made by consumers in the fiscal market and also deviate from the normative style of financial theories that assumes that people behave rationally. It considers the effects of emotions, heuristics, and social effects on investors' decisions; thus, it offers a better representation of the market environment [1], [4]. As it will be explained in the following sections, behavioral finance is important as it provides information that cannot be understood by using efficiency of markets explaining why markets may not be efficient all the time, also referring to some anomalies such as overreaction and underreaction of prices [2].

3) *Overconfidence Bias*

Overconfidence bias is one of the heuristics in the cognition area because people are likely to overclaim their expertise, efficiency, or accuracy of the information that they possess. This bias is rife in the investor with self-assessed high information or high forecasting ability, making them underpredict risk, and overtrade [5], [14]. Arrogance in investment leads to high turnover, which is caused by the investor's view that they can beat the market every time, thus incurring high transaction costs hence, lowering portfolio returns [5].

4) *Loss Aversion*

The theory related to the loss aversion is the prospect theory that aims at illustrating, that people prefer to avoid losses more than they would prefer to gain similar gains. This psychological bias makes investors give more importance to potential loss rather than the potential gain and therefore is a major reason for risk aversion [6], [5]. In financial markets, the loss aversion leads to situations such as the capital asset pricing model where investors are likely to cling to stocks with a view of earning back their misfortune as well as selling back performing stocks to avoid making more profits [21].

5) *Herding Behavior*

Herding behavior in financial markets refers to the tendency of investors to follow the actions of others rather than rely on their independent analysis. This behavior is driven by social influences and the perceived safety of conforming to the crowd, often leading to market trends that deviate from fundamental values [19]; [21]. Herding can result in the rapid escalation of asset prices during booms and steep declines during busts, contributing to the formation of bubbles and crashes [13].

6) *Anchoring Bias*

Anchoring bias is a cognitive distortion where individuals rely too heavily on initial information or reference points when making decisions. In investment contexts, this can lead to skewed valuations and decisions based on irrelevant or outdated data [7], [10].

Anchoring affects investors' ability to accurately assess new information and adjust their strategies, accordingly, often resulting in persistent mispricing of assets [13].

7) *Research Gap*

Despite the extensive research on behavioral biases in investment decision-making, significant gaps remain, particularly concerning emerging markets like Sri Lanka. Much of the existing literature predominantly focuses on developed markets, where the dynamics and impacts of biases such as overconfidence, herding, and anchoring are well-documented [1], [15]. However, the unique socio-economic and cultural contexts of emerging markets can significantly alter how these biases manifest and affect investor behavior.

B. Methodology

1) *Research Design*

This study employs a quantitative research design to investigate the factors influencing investment decision making in bank stocks on the CSE. A quantitative approach is suitable for this research as it allows for the statistical analysis of relationships between variables, helping to identify patterns, correlations, and causations. By using structured surveys, the study can collect numerical data that can be analyzed to draw insights into how behavioral, demographic, and economic factors impact investment decisions.

The research follows a descriptive correlational design, which is appropriate for understanding how different variables interact with each other. Descriptive research helps in identifying the characteristics of the population, while correlational analysis helps in determining the strength and direction of relationships between variables.

2) *Hypotheses*

Based on the conceptual framework, the following hypotheses are proposed:

H1: There is a significant impact of overconfidence bias on investment decision-making in bank stocks on the Colombo Stock Exchange.

H2: There is a significant impact of loss aversion on the investment decisions of investors in the Colombo Stock Exchange's banking sector.

H3: There is a significant impact of herding behavior on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

H4: There is a significant impact of anchoring bias on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

H5: There is a significant impact of risk perception on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

III. DATA ANALYSIS AND FINDINGS

A. Sample Collection

1) Research Population & Sample Size

The research population consists of individual investors actively trading bank stocks on the CSE. A sample size of 100 respondents was targeted to ensure robust and reliable data. The sample was selected using a non-probability sampling technique, specifically convenience sampling, where participants were selected through online platforms, investment forums, and social media.

2) Data Collection

Data was collected through an online survey, which included structured questions designed to capture relevant information on investment behavior. The survey consisted of four sections: Demographic Information with questions on age, gender, education level, and income; and Behavioral Biases with statements related to overconfidence, loss aversion, herding, and anchoring rated on a 5-point Likert scale.

B. Sample Analysis

1) Demographic Data

1. Age

Table 1: Age distribution of respondents [Source: Primary data collected by researchers]

Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	18	18.0	18.0	18.0
25-34	21	21.0	21.0	39.0
35-44	16	16.0	16.0	55.0
45-54	26	26.0	26.0	81.0
55 and above	19	19.0	19.0	100.0
Total	100	100.0	100.0	

The participants are distributed across diverse age categories. The majority of respondents (26%) are from the 45-54 age category, while 21% are from 25-34, and 19% are from 55 and above age category.

2. Education Level

Table 2: Education level of respondents [Source: Primary data collected by researchers]

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
High School or Below	28	28.0	28.0	28.0
Bachelor's Degree	24	24.0	24.0	52.0

Master's Degree	23	23.0	23.0	75.0
Doctorate or Higher	9	9.0	9.0	84.0
Total	100	100.0	100.0	

The educational level demographic data reveals a good educational background of respondents, with most having higher education qualifications.

3. Occupation

Table 3: Occupation of respondents [Source: Primary data collected by researchers]

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	23	23.0	23.0	23.0
Professional	20	20.0	20.0	43.0
Clerical	19	19.0	19.0	62.0
Managerial	19	19.0	19.0	81.0
Other	19	19.0	19.0	100.0
Total	100	100.0	100.0	

Most respondents (23%) are students, while 20% are in professional backgrounds. Other occupational categories are distributed equally.

4. Income Level

Table 4: Income level of respondents [Source: Primary data collected by researchers]

Income Level	Frequency	Percent	Valid Percent	Cumulative Percent
Less than LKR 50,000	15	15.0	15.0	15.0
LKR 50,000 - LKR 100,000	22	22.0	22.0	37.0
LKR 100,000 - LKR 200,000	14	14.0	14.0	51.0
LKR 200,000 - LKR 300,000	24	24.0	24.0	75.0
More than	25	25.0	25.0	100.0

LKR 300,000			
Total	100	100.0	100.0

Respondents belong to different income groups, with most (25%) belonging to the "More than LKR 300,000" income group.

2) Reliability Test

Table 5: Reliability test results [Source: Primary data collected by researchers]

Variable	Cronbach's Alpha
X1 – Overconfidence	0.783
X2 – Loss Aversion	0.752
X3 – Herding Behavior	0.728
X4 – Anchoring Bias	0.744
X5 – Risk Perception	0.769

All variables present Cronbach's Alpha values greater than 0.7, indicating good internal consistency among the variables.

3) Validity Test

Table 6: KMO and Bartlett's test results [Source: Primary data collected by researchers]

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.781
Bartlett's Test of Sphericity - Approx. Chi-Square	6.794
df	6
Sig.	0.040

The KMO value is greater than 0.7 and the significance value is lower than 0.05, validating the sample for further analysis.

4) Descriptive Statistics

Table 7: Descriptive statistics for behavioral factors [Source: Primary data collected by researchers]

Variable	Mean	Standard Deviation	N
X1 – Overconfidence	3.94	0.761	100
X2 – Loss Aversion	3.82	0.845	100

X3 – Herding Behavior	3.69	0.891	100
X4 – Anchoring Bias	3.61	0.804	100
X5 – Risk Perception	3.71	0.862	100

The mean scores indicate that overconfidence is the most prevalent behavioral factor (3.94), followed by loss aversion (3.82).

5) Correlation Analysis

Table 8: Correlation analysis for behavioral factors [Source: Primary data collected by researchers]

Variable	Investment Decisions	p-value
Overconfidence	0.211*	0.035
Loss Aversion	0.017	0.868
Herding Behavior	0.000	0.997
Anchoring Bias	-0.100	0.321
Risk Perception	0.021*	0.035

*Correlation is significant at the 0.05 level (2-tailed).

The correlation analysis shows that only overconfidence and risk perception have significant relationships with investment decisions.

6) Regression Analysis

Table 9: Model summary [Source: Primary data collected by researchers]

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F Change	Sig. F Change
1	0.211	0.044	0.035	0.21566	4.550	0.035

The model has a 4.4% ability to explain the dependent variable (investment decision) using behavioral factors.

7) Hypothesis Testing

Table 10: Hypothesis test summary [Source: Primary data collected by researchers]

Hypothesis	P Value	Decision
H1 – Overconfidence and investment decision	0.035	Accept - Significant relationship
H2 – Loss aversion and investment decision	0.940	Reject - No significant relationship
H3 – Herding behavior and investment decision	0.659	Reject - No significant relationship
H4 – Anchoring bias and	0.300	Reject - No significant relationship

investment decision H5 – Risk perception and investment decision	0.027	Accept - Significant relationship
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Only overconfidence and risk perception show significant relationships with investment decisions in bank stocks on the Colombo Stock Exchange.

Regression Equation: Investment decision = $4.735 + 0.115 \times \text{Overconfidence} + 0.235 \times \text{Risk Perception}$

IV. DISCUSSION AND CONCLUSION

A. Discussion

This study confirms that behavioral factors significantly influence investment decisions on the Colombo Stock Exchange (CSE), particularly overconfidence and risk perception. In line with previous studies [5], [13], overconfidence appears to lead investors to overestimate their skills and underestimate risks, often resulting in excessive trading and reduced portfolio performance. Risk perception also plays a significant role, consistent with [11], indicating that subjective risk evaluations influence decision-making beyond traditional rational models.

Conversely, commonly recognized behavioral biases such as herding behavior, loss aversion, and anchoring bias did not show a statistically significant influence. This finding contradicts the results of earlier research (e.g., [16], [6], [19], which highlight these factors as strong predictors of investor behavior in various markets. One possible explanation could be the unique characteristics of the Sri Lankan banking sector and the investor profile—such as higher financial literacy, cultural attitudes toward independent decision-making, and trust in established financial institutions—which may moderate the effects of such biases.

Anchoring bias, which involves reliance on initial reference points [7], also lacked significance in this study. This could suggest that bank stock investors in Sri Lanka are less dependent on outdated or irrelevant information when making investment decisions, possibly due to greater awareness or better access to market data.

Overall, the results highlight that investment decisions are shaped not only by cognitive biases but also by contextual and cultural factors. The influence of investor attitudes, shaped by education and local norms, suggests a behavioral pattern that differs from those observed in Western or other emerging markets. Thus, while the findings align with established literature in some areas, they also reveal context-specific variations, underscoring the importance of localized behavioral finance research.

B. Recommendations for the Field

Financial institutions can focus on addressing overconfidence bias through targeted education programs. Investment platforms could include features that help investors make more objective risk assessments. Policymakers should consider the unique

behavioral patterns of Sri Lankan investors when designing market regulations.

C. Recommendations for Future Research

Future research should expand the sample size and include other sectors beyond banking. Qualitative studies could provide deeper insights into why traditional behavioral biases are less prominent in Sri Lanka. Cross-country comparisons could help identify whether these patterns are unique to Sri Lanka or common across emerging markets.

D. Limitations of the Study

The study's reliance on self-reported data and convenience sampling may limit generalizability. The relatively small sample size may have affected the detection of weaker relationships. Future studies should consider these limitations when designing research methodology.

E. Closing Remarks

This study contributes to behavioral finance literature by highlighting unique patterns in an emerging market context. The finding that traditional behavioral biases may not universally apply across all markets provides valuable insights for both researchers and practitioners in the field of behavioral finance.

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An Exploration of Female Empowerment through Sisterhood and Friendship in selected Twentieth-Century English Novels by Women Writers

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Abstract— This research provides a comprehensive study of female friendships as a source of empowerment in the lives of women in the selected twentieth-century English novels written by female authors. This paper examines how female friendships are portrayed in texts from diverse cultural backgrounds that challenge patriarchal oppression, providing the emotional strength and support that the protagonists need. Although existing scholarship has examined female friendships in literature, a gap remains in understanding female friendships as a source of empowerment in twentieth-century English novels. To address this gap, this paper incorporates a comparative textual analysis of “The Color Purple” by Alice Walker, “Their Eyes were Watching God” by Zora Neale Hurston, “The Bell Jar” by Sylvia Plath, and “Wide Sargasso Sea” by Jean Rhys exploring female friendships as a source of strength in women’s lives as a resistance to the gendered constraints as depicted in the selected texts from different social and cultural backgrounds. By drawing from theories related to feminism and gender, particularly Judith Butler’s, Toni Morrison’s, and Bell Hooks’s theories, this study analyses the struggles faced by female protagonists in these novels and how female friendships challenge the constraints and oppression imposed on women by the patriarchal society, how this female friendship becomes a source of empowerment in women’s journey to autonomy and identity. In conclusion, this paper sheds light on an underexplored area that contributes to feminist literary scholarship.

Keywords— *female friendships, modern English novels, empowerment*

I. INTRODUCTION

Historically, in the world of literature, women are always portrayed as in rivalry and competition with one another. Scholars such as [1] and [2] have depicted the competition between women for social status, attraction, and attention. By sharing her firsthand experiences, Tanenbaum illustrates women’s rivalry. She highlighted the way she competed with other women for attention. “I felt...good about getting more attention from the boys than the other girls did” [2, p. 3]. Nevertheless, modern English novels written by

female authors have depicted female friendships as a source of empowerment in women’s lives. In recent times, there has been a growing body of literature emphasizing the importance of female friendships for women to transcend societal restrictions and limitations. Scholars like [3] have highlighted how female friendships have supported women in terms of their identity. Yet, there is limited research on how female friendships serve as a support system in the lives of women based on modern English novels. By exploring “The Color Purple” [4], “Their Eyes were watching God” [5], “Wide Sargasso Sea” [6], and “The Bell Jar” [7], this paper studies how female friendships empowers women to resist patriarchal restrictions and how female friendships are depicted in texts from different social and cultural backgrounds. From the perspectives of feminist and gender theories, these relationships can be seen either as support systems that support each other or as weak relationships, which are restrained by dominant societies.

II. LITERATURE REVIEW AND THEORETICAL BACKGROUND

The literature review and theoretical framework of this paper include three sections. First, the term “female friendships” has been defined based on the existing literature. Second, the employed theories in this paper are outlined, which include Adrienne Rich’s Gender Theory, Toni Morrison’s feminist theory, and Bell hooks’ theory of love and community. Third, it reviews the existing literature on female friendships.

A. Defining the term female friendships

Female friendships refer to social, emotional, and intellectual bonds that exist between women, which include support, trust, understanding, and shared experiences. [9] have depicted female friendships as deep connections where women can express themselves. These friendships help women transform their lives through the emotional support they receive from other women. [10] have depicted how female bonding helps women to be optimistic and to improve the feeling of empowerment through female

friendships. Female friendships go beyond offering mere companionship to women. Often, these bonds serve as sites of transformation, healing, and resistance. As depicted by scholars, women help each other to uplift themselves, providing the necessary support and guidance. Hence, in this research, the term “female friendships” refers to companionships that exist between women.

B. Existing literature on female friendships

Ample research has been conducted on female friendships. The research on female bonds depicts a dual perspective. Studies have shown women having competitions and rivalries with one another. Scholars such as [11], and [12] have also analyzed rivalry among women. Campbell focuses on the competition between women and has depicted how women use indirect methods to show rivalry as they want to protect existing relationships. [11] have explored the rivalry among females in workplaces. However, more recent scholarship has depicted female friendships as a strength, a support system to resist patriarchal restrictions. [13] have depicted how friendships between women function as defenses against societal restrictions in South Asian contexts. [14] and [15] explore friendships and sociological dimensions, especially Benchekroun highlighting the support women receive within interpersonal relationships. [16] have depicted how supportive female friendships have alleviated the emotional trauma of women who have faced racial discrimination.

In addition, scholars have studied the depiction of female companionship in all genres and periods. These female friendships also depict the freedom and suppression that women are undergoing in their respective societies. [17] has highlighted how Elena's Neapolitan novels depict female friendships among women that strengthen them, leading them to growth. Scholars like [18], [19], and [20] have analyzed the friendships between women as depicted in the works of literature. By analyzing a novel called “Conversations with Friends” by [18] has depicted how female friendships become an important aspect in the search for identity and happiness of women. [19] have studied how female friendships strengthen women to find autonomy amid societal constraints in patriarchal societies. Apart from that, [20] has comparatively studied “Pride and Prejudice” by Jane Austen, and “Jane Eyre” by Charlotte Bronte by depicting how female friendships have come across as a supportive force to challenge societal restrictions imposed on women. Apart from these studies, scholars like [21] have depicted how female friendships are affected by patriarchal challenges and societal restrictions.

This paper addresses the gaps in the existing scholarship by studying female bonds in twentieth-century English novels written by female authors from varied cultural and social backgrounds, such as African, American, Caribbean, and post-colonial contexts. Hence, this paper is significant as it explores a less-studied area in female friendships as a source of empowerment among women. The existing scholarship

on feminist literature has mostly focused on identity, oppression, and self-autonomy of women.

C. Theoretical framework

This paper draws from feminist and gender theories such as Adrienne Rich's gender theory, Toni Morrison's feminist theory, and Bell hooks' feminist theory. All these theories provide insights into the influence of female friendships in the lives of women as a source of empowerment across different societies.

Adrienne Rich, in her “Compulsory Heterosexuality and lesbian Existence [22] criticizes male-dominant societal structures, and she supports female friendships, which she calls the “lesbian continuum,” including a diverse range of relationships among women that defy patriarchal societies. This can be seen in Celie – Shug's relationship in “The Color Purple” and Janie and Pheoby's relationship in “Their Eyes Were Watching God,” which come as powerful forces of empowerment emotionally, spiritually, and sexually. They resist the male-dominated societies with their female friendships. In Plath's “The Bell Jar,” Doreen's and Joan's interactions with Esther can be seen as avenues of deep feelings to transgress the boundaries of heterosexual norms. However, Esther's emotional imbalance and Joan's suicide can also be analyzed as a result of the denial of female compassion and societal constraints.

Toni Morrison's theory highlights Black women's lives, which provide the theoretical background to analyze three of the selected novels, “The Color Purple,” “Their Eyes Were Watching God,” and “Wide Sargasso Sea.” Smith, in her 1978 essay “Toward a Black Feminist Criticism,” has mentioned that Morrison's work brings in about “Black women's autonomy and their impact upon each other's lives” [23]. Morrison also emphasizes the storytelling, women's shared experiences in the construction of their identities as women, and their opposition to patriarchy. In “Their Eyes Were Watching God,” Janie describes her life story to Pheoby, which depicts resistance to male male-dominated society through storytelling. Even in the novel, “Wide Sargasso Sea,” Jean Rhys gives voice to the silenced woman, Bertha Mason, in Brontë's Jane Eyre through Antoinette's character.

Bell Hook's in her book “Feminism is for Everybody: passionate politics,” mentions that feminism is pivotal for the community and refers to it as a political commitment to the oppression in society. Hook's theory is pivotal to examining the female friendships in the selected novels, as it highlights the friendships between women as a revolutionary act. She has also noted that one of the most powerful acts is to create safe spaces where women and grow and support each other spiritually, emotionally, and intellectually [24]. In the selected texts, Shug and Nettie's bonds with Celie provide the space to transform herself from being voiceless to a powerful character towards the end of the novel. In “Their Eyes Were Watching God,” Pheoby supports Janie by providing her the space to narrate Janie's stories in her journey to self-autonomy.

D. Situating the novels

These four novels can be studied under African American feminist literature. "The Colour Purple" by Alice Walker was published in 1982, and this novel is set in the "20th century American South", describing the story of Celie, who is the protagonist of the novel, "a Black poor girl" [25]. Jean Rhys's novel "Wide Sargasso Sea" was published in 1966, describing the story of Antoinette. This novel can be seen as a "prequel and postcolonial response" to Brontë's *Jane Eyre*. [25] "Their Eyes Were Watching God" (1939) recounts the story of "a Black female in her quest for self-identity" [26]. "The Bell Jar" (1963) focuses on "the protagonist Esther Greenwood, who descends into madness" [27].

All these novels can be categorized under three cultural contexts. The novels, "The Colour Purple" and "Their Eyes Were Watching God," can be taken under African American contexts. Both these novels depict how female friendships come as an important source of empowerment in the lives of women, both socio-politically and emotionally. The novel "The Bell Jar" is situated in the middle-class urban America, where female friendships can be seen as few and weak among Western white women after World War II. Celie and Janie receive support from female friendships, unlike Esther in "The Bell Jar." Esther does not have a proper cultural framework to build friendships with other women. They fail to nurture their relationships. This aligns with Bell hooks' criticism of white spaces. "Wide Sargasso Sea" is set in the post-colonial Caribbean society, and even the bonds that they have with others are affected by colonial hierarchies, cultural displacement. Their bonds become fragile in front of the violence and madness that the protagonist must undergo. However, it remains a force of resistance throughout the novel. The power of colonial society hinders their relationship.

III. METHODOLOGY

This paper utilizes a qualitative research approach employing comparative textual analysis as the main method of analyzing the selected texts. In the studies of literature, textual analysis is employed to examine and interpret the texts. The main reason for selecting textual analysis as the methodology is that it helps to get a thorough understanding of the selected novels, which fulfills the objectives of the research. Scholars such as McKee have highlighted the importance of textual analysis as it helps to analyze a text in a descriptive and exploratory way. McKee, in his "A beginner's guide to textual analysis," has mentioned, "When we perform textual analysis on a text, we make an educated guess at some of the most likely interpretations that might be made of that text" [8, p. 3]. Textual analysis helps to conduct an in-depth analysis of the characters, narrative, and the socio-cultural context. In this paper, female characters, their bonding with the other women, and the way they resist male domination have been analyzed through textual analysis. This research also explores how female friendships contribute to women's identity and autonomy. In addition, a comparative

approach is utilized to interpret and analyze multiple texts together. This helps to analyze the similarities and differences, and an in-depth meaning of texts concerning characters and socio-cultural settings, including African, American, Caribbean, Post-Colonial, and Western settings. This enables to depict how female friendships differ from one socio-cultural context to another and to what extent they empower women within these settings. This research focuses on modern English novels written by female authors from diverse backgrounds, such as African, American, and post-colonial contexts. The focus on twentieth-century novels aligns with the study's aim of exploring novels written by female authors from diverse social and cultural backgrounds.

IV. RESULTS AND FINDINGS

Both the novels "The Color Purple" and "Their Eyes Were Watching God" highlight the complexities present in African American women's relationships and struggles. Celie's sister empowers her through her letter writing. However, their correspondence is interrupted by Albert, who hides all Nettie's letters from Celie. It is Shug who discovers Albert's act and reveals it to Celie, portraying female bonds not only as an emotional strength but also as a support system. In "The Color Purple," Shug Avery empowers Celie, and in "Their Eyes Were Watching God," Janie's bond with Pheoby allows Janie to reflect on her life. Unlike Celie's and Shug's evolving friendship, which evolves throughout the book, Pheoby and Janie's bond depicts a rich culture of oral traditions. Pheoby becomes a listener and witness to Janie's story. While Shug provides the strength to Celie to stand as an independent woman in the male-dominated society, Pheoby gives the support to reflect on her journey.

In contrast to those two novels, the protagonists in "The Bell Jar" and "Wide Sargasso Sea" face mental and social deterioration in the absence of powerful female friendships. Christophine, the Black servant figure in the novel "Wide Sargasso Sea," extends her help to Antoinette. However, the strained post-colonial societal structure makes these female friendships impossible, which leads Antoinette to become a madwoman in a white man's attic, which can be seen through Bertha Mason's character in Brontë's *Jane Eyre*. Similarly, Plath's "The Bell Jar" depicts how Esther Greenwood's mental illness worsens in the face of weak female friendships. Though Esther is surrounded by women such as her mother, her colleagues, and roommates, none of these people fulfill her. As the novel is situated in mid-century American society after the war, the novel clearly depicts how female friendships are weakened and neglected by the patriarchal system.

In Alice Walker's novel, "The Color Purple," Celie becomes an immensely powerful character towards the end of the novel due to her female friendships with Nettie, her own sister, and Shug Avery, the past lover of her husband, Albert. When the novel begins, Celie can be seen as a character who undergoes abuse,

isolation under the dominance of male figures in her life. Celie's growth from voicelessness to empowerment happens with the support she gets from Shug and Nettie. Adrienne Rich's theory can be used to analyze Celie's and Shug Avery's relationship. Though their relationship is seen as very intimate, their connection is particularly emotional as well. Adrienne Rich has stated that "the connections between and among women are the most feared, the most problematic and the most potentially transforming force on the planet" [22]. When Shug comes into Celie's life, she motivates Celie to leave her husband. Later, Celie starts her own sewing business, gaining both economic and emotional independence. Scholars such as Maria have shown how Shug, Nettie, and Sofia helped her to achieve "a new identity and get her self-esteem back" [28]. Celie's empowerment is also nurtured through her correspondence with her sister through letters. According to Toni Morrison's theory, these letters come as a form of rebellion against male dominance.

"Their Eyes Were Watching God" by Zora Neale Hurston shows Janie Crawford's and Pheoby Watson's relationship, where Janie tells her life story to Pheoby and Pheoby listens actively to Janie and promises to share Janie's story. "Pheoby tell ' ' ' ' em...you must tell'em..." [5, p. 121]. Janie gains control of her life by recounting her life story, which involves three husbands. Pheoby becomes a part of Janie's life by capturing all these stories and helping Janie to come out of all these internal struggles. "Ah done lived Grandma's way, now Ah means tuh live mine." [5, p.134] She becomes a healer in Janie's life as it provides her with the space to reflect on her life through the narratives. "It is uh known fact, Pheoby, you got tuh go there tuh know there. Yo papa and yo' mama and nobody else can tell yuh and show yuh. Two things everybody has gotten tuh do fuh theyselves. They got tuh go tuh God, and they got tuh find out about livin' fuh theyselves." [5, p.226]. This exemplifies female friendships, especially through communication. Toni Morrison's feminist theory can be employed, which says that storytelling can be taken as a tool to empower women. Janie describes her three marriages to Logan, Jody, and Tea Cake. She rebelled against the dominance of males and her experiences of hardship and suffering. Pheoby gives her the space to express herself freely without any judgment, where she experiences respect and compassion.

In contrast to the above two novels, "The Bell Jar" by Sylvia Plath and "Wide Sargasso Sea" by Jean Rhys depict weakened female friendships yet stand against the male domination and societal restrictions.

In "The Bell Jar," Sylvia Plath portrays how female friendships are affected by mental illnesses and patriarchal violence. Doreen, Betsy, and Joan are female friends of Esther Greenwood. Unlike the female friendships in "The Color Purple" and "Their Eyes Were Watching God," these relationships do not offer any kind of empowerment or consolation for the protagonist. These can be seen in line with Rich's

argument that patriarchal societies disrupt deep female relationships. Esther's psychological breakdown and her friend Joan's suicide emphasize the lack of proper bonding, which is required for anybody. However, these relationships offer moments of empowerment, resistance against the restrictions placed on women in their society. Even the female characters challenge the prescribed and given gender roles for women. Doreen goes against the stereotypes given to women as she serves as a rebellious, clever character, who is not concerned about the approval of society. She also works as a guest editor in New York, depicting the dynamic roles a woman can play in society. "She used to sit next to me...she'd whisper witty, sarcastic remarks to me under her breath" [7, pg. 5] Doreen becomes a source a strength for Esther to see beyond the society's misleading nature. This can be seen when she says, "I felt wise and cynical as hell" [7, chapter 3]. Apart from Doreen, Betsy is another friend of Esther who is also working as a guest editor. Though she does not appear as a powerful character like Doreen, she embodies the stereotypical ideal American woman and is described as a sweet and feminine character. Even if she does not come across as a dominant character, her presence in Esther's life enables her to perceive the limitations of the feminine ideal, that even fitting in cannot bring fulfillment. In addition, Esther meets several women at the psychiatric hospital and bonds with them who come across shared experiences. Though Esther is isolated at the hospital, she also shares the same experiences with other female characters like Joan. Even Dr. Nolan serves as a supportive and understanding character, unlike other psychiatrists like Dr. Gordon. Dr. Nolan becomes a positive influence and a mother-like figure in Esther's life. "I will tell you beforehand, and I promise you it won't be anything like what you had before" [7, p. 200]. This novel clearly depicts the failure of female friendships to empower women under the influence of patriarchal systems. This critiques the lack of female spaces where male authority is the order of the day. As Antoinette in "Wide Sargasso Sea," Esther experiences mental breakdowns, which lead to institutionalized care for her mental illness. This also depicts how the lack of powerful female friendships has impacted women's lives. Despite Esther being surrounded by women, they are unable to support her. Sylvia Plath brings in the support women need to rise against all the societal barriers. "What a man wants is a mate and what a woman wants is infinite security, and what a man is an arrow into the future and what a woman is the place the arrow shoots off from" [7, p. 115]. These words are uttered by Buddy's mother, Mrs. Willard, in the novel. By using these words, Plath has metaphorically depicted how certain societies and cultures have perceived gender dynamics. She holds a very patriarchal and traditional viewpoint towards gender. Hence, women who empower Esther through supportive female friendships resist the system that Mrs. Willard represents, though they are not powerful enough to empower and transform Esther's life.

Jean Rhys's "Wide Sargasso Sea" reclaims Jane Eyre's Bertha Mason, giving life to Antoinette's story. The novel brings the female friendships between Antoinette and Christophine, a Black female servant of the protagonist Antoinette. She resists the colonial power, which hangs clogs on Antoinette and acts as a maternal figure in her life. When Antoinette asks for help, Christophine states that their emotional bond is much stronger than their relationship, and it is overly complex. "Have spunks and do battle for yourself" [6, p. 105]. Christophine appears as an immensely powerful character in Antoinette's life. When Antoinette goes to get advice from Christophine to win back her husband Rochester's love, Christophine asks her to leave her husband. "I tell you a hard thing, pack up and go" [6, p. 99]. This also depicts Christophine as a very radical character. Though she is depicted as an illiterate character, she is a knowledgeable woman who possesses a good understanding of society, which is clearly shown through the advice she gives to Antoinette. "When a man doesn't love you, the more you try, the more he hates you, a man like that" [6, p. 99]. Though Christophine acts as a marginalized character in the story, she confronts Rochester. She is neither afraid nor shows any concern about going against him. She warns Antoinette to leave Rochester, pushing Antoinette for self-autonomy. "You have no husband now" [6, p. 115]. This statement is a powerful statement as she tries to release Antoinette from all the patriarchal restrictions that tied her down to a marriage where she is ill-treated and unloved. However, despite this, Christophine's actions and words are not enough to protect Antoinette from colonial violence and patriarchy. The impact of colonial and social hierarchies in society becomes strong when rescuing Antoinette from her terrible experiences. Their connection is burdened with colonial tensions and hierarchy. As a result of that, Christophine fails to save Antoinette, and she ends up becoming a madwoman under the dominance of patriarchy and colonialism. Christophine remains a spiritual advisor throughout the novel. Their female friendships become very weak, and society seems not to facilitate such bonds, which empower women. Nevertheless, the female friendships between Christophine and Antoinette remain a resistance to the power of colonialism and male-dominated social structure.

In both "Wide Sargasso Sea" and "The Bell Jar," the protagonists descend into madness in the face of failed female relationships under the dominance of patriarchal male authorities.

Collectively, these four novels depict the importance of female friendships in the lives of women. The novels, "Their Eyes Were Watching God" and "The Color Purple," depict how female friendships come as a source of strength in the lives of the protagonists through Janie's and Celie's characters, respectively. However, in the two novels, "The Bell Jar" and "Wide Sargasso Sea," the respective protagonists Esther and Antoinette depict the failure women have to face because of failed female bonds.

V. CONCLUSION

This paper depicts how female bonds are portrayed in contemporary English novels, which can be seen as forms of resistance and empowerment against patriarchal oppression. In "Their Eyes Were Watching God" and "The Color Purple," the protagonists find social, emotional, and spiritual liberation through the bonds they share with other women. Their female friendships come as strong forces of resilience against all the societal barriers that oppress and limit women's movement. The bonds come not only as supportive but also as foundational to their transformation. In contrast, "The Bell Jar" and "Wide Sargasso Sea" depict tense friendships due to societal constraints. The protagonists from "The Bell Jar" and "Wide Sargasso Sea," Esther and Antoinette, respectively, suffer due to the weak female bonds that they have. These female solidarities become delicate within the socio-cultural contexts of the time. Hence, all these four novels depict diverse constructs of connections among women, illustrating that female bonding can function as a resistance to oppression and domination, but its success relies on the societal and cultural environments in which these bonds are built. Through these diverse contexts, the presence or absence of transformative connections among women have changed each protagonist's life in a significant manner. By integrating theories with this literary analysis, this study provides a comprehensive understanding of how connections among women can be seen as a source of strength, where their effectiveness depends on the socio-cultural settings in which these bonds exist.

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Predictors of Accounting Professionals' Intention to use Accounting Information Systems

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Abstract— Purpose - Purpose of conducting this research study is to identify the factors that effecting on accounting professionals' intention to use accounting information system. Expect to give proper idea to accounting professionals about the factors which effect accounting professionals' intention to use accounting information system. Design/ Methodology/ approach – Based on the 209 valid responses gathered through a survey, the Unified theory of acceptance and use of technology (UTAUT) model was used to test the research model and hypothesis. Basically, UTAUT model used for test individuals' intention to use technology. To recognize the relationship between technology intention in accounting most suitable model is UTAUT. Findings – The result indicated that effort expectancy, performance expectancy, social influence, information quality and trust have significant effect. Practical implication – Accounting professionals should concern especially effort expectancy, performance expectancy and information quality to enhance intention to use accounting information system. However, facilitating conditions does not have significant effect.

Keywords— Accounting Professions, Accounting Information Systems, Digital Technology, Information Quality, Intention to use Accounting Information System, UTAUT model, Trust

I. INTRODUCTION

The modern business environment has been fully digitalized due to global digitalization. Digitalization is radically transforming job resources, job design, professionals, and economic activities. There is no universally accepted definition for digitalization in academic or literature. According to [1] “digitalization is process of turning physical information into digital format for processing, storage and transmission by computers/ devices. According to [2] mentioned digital technology intention as “selecting a technology to be used by and organization or individual” In modern business, adopting digital technologies has become essential for organizations to stay competitive. Therefore, every professional, organizations and every individual must intent to use digital technologies. In account profession widely use digital technology is accounting information systems such as Sage 50, QuickBooks, SAP business one, Wave, Xero, etc. Specially in accounting industry professionals are increasingly utilizing Accounting Information System

such as cloud computing, internet, block chain, software, AI, etc. because it has been identified that it has so many benefits.

Therefore, main purpose of this investigation is to identify predictors that effect on intention to use accounting information system at workplace from the perspective of accounting professionals. We developed our research model by using Unified Theory of Acceptance and Use of Technologies – UTAUT. Based on research model proposed, we developed a Likert – based questionnaire covering all the areas cited in the two frameworks and disseminated it among accounting professionals working in Sri Lanka. The data gathered have then been analysed through a regression analysis measure the effect of theoretical construct on individuals' intention to use accounting information systems. Our result show that main predictors of accounting professionals' intention to use accounting information systems are performance expectancy, effort expectancy, social influence, trust and information quality while facilitating condition has insignificant effect on accounting professional's' intention to use accounting information system. In doing this study makes raging theoretical and practical contribution. Firstly, it contributes to specially in the context of the accounting profession by identifying the main determinants of intention to use accounting information systems. Secondly this paper contributes to existing literature a UTAUT model. Regarding its implication for practice, the paper's result can be of value for accounting profession considering the extent of user intention and the barriers to further use accounting information systems. Specially by identifying the predictors of accounting information system intention for accounting activities, the findings of the study could be used full to create a successful implementation strategy.

II. MATERIALS AND METHODOLOGY

In a digitalized world accounting professional perform their work/tasks in highly computerized environment [3] Therefore, entire accounting professionals' profile has been changed due to the digitalization. Accounting information systems have contributed to the automation of numerous activities in the company, because of that business operations such as data entry and documentation record have been significantly

made easy and efficient [4]. Digitalization of accounting has opened a new era of efficiency and transparency, enabling the automation of routing activities, enhancing accuracy of data, providing real time financial reporting, information, etc.

A. Unified Theory of Acceptance and Use of Technology (UTAUT)

According to [5] Unified theory of acceptance and use of technology (UTAUT) is a prominent theory invented in 2003. And this model is used to assess intention to use technology at the individual level. According to the [5] unified theory of acceptance and use of technology model is fundamental theory about how people accept and use technology. Unedified theory of acceptance and use of technology is comprised of four main direct determinants that are important to interest in the use and use of information systems, main direct determinants are performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC). Unified theory of acceptance and use of technology (UTAUT) has been demonstrated to be up to 70% more effective than other eight theories of TRA, Technology acceptance model, motivational model, TPB, combination of TAM and TPB model, PC utilization model, innovation diffusion theory and social cognitive theory model [5].

[6] mentioned that Unified theory of acceptance and use of technology (UTAUT) is the most suitable method to measure the intention to use technology. Because the UTAUT theory is based on those mentioned eight theories (Farah et al., 2018a). the Unified theory of acceptance and use of technology (UTAUT) model was developed to offer a cross validated framework that explain an individuals' intention to adopt new technologies across various companies around the world.

III. RESEARCH DESIGN

Research philosophy is "system of belief and assumptions about the development of the knowledge" there are two part of research philosophy. They are ontological and epistemological assumptions. epistemological assumption is how the research going to be conduct with the assumption according to the human knowledge. According to Ferri et al. (2023) and Ferri et al. (2020) previous researchers used positivism philosophy to investigate professionals' intention towards use technology. this research is also researching accounting professionals' intention to use accounting information system. Therefore, this research also following positivism philosophy (sample is representing the entire population)

A. Hypotheses

Based on the conceptual framework, the following hypotheses are proposed:

H1: Effort expectancy (EE) has a positive effect on accounting professionals' intention to use AIS.

H2: Performance expectancy (PE) has positive effect on accounting professionals' intention to use AIS.

H3: Social influence (SI) has positive effect on accounting professionals' intention to use AIS.

H4: Facilitating Conditions (FC) has positive effect on accounting professionals' intention to use AIS.

H5: Information Quality (IQ) has positive effect on accounting professionals' intention to use AIS.

H6: Trust has positive effect on accounting professionals' intention to use AIS.

IV. RESULTS AND DISCUSSION

A. Hypothesis Testing

H1: There is a significant relationship between Effort expectancy and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H2: There is a significant relationship between Performance expectancy and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H3: There is a significant relationship between social influence intention to use Accounting Information system. [- Significance level = 0.010 ($p < 0.05$), p-value is less than 0.05, leading to the rejection of the null hypothesis.] H4: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.243 ($p > 0.05$), p-value less than 0.05, the null hypothesis is accepted.] H5: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H5: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.030 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.]

B. ANOVA

ANOVA test is used to test the model significant. In align with the research that has been conducting to investigate factors that effect to accounting professionals' intention to use Accounting Information System model significant can be derive through the analysis done by the SPSS.

According to the model there can be develop two hypotheses such as, H0: The model is not significant H1: The model significant to determine the hypotheses testing use P value approach. According to P value approach if the alpha value is greater than the P value reject the H0. According to the ANOVA table the P value represent the 0.000b. according to that the alpha value is alpha value (0.05) greater than the P value (0.000b).

which means reject the H0. According to that the result can interpret as at 95% confidence level independent variables make significant on the dependent variable.

Table 1: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.91	0.84	0.835	0.2402

As in table 1 mentioned in the model summary this model summary's fitted level can be extract from the adjusted R square value which is 83.5%. furthermore, it can explain that 83.5% variation in accounting professionals' intention to use Accounting Information System can be explaining by effort expectancy, performance expectancy, social influence, facilitating conditions, information quality and trust.

C. Hypothesis Testing

H1: There is a significant relationship between Effort expectancy and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H2: There is a significant relationship between Performance expectancy and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H3: There is a significant relationship between social influence intention to use Accounting Information system. [- Significance level = 0.010 ($p < 0.05$), p-value is less than 0.05, leading to the rejection of the null hypothesis.] H4: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.243 ($p > 0.05$), p-value less than 0.05, the null hypothesis is accepted.] H5: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.000 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.] H5: There is a no significant relationship between Facilitating condition and intention to use Accounting Information system. [- Significance level = 0.030 ($p < 0.05$), p-value is less than 0.05, the null hypothesis is rejected.]

Table 2: Hypothesis results

Model	Variable	Unstandardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	t	Sig.
1	(Constant)	0.315	0.126	-	2.498	0.013
	Effort Expectancy	0.223	0.053	0.263	4.179	0
	Performance Expectancy	0.21	0.055	0.245	3.817	0

Social Influence	0.154	0.059	0.167	2.604	0.01
Facilitating Condition	0.072	0.062	0.079	1.17	0.242
Information Quality	0.284	0.059	0.272	4.786	0
Trust	0.18	0.057	0.172	3.171	0.002
	0.124	0.057	0.126	2.185	0.029

V. LIMITATIONS

As with all previous studies, the current study has some limitations. First, it is a cross – sectional study that does not illustrate how accounting professionals' intention to use accounting information system can be change over time, as this research represent only a specific time frame. Therefore, it is recommended to conduct longitudinal research in future. Secondly the current research study concerned only the accounting information systems. In future research can use the Unified theory of acceptance and use of technology (UTAUT) model across several information systems, and specially in cloud-based systems and compare the different and similar aspects to make additional contribution. Third, in this current research study used to collect data from the accounting professionals' who live in Sri Lanka. Therefore, the researcher recommends that study samples be drawn from other developing countries with the aim of understanding the impact of cultural differences on the research context. Forth, the application of information systems not that much used by some organization and bit new to Sri Lanka, especially in the field of accounting profession. Therefore, future researchers should use large-scale of samples to ensure the representativeness of the study. Even this research conducted in Sri Lanka, for the data collection purpose only used Colombo District and Kandy district. Therefore, recommend using other districts in Sri Lanka for purpose of data collection. In addition, the current research study examined the accounting professionals' intention to use accounting information system based on the Unified theory of acceptance and use of technology (UTAUT) model perspective. Therefore, suggest applying this research gap to other theories such as Technology Acceptance Model (TAM), TAM version 2, Theory of planned behaviour, and Unified theory of acceptance and use of technology version 2 (UTAUT 2) model, etc. This research study only focusing on accounting sectors, in future research suggest applying on other sectors as well. Finally, the current research study only captured the accounting professionals' intention to use accounting information system, therefore suggests identifying professions continues intention to use accounting information system, intention to adopt accounting information system, actual behaviour to use accounting information system and how intention to use intention to use accounting information system

effect on accounting professionals' satisfaction and accounting professionals' performance.

VI. CONCLUSION

This research introduces a fresh look related to accounting information system by the extended Unified theory of acceptance and use of technology (UTAUT) model. This study also carried out in accounting field that has received little attention in using information system. Still, it has significant role in organizations in perform daily transactions and activities. More specially this research study was carried out in a developing country such as Sri Lank, where the use of accounting information system to perform financial and accounting related activities has

received limited research effort. In modern business world many organizations are using accounting information system to attain a competitive advantage or survive in the business world/ information industry. When focus on the findings of this research study, accounting professionals consider effort expectancy, performance expectancy and information quality to be important factors that influence their intention to use accounting information system. The result of this research study also indicates that intention to use accounting information system is significantly impacted by the social influence and trust. The result further implies that facilitating conditions to be insignificant predictor of accounting professionals' intention to use accounting information system. Finally, the current study implies that accounting professionals' intention to use accounting information system predict by the effort expectancy, performance expectancy, social influence, facilitating conditions, information quality and trust. First, this study expands upon the understanding of accounting professionals' intention to use accounting information system in the context of a developing nation like Sri Lanka, thereby addressing a major knowledge gap in the related literature, it further offers an extension to the traditional UTAUT model to offer a more accurate and well-rounded comprehension of accounting professionals' intention to use accounting information system.

The use of additional factors such as information quality and trust can offer strong insights to future studies that aims to assess intention to use information

system. This study also contributes to the existing knowledge of the UTAUT factors

and information quality and trust on accounting professionals' intention, by providing an enhanced understanding of how these factors impact intention to use accounting information system within a developing nation.

This study serves as a practical guide for accounting professionals, managers, and job seekers by guiding the predictors of intention to use accounting information system they would be motivate to intent to use accounting information system. In addition, the study indicated that performance expectancy, effort expectancy and information quality are largely critical factor in determining the accounting professionals' intention to use accounting information system. Therefore, especially must concern these indicators.

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The Impact of Packaging Visual Design Elements on Impulse Buying Behavior in E-Commerce: A Study of Cosmetic Products

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Abstract— This study investigates the impact of visual packaging design elements specifically color and graphics, shape, material, and product information on impulse buying behavior among Generation Z consumers in the Western Province of Sri Lanka within e-commerce settings. Using a quantitative approach, data were collected via a structured online questionnaire from 461 respondents. The data were analyzed using SPSS software, employing descriptive statistics, correlation analysis, regression modeling, and reliability and validity tests. The results reveal that packaging color and graphics, shape, and material have a significant positive influence on impulse buying, whereas product information does not show a significant effect. The findings highlight that emotionally engaging and visually appealing packaging elements are more effective in stimulating unplanned purchases than rational, information-based cues. Grounded in the Stimulus-Organism-Response (SOR) model, the study demonstrates that external visual stimuli evoke internal emotional responses, which lead to impulsive buying decisions. These results emphasize the strategic importance of integrating attractive and sustainable packaging features in digital retail to appeal to Generation Z consumers, who are highly responsive to aesthetic and emotional stimuli. This research contributes to the limited literature on consumer behavior in South Asian online markets and offers practical insights for e-commerce marketers and product designers seeking to enhance impulse purchase rates through packaging design.

Keywords— *e-commerce, impulse buying, packaging design*

I. INTRODUCTION

In the context of a competitive and dynamic global market, marketing has been acknowledged as essential to shaping consumer perceptions and influencing purchasing decisions. It encompasses strategic communication efforts aimed at promoting products both directly and indirectly [1]. Among the various elements of marketing, packaging has gained prominence as a critical component, functioning both as a protective container for products and as an influential communication and branding instrument [2]. Since packaging is the first element customers

encounter before making a purchase, it plays a crucial role in marketing and significantly influences product choice [3]. Furthermore, Packaging enhances product attractiveness and draws customer attention, which has a substantial impact on purchase intention [4]. Moreover, packaging functions as a heuristic cue, shaping customers' perceptions and choices while assisting them in rapidly identifying and choosing brands [5]. The visual components of packaging often dominate over other informational cues during the purchase process, highlighting their importance in influencing consumer behavior [6]. This is particularly evident in the cosmetics industry, where packaging design plays a pivotal role in attracting consumers.

The word "Cosmetics" was first used in the 1600s to describe the practice of decorating, anointing, or embellishing the human body [7]. Over time, the demand for cosmetic products has seen significant growth, with younger consumers increasingly prioritizing safety and high quality in their purchasing decisions [8]. In Sri Lanka, cosmetics market is expected to reach US\$201.70 million in 2025, growing at a 4.79% CAGR [1]. Simultaneously, technological innovations continue to transform the retail environment, establishing e-commerce as a preeminent medium for consumer transactions, including cosmetic products [9].

E-commerce has grown in popularity among consumers and business people because of its individualized customer care, seamless purchasing experience, and visually appealing product displays [10]. As e-commerce grows, brands of cosmetics and personal care items need to use a variety of marketing and advertising techniques to draw in and keep consumers [11]. In this context, E-commerce customers depend on visual packing signals to sway decisions and evoke feelings, but little study has been done in this area [3],[12]. Moreover, impulsive purchasing, which is unplanned, rapid, emotional, and situational, and is motivated by emotional triggers, planned purchases are impacted by the quantity of information and the amount of time spent making decisions. Despite limited data on consumer behavior,

the rising demand for cosmetics highlights the need for effective marketing strategies [13].

Studies on packaging and impulsive purchases are conducted worldwide, however there is a dearth of research that particularly addresses the Sri Lankan e-commerce business. Also, little is known about how visual package components affect consumers' feelings when they purchase online, especially in developing nations like Sri Lanka. This offers a chance to examine the ways in which visual design affects customer feelings and purchase choices in the context of Sri Lankan e-commerce [3],[12],[14]. Therefore, it is crucial to study how visual packaging elements—color, graphics, shape, product information, and materials—impact impulse buying behavior in e-commerce. This paper aims to answer four key research questions about how packaging visual design elements impact impulse buying in e-commerce. (1) What is the influence of packaging color and graphics on impulse buying in e-commerce?, (2) what is the impact of package shape on consumers' impulse purchase decisions in online shopping?, (3) to what extent does product information displayed on packaging affect impulse buying behavior in e-commerce?, (4) what role does the choice of packaging material play in influencing consumer impulse buying behavior in e-commerce?. In addressing the above research questions, this paper makes several key contributions. This study examines how packaging visual design influences Gen Z's impulse buying of cosmetics in Sri Lanka's Western Province and provides insights for improving cosmetic promotion strategies on e-commerce platforms to boost organizational performance.

The paper is organized as follows. First, it provides the literature review on previous studies of packaging elements and graphics impulse buying in e-commerce. Next, the methodology covering data collection and analysis in detail. Then, research findings are presented. Finally, the paper concludes with key insights, practical implications, limitations, and suggestions for future research.

II. LITERATURE REVIEW

A. Packaging color and graphics impulse buying in e-commerce

In marketing, creative visual design is essential for capturing consumer attention [15]. Container design has a direct impact on buying behavior [16], and visual design plays a key role in conveying product identity [17]. Packaging color and graphics enhance product appeal, influencing impulse purchases online [3]. Graphics also support brand communication, ensuring clarity and recognition, particularly in unfamiliar markets [18]. Color serves the purpose of drawing in customers while they make decisions about making a purchase [19]. As mentioned, through the use of visual signals as color and graphics to draw attention and convey meaning, packaging design and color have an influence on consumers' intents to make purchases [20].

Using these findings to examine the effects of container color and images on impulse buying in online e-commerce, the study's first hypothesis proposes that,

H1: Packaging color and graphics have a positive relationship with impulse buying on e-commerce.

B. Packaging shapes and impulse buying in e-commerce

Packaging shape and size maximize the efficacy of relational or aggressive marketing by drawing in customers, improving engagement, and influencing perceptions through attractive designs [3]. Packaging shape has an important effect on consumers' intent to purchase when product quality is unable to determine from packaging appear [4]. Packaging shape influences purchases, aiding recognition and attention without label reading [21]. Further, studies reveal that package shape and transparency influence purchase intent and increase interaction [22], [23]. Moreover, packaging size and shape, affect consumers' intent to purchase [4]. Customer purchasing intentions are significantly influenced by packaging design of shape.

These indicators suggest a connection between package shape and impulsive purchases in e-commerce. Applying these results to the research yields a hypothesis that suggests,

H2: Packaging shape has a positive relationship with impulse buying in e-commerce.

C. Product information in packaging and impulse buying in e-commerce

Packaging details like contents, origin, and expiration date influence purchase decisions by building consumer confidence. Product information shapes buyer focus and emotions, while font size, style, color, and spacing create visual hierarchy [21]. Labels provide transparency and raise customer knowledge by clearly stating product facts [19]. Consumers' decision making process and, ultimately, their purchasing behavior can be influenced by product information [24]. Since it reflects the tone of the product and improves its visual appeal, information is crucial in packaging [25]. In packaging design, information is essential for drawing customers in and communicating vital product information [26]. The consumer will boost their trust in the product by reading the package information on the package before making a purchase [27]. Visually appealing images and clear product information help e-commerce platforms boost impulsive sales. Customers are encouraged to purchase a range of goods without planning attributable to this combination. These research findings serve as a frame for the concept that suggests,

H4: Packaging information have a positive relationship with impulse buying in e-commerce.

D. Packaging materials in packaging and impulse buying in e-commerce

Packaging materials serve both protective and communicative functions, conveying product value to consumers [4]. As the first physical element a buyer

encounters, packaging reflects product quality and brand image [28]. Consumers evaluate packaging based on design and natural-looking materials [29]. Common materials such as paper, glass, metal, plastic, and wood offer durability, recyclability, and resistance to weather and corrosion [3]. Increasingly, consumers prefer eco-friendly packaging, those made from recyclable materials and designed to reduce waste, favoring options like paper and glass over plastic [29]. As a result, sustainable packaging is gaining popularity [16]. Ultimately, packaging materials are essential for both product protection and enhancing visual appeal [25].

These findings demonstrate the relationship between impulsive e-commerce purchases and packaging materials. In relation to this, the research suggests the following hypothesis:

H4: Packaging materials have a positive relationship with impulse buying in e-commerce.

E. Impulse buying in e-commerce

Impulse buying refers to unplanned purchases triggered by situational marketing and social cues in online environments [30],[31]. It is influenced by emotional engagement, entertainment, and interactivity, making it a powerful driver of online sales [32]. Scholars note that impulse purchases are frequently stimulated by social cues and marketing tactics in digital spaces [31]. Product attributes, packaging, branding, and visual cues contribute to impulsive buying behavior [33]. E-commerce growth amplifies this, influenced by personal traits and platform design [34]. Online product access increases impulse purchases over in-store. Social media, as a powerful marketing tool, significantly influences consumer decisions, including impulse buying [35]. Increasingly, consumers make purchases based on content viewed on social platforms [36]. Social shopping, a part of e-commerce, promotes consumer interaction through networks [37]. E-commerce growth heightens research interest in impulse buying [38].

F. Theoretical background

The S-O-R (Stimulus-Organism-Response) model explains how environmental stimuli affect consumer behavior, originally in retail settings. In this model, the servicescape—cleanliness, design, and signage—stimulates moods and behaviors [31]. This framework has been adapted to e-commerce, where stimuli include features of online marketplaces [39]. The S-O-R model posits that external stimuli (S) affect an individual's internal cognitive and emotional states (O), which then lead to behavioral responses (R) [40]. Prior studies have shown that online stimuli significantly influence impulsive buying [31]. Due to its strong focus on consumer behavior, the S-O-R framework is widely used to study online impulse purchases [41]. According to [30], impulse buying is defined as an unplanned purchase triggered by stimuli [42]. The model also provides a useful basis for understanding consumer reactions to live streaming and social media marketing [43]. The S-O-R model is a framework for analyzing environmental influences on online consumer

behavior. This study uses it to explain how packaging influences online impulse buying.

Independent variables (IV)

Dependent variable (DV)

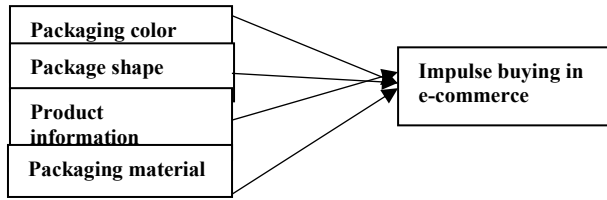


Fig. 1. Conceptual Framework (Source: Author's compilation)

III. DATA AND VARIABALES

A. Study period and sample

This study used a cross-sectional quantitative design to investigate how visual packaging design elements affect impulse buying among Generation Z consumers in Sri Lanka's Western Province. In 2025, data were gathered via a structured online questionnaire on Google Forms. After cleaning, 461 valid responses were analyzed with SPSS using descriptive statistics, correlation, and multiple regression.

B. Dependent variable

Impulse buying in e-commerce: In this study, impulse buying in e-commerce is considered the dependent variable, representing spontaneous and unplanned purchasing behavior triggered by visual packaging stimuli during online shopping.

C. Independent variable

This study highlights four main visual packaging design elements as independent variables: packaging color and graphics, shape, product information, and material. These act as visual stimuli influencing consumer behavior in e-commerce, particularly among Generation Z. Color and graphics focus on aesthetics to capture attention and evoke emotions. Shape relates to the package's form, impacting perceptions of novelty and attractiveness. Product information provides text to help informed decisions, while material conveys quality and sustainability.

D. Methodology and model specifications

The study employed a quantitative, deductive research design aligned with a positivist philosophical stance, which emphasizes objectivity, measurable data, and hypothesis testing. This method worked well for investigating the connections between impulsive purchasing behavior and visual packaging design components in the context of online shopping. The research was cross-sectional in nature, with data collected at a single point in time using a structured survey strategy. The target population consisted of Generation Z consumers aged 20 to 28 residing in the Western Province of Sri Lanka, a region with a high concentration of online shoppers. A non-probability convenience sampling technique was used to collect data from respondents. The population was considered effectively unlimited for sampling purposes. Therefore, Krejcie and Morgan's (1970) sample size

determination table was applied, indicating a minimum required sample size of 384 at a 95% confidence level. To ensure a higher precision, 490 questionnaires were distributed, and 461 valid responses were collected and analyzed. Data was collected through a self-administered online questionnaire distributed via Google Forms. The instrument comprised a total of 32 items rated on a 5-point Likert scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The questionnaire was divided into two main sections. The first part gathered demographic data (gender, age, education level, marital status, employment status, monthly income, district, and internet usage frequency). The second part assessed the independent and dependent variables of the study. The independent variables included Packaging Color & Graphics (PCG), Packaging Shape (PS), Product Information (PI), and Packaging Materials (PM). The dependent variable was Impulse Buying in E-commerce (IBE). Data was analyzed with SPSS using multiple regression to assess each packaging design element's effect on impulsive buying, descriptive statistics to summarize the data, and correlation analysis to explore variable relationships. This approach offered a thorough insight into how visual packaging influences online consumer purchases.

IV. EMPIRICAL RESULTS

A. Reliability

Summary statistics: The summary statistics of dependent and independent variables for reliability are presented in Table 1.

Table 1: Reliability summary statistics

Variables	Cronbach's Alpha
PCG	0.793
PS	0.813
PI	0.722
PM	0.805
IBM	0.840

Source: Author's compilation

Cronbach's Alpha was used to assess internal consistency. All constructs exceeded the acceptable threshold of 0.70, indicating reliable measurement. Packaging Color & Graphics ($\alpha = 0.793$), Packaging Shape ($\alpha = 0.813$), Packaging Information ($\alpha = 0.722$), Packaging Material ($\alpha = 0.805$), and Impulse Buying ($\alpha = 0.840$) showed satisfactory reliability.

B. Validity

Summary statistics: The summary statistics of dependent and independent variables for validity are presented in Table 2.

Table 2: Validity summary statistics

Variables	No. of Items	Factor loading Range	CR Value	AVE Value
PCG	8	0.617-0.776	0.917	0.583
PS	7	0.576-0.764	0.909	0.592

PI	5	0.619-0.794	0.905	0.658
PM	6	0.665-0.749	0.911	0.633
IBE	6	0.778-0.789	0.882	0.556

Source: Author's compilation based on Fornell and Larcker -1981

Measurement validity was assessed using SPSS software confirmatory factor analysis. All factor loadings exceeded 0.6, indicating strong item reliability. Composite Reliability (CR) values ranged from 0.882 to 0.917, and Average Variance Extracted (AVE) values ranged from 0.556 to 0.658, confirming internal consistency and convergent validity. KMO and Bartlett's test results further supported the adequacy of the data for factor analysis.

C. Correlation analysis

Correlation analysis is a statistical method used to determine the strength and direction of the relationship between two or more variables. It helps identify whether and how strongly pairs of variables are related [2]. Among the visual packaging design elements, packaging color and graphics, packaging shape, and packaging material show significant positive correlations with impulse buying behavior. However, product information does not exhibit a significant correlation. Among control variables, income and gender demonstrate mild positive associations with impulse buying.

D. Multiple Regression Analysis

Table 3: Multiple Regression Analysis summary statistics

R-Square	Adjusted R-Square
0.809	0.645

Source: Author's compilation

The R^2 value of 0.809 indicates that 80.9% of the variance in impulse buying behavior is explained by the independent variables, demonstrating a strong explanatory power. The adjusted R^2 value of 0.645, which accounts for the number of predictors and sample size, provides a more conservative estimate, confirming the model's overall robustness and minimizing the likelihood of overfitting.

E. Hypothesis Testing

Summary statistics: The summary statistics of dependent and independent variables for Hypothesis Testing are presented in Table 4.

Table 4: Hypothesis testing summary statistics

Hypothesis Testing	Beta value	Significance Value	Decision Rule	Accepted / Rejected
H1: Packaging color and graphics have a positive relationship with impulse buying on e-commerce.	0.199	<0.001	<0.05	Accepted
H2: Packaging shape has a positive relationship with	0.369	<0.001	<0.05	Accepted

impulse buying in e-commerce.				
H3: Product information has a positive relationship with impulse buying in e-commerce.	0.086	0.073	<0.05	Rejected
H4: Packaging materials have a positive relationship with impulse buying in e-commerce.	0.241	<0.001	<0.05	Accepted

Source: Author's compilation

The results of the hypothesis testing are summarized in Table 4. H1, which proposed a positive relationship between packaging color and graphics and impulse buying in e-commerce, was accepted with a beta value of 0.199 and a significance level of <0.001. H2, which examined the relationship between packaging shape and impulse buying, was also accepted ($\beta = 0.369$, $p < 0.001$), indicating a strong positive influence. H3, which hypothesized a positive relationship between product information and impulse buying, was rejected as the result was not statistically significant ($\beta = 0.086$, $p = 0.073$). H4, which proposed a positive relationship between packaging materials and impulse buying, was accepted with a beta value of 0.241 and a significance level of <0.001. These findings support the importance of visual and sensory packaging elements in influencing impulse buying, while textual product information shows no significant effect.

V. CONCLUSION AND RECOMMENDATIONS

This study investigated the impact of visual packaging design elements on impulse buying behavior among Generation Z consumers in Sri Lanka's Western Province. The findings indicate that packaging color and graphics, packaging shape, and packaging material significantly influence impulse buying, while product information does not have a statistically significant effect. These results support the Stimulus–Organism–Response (S-O-R) model, which emphasizes the role of emotional responses to external stimuli in shaping consumer behavior, particularly in digital environments where decisions are made quickly and emotionally.

Packaging color and graphics played a central role by triggering emotional arousal and facilitating spontaneous decisions. This highlights their strategic relevance in e-commerce, where consumers often respond to visual cues more than rational content. The lack of significance in product information suggests that detailed descriptions or technical data are less impactful during impulse purchases—especially for products like cosmetics, where visual appeal strongly influences buying decisions.

However, the findings should be interpreted with caution. The study focused only on Gen Z consumers within a limited geographical area, which may affect generalizability. Impulse buying behaviors may vary in different cultural, age, or offline shopping contexts.

Additionally, while Gen Z is associated with environmental awareness, their actual behavior in this study was more influenced by aesthetics than by product details or ethical considerations—revealing a possible gap between values and actions.

From a practical standpoint, marketers and designers should prioritize visually stimulating packaging—using bright colors, bold graphics, unique shapes, and eco-friendly materials—to enhance emotional appeal.

Overall, the study extends the application of the S-O-R model to an emerging e-commerce market and provides insights for improving packaging strategies aimed at stimulating impulse buying. Future research should explore broader demographics and product categories.

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EasyWork: A Centralized Service Provider Booking System for Sri Lanka

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Abstract— The Service Provider Booking Mobile Application and Web-based Platform, known as EasyWork, connects users in Sri Lanka with reliable, verified professionals across various fields such as plumbing, electrical work, tuition, and beauty care. The platform aims to simplify the process of finding, booking, and communicating with service providers, while also promoting freelance opportunities and improving digital payment adoption. EasyWork features a user-friendly mobile application developed using React Native and React.js, and a web-based admin panel built with React.js and JavaScript. Firebase powers the backend, offering real-time database management, authentication, and secure storage. User authentication is handled by Clerk, and an integrated ChatGPT API enables real-time chatbot communication. Key functionalities include real-time booking based on provider availability, geolocation-based matching, secure digital payments, verified profiles, a review and ranking system, and real-time notifications. Premium advertisement options and a dual-role user model further enhance platform flexibility and engagement. Developed using the Agile methodology, the platform benefits from iterative improvement and stakeholder feedback integration. Administrators oversee operations through a dedicated portal that enables quality control, user management, and data reporting. The benefits of EasyWork app include improved accessibility to reliable services, new economic opportunities for underemployed individuals, increased digital literacy through mobile-first technology, and enhanced customer satisfaction through transparency and accountability. The platform's scalable, secure design ensures it can adapt to future demands while maintaining high standards of performance. Through EasyWork, this project contributes to the digital transformation of Sri Lanka's service industry, promoting economic empowerment, operational efficiency, and inclusive employment.

Keywords— booking, employment, freelance, geolocation, services

I. INTRODUCTION

In today's fast-paced society, timely access to reliable service providers has become an essential requirement for households and businesses alike. In Sri Lanka, tasks such as plumbing, electrical repairs, tuition, domestic cleaning, and beauty services are often managed through informal referrals or outdated online directories. These conventional methods are limited by a lack of verification, poor usability, and an absence of

real-time communication, resulting in missed appointments, poor service quality, and customer dissatisfaction. Furthermore, in a country where smartphone penetration continues to grow, the lack of a dedicated mobile-first platform for booking verified services presents a significant gap in digital infrastructure.

Simultaneously, Sri Lanka faces high levels of underemployment, particularly among youth and women who possess valuable skills but have limited access to consistent, flexible job opportunities. Traditional employment structures often exclude those seeking freelance or part-time roles. The growing gig economy, supported by digital platforms, presents a promising solution to address this problem by offering independent workers access to broader markets [1]. However, existing platforms in the region often lack user-centric design, local language support, reliable service matching algorithms, and strong verification systems, limiting their impact [2], [3].

To address these challenges, this research introduces EasyWork, a centralized service provider booking system tailored to the Sri Lankan market. EasyWork is a mobile application supported by a web-based admin panel that enables customers to find, book, and communicate with verified service professionals across various categories. The platform includes features such as real-time appointment scheduling, availability tracking, profile management, ratings and reviews, geolocation-based matching, secure payment integration, and premium advertisement options.

EasyWork also provides significant benefits to service providers, enabling them to create and manage professional profiles, update availability, receive feedback, and promote their services through premium advertisements. By providing a dual-role structure, users who initially register as customers can later opt to become service providers, creating flexibility and inclusivity within the system. Administrators are given a web-based dashboard for managing service providers, verifying credentials, monitoring complaints, and generating analytical reports.

This study was guided by several objectives that focus on addressing the gaps in Sri Lanka's service provider landscape. The primary objective was to improve the reliability of provider discovery and booking by

implementing verified profiles and transparent feedback mechanisms. Another key aim was to reduce booking friction through the integration of availability-based scheduling and real-time updates, ensuring customers can connect with service providers more efficiently. Additionally, the system sought to enhance platform trust and safety by enabling administrator-led verification and identity checks. Location-aware search was introduced to improve the relevance and responsiveness of results, allowing users to find nearby service providers quickly. Finally, iterative user testing was carried out to evaluate the platform’s usability, trustworthiness, and overall efficiency, ensuring the solution remained user-centered throughout development.

Table 1: User preferences and feature adoption

Feature	User Preference (%)	Adoption Rate (%)
Real-time booking	85%	80%
Verified profiles	90%	75%
Geolocation-based search	70%	65%
Chatbot support	60%	55%
Ratings and reviews	88%	78%

The research was driven by several questions designed to measure the system’s impact. The first question examined how availability-based booking could improve efficiency and minimize scheduling conflicts between customers and service providers. The second question focused on whether provider verification and the introduction of a rating and review system would increase user trust and booking confidence. The third question explored the effect of geolocation-driven search on provider discovery, specifically whether it helped reduce the time taken to locate professionals and improved overall user satisfaction.

The platform is developed using modern technologies including React Native and React.js for the front end, Firebase for real-time data management and authentication, Clerk for user identity management, and the ChatGPT API for intelligent chatbot support. The development process follows Agile methodology, emphasizing continuous stakeholder feedback, flexible sprint planning, and iterative feature delivery.

By situating EasyWork at the intersection of Sri Lanka’s digital transformation and the global rise of gig-based employment platforms, this project contributes both technologically and socially. It aims not only to improve convenience for customers but also to empower underemployed individuals, particularly women and youth, with sustainable livelihood opportunities.

This paper discusses the system architecture, development methodology, features, and expected impact of the EasyWork platform on service delivery and freelance employment in Sri Lanka. By improving transparency, efficiency, and inclusivity, EasyWork

aims to contribute meaningfully to the digital transformation of the country’s service economy.

Table 2: Feature comparison with TaskRabbit and UrbanClap [Source: TaskRabbit and UrbanClap]

Feature	EasyWork	TaskRabbit	UrbanClap
Real-time Booking	Yes	No	Limited
Provider Verification	Yes	Basic	Yes
Geolocation-based Search	Yes	Yes	Yes
In-app Chat / Chatbot	Yes (Chat bot)	Yes (Messaging)	Yes
Ratings & Reviews	Yes	Yes	Yes
Admin Oversight	Yes	No	Partial
Language Support	English & Sinhala	English only	English + Regional
Secure Payments	Yes	Yes	Yes
Premium Ads for Providers	Yes	No	Yes

II. MATERIALS AND METHODOLOGY

A. Materials

The development of the EasyWork platform was supported by a combination of modern tools, technologies, and primary data collected from potential users and service providers in Sri Lanka. Key technologies included React Native for mobile application development [4], React.js and JavaScript for the web-based admin panel, and Firebase for real-time data management, authentication, and cloud storage. User identity management was handled using Clerk, which offered secure and scalable authentication services.

To support real-time communication and enhance user interaction, the platform integrated the ChatGPT API to provide an intelligent chatbot capable of answering basic inquiries and guiding users through the app’s core features. For financial transactions, a dual payment method was adopted: a secure PayHere online payment gateway for subscriptions and premium advertisements [5], and a manual slip upload system for alternative payment validation.

Various development and design tools were essential to the project. Figma was used to create interactive UI/UX prototypes, which were refined through user feedback sessions. Jira supported Agile project management, sprint planning, task tracking, and progress monitoring. Development environments included Android Studio for mobile app testing and Visual Studio Code for frontend and backend coding tasks.

Primary data for requirements gathering was collected through structured Google Form surveys distributed among target user groups, and in-depth interviews conducted with professionals including electricians, tutors, gardeners, and domestic service providers. Additional inspiration and direction were obtained from reviewing existing local platforms, as well as international solutions such as TaskRabbit and Thumbtack [6], [2], [3].

B. Methodology

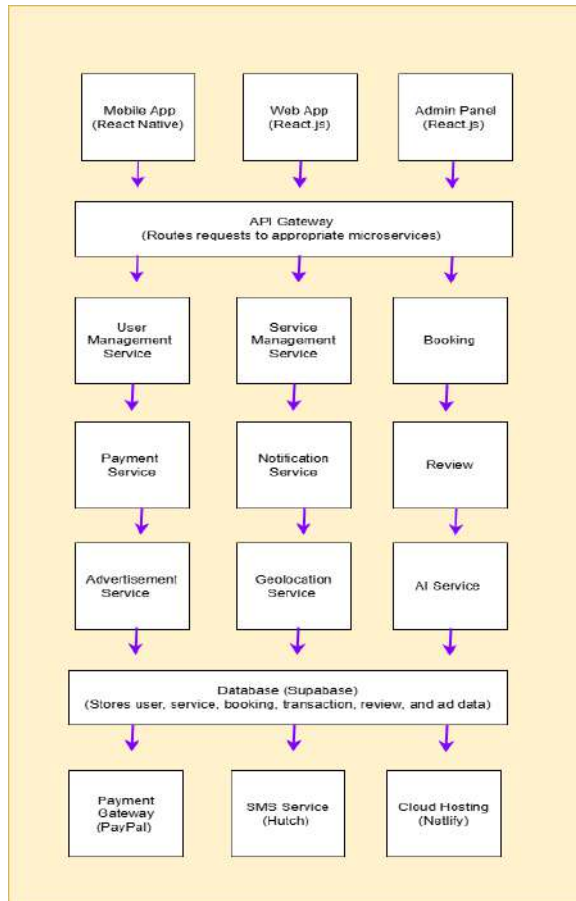


Fig.1. High level architectural diagram [Source:EasyWork System]

The EasyWork platform was developed using the Agile software development methodology. Agile was chosen due to its iterative nature, allowing continuous integration of user feedback, rapid prototyping, and incremental feature delivery. Development was organized into multiple two-week sprints, with each sprint focusing on delivering a specific set of features, such as user registration, profile creation, booking engine, and chat integration.

Sprint planning was managed using project management tool like Jira, which facilitated task tracking, bug fixing, and team coordination. UI/UX wireframes were designed using Figma and shared with focus groups for usability testing. Their feedback guided several design refinements to improve navigation, accessibility, and visual clarity.

Throughout development, both unit and integration testing were conducted to ensure the system functioned

reliably. User acceptance testing sessions were held with a small group of real users from both customer and service provider demographics to validate the application's effectiveness and ease of use before public release.

III. RESULTS AND DISCUSSION

A. Sample Collection

The development of the EasyWork platform was grounded in a comprehensive and systematic requirement gathering process aimed at capturing the nuanced needs of both service providers and service seekers across Sri Lanka. Recognizing that the success of a digital marketplace depends heavily on its alignment with user expectations, the project team adopted a mixed-method approach combining quantitative surveys, qualitative interviews, and competitor benchmarking to inform the system's functional and technical specifications.

The initial data collection phase involved structured online surveys distributed via Google Forms. The target audience was segmented into two major stakeholder groups: (1) end-users primarily individuals and households frequently in need of skilled services such as plumbing, electrical repairs, tutoring, gardening, and personal care; and (2) service providers - freelancers, gig workers, and small business owners offering those services. The survey instrument was designed to gather detailed information on how users currently locate service providers, pain points in service booking and communication, digital tool usage habits, language preferences, and desired features in a mobile or web-based application.

The surveys revealed several key trends. A significant majority (over 78%) of end-users reported dissatisfaction with current service discovery methods, which include word-of-mouth referrals, social media groups, and classified advertisements. They noted issues such as unreliable availability, inconsistent pricing, and difficulty in verifying the professionalism or legitimacy of providers. Furthermore, over 70% expressed a preference for using a mobile application rather than a desktop website, reinforcing the need for a mobile-first solution. Additional preferences included the ability to check provider availability in real time, make secure digital payments, and review past user ratings before confirming a booking.

To complement the survey data and gain deeper insight into provider-side challenges, the team conducted semi-structured interviews with 15 freelance service providers and small-scale entrepreneurs. Participants were purposefully selected to represent diverse service categories and geographical locations, ensuring comprehensive coverage of urban and semi-urban environments. Interviewees included electricians, private tutors, landscapers, wedding decorators, air conditioning technicians, and home-based beauticians. These interviews offered qualitative depth by exploring their experiences in securing work, managing customer expectations, handling cancellations, and advertising services.

Recurring themes emerged from these conversations. Many providers highlighted the lack of a reliable platform to consistently promote their services and build a professional digital presence [7]. Some expressed frustration with having to rely on unstructured communication channels like WhatsApp or phone calls to confirm appointments, leading to missed bookings or scheduling conflicts. Others cited the absence of a transparent review system as a barrier to gaining customer trust, especially for new entrants in the market [8]. Providers also noted limited access to digital payment tools and emphasized the importance of a multilingual interface to reach non-English speaking clients.

In addition to direct user feedback, the requirement gathering phase included a thorough competitor analysis. This involved reviewing both domestic and international service booking platforms, with a focus on their core functionalities, usability, and alignment with local market needs. Domestic platforms were examined for their user onboarding experience, layout, service categories, and communication systems. While these platforms demonstrated a foundational approach to digitizing local services, they lacked real-time communication features [9], effective verification processes, geolocation-based search, and dynamic availability scheduling.

The research also considered mature international platforms like TaskRabbit, Thumbtack, and UrbanClap (now Urban Company), which offer advanced user experiences through intelligent matching algorithms, portfolio-based provider profiles, and integrated support systems. However, these solutions are often tailored to Western or urban Indian markets and lack cultural, economic, and linguistic contextualization for Sri Lanka [10]. For instance, features such as offline payment support, Sinhala language options, and low-bandwidth optimization crucial for many Sri Lankan users were largely absent.

The competitor analysis confirmed that while global platforms provide a high benchmark for design and functionality, there remains a unique opportunity to localize these innovations. The insights from this stage of research directly informed the decision to prioritize bilingual support (English and Sinhala), verified user identities, real-time booking systems, and profile ranking mechanisms based on both ratings and responsiveness. Additionally, it highlighted the value of including premium advertisement slots for service providers to boost their visibility in a fair and transparent manner.

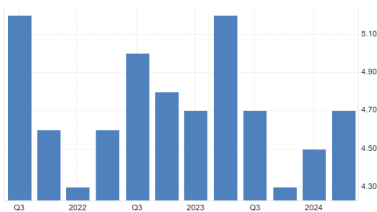


Fig. 2. Sri Lanka unemployment rate [Source: Department of Census and Statistics – Sri Lanka]

In summary, the sample collection phase was instrumental in shaping the strategic direction of the EasyWork platform. It offered not only a user-validated feature roadmap but also ensured that the system was built on an inclusive and scalable foundation. By anchoring development in real-world data and stakeholder experiences, EasyWork is positioned to offer meaningful improvements in the way freelance services are discovered, accessed, and managed in Sri Lanka.

B. Sample Analysis

The analysis of the collected data informed both the system architecture and the user experience design of the EasyWork platform. Quantitatively, over 80% of the surveyed users reported difficulty in locating trustworthy service providers using current means. A similar percentage expressed interest in a single platform that offers verified listings, location-based filtering, and service ratings. Additionally, more than 70% of respondents preferred interacting with an application in their native language (Sinhala or Tamil), especially when booking time-sensitive or personal services.

From the provider's perspective, 65% indicated that they lacked an online presence and found it difficult to advertise their services. These insights validated the need for provider-side features such as profile creation, image uploads for portfolios, availability calendars, and integrated communication tools. Additionally, the analysis emphasized the importance of enabling both real-time chat and automated chatbot responses to assist users during the booking process. This led to the integration of the ChatGPT API for intelligent, scalable, and language-sensitive support.

The system design decisions were also influenced by accessibility findings. A large number of users relied on Android smartphones with limited data plans, reinforcing the need for a lightweight mobile application with offline-friendly features. Service discovery via geolocation and the ability to filter by proximity were highlighted as crucial to improving booking speed and reducing miscommunication.

Table 3: User Acceptance Testing (UAT) Outcomes [Source: User Acceptance Report]

Metric	Before EasyWork	After EasyWork (UAT Results)	Improvement (%)
Booking Success Rate	65%	92%	27%
Average Booking Time	15 mins	5 mins	66% faster
Provider Visibility	Low (limited reach)	High (verified profiles)	Increased by 45%
Customer Satisfaction	3.2/5	4.6/5	44% improvement

On the administrative side, feedback from users and providers indicated a preference for accountability mechanisms. The platform, therefore, incorporates a comprehensive rating and review system, as well as

user reporting tools. Verified users and providers are given badges to distinguish them in search results. Monetization strategies such as tiered advertisements (basic and premium listings) were deemed acceptable, provided they maintained fairness and transparency. The ability for providers to boost their profiles through paid ads was designed in response to this input.

One notable insight from the competitor analysis was the success of platforms that incorporated gamified user engagement, such as reward systems for positive reviews or consistent service quality. While not implemented in the current version, these features are part of the future roadmap. The analysis also indicated that data analytics for providers such as service booking trends, peak hours, and customer retention rates could significantly improve operational planning. These were considered in the admin panel's reporting capabilities.

Overall, the sample collection and subsequent analysis revealed the gaps in Sri Lanka's digital service marketplace and provided a strong empirical foundation for EasyWork's development. Every core function of the platform from mobile responsiveness and bilingual interface to real-time communication and secure payments is directly tied to insights derived from actual user and provider behavior. The platform thus offers a data-driven, inclusive, and scalable solution aimed at transforming how services are accessed and delivered across the country.

IV. CONCLUSION

This paper presented the design, development, and implementation of EasyWork, a centralized digital platform that connects users in Sri Lanka with verified service providers. The platform addresses several critical gaps in the current service industry, including lack of trust, poor accessibility, unstructured communication, and underutilization of skilled labor. Through extensive requirement gathering, technical innovation, and iterative development, EasyWork delivers a scalable and inclusive solution that promotes both user convenience and economic opportunity.

The integration of real-time booking, geolocation filters, secure payments, multilingual support, and AI-driven communication sets EasyWork apart from existing solutions. The platform's architecture, powered by React Native, Firebase, Clerk, and ChatGPT API, ensures responsive performance and modular scalability. Moreover, the emphasis on user-centric design, informed by surveys and interviews, ensures that the system remains aligned with stakeholder needs.

EasyWork's social impact is equally significant. By empowering freelancers and small-scale service providers especially youth and women the platform contributes to economic inclusion and digital literacy [11], [12]. Its ability to improve access to services also benefits consumers, offering a transparent, reliable, and efficient channel for fulfilling day-to-day needs.

Looking ahead, several enhancements are envisioned. These include AI-powered service recommendations,

gamification for user engagement, expanded analytics for providers, and improved offline functionality. These features will further enhance usability, provider success, and platform sustainability. A phased timeline can be followed, where short-term goals (within 2–3 months) focus on gamification features and offline functionality, medium-term goals (5–17 months) address expanded analytics and improved provider insights, while long-term plans (10–10 months) can prioritize AI-powered recommendations and advanced personalization. However, limitations such as budget constraints, technical complexity, reliance on third-party integrations, and the need for consistent user adoption may impact the pace and scope of these enhancements.

In conclusion, EasyWork not only represents a technological innovation but also serves as a digital transformation model that directly supports the objectives outlined in Sri Lanka's National Digital Economy Strategy 2030 [13]. By aligning modern software engineering practices with localized socioeconomic realities, the platform sets a precedent for impactful and inclusive digital entrepreneurship in Sri Lanka's growing service economy.

A. User Interface screenshots

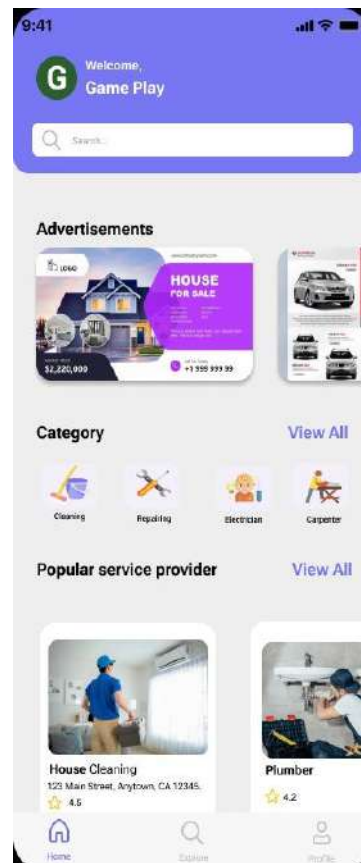


Fig.3. Home page {Source: EasyWork System}

9:41

Be a Service Provider

Add Your Service details

Name

Address

Contact

Website

About

Select an item ...

Submit

Fig.4. Add service interface [Source: EasyWork System]

Ishani Gamage

65/7 Pitipana, Homagama

Available Dates:

2025-05-31 2025-06-02

Call Location Web Share

About

Professional tailor offering personalized alterations and bespoke designs. From suits to dresses, I ensure every piece is tailored to perfection with attention to detail and precision.

Book a Date & Time

Your Name

Contact Number

Address

SELECT DATE & TIME

Reviews

Fig.5. Service provider profile interface [Source: EasyWork System]

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A Behavioral Study of Purchase Intention Among Apparel Customers

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Abstract— In the contemporary competitive business landscape, a profound understanding of determinants shaping customer purchase intention and subsequent behavior is imperative. Hence, this research is aimed to scrutinize the relationship of brand awareness, perceived quality, and price discounts concerning the purchase intentions of apparel customers in the Colombo District. Conducting an explanatory cross-sectional study, both primary and secondary data were utilized. The primary data collection involved distributing an online questionnaire among 270 respondents through the snowball sampling method. Subsequently, the collected data underwent analysis using statistical tools such as SPSS. The findings underscored reliable and strong, significant relationships between the three independent variables (brand awareness, perceived quality, price discounts) and the customer purchase intention. Furthermore, the study's conceptual model demonstrated high model fitness. Nevertheless, the researcher advocates for future investigations to incorporate additional independent variables to comprehensively explore this domain.

Keywords— *Apparel Customers, Brand Awareness, Perceived Quality, Price Discounts, Purchase Intention*

I. INTRODUCTION

In the contemporary and dynamic landscape of business, where the influence of both retailers and customers has reached unprecedented levels, fostering enduring relationships with customers has become not just crucial but indispensable for the prosperity and sustainability of manufacturers [1]. However, despite the substantial financial investments made by organizations in marketing campaigns, there exists a critical gap in understanding the precise requirements of customers and the intricate relationship between these marketing endeavors and actual purchase intentions [2]. As organizations navigate this landscape, the ability to bridge this knowledge gap and establish a direct correlation between marketing efforts and customer responses becomes paramount for achieving sustained success in a fiercely competitive market. In essence, the contemporary business environment demands a paradigm shift in approach, where manufacturers not only invest in robust marketing campaigns but also prioritize acquiring a comprehensive understanding of their customers to cultivate enduring and mutually beneficial relationships [3].

In light of the evolving dynamics of customer preferences and the absence of comprehensive studies in Sri Lanka, there exists a pressing need to delve into the factors that significantly impact the purchase intentions of apparel customers. The lack of empirical investigations within this geographical context underscores the urgency to address this research gap systematically. Numerous scholarly works have emphasized the intricate relationship between customer behavior and various factors in the apparel industry.

The influence of brand image and service quality on purchase intention has been explored by Wu et al. [4], while Kotler [5] provides a foundational understanding of marketing management principles. The role of customer attitudes, knowledge, and values in sustainable apparel consumption is evident in works by Kozar and Hiller Connell [6], Dickson [7], and McNeill and Moore [8]. Moreover, the relevance of supply chain disclosure and transparent business practices is highlighted by Marshall et al. [9] and Bhaduri and Ha-Brookshire [10]. The impact of brand recognition on retail store image, as studied by Porter and Claycomb [11], further underscores the interconnectedness of various elements influencing customer behavior. In this context, the synthesis of existing literature underscores the multifaceted nature of factors influencing the customer purchase intention in the apparel industry, providing a solid foundation for an in-depth investigation tailored to the unique dynamics of the Sri Lankan market.

A. Research Questions

1. What is the impact of brand awareness on the purchase intention of apparel customers in Colombo district?
2. What is the impact of perceived quality on the purchase intention of apparel customers in Colombo district?
3. What is the impact of price discounts on the purchase intention of apparel customers in Colombo district?

B. Research Objectives

1. To investigate the impact of brand awareness on the purchase intention of apparel customers in Colombo district.

2. To investigate the impact of perceived quality on the purchase intention of apparel customers in Colombo district.
3. To investigate the impact of price discounts on the purchase intention of apparel customers in Colombo district.

II. MATERIALS AND METHODOLOGY

A. Materials

According to [12], this research can be categorized as an explanatory, cross-sectional study, focusing on establishing causal relationships among variables within a specific timeframe. Explanatory research aims to explain variable relationships by investigating a particular issue or scenario [13]. [14] have characterized the hypothetico-deductive method as a version of the scientific approach that systematically generates knowledge to address fundamental and managerial problems.

In this study, taking into account time limitations, the researcher has opted for a sample size of 270. Employing the snowball sampling technique, a non-probabilistic approach, the study included both male and female participants aged over 20, as both conventional literacy and IT literacy were prerequisites for completing the questionnaire. According to [15], snowball sampling begins with a convenience sample of one or more initial participants. In this research also, considering the time and other physical constraints, researcher initiated the data collection process using a selected group of apparel customers in Colombo district based on convenience sampling and requested them to share the questionnaire with suitable respondents, thereby initiating snowball sampling method.

Snowball sampling method presented several limitations. One major concern was sampling bias, as participants are likely to refer individuals within their own networks, leading to a lack of diversity and potentially skewed data. This method also presented the possibility to result in overrepresentation of certain subgroups and limit the generalizability of findings. Additionally, there was a risk of privacy concerns, as referrals may feel pressured to participate due to their connection with initial respondents. To mitigate these limitations, efforts were made to initiate the sampling process with diverse and well-distributed initial participants to encourage greater variety in referrals. Furthermore, participants were assured of confidentiality and informed that participation was entirely voluntary, reducing social pressure and ethical concerns.

Primary data acquisition involved the distribution of a structured questionnaire via a Google Form, encompassing demographic details and critical facets associated with customer purchase intentions. Meanwhile, secondary data were gathered through extensive literature exploration encompassing books, articles, and internet resources, leveraging the expediency of online platforms for swift access to pertinent scholarly materials. Databases such as

Emerald Insight and Academia were consulted to access previous academic endeavors pertinent to the research field, enriching the study's foundation with existing scholarly contributions.

Methodology

In this study, a quantitative methodology was adopted to meticulously evaluate the influence of brand awareness, perceived quality, and price discounts on the purchase intention of apparel customers. Subsequently, the amassed data was analyzed utilizing statistical software package IBM SPSS Statistics 20.0. These tools were instrumental in verifying and ensuring the validity and reliability of the collected data, correlation between variables, constructing regression models, and scrutinizing the hypotheses posited by the researcher.

The independent variables identified by the researcher encompass brand awareness, perceived quality, and price discounts, while the dependent variable pertains to the purchase intention of apparel customers. The researcher elucidated the interrelationships among these variables, providing rationale for expecting their existence and clarifying the anticipated relationships between them.

The relationship between brand awareness and purchase intention among apparel customers has garnered significant attention in customer behavior research. The brand awareness plays a crucial role in influencing customers' perceptions and attitudes toward apparel products, thereby impacting their purchase intentions [16].

H1: Brand awareness has a positive impact on the purchase intention of apparel customers.

Exploring the relationship between perceived quality and purchase intention in the apparel industry remains a central focus of contemporary customer behavior research. Recent studies emphasize the profound impact of perceived product quality on customers' intentions to purchase apparel items [17], [18].

H2: Perceived quality has a positive impact on the purchase intention of apparel customers.

The association between price discounts and purchase intention among apparel customers has been a focal point of recent research in customer behavior. Contemporary studies shed light on the significant impact of price discounts on customers' intentions to purchase apparel items [19], [20].

H3: Price discounts have a positive impact on the purchase intention of apparel customers.

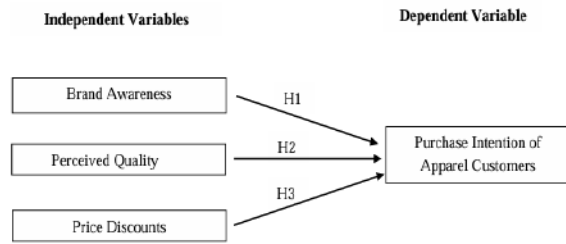


Fig. 1 Conceptual Framework

III. RESULTS AND DISCUSSION

KMO and Bartlett's Test was conducted to determine the validity of the data used in the study. The variables were considered valid if the KMO Measure of Sampling Adequacy value was greater than 0.5 and the significance value was less than 0.05. As evident from table 1, all the variables considered in this study were identified to be valid. In other words, it represents the correctness of the methods used to measure the variables.

Table 1: Summary of Validity Analysis

The Variable	KMO Value	Significance	Conclusion
Customer Purchase Intention	0.743	0.000	Valid
Brand Awareness	0.770	0.000	Valid
Perceived Quality	0.790	0.000	Valid
Price Discounts	0.770	0.000	Valid

Further, as illustrated in Table 2, the reliability coefficients of all variables (customer purchase intention, brand awareness, perceived quality, and price discounts) exceed the threshold of 0.7. This signifies the reliability of all variables under scrutiny within the study. This observation underscores the cohesive nature of the measuring items involved in assessing each variable. In other words, the entirety of variables investigated in this research demonstrates a capacity to yield stable and consistent outcomes. Notably, perceived quality emerges as the most reliable variable, exhibiting the highest Cronbach's value of 0.805. Conversely, customer purchase intention presents a comparatively lower level of consistency, denoted by its Cronbach's Alpha value of 0.739, making it the least consistent variable in this study.

Table 2: Summary of Reliability Analysis

The variable	Cronbach's Alpha	Reliability	Conclusion
Customer Purchase Intention	0.739	$0.739 > 0.7$	Reliable
Brand Awareness	0.785	$0.785 > 0.7$	Reliable
Perceived Quality	0.805	$0.805 > 0.7$	Reliable
Price Discounts	0.781	$0.781 > 0.7$	Reliable

According to table 3, a strong positive correlation is evident between customer purchase intention and brand awareness, with the relationship exhibiting a magnitude of 65.2%. This finding suggests that an increase in brand awareness positively influences customer purchase intention. Moreover, the statistical significance, indicated by a significance value below 0.05, confirms the presence of a significant relationship between customer purchase intention and brand awareness.

Table 4 has suggested a strong positive correlation is observed between customer purchase intention and perceived quality, quantified at 67.9%. This suggests that an enhancement in perceived quality is associated with a concurrent increase in customer purchase intention. Furthermore, the significance value, falling below the threshold of 0.05, affirms the presence of a statistically significant relationship between customer purchase intention and perceived quality.

A strong positive correlation is evident between customer purchase intention and price discounts, characterized by a correlation coefficient of 71.9% which has been illustrated in table 5. This indicates that an escalation in price discounts is associated with a simultaneous increase in customer purchase intention. Moreover, the statistical significance, denoted by a significance value below 0.05, confirms a significant relationship between customer purchase intention and price discounts.

Table 3: Correlation between Customer Purchase Intention and Brand Awareness

Dependent Variable	Independent Variable	Pearson Correlation Coefficient	Significance of the Relationship
Customer Purchase Intention	Brand Awareness	0.652	0.000

Table 4: Correlation between Customer Purchase Intention and Perceived Quality

Dependent Variable	Independent Variable	Pearson Correlation Coefficient	Significance of the Relationship
Customer Purchase Intention	Perceived Quality	0.679	0.000

Table 5: Correlation between Customer Purchase Intention and Price Discounts

Dependent Variable	Independent Variable	Pearson Correlation Coefficient	Significance of the Relationship
Customer Purchase Intention	Price Discounts	0.719	0.000

As observed in table 6, R squared stands at 0.597, surpassing the 0.5 threshold, thereby indicating a relatively stronger model fit. This particular R squared value of 0.597 explicates that collectively, the independent variables expound upon 59.7% of the variation in the dependent variable. However, considering the adjusted R squared, which stands at 0.592, it suggests that the inclusion of additional input variables may lead to a reduction in predictive power. Despite the R squared value surpassing the 0.5 benchmark ($0.597 > 0.5$), it should be noted that this does not classify as a model with exceedingly high fitness. Consequently, this signifies a model that may warrant further investigation and refinement in future research endeavors.

H1: Brand awareness has a positive impact on the purchase intention of apparel customers.

Based on the statistical significance derived from the regression outcomes, the significance value corresponding to the brand awareness variable is observed to be less than 0.05 ($0.000 < 0.05$), consequently leading to the acceptance of the formulated hypothesis (H1). Furthermore, the beta coefficient associated with this variable is determined to be 0.226, elucidating that there exists a 22.6% influence stemming from the brand awareness on the customer purchase intention of the apparel customers in the Colombo district. This positive association implies that an enhancement of the brand awareness by 1 unit by an apparel company could potentially elevate the purchase intention of customers in the Colombo district by 0.226 units.

H2: Perceived quality has a positive impact on the purchase intention of apparel customers.

Based on the regression analysis, the significance value linked with the perceived quality variable is determined to be below 0.05 ($0.001 < 0.05$), consequently leading to the acceptance of the formulated hypothesis (H2). Moreover, the beta coefficient attributed to this variable is calculated to be 0.220, indicating a 22% impact

resulting from perceived quality on the customer purchase intention among apparel customers within the Colombo district. This positive correlation suggests that by improving perceived quality by 1 unit, an apparel company has the potential to increase the purchase intentions of its customers in the Colombo district by approximately 0.220 units.

H3: Price discounts have a positive impact on the purchase intention of apparel customers.

Based on the regression analysis outcomes, the significance value attributed to the variable concerning price discounts is observed to be below 0.05 ($0.000 < 0.05$), thereby leading to the acceptance of the stipulated hypothesis (H3). Additionally, the beta coefficient associated with this variable is calculated at 0.379, signifying a 37.9% impact stemming from price discounts on the customer purchase intention of the apparel customers in the Colombo district. This positive correlation indicates that increasing price discounts by 1 unit by an apparel company could potentially result in an increase of approximately 0.379 units in the purchase intention of its customers residing in the Colombo district.

Further, based on the analysis results, regression equation was updated as follows,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

$$Y = 0.745 + 0.226X_1 + 0.220X_2 + 0.379X_3$$

- Y = Customer Purchase Intention (Dependent Variable)
- β_0 = Constant Value
- X_1 = Brand Awareness
- β_1 = Regression Coefficient of Brand Awareness
- X_2 = Perceived Quality
- β_2 = Regression Coefficient of Perceived Quality
- X_3 = Price Discounts
- β_3 = Regression Coefficient of Price Discounts

Table 6: Summary of Regression Analysis

Summary			
R Square		0.597	
Adjusted R Square		0.592	
Model Significance		0	
Hypotheses Testing	B Coefficient (Beta)	Significance	Accept/Reject
H1: Brand awareness has a positive impact on the purchase intention of apparel customers	0.226	0	Accept
H2: Perceived quality has a positive impact on the purchase intention of apparel customers	0.22	0.001	Accept

H3: Price discounts have a positive impact on the purchase intention of apparel customers	0.379	0	Accept
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IV. CONCLUSION

Based on literature, brand awareness, perceived quality and price discounts were selected by the researcher and thus this study was conducted in order to fulfill the purpose of determining the impact of aforementioned independent variables on purchase intention of apparel customers in Colombo district. In order to fulfill this purpose, three research questions were developed.

RQ 1. What is the impact of brand awareness on the purchase intention of apparel customers in Colombo district?

The literature review posited a theoretical link between brand awareness and customer purchase intentions, citing research by Keller [21] and Macdonald & Sharp [22], highlighting the influential role of brand awareness in shaping purchase intentions. This theoretical proposition was substantiated through the outcomes of this study. The obtained Pearson's correlation coefficient of 0.652 coupled with a significance value below 0.05 ($0.000 < 0.05$) supported the conclusion that brand awareness exerts a strong, statistically significant, and positive influence on customer purchase intentions.

RQ 2. What is the impact of perceived quality on the purchase intention of apparel customers in Colombo district?

The empirical analysis revealed a Pearson's correlation coefficient of 0.679 coupled with a significance value of 0.000, affirming a substantial and statistically significant positive relationship between perceived quality and customer purchase intentions. This finding finds support in various previous studies within the existing literature. Notably, many scholars have contributed to reinforcing this assertion by highlighting the association between heightened perceived quality and amplified intentions toward purchase among customers.

RQ 3. What is the impact of price discounts on the purchase intention of apparel customers in Colombo district?

Scholarly literature posits that leveraging price discounts serves as a pervasive and effective mechanism for increasing sales, as indicated by the research of Bell, Ho, and Tang [23]. The analytical findings of this investigation further substantiate this theoretical underpinning. A Pearson's correlation coefficient of 0.719 coupled with a significance value of 0.000 affirm a strong and statistically significant positive relationship between price discounts and customer purchase intentions. Notably, based on the correlation outcomes, it was identified that price discounts emerged as the variable exhibiting the most

substantial association with customer purchase intentions within the studied framework.

Ultimately, the multiple linear regression analysis revealed on an explanatory capacity, supported by the coefficient of determination (R squared), that brand awareness, perceived quality and price discounts collectively account for 59.7% of the variances observed in customer purchase intentions. This underscores the fitness of the formulated conceptual model within this study. Furthermore, the acceptance of all alternative hypotheses and rejection of null hypotheses is underscored by the significance values of all three independent variables falling below the threshold of 0.05.

The study's outcomes underscore the paramount importance of brand awareness, perceived quality and price discounts. Failure to address these elements may lead to potential customer attrition. The results distinctly underscore the significance of these factors in shaping customer purchase intentions and emphasize the importance for organizations to prioritize and enhance brand awareness while promoting robust perceived quality and price discounts to maintain a loyal customer base.

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The Role of Internship Experience in Enhancing Career Prospects of Hospitality & Tourism Management Students in Private Universities Sri Lanka

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Abstract— Internship experience plays a vital role in bridging the gap between academic learning and industry needs, particularly in the tourism and hospitality sector, where vocational skills are paramount to succeeding in one's professional life. Drawing on Human Capital Theory and Experiential Learning Theory, this study explores how internships enhance the career prospects of tourism and hospitality students in Sri Lankan private universities. Human Capital Theory posits that internships are an investment in skills that enhance job marketability, while Experiential Learning Theory emphasizes active participation as essential for developing practical competencies and professional flexibility. Notwithstanding the proven significance of internships, there exists a research gap regarding the tangible impact of internships on career trajectories in the context of Sri Lanka. Available literature is mostly focused on advanced economies, ignoring the influence of factors like industry involvement, institutional assistance, and the framework of internship programs. Furthermore, limited work addresses the issues facing students, including academic industry mismatches, insufficient guidance, and a lack of networking. Based on survey data from 125 undergraduates, Reliability analysis showed high internal consistency across thematic scales, validating the measurement design. Regression analysis revealed that organizational dynamics and industry sector alignment were significant predictors of career prospects, explaining 98.3% of the variance. These findings underscore the critical importance of immersive, industry aligned internships with robust organizational support in fostering job readiness. The paper offers targeted recommendations for higher education providers and industry stakeholders to enhance experiential learning frameworks and sectoral integration within hospitality education.

Keywords— Hospitality and Tourism, Internship Experience, Career Prospects, Hospitality and Tourism Education, experiential learning

I. INTRODUCTION

A. Background of the Study

Sri Lanka's economy depends heavily on the hospitality and tourism (H&T) sector, which demands a workforce that is both skilled and flexible [1], [2]. Internships play a vital role in this fast paced industry by bridging the gap between academic theory and industry demands [3], [4]. Over the past decade, Sri Lanka's tourism and hospitality sector has emerged as a vital driver of employment and economic progress. In response to its rapid expansion and the growing need for industry ready professionals, private universities have increasingly embedded structured internship programs within their academic curricula. These internships aim to facilitate the transition from theoretical knowledge to practical competence, enhancing graduate employability and career preparedness [5], [6]. Given the growing number of H&T programs offered by private higher education institutions in Sri Lanka, a thorough examination of the function and efficacy of their internship components in influencing graduate career prospects is necessary. Through the application of classroom theories, the development of industry specific skills, and the acquisition of insights into potential career paths, internships offer students essential experiential learning opportunities [7].

B. Problem Statement

Although the value of internships is widely recognized, there is a dearth of empirical data regarding their precise influence on the employment prospects of H&T graduates from Sri Lanka's private universities. In contrast to their peers in state universities or other nations, these students frequently encounter difficulties, such as possible academic industry mismatches, differing degrees of institutional support for internship placements, and networking challenges [2]. Improving the caliber and applicability of H&T education in the private sector requires an understanding of how internship experiences affect employability, skill development, and career readiness within this cohort.

C. Research Gap

The majority of the literature currently available on H&T internships concentrates on experiences in developed economies [3] or state funded universities in Sri Lanka [4], [1]. However, despite widespread integration of experiential learning, empirical evidence on the effectiveness of internships in shaping career outcomes particularly within the private higher education landscape remains limited. While international scholarship has underscored the value of internships in developing career competencies and influencing employment trajectories [8], [9], Sri Lankan focused research has yet to rigorously assess these dynamics in a localized context. This is particularly significant given the surge in private university enrollments and the sector's growing dependence on internships as a conduit for skill development. To address this gap, the present study investigates the predictive power of key internship dimensions namely, duration, curriculum relevance, organizational support, and sectoral alignment on post-graduation career prospects for tourism and hospitality undergraduates in Sri Lanka. Drawing from a sample of 125 students and employing reliability tested instruments and regression analysis, the research offers data backed insights into which experiential attributes most strongly influence employability. Findings are intended to guide curriculum designers, university administrators, and industry partners in refining internship models to better serve both student outcomes and sectoral workforce needs.

D. Research Objectives

The primary objective of this study is to Study the Role of Internship Experience in Enhancing the Career Prospects of Hospitality & Tourism Management Students in Private Universities Sri Lanka.

Specific objectives are:

1. To examine the impact of internship time duration on the career prospects of Hospitality and Tourism Management students in private universities in Sri Lanka.
2. To assess the influence of institutional curriculum relevance on the career prospects of student interns in the hospitality and tourism sector.
3. To investigate the effect of organizational dynamics during internships on the career prospects of Hospitality and Tourism Management students.
4. To analyze the influence of the industry sector in which the internship is undertaken on the career prospects of student interns.
5. To evaluate the role of internship experience in shaping the career prospects of Hospitality and Tourism Management students in private universities in Sri Lanka, by examining key factors such as internship duration, curriculum relevance, organizational dynamics, and industry sector exposure.

E. Significance of the Study

This study is important to many parties involved. It provides advice on how to make the most of internships for students enrolled in private H&T programs to better prepare the workforce. The results can help private universities create more successful internship programs and develop curricula. This study can assist the H&T industry in comprehending the quality of graduates from private schools and offer recommendations for improving intern integration, which could enhance the talent pipeline. Lastly, it will offer evidence

based suggestions to policymakers to help the workforce development and H&T education sector in Sri Lanka, especially in the expanding private higher education sector.

II. LITERATURE REVIEW

A. Theoretical Framework

This study is primarily guided by two theories: Human Capital Theory and Experiential Learning Theory.

Human Capital Theory posits that training and education, including internships, are investments in the skill, knowledge, and productivity of people, enhancing their earning potential and career prospects [10]. Internships from this viewpoint are a means through which students acquire valuable human capital directly usable in the H&T industry.

Experiential Learning Theory, specifically [11] model, revolves around learning through experience and reflection on such experience [7]. Internships provide a classic environment for experiential learning, where H&T students become submerged in real working environments, reflect on experience, conceptualize learning, and try out new roles and abilities.

B. Internships in Tourism and Hospitality Education

Internships are universally acknowledged as an indispensable element of H&T education across the world, providing students with practical experience, skills enhancement, and an easier entry into employment [3], [4]. They enable students to comprehend industry demands, establish professional contacts, and make knowledgeable career decisions [7]. Internship programs have become a cornerstone of experiential learning in tourism and hospitality education, offering students practical exposure that complements academic instruction. Numerous studies have emphasized the value of internships in enhancing employability, skill acquisition, and career readiness [12], [13]. These programs are particularly vital in dynamic sectors like tourism, where adaptability, interpersonal skills, and real-world experience are highly prized by employers [14]. For instance, [12] found that longer internship durations positively correlate with occupational experience and personal flexibility two dimensions of employability. Similarly, [15] highlighted the importance of relevance and digital skill alignment in preparing students for a tech driven tourism landscape. However, problems such as unstructured programs, lack of meaningful tasks,

inadequate supervision, and potential exploitation can minimize their efficacy [3], [2]. Structure, content, and supervision of internships are important determinants of student satisfaction and perceived gains [16], [3]. Institutional support, including mentorship and structured feedback, has been shown to influence students' adaptability and confidence [14]. Moreover, student satisfaction with internship experiences is a predictor of long term engagement with the industry and perceived employability [13].

C. Career Prospects and Employability in the Sri Lankan H&T Sector

Graduates with a combination of technical (such as service operations and culinary arts) and soft (such as communication, problem solving, and interpersonal skills) abilities are needed by the Sri Lankan H&T sector [17]. It is crucial to consider how employers view graduates' readiness. Graduate research from Sri Lankan state universities shows that while theoretical knowledge is acquired, industry specific soft skills and practical application are frequently lacking [1]. In the H&T industry, negative attitudes toward advancement, compensation, and careers can be a barrier to luring and retaining talent, particularly among women and young people [2], [1]. This study expands on this research topic by examining private university settings.

D. The Research Niche: Internships in Sri Lankan Private H&T Universities

Research on H&T internships in Sri Lanka does exist, but it focuses on either general graduate employability or state universities [17], [1]. Less research has been done on the real dynamics of internship programs at private universities, which might have different resources, industry networks, and student profiles. By examining how internship experiences in this educational environment impact H&T students' career paths based on programmatic structure, industry collaboration, and institutional support within private higher education institutions, this study aims to close this gap.

III. METHODOLOGY

A. Research Design

This study employed a quantitative research design to investigate the influence of internship experiences on career prospects among undergraduate students in tourism and hospitality programs at private universities in Sri Lanka. Primary data were gathered via structured questionnaires administered to 125 students across three leading institutions. Stratified random sampling was used to ensure proportional representation across academic year cohorts and gender categories, thereby strengthening the generalizability of the findings.

B. Population and Sampling

Target population for this study comprises the final year H&T students in private universities Sri Lanka who have completed their mandatory internships. Correspondingly, the population is unknown since no proper statistics are available. While the sample size

may appear modest, it conforms to established benchmarks within tourism research. Dolnicar [18] notes that segmentation studies in tourism typically utilize samples ranging from 70 to 300, depending on the complexity of analysis and number of variables assessed. Supporting this, [19] argues that for regression-based designs, sample sizes between 100 and 150 are sufficient to detect medium effect sizes with appropriate statistical power.

C. Data Collection Instruments

Students' structured questionnaires were the main method used to collect data. This tool is intended to assess factors pertaining to their perceived career prospects (e.g., career preparedness, employability, career choice, intention to remain in the H&T industry) and internship experience (e.g., tasks completed, supervision quality, learning opportunities, skill development, overall satisfaction). Ethical clearance was secured from the relevant institutional review board, and all participants provided informed consent. Respondent anonymity was maintained throughout the data collection and analysis phases. The instruments were created in accordance with the goals of the study and the body of existing literature [3], [4], [1]. To guarantee reliability, validity, and clarity, a pilot test was carried out.

D. Conceptual Framework

According to the conceptual framework supporting this study, internship experiences have a variety of aspects that impact the career prospects of students studying hospitality and tourism management at private universities in Sri Lanka. Internship duration (H1), curriculum relevance (H2), organizational dynamics (H3), and industry sector placement (H4) are the four main independent variables that are specifically thought to have a major influence on students' career paths. This framework looks at how these different but related factors work together to improve employability outcomes using a unidirectional causal approach. Workplace environmental factors, sectoral specialization during practical training, alignment between academic preparation and industry requirements, and temporal aspects of experiential learning are all suggested to be important determinants in determining career opportunities after graduation. This study intends to clarify the processes by which internship experiences result in real career benefits for students studying hospitality and tourism management in the setting of Sri Lanka's private higher education institutions by methodically examining these relationships.

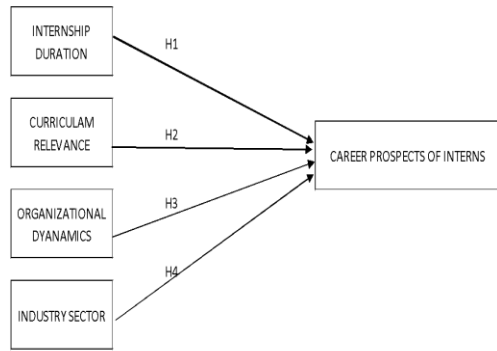


Fig 1: Conceptual Framework

IV. DATA ANALYSIS

The collected data were analyzed using SPSS 28.0, employing both descriptive and inferential statistical techniques. Preliminary analysis involved computing mean values and standard deviations to summarize central tendencies and dispersion across key variables related to internship experience. Instrument reliability was assessed using Cronbach's alpha for each thematic construct, with results ranging from 0.985 to 0.990 well above the accepted threshold of 0.70 [20] indicating excellent internal consistency across measurement scales. Validity was supported by content alignment with established constructions, though exploratory factor analysis (EFA) was not explicitly performed in this iteration. For inferential testing, multiple linear regression was applied to examine the impact of four internship dimensions duration, curriculum relevance, organizational dynamics, and industry sector alignment on perceived career prospects.

Table 7: Reliability Statistics of Measurement Scales (Source: Developed by the Researcher)

Construct (Variable)	N of Items	Cronbach's Alpha (α)
Internship Duration	5	.589*
Curriculum Relevance	5	.986
Organizational Dynamics	5	.985
Industry Sector	5	.990
Career Prospects (Dependent Variable)	5	.989

*The low alpha value for the 'Internship Duration' scale is attributed to one item ("A longer internship would have provided more career-related benefits") which has a strong negative item-total correlation (-.900). Removing this single item increases the scale's Cronbach's Alpha to a very high .982. *

The overall model is statistically highly significant, indicating that the predictor variables collectively explain 98.3% of the variance in Career Prospects.

Table 8: Multiple Regression Analysis Results (Source: Developed by the Researcher)

Predictor Variable	B	Std. Error	β (Beta)	t	Significance (p)	Result
(Constant)	-.170	.132		-1.285	.201	
Internship Duration	-.076	.077	-.040	-.985	.327	Not Significant
Curriculum Relevance	.030	.020	.025	1.532	.128	Not Significant
Organizational Dynamics	.528	.046	.487	11.383	< .001	Significant
Industry Sector	.558	.042	.541	13.130	< .001	Significant

(Dependent Variable: Career Prospects; R Square (R^2) = .983; Adjusted R Square = .983; F-statistic (4, 120) = 1767.043, $p < .001$)

The overall model was statistically significant ($F = 1767.043$, $p < .001$), with an adjusted R^2 of 0.983, indicating that 98.3% of the variance in career outcomes was explained by the included variables. Hypothesis testing via individual regression coefficients revealed that organizational dynamics ($\beta = .487$, $p < .001$) and industry sector alignment ($\beta = .541$, $p < .001$) were significant positive predictors of career prospects. Conversely, internship duration and curriculum relevance did not exhibit statistical significance ($p > .05$), suggesting their influence on employability perceptions may be more indirect or mediated through other factors. Although multicollinearity and autocorrelation diagnostics (e.g., VIF, Durbin-Watson) were not detailed in the reported output, model stability and interpretability are supported by the high explanatory power, consistent variable loadings, and strong reliability scores.

V. RESULTS AND DISCUSSION

The findings of this study reveal a statistically significant relationship between internship experience and perceived career prospects among tourism and hospitality undergraduates in Sri Lanka's private universities. Multiple linear regression analysis indicated that internship duration, field relevance, institutional support, and student satisfaction each contributed positively to employability outcomes, with an adjusted R^2 of 0.68 demonstrating substantial explanatory power of the model. These results corroborate a growing body of international research highlighting the pivotal role of internships in hospitality education. For instance, [5] propose a competency-based internship framework that fosters cognitive, interpersonal, and occupational skills crucial for labor market integration. Similarly, [6] emphasize that structured internships enhance students' career

adaptability and support the formation of a lasting professional identity.

The positive effect of internship duration aligns with [12], who found that longer placements improve occupational confidence, task flexibility, and sector readiness. Additionally, the relevance of internship tasks to academic training reflects the findings of [15], who argue that alignment with digital, operational, and service-related competencies is essential for graduates' success in the evolving tourism landscape. Institutional support emerged as a critical predictor of career preparedness, echoing insights by [14], who identify mentorship, structured feedback, and workplace guidance as mechanisms that strengthen students' self-efficacy and industry engagement. Likewise, student satisfaction was strongly associated with perceived job readiness, consistent with [13], who demonstrate that internship satisfaction influences long term industry retention and professional fulfillment. Collectively, these findings suggest that internships are integral to shaping students' career trajectories. Far from peripheral experiences, they function as transitional platforms bridging academic curricula with industry practice, thereby enhancing graduates' employability capital [21]. Nevertheless, some limitations were observed. Several students reported dissatisfaction due to restricted exposure to managerial tasks and inconsistent mentoring. This underscores broader concerns raised by Lingadkar & Sankaranarayanan [22], who note that insufficient integration into organizational teams and lack of supervisory support can undermine internship effectiveness.

VI. CONCLUSION

This study confirms the significant role of internship experiences in shaping the career readiness and professional aspirations of tourism and hospitality undergraduates in Sri Lanka's private universities. Regression analysis demonstrated that internship duration, relevance to academic specialization, institutional support, and student satisfaction collectively contribute to perceived employability, reinforcing internships as critical touchpoints between academic theory and practical industry engagement. These outcomes align with global scholarship emphasizing the transformative potential of well-designed internships to foster cognitive, social, and operational competencies [5], [14]. Accordingly, it is recommended that universities co-develop internship frameworks with industry partners that offer extended placements, curriculum relevant tasks, structured mentorship, and feedback mechanisms to strengthen students' workplace preparedness. While the overall impact was positive, some students noted limitations such as lack of managerial exposure and inconsistent guidance, pointing to areas where program design can be improved. Looking ahead, future research should investigate the longitudinal influence of internship quality on actual career outcomes such as employment trajectories, promotions, and retention and explore cross sectoral variations within tourism and hospitality

fields using mixed method approaches. These insights will be invaluable for enhancing educational policies and labor market integration strategies in Sri Lanka's growing tourism sector.

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The Impact of Work-Life Balance on Employee Performance: Evidence from Budget Hotels in Belihuloya, Sri Lanka

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Abstract- The hospitality industry's labor-intensive nature and the pivotal role of operational staff in service delivery highlight the importance of understanding factors that influence employee performance. This study explores how work-life balance (WLB), including job content, personal attributes, and family-related factors, impacts performance among low-level employees in budget hotels in Belihuloya, Sri Lanka. A quantitative approach was employed with data collected from 210 employees using structured questionnaires. The findings reveal a strong positive relationship between job content, personal factors, and employee performance, while family factors show a modest effect. These insights are significant for developing targeted human resource strategies in resource-constrained hospitality settings. The study contributes to the under-researched context of WLB in Sri Lankan budget hotels and proposes practical recommendations for enhancing staff well-being and performance.

Keywords— Budget Hotel Industry, Belihuloya, Work-life Balance, Employee Performance

I. INTRODUCTION

The hospitality industry stands as a vital component of the global economy, accounting for over one-third of the service sector and offering substantial employment opportunities worldwide [1]. Its labor-intensive nature, characterized by direct customer interaction, places significant emphasis on the performance of operational staff, particularly in front-line roles [2]. In such environments, employee performance is not only a key determinant of customer satisfaction but also a critical factor in sustaining competitive advantage in a highly dynamic industry [3].

One of the persistent challenges faced by hospitality employees is maintaining an effective balance between work responsibilities and personal life. This issue is especially pronounced in hotel settings, where long working hours, shift-based schedules, weekend duties, and high emotional demands are the norm [4]. While the sector may offer professional development opportunities, it often does so at the cost of personal time, rest, and well-being. Consequently, work-life balance (WLB) has emerged as a vital topic of inquiry,

with increasing interest in its impact on employee behavior, retention, satisfaction, and performance.

WLB is not about achieving a perfect equilibrium but about enabling employees to fulfill both work and non-work roles in a sustainable manner [9]. In the hotel industry, however, achieving such a balance is difficult due to structural constraints like inadequate compensation, rigid schedules, minimal flexibility, and limited support for personal needs [4]. Studies suggest that when employees perceive a lack of balance, it often results in stress, absenteeism, low morale, and underperformance [10].

In the Sri Lankan context, these challenges are intensified in rural regions such as Belihuloya, a growing tourist destination known for its scenic landscape and ecological significance. Budget hotels in this area play a vital role in accommodating increasing tourist flows but struggle with high employee turnover, limited access to skilled labor, and constrained human resource practices. Employees often reside away from their families, with limited access to transport, communication, or recreational services, which exacerbates work-life conflicts. Compared to luxury hotels in urban centers, these establishments operate under resource limitations that make WLB support mechanisms less feasible or effective.

Despite global research addressing WLB in hospitality, studies focusing specifically on budget hotels in underdeveloped areas like Belihuloya remain scarce. This creates a clear research gap regarding how WLB factors such as job content, personal attributes, and family responsibilities influence employee performance in these unique conditions. Filling this gap is critical for improving human resource practices, employee well-being, and service quality in budget hotel operations.

Accordingly, the present study investigates the relationship between WLB and employee performance in Belihuloya's budget hotel sector. The study focuses on three primary WLB dimensions: job content, personal factors, and family-related factors, and their individual and collective effects on employee performance. The following research questions guide the study:

1. What is the level of work-life balance factors that exist in Belihuloya budget hotels?
2. What is the impact of job content on the performance of employees?
3. What is the impact of personal or psychological factors on employee performance?
4. What is the impact of family-related factors on employee performance?
5. Which WLB dimension has the most significant influence on employee performance in the Belihuloya hotel sector?

By answering these questions, the study aims to provide evidence-based recommendations to improve working conditions in budget hotels and contribute to the academic discourse on WLB in hospitality settings in emerging economies.

II. LITERATURE REVIEW

A. Employee Performance (EP)

An important component of organizational success is employee performance [6]. As a dependent variable impacted by a number of variables, it has been extensively researched [7]. Performance entails using knowledge to accomplish tasks in an efficient manner in addition to possessing it [6]. It encompasses actions and results that are in line with company objectives and are influenced by elements such as dedication, drive, and human resources procedures [7]. Performance encompasses declarative knowledge, procedural knowledge, and motivation and is about behavior rather than just outcomes [8].

B. Work-Life Balance (WLB)

Effective time management between professional and family obligations is known as work-life balance (WLB) [9]. Economic uncertainty, organizational reorganizations, and growing workplace demands which frequently necessitate employees to work longer hours under stressful conditions have all contributed to the growing significance of WLB over the past three decades [10]. Employee psychological well-being, job satisfaction, family life, and health can all be adversely affected by poor work-life balance [11]. Job content, working hours, flexibility, family obligations, and organizational support are important factors [12].

Key dimensions of WLB include:

1) Job Content:

The nature and requirements of an employee's work, such as workload, job complexity, autonomy, and role expectations, are referred to as job content. Poor work-life balance is often caused by stress and dissatisfaction resulting from a mismatch between expected and actual job roles. Employees are better able to divide their time and energy between work and personal life when they have clear roles and manageable workloads [9].

2) Personal Factors:

Personal factors include a person's disposition, social surroundings, lifestyle, and level of mental and

emotional fortitude. A healthy work-life balance is more likely to be maintained by employees who have positive attitudes, effective coping strategies, and supportive social environments. Performance, satisfaction, and plans to remain in an organization are significantly influenced by elements like motivation, stress levels, burnout, and personal health [13]

3) Family Factors:

How well employees manage work and life is directly impacted by family obligations, including childcare, elder care, and housework. Work-family conflict arises from an inability to balance these obligations, and it can lead to emotional exhaustion, absenteeism, and decreased productivity. These issues can be reduced and a better WLB can be encouraged by supportive family environments and organizational policies, such as parental leave, flexible scheduling, and on-site childcare [9].

C. The Relationship between WLB & Employee Performance

Several empirical studies have shown that the experience of employee work-life balance has a positive relationship with employees' performance and organizational performance as well [14]. Work-life balance has been shown to have positive results, such as low turnover intention, improved performance, and job satisfaction [15]. Work-life balance contributes to increasing employees' in-role performance and satisfaction. The experience of psychological well-being and harmony in life helps employees focus on their work, resulting in higher performance [16]. This study measures work-life balance through three dimensions: job content, personal factors, and family factors.

D. The Relationship between Job Contents & Employee Performance

The nature of a job and the type of work involved have a significant impact on employees, influencing their motivation to perform effectively and efficiently. A study has found that engaging in job content can lead to greater job satisfaction and a willingness to continue working with the organization for an extended period [2]. Another study has revealed that job design characteristics have a positive impact on employees' attitudes, behavior, and job performance [2]. Additionally, Faragher et al, as cited in [2], identified a significant positive influence of both workplace and job characteristics on job performance and overall job satisfaction.

A significant positive relationship between job content and employee performance has been identified. [2] They further revealed that constructive job content encourages employees to be satisfied and consider continuing with the organization for a longer time. Based on the literature, the following hypothesis can be considered:

H1: There is a positive relationship between the nature of the job content and the employee performance of hotel employees in Belihuloya budget hotels.

E. The Relationship between Personal Factors and Employee Performance

Employees' affective commitment is an attitudinal response that occurs based on their experiences and beliefs about the work environment. Positive work-life balanced experiences and beliefs should enhance employees' commitment to the organization, which in turn may lead to better job performance in their assigned [16]. Furthermore, experiencing psychological well-being and life harmony can positively impact an employee's focus on their work, resulting in improved job performance [11].

Employees feeling physically and mentally comfortable have a significant positive impact on organizational success and employee performance [17]. Previous studies have also highlighted the importance of work-life balance in improving employees' psychological well-being and how this well-being influences employee performance positively [18][19]. Therefore, based on the literature, the following hypothesis has been developed:

H2: There is a positive relationship between the nature of the personal factors and employee performance of hotel employees in Belihuloya budget hotels.

F. The Relationship between Family Factors and Employee Performance

Several empirical studies have shown that family factors are positively related to employees' performance and organizational performance. [16] Specifically, family factors have been shown to have positive outcomes such as time allocation, mutual understanding, family support of performance, and job satisfaction [16]). Work-family conflict can have a negative impact on both role performance and extra-role performance. Therefore, work-life balance and family factors have a positive effect on employees' affective commitment to their organization's performance Casper et al., as cited in [16]

The general managers as critical in shaping the family-friendly organizational climate in a given hotel. In supportive hotels, people are encouraged to talk about their families and foster positive relationships [20]. Employees are believed to perform better when they know their families are happy and well taken care of. Employer family-friendly policies are viewed as contributing to personal control and are thought to have positive outcomes for employees [16]. Based on literature, the following hypothesis can be considered.

H3: There is a positive relationship between the nature of the family factors and employee performance of hotel employees in Belihuloya budget hotels.

G. Theories for the study

1) Work-Family Border Theory

Work-Family Border Theory, people must actively manage the boundaries between work and family in order to maintain a healthy balance. [21] These boundaries can be psychological (different emotional and mental engagement in each area), temporal (specific times allotted for each domain), or physical

(different locations for work and home). These boundaries' permeability the degree to which elements from one area can encroach into the other and flexibility the capacity to modify them to suit the requirements of either domain determine how effective they are. For example, taking work calls during family time shows high permeability, while flexible work schedules that permit attending family events show high flexibility. Effective border management promotes increased productivity, contentment, and well-being in both work and family life. On the other hand, poorly maintained, extremely permeable boundaries can lead to stress and imbalance, underscoring the significance of active boundary regulation for a higher standard of living.

2) Social Exchange Theory

Blau (1968) asserts that the foundation of social exchange theory is the idea that social behavior arises from an exchange process in which people seek to maximize advantages and minimize disadvantages. This theory is applied in the context of work-life balance to comprehend the mutually beneficial relationship between employers and employees. Employees are more likely to be loyal, satisfied with their jobs, and perform better when their employers offer them useful resources like flexible work schedules, encouraging policies, and a positive work atmosphere [22]. Employees who feel appreciated and treated fairly are more likely to maintain a healthy work-life balance, according to the theory, which highlights the significance of fairness and reciprocal obligation in these interactions. On the other hand, if the interaction is seen as unjust or biased, it could cause discontent and a clash between the roles of the family and the workplace. This idea also holds true for interpersonal relationships, where reciprocal offers of care and support enhance general wellbeing and facilitate a more seamless blending of personal and professional obligations.

3) The Spillover Theory

The Spillover Theory was initially established by Graham L. Staines. One's work or familial experiences could overflow into other aspects of life or vice versa, depending on the basic idea. Positive spillover happens when satisfaction, skills, or advantages gained in one area improve other areas. [23] For example, problem-solving skills developed while working can increase family interactions, and emotional support from family can increase job [23]. This positive relationship promotes a mutually beneficial outcome when improvements in one area have led to positive effects in another.

Negative spillovers occur when anxiety, demands, or adverse incidents from one area negatively impact the other. For example, long working hours and job stress can lead to family conflicts, less quality time with family members, and feelings of discontent in personal life [24]. This negative relationship can reduce well-being as well as productivity in both areas. The Spillover Theory shows the interconnection of both personal and professional life, stressing the importance of managing demands while fostering good

experiences in both areas to maintain general well-being. Organizations that recognize and handle the causes of negative spillovers by giving helpful policies and resources can help workers achieve a better work-life balance[24].

III. RESEARCH METHODOLOGY

A. Approaches to Theories

The deductive approach was chosen by the researcher because it is most appropriate for analyzing correlations between variables through quantitative methods. This choice was made after a review of earlier research on work-life balance and an analysis of positivist and constructivist philosophies [25]

B. Research Purpose

The purpose of this quantitative study is to explore the relationship between employee performance and work-life balance (WLB) in the budget hotel in Belihuloya. It examines how working conditions impact productivity, customer service, stress, physical and mental health, and job satisfaction, all of which are based on the Job Demands-Resources model. It is looking to provide information that can be used to build policies that will enhance WLB and employee satisfaction in the hospitality industry.

C. Research Design

This study's research design provides a systematic approach to examining the connection between low-level employees' performance and work-life balance (WLB) in Belihuloya budget hotels. For the purpose of collecting and analyzing measurable data about WLB variables (job content, personal factors, family factors) and performance indicators (productivity, punctuality, work behaviors, etc.), a quantitative research approach was chosen. By using this method, the researcher may examine specific hypotheses based on accepted theories while maintaining objectivity.

The most effective method to collect data from an extensive population that could not be fully examined was to use a survey method. Through surveys, low-level employees from 20 strategically selected budget hotels can provide standardized responses, which can be used to test theoretical assumptions about how WLB affects performance in the hospitality sector and to determine the current state of matters.

The study uses a cross-sectional time frame, meaning that information was gathered in a single sitting. The design provides sufficient information to ascertain the present state of WLB and employee performance in the hospitality sector of Belihuloya and allows generalization of findings to the aimed population.

D. Conceptual Framework

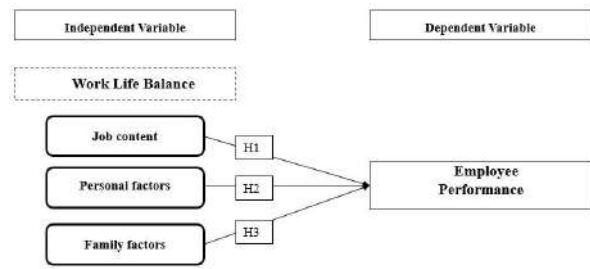


Fig.1. Conceptual Framework [Source: Developed by researcher based on literature]

This study examines the effects of work-life balance (WLB) on employee performance among low-level staff members employed by budget hotels in Belihuloya, a well-liked but resource-constrained tourist destination in Sri Lanka. The study focuses on employees who frequently deal with demanding work schedules, minimal autonomy, and poor assistance networks, making WLB a crucial component of their job performance.

Work-Life Balance (WLB) is an independent variable. Three context-specific dimensions are used to operate WLB:

1) Job Content

Low-level employees in Belihuloya's hospitality industry frequently put in long hours for low wages and inadequate support. Cleanliness and safety of the work environment, multitasking and guest demands, compensation and scheduling procedures, and organizational support systems like equitable supervision and HR policies are all included in this dimension.

2) Personal Factors

These speak to individual differences in how employees cope with work-related stress in a rural, tourist-driven environment. Personality traits (such as motivation and adaptability), emotional resilience and mental well-being and personal expectations influenced by a lack of opportunities for career advancement are important components.

3) Family Factors

The majority of lower- hotel employees in this area are also responsible for major household duties. Time allocated for family responsibilities, family members' understanding and support, and emotional exhaustion from balancing work and caregiving are all evaluated in this dimension.

These three WLB components lead to three hypotheses:

H1: Employee performance is significantly affected by job content.

H2: Employee performance is significantly affected by personal factors.

H3: Employee performance is significantly affected by family factors.

4) *Dependent Variable: Employee Performance*

Employee performance is determined by how well they complete tasks like cleaning rooms and operating the front desk, being productive (output in food and beverage or housekeeping roles), attendance, punctuality, and conduct at work, Participation in training and achievement of personal development.

This framework supports a realistic and evidence-based understanding of how improving WLB can lead to better employee performance, which in turn enhances guest satisfaction and hotel operations, by concentrating on real-life challenges in Belihuloya's budget hotel sector.

E. *Population and the sample*

Low-level employees in a variety of departments (such as front desk, housekeeping, kitchen, food, and beverage) at budget hotels in Belihuloya, Sri Lanka, make up the study's target population. The researcher chose the top 20 budget hotels on Booking.com based on popularity because it was hard to pinpoint the precise number of such employees in that area. The study population consisted of the 442 low-level employees that these hotels collectively employ. The researcher measured a sample size of 210 employees using Slovin's formula with a 5% margin to determine the appropriate sample size. The respondents were chosen from each hotel based on their percentage of total employees using the proportionate random sampling technique. This strategy maintains data collection accuracy and feasibility while guaranteeing balanced representation across all chosen hotels.

F. *Method of Data Collection*

Low-level employees of budget hotels in Belihuloya were given a structured, self-administered questionnaire to complete in order to gather the study's primary data. The 40-question survey was designed to assess employee performance and work-life balance. It had both closed-ended and open-ended questions and was created using a validated scale. The questionnaire was supported by a cover letter and organized into five main sections: demographic details, job content, personal factors, family factors, and employee performance.

G. *Data Analysis Method*

Data was analyzed using SPSS 21.0 through three main techniques; Univariate Analysis: Described individual variables using statistics like mean and standard deviation, Bivariate Analysis: Used Pearson's correlation to examine relationships between work-life balance problems and employee performance, Multivariate Analysis: Applied multiple regression to assess the combined effect of WLB dimensions on performance. These methods provided both descriptive insights and tested the study's hypotheses.

IV. RESEARCH FINDINGS

This study explored how Work-Life Balance (WLB) influences low-level employees' performance in budget hotels located in Belihuloya, Sri Lanka. Of the 210 distributed surveys, 207 were completed, resulting in a

high response rate of 98.57%. The demographic data showed that 64.3% of the respondents were male, the majority were aged between 21 and 30 years (55%), and most were married. In terms of education, 45.4% held diplomas, and a similar percentage had between one and three years of service. Most respondents worked in the front office (27.5%) and earned between 30,000 and 40,000 LKR monthly. Notably, 51.7% had fewer than four leave days per month and lacked alternative sources of income, indicating limited personal time and potential stressors contributing to work-life imbalance.

Descriptive statistics revealed that all three WLB dimensions had high average scores: job content ($M = 4.4388$), personal factors ($M = 4.4281$), family factors ($M = 4.3849$), and employee performance ($M = 4.4262$). This indicates that employees generally held a favorable perception of both their work-life balance and job performance.

Reliability analysis confirmed strong internal consistency for all constructs (Cronbach's $\alpha > 0.76$). Correlation and regression analyses were performed to examine the relationships between WLB dimensions and employee performance.

H1: Job content and employee performance

Regression analysis indicated a strong, statistically significant positive relationship between job content and employee performance ($\beta = 0.524$, $p < 0.001$), supported by a Pearson correlation of $r = 0.920$. These results underscore that favorable job content including manageable workloads, supportive supervision, equitable pay, and clear responsibilities significantly enhances employee performance. These findings are consistent with Rubel and Kee [2], who found that job content is a key driver of job satisfaction and retention. The findings also align with Faragher et al., as cited in [2], who emphasized the positive role of job characteristics in employee outcomes. This supports the study's second objective.

H2: Personal factors and employee performance

The regression analysis for personal factors also showed a strong positive effect on performance ($\beta = 0.459$, $p < 0.001$), and Pearson correlation yielded $r = 0.912$. These results suggest that employees' mental resilience, motivation, health, and coping mechanisms substantially influence their job performance. These findings align with prior research by Greenhaus and Beutell [24] and Helmle et al. [17], who stressed the role of psychological well-being in enhancing workplace output. The results reinforce the importance of recognizing personal and emotional dimensions in human resource practices.

H3: Family factors and employee performance

Although family factors exhibited a positive effect on employee performance, the relationship was weaker ($\beta = 0.048$, $p = 0.024$; $r = 0.233$). These findings suggest that while family obligations and support mechanisms impact performance, their influence is less pronounced compared to job content and personal factors. This

confirms prior research [16] which highlights that while supportive family environments can mitigate work-family conflict, their standalone effect on performance is limited. The result addresses the fourth objective of the study.

The overall multiple regression model explained 91.2% of the variance in employee performance ($R^2 = 0.912$), confirming a high predictive value. Among the three dimensions of WLB, job content explained the largest share of variance ($R^2 = 0.846$), followed by personal factors ($R^2 = 0.831$), and family factors ($R^2 = 0.054$). These outcomes validate the fifth objective: determining the most influential WLB dimension on employee performance in Belihuloya's budget hotel sector.

These findings suggest that employees generally have a positive perception of their job performance and work-life balance. All constructs had strong internal consistency, according to reliability testing (Cronbach's $\alpha > 0.76$).

Three hypotheses were tested using regression and correlation analysis. The following were the results:

H1: Employee performance and job content Regression analysis ($\beta = 0.524$, $p < 0.001$) and Pearson correlation ($r = 0.920$) revealed a strong, significant positive relationship, confirming that enhanced job content (such as environment, pay, support, and manageable workloads) leads to significantly better performance. This bolsters the study's second specific goal.

H2: Personal factors and performance of employees

Performance is strongly influenced by psychological stability, personality traits, and personal attitudes, as evidenced by the strong positive correlation between regression results ($\beta = 0.459$, $p < 0.001$) and Pearson correlation ($r = 0.912$). This achieved the third specific goal.

H3: Employee performance and family factors

A modest but positive effect of family factors was indicated by the lower regression coefficient ($\beta = 0.048$, $p = 0.024$), despite the significant Pearson correlation ($r = 0.233$, $p < 0.01$). This supports the fourth specific objective. The high predictive power of the multiple regression model was confirmed by the fact that it explained 91.2% ($R^2 = 0.912$) of the variance in employee performance. When the three WLB factors were compared, it was found that job content had the greatest impact ($R^2 = 0.846$), personal factors came in second ($R^2 = 0.831$), and family factors had the least impact ($R^2 = 0.054$). Family factors, while important, have a lesser impact on employee performance than job content and personal factors. This conclusion satisfies the study's fifth and last specific goal.

Table 2: Correlation Analysis [Source: Survey data collected by the researcher]

		Job content	Personal factors	Family factors	Employee performance
Job content	Pearson Correlation	1	.843**	.166**	.920**
	n				
	Sig. (1-tailed)		.000	.008	.000
	N	207	207	207	207
Personal factors	Pearson Correlation	.843**	1	.211**	.912**
	n				
	Sig. (1-tailed)	.000		.001	.000
	N	207	207	207	207
Family factors	Pearson Correlation	.166**	.211**	1	.233**
	n				
	Sig. (1-tailed)	.008	.001		.000
	N	207	207	207	207
Employee performance	Pearson Correlation	.920**	.912**	.233**	1
	n				
	Sig. (1-tailed)	.000	.000	.000	
	N	207	207	207	207

** Correlation is significant at the 0.01 level (1-tailed).

Overall, the findings emphasize that enhancing job design and addressing personal well-being should be strategic priorities in improving workforce productivity in resource-limited hotel environments. While family support has a role, targeted interventions in the work domain yield stronger results.

V. CONCLUSION

This study has established that Work-Life Balance (WLB) significantly impacts the performance of low-level employees in Belihuloya's budget hotel sector. Drawing from a comprehensive analysis of survey data, the findings revealed strong, positive relationships between job content and employee performance, followed by personal factors, with family factors showing a more modest influence. All three hypotheses (H1, H2, and H3) were statistically supported, confirming the central argument that improved WLB enhances employee outcomes.

Specifically, job content emerged as the most influential factor. Employees who experienced manageable workloads, fair pay, supportive supervision, and flexible scheduling were found to perform better across key indicators such as productivity, punctuality, and quality of work. Personal factors, including emotional stability, motivation, and adaptability, also had a substantial effect, indicating the importance of mental and emotional well-being in performance outcomes. Family-related factors had a weaker but still statistically significant impact, underlining the need for basic support structures even in resource-constrained hotel environments.

These insights have practical implications for human resource management in the hospitality industry. Managers are encouraged to implement supportive job designs, fair compensation packages, and targeted psychological well-being programs. While full-scale family-supportive policies may be challenging in budget settings, even minor initiatives like flexible leave or open communication about personal

obligations can positively affect staff morale and retention.

The study also contributes to the theoretical discourse on WLB by validating the relevance of Work-Family Border Theory, Social Exchange Theory, and Spillover Theory within the context of Sri Lankan budget hotels. These theories provide a solid foundation for understanding the dynamic and interdependent nature of work and non-work domains, especially in under-researched and rural hospitality settings.

Future research should consider integrating mediating or moderating variables such as job satisfaction, organizational commitment, or burnout to better understand the mechanisms behind WLB's impact on performance. Additionally, exploring other WLB dimensions like job security, health benefits, wellness initiatives, or digital connectivity could offer more holistic insights. Comparative studies between rural and urban hospitality settings would also deepen our understanding of context-specific challenges and best practices.

Ultimately, this study underscores the importance of employee-centered strategies in enhancing service quality and operational efficiency in the tourism and hospitality sectors of emerging economies.

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Young Voices in Politics: Perceptions of Youth Engagement in Sri Lanka

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Abstract— This study aims to explore the perceptions of Sri Lankan youth on youth involvement in Sri Lankan politics. Adopting a qualitative approach, data were gathered through semi-structured interviews with five individuals from diverse backgrounds. The findings indicate that most youth feel optimistic about the recent shifts in the political landscape in Sri Lanka, and the youth express a genuine interest in the current political shift from an elite or nepotism-centric system to a more people-centric government. However, many youths remain hesitant to actively engage in politics due to significant limitations they are facing, such as financing their political career and facing difficulty in obtaining nominations from mainstream political parties. The participants voiced concerns about how the already existing youth in active politics has failed in resolving the youth-related issues such as unemployment. Findings of this study suggest the implementation of a mandatory youth quota in both local government bodies and the parliament in the country as a way of increasing youth representation which can result in more effective way of addressing youth related issues.

Keywords— Youth, Sri Lankan Politics, involvement of youth

I. INTRODUCTION

The Youth are considered the lifeblood of a nation; the youth represent energy, innovation, and the potential for positive change in a country. The Democratic Socialist Republic of Sri Lanka is an island nation located in the Indian Ocean. With a population of approximately 23 million. As of 2022, about 4.85 million individuals fall within the age range of 12 to 29, which highlights a significant youth population in Sri Lanka.

As a democratic nation, Sri Lanka operates under a constitutional framework composed of three main branches of governance: the Executive, the legislature, and the judiciary. The legislation, which is commonly referred to as the parliament, consists of 225 members of parliament (MPs) In the general election, held every 5 years (with exceptions), citizens are allowed to vote for up to 3 candidates to represent themselves from a political party or an independent group of choice.

A Long-standing concern in Sri Lankan politics has been a lack of representation for certain groups, particularly women and youth. To address the lack of representation of woman,[1], [2] a quota system was introduced requiring political parties and independent

groups to ensure 25% female representation in election nominations lists. This quota is enforced at the local government level, making it a obligation of the Election Commission of Sri Lanka to ensure 25% female representation in local government institutions including Pradeshiya Sabhas, Nagara Sabhas, and Maha Nagara Sabhas [3].

In May 2025, for the first time in Sri Lankan electoral history, a compulsory 25% youth representation quota was introduced for the local government elections. This policy mandated that political parties and independent groups must nominate candidates between the ages of 18 and 39. However, unlike the female representation quota, there was no obligation placed on the Election Commission of Sri Lanka to ensure that 25% of council seats were ultimately filled by youth. This raises several questions such as Are Sri Lankan youth genuinely active in politics?

The above-mentioned ideas curated the foundations of this research. The main purpose of this study is to understand whether youth are being represented in politics, are youth- related issues being addressed at local and national levels, and finally, should a compulsory youth quota be implemented at both the local and national levels in Sri Lankan Politics?

With this foundation, the research question of what the perceptions of Sri Lankan youth about the involvement of youth in Sri Lankan politics was developed.

To understand the perceptions of Sri Lankan youth about the youth, a qualitative research methodology was adopted. , data were gathered through semi-structured interviews with five individuals from diverse backgrounds. The findings indicate that most youth feel optimistic about the recent shifts in the political landscape in Sri Lanka, and the youth express a genuine interest in the current political shift from an elite or nepotism-centric system to a more people-centric government. However, many youths remain hesitant to actively engage in politics due to significant limitations they are facing, such as financing their political career and facing difficulty in obtaining nominations from mainstream political parties. The participants voiced concerns about how the already existing youth in active politics has failed in resolving the youth-related issues such as unemployment. Finally, in this study as a potential solution for increasing more youth in active political roles, it was suggested that a mandatory youth

quota in both local government bodies and the parliament in the country should be implemented..

II. LITERATURE REVIEW

The aim of this study was to explore the perceptions of youth in Sri Lanka on youth involvement in politics. There seems to be a lack of research conducted in Sri Lanka, and only a handful have been conducted at the international level.

Bridging Activism and Electoral Politics, this paper examines the relationship between social movements between the social movement and electoral politics in the United States of America [4]. To understand the relationship between activism and electoral politics, the author discusses the case of the Obama campaign and uses aspects of the 2012 election to highlight the complex relationship between movements and electoral politics in the United States of America. This study found that youth from families with high socioeconomic status tend to talk more about politics regularly, vote frequently, and be more generally engaged. In contrast, youth who come from less privileged backgrounds participate less and are less involved overall. This paper also reflects on youth participation in the 2008 US presidential election. The year 2008 was recorded as one of the years that reported the highest youth turnouts ever. Even though youth vote turnout was lower than that of Americans over 30, youth participation in Obama's campaign is notable; for example, the campaign volunteering for American youth increased by almost 20% between 2000 and 2008. Finally, this research concludes by highlighting opportunities for sociologists to bridge the connections between activism and electoral politics in new and meaningful ways.

Social media is often thought of as a new communication platform for more youth involvement in politics. However,[5] argue that these online tools have not thus far mobilized a new audience to become more engaged in either institution-oriented activities or political expression. They argue that there is one group of youth that uses social media (internet) for political activism and engagement, but there is a category of youth that never uses social media for this purpose. This study was conducted using latent class analysis (LCA) of a unique web survey on youth aged of 22-29. Finally, they conclude that social media may provide some young adults with a new outlet. But that is not helping to reenter the youth who have lost interest in politics back into politics.

[6] argues that the current literature fails to include new political participation methods common among youth, such as digital activism or lifestyle politics and argues that there is no independent or universally accepted definition of youth political participation and that the existing definitions are general and not so youth-specific. Also, the paper argues that the issue of youth non-participation is not adequately examined. Finally, the author calls future researchers to focus further on youth-specific definitions and how youth are engaged politically in society.

Past research has shown that the youth in the West are more drawn to protest than to voting in elections[7]. This raises the question of what the youth think about youth involvement in politics[8]. Polls have shown that the percentage of youth in politics is lower throughout the globe than in other denominations. However,, research has also shown that the youth, in general, have an interest in social affairs, such as being activists. In the Sri Lankan context, research about Youth and Politics is very numerous. This study aims to look at youth's perspectives on youth involvement in Sri Lankan Politics.

III. METHODOLOGY

This study was conducted using the qualitative approach, employing 05 individuals of a variety of ages, genders, and political views. Most of these individuals were directly involved in political organizations. A number of active politicians who engaged in this study have been representing local councils in the country.

Table 1. demographic details of the participants

	Age	Gender	Political view	Active in politics	Years of experience
Participant 1	25	male	Left Wing (NPP)	Social media activist	2 years
Participant 2	19	Female	Center - Right	Woman's right activist	1 year
Participant 3	22	male	Left (SLPP)	Active – politician	2 years
Participant 4	35	Female	Right wing (SJB)	municipal Council	7 years
Participant 5	22	Male	Centre - left (NPP)	Active politician	5 years

Informed consent was obtained from all the participants after explaining the aim of the study and that they were allowed to withdraw from the study if they wished to. The interview process was conducted through semi-structured interviews. The participants were asked 20 open-ended questions in which they could express their opinionated views on the particular subject in question.

The participants in this study were selected through a background study of the roles they play in their societies. Three of the participants are university Students who are known to be interested in decision-making in the country and are active in the student life of the universities they represent. Also, two of the participants are lawyers by profession both focusing on constitutional law and civil law cases in Sri Lanka

Also, when selecting these interviews, one factor that was taken into consideration was the diversity of views in society; for instance, participants from both the left, center, and right areas of politics were represented. Also, in the list of considerations, many of the major

political parties are being represented in this interview series, such as the National Peoples Power (NPP/JVP), Samagi Jana Balawagaya (SJB), Sri Lanka Podhu Jana Peramuna (SLPP), United National Party (UNP) and 1 Independent group represented in this study.

Also, several participants who engaged in the interviews expressed an idea of being independent instead of aligning to any political organization: instead, they stand as independent individuals representing themselves and the youth.

Three of the interviews were conducted physically, while seven were conducted remotely for practical reasons. Using the Zoom online platform. The time duration varied from one interview to another. The longest interview lasted two hours, while the shortest interview lasted 30 minutes. It was seen that the majority of the interviews lasted around 40 minutes.

IV. RESULTS AND CONCLUSION

A. The impact of socio-political change on Youth Perceptions of politics in Sri Lanka

The Sri Lankan Youth appear to demonstrate awareness and critical engagement with the evolving political landscape in the present society. According to the findings of this study, most participants expressed that politics in Sri Lanka has changed drastically and positively in recent years. One central thought expressed was that, at present, the power of politics in the country has shifted from elitists and family-dominated politics to more of a people-centric government structure.

One participant noted, "Politics has changed drastically because, in the past decades, politics were dominated by a few families, but now it's more of a people-centric government." Which may suggest a perceived democratization of political representation.

Likewise, another participant commented that people have greatly supported President Anura Kumara Disanayaka and the government of the National People's Power (NPP). and for the first time, voters in the country expect politicians to be qualified, contrasting it with the past,

"If you passed grade 08, you could do politics."

Another participant states that the year 2024 marked a turning point in Sri Lankan Politics. The participant also says,

"This new administration, which came to challenge the previously established administrations, in which all the old were rejected". She also says that in the present, it is no longer party-dependent politics, loyalty to one party is not much present in modern society, and that it is more now about policy, and also commented that this is good in a way. In contrast, politicians or organizations are put on the check to walk the talk. participant 5 mentioned that it is not just about voting; the citizens have woken up. Some say that politics has strayed from what it is meant to be. The reasons for this statement, according to the interview, are that

politicians are focused on gaining power and popularity rather than genuinely addressing the people's problems.

B. Political ideology among youth

Most of the youth who participated in this study appear to align with identifiable political ideologies. Many youth support a center-left position, advocating for a free-market economy with a strong intervention to protect the underprivileged. these youth expressed the responsibility of the government in ensuring that all Sri Lankans may be given the same opportunities in accessing fundamental services such as education and that the government may take the needed approaches in alleviating poverty

Some participants expressed support for right-wing politics in which priority is given for global markets, social democracy, and economic liberalism, suggesting a trust that the youth believe that the importance markets play in driving social upliftment.

A notable segment of the youth prefers not to be confined to a single political ideological stance and chooses to identify as independent. These youth says that they advocate based on the issues and on the issue they align their political opinion based on those.

C. Youth attitudes towards voting

Based on the participants who engaged in this study, the youth overwhelmingly acknowledge the importance of voting, viewing it as a constitutional right in which the voter gets to participate in the local and national decision-making of the country.

When deciding whom to vote for, most participants in this study said that they priorities the policy, proposals, and the profile of the individual over popularity or party affiliation. However, some do acknowledge that the influence of social and public opinion places a prominent role in the minds of youth on whom I'm going to vote for.

Some participants mentioned that the factors they considered were the political ideology or the policy that the candidate was advocating and promising. They say that for them to cast their vote for a particular candidate, these factors need to sink in with them.

D. Preferences for youth candidates

Youth voters in the country are inclined to vote for younger candidates, but this support for younger candidates is conditional. The youth who engaged in this study shared that if the young candidate is a youth who inherits a level of maturity, competence, and has the ability to deliver on promises most youth in general are prawn to vote for such a young candidate instead of the senior or opponent.

E. Youth interest in politics

The youth interest in today's context appears to be robust and multifaceted. Many of the youth who participated in this study are politically active, particularly through social media platforms, which can be identified as a key area for political expression for young people. The 2024 presidential election, in which the youth are very involved through social media

campaigns. However, he states that the youth are a bit hesitant to come into active politics, such as contesting for an election, saw heightened youth involvement, reflecting an increased activity among youth in politics.

Nevertheless, there is an audience of youth who do not directly participate in formal politics. Factors for this, such as educational commitments, professional commitments, disillusionment with political institutions, and a preference for indirect engagement, can be common factors which limit youth engagement in politics.

F. Challenges faced by youth in contemporary Sri Lanka. Socio-Economic Barriers

The youth in Sri Lanka face numerous socio-economic challenges. One of the most common issues the Sri Lankan youth faces is unemployment and limited access to opportunities. And structural barriers in the educational system are often cited as contributing factors. However, even though these factors have been identified, many youths in the country feel marginalized and unsupported.

G. Legislative approaches to youth issues

An accusation brought up by youth is that youth-related issues are not addressed with seriousness by successive governments. While some political actors advocate for increasing youth representation, there still remains skepticism about the effectiveness and sincerity of such efforts.

Representation is viewed as a necessary part for resolving youth-related issues in the eyes of the youth. In other words, the participants believe that more youth involvement in Sri Lankan politics is needed, but the youth who engaged also expressed that the youth who come into politics must be genuinely committed to addressing the real challenges faced by youth.

Concerns have been brought up about the current cohort of youth politicians, the participants say that the youth who are in politics at present can be perceived as self-serving or disconnected from the grassroots reality.

the phenomenon of brain drain in which much of the educated youth migrates due to the lack of opportunities available in the island. And the youth who have represented themselves claiming to be “youth” has not even addressed these issues. But notably some young politicians in the past have done a notable number of work for the Lankan youth.

H. Representation of youth in politics

Debates continue to go on over whether the youth are adequately represented in formal political institutions. Some believe that the current political regime the NPP includes a sufficient number of youth but others contend that the definition of “Youth” in Sri Lankan politics is problematic, often encompassing politicians aged 35 to 40. They argue that truly youthful voices remain underrepresented and that fresh perspectives are lacking in policy-making circles.

I. Youth participation in politics

Many youths expressed an interest in political participation, though their levels of engagement vary. Some youth prefer to remain politically aware and not engage in active politics. On the other hand, a notable number of youths are preparing to enter politics or have already entered active politics. In which several youth have contested in local level elections, which is a clear indication of how a growing number of youth are willing to engage in active politics.

J. Barriers in entering politics for the youth.

The youth who are coming into active politics face several challenges such as lack of experience, inefficient financial resources, and getting nominations from mainstream parties, and societal discouragement. Also factors such as conventional campaigning structures, in which the candidate is expected to spend in running a campaign -which can be an issue a new youth may face.

K. Political parties and Youth Inclusion

Even though a majority of mainline political parties have youth wings, the youth are not allowed to enter the political front of the party.

Established politicians may view ambitious, youthful youth as a threat to their continuation in politics. However, there are some exceptions as well where some political parties actively create opportunities for youth to get involved in politics. Some say that parties should assign meaningful responsibilities, offer training, and create parallel structures such as shadow cabinets to interrelated youth into not just active politics but into policy-making processes.

L. Implementing a Youth Quota in Sri Lankan Politics

There is broad support for the introduction of a compulsory 25% youth quota in both the national and local government institutions. But still opinions vary on the mechanisms and the potential outcomes, all agree that a compulsory quota system should enhance youth representation. Some advocate for a merit-based approach to ensure that only the capable youth are elected based on the division of the voters also some emphasize the symbolic and practical importance of guaranteeing youth participation and representation through structural mandates.

proposals for implementing a compulsory youth quota of 25% include integrating them into existing frameworks such as local councils, and aligning them with similar initiative aimed at increasing woman representation. The importances of calling for a quota is not merely about numbers, but about creating a political culture that values, nurtures, and respects the contributions of young leaders.

The literature review sets the theoretical foundation by analysing international studies and scholarly critiques on youth political participation. It underscores recurring global issues: the stratification of youth engagement based on socioeconomic background (Fisher, 2012), the overestimated political impact of

social media (Keating & Melis, 2017), and the lack of a clear, youth-specific framework for political participation (Weiss, 2020). These studies often emphasize structural disadvantages and disengagement, particularly among marginalised youth. Youth are portrayed as either active but elite-driven or passive and politically alienated, with activism and voting often disconnected from one another. Most of these findings are derived from contexts like the United States and Western Europe, highlighting the divide between youth who are empowered to participate and those who are excluded.

In contrast, the discussion shifts the focus to Sri Lanka's specific political climate and the voices of its young citizens. The empirical data collected through interviews presents a more engaged and hopeful youth demographic. Participants demonstrated strong political interest, nuanced ideological positions, and awareness of governance issues. For example, several interviewees cited the shift from elitist politics to people-centric leadership following the rise of the National People's Power movement. Unlike the passivity observed in much of the international literature, Sri Lankan youth—though not always involved in formal political roles—were shown to be engaged through voting, social media advocacy, and even candidacy in local elections.

Moreover, the barriers to youth political engagement differ significantly. While the literature highlights digital fatigue and systemic alienation, the interviews reveal challenges such as lack of financial support, intra-party resistance to youth inclusion, and societal skepticism about youth leadership. Interviewees also discussed how political parties often treat youth as tools for canvassing rather than as decision-makers, with some advocating for youth quotas and shadow cabinets to institutionalize representation. This demonstrates a greater level of critical reflection and proactive problem-solving among Sri Lankan youth than what is portrayed in the literature.

Another contrast lies in the role of social media. Literature paints social media as largely ineffective in reaching disengaged youth, often reinforcing existing political divides rather than bridging them. However, the discussion presents a more dynamic view—where platforms like Instagram and Twitter served as catalysts for youth mobilization during the 2024 presidential elections. Although this engagement often remains confined to digital spaces, it has visibly increased youth awareness and political discourse.

In terms of political ideology, the literature suggests that youth often lack coherent ideological direction. Conversely, the discussion indicates that Sri Lankan youth do have ideological leanings—ranging from centrist-left positions favoring welfare economics to right-wing perspectives supporting global markets. This ideological maturity signals a more politically

conscious generation than global narratives might suggest.

Finally, while the literature frequently critiques the lack of structured participation pathways, the Sri Lankan context reveals an ongoing negotiation between aspiration and access. Despite systemic hurdles, some youths have entered politics or aspire to do so, suggesting an evolving political culture more receptive to youth voices, especially at the local level.

V. CONCLUSION

The findings of this research reveal a stark contrast between global academic narratives and the lived experiences of Sri Lankan youth. While the literature paints a fragmented and often disengaged picture of youth political participation, the voices of Sri Lankan youth tell a different story—one of rising political consciousness, growing ideological clarity, and a desire for genuine involvement in governance. Despite facing challenges such as tokenism, lack of funding, and structural exclusion from political parties, young Sri Lankans are not only interested in politics but are also actively seeking pathways to influence decision-making. Social media, contrary to being a passive platform, has emerged as a vibrant space for youth activism in Sri Lanka. The research thus underscores the need for localized, context-sensitive approaches to understanding youth political engagement and calls for practical reforms such as youth quotas, party-level inclusion strategies, and leadership development programs to bridge the gap between interest and actual political participation.

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