



Department of Economics and Statistics
Faculty of Arts, University of Peradeniya, Sri Lanka



11th Peradeniya International Economics Research Symposium

PROCEEDINGS Volume XI

14th OCTOBER 2026

CONFERENCE HALL, POSTGRADUATE INSTITUTE OF
HUMANITIES AND SOCIAL SCIENCES (PGIHS),
UNIVERSITY OF PERADENIYA, SRI LANKA

**P
I
E
R
S**



Joint Partner

Faculty of Economic Sciences and Business Administration,
Transilvania University of Brasov, Romania



PIERS 2026



PIERS - 2026

PROCEEDINGS

Volume XI

**11TH PERADENIYA INTERNATIONAL ECONOMICS RESEARCH
SYMPOSIUM (PIERS) – 2026**

Jointly Organized by
**Department of Economics and Statistics, Faculty of Arts
University of Peradeniya, Sri Lanka**

and

**Faculty of Economic Sciences and Business Administration
Transilvania University of Brasov, Romania**

on
14th October 2026

at
**Conference Hall
Postgraduate Institute of Humanities and Social Sciences (PGIHS)
University of Peradeniya
Sri Lanka**



**Transilvania
University
of Brasov**

Copyright © October 2026

DEPARTMENT OF ECONOMICS AND STATISTICS
FACULTY OF ARTS, UNIVERSITY OF PERADENIYA
SRI LANKA

PROCEEDINGS OF THE PERADENIYA INTERNATIONAL ECONOMICS
RESEARCH SYMPOSIUM (PIERS) – 2026

ISSN: 2386 - 1568

Published by

Department of Economics and Statistics,
Faculty of Arts, University of Peradeniya,
Peradeniya,
Sri Lanka.

Tel: +94 812 392622

E-mail: pierspera2013@gmail.com

Web: <http://arts.pdn.ac.lk/econ/persweb/>

All rights reserved. No parts of this publication may be reproduced, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of the publisher.

Printed by

Nethwin Printers (Pvt) Ltd,
No. 832,

"Dalanda Sevane Api" Foundation,

Gatambe Junction, 20000

Sri Lanka

11TH PERADENIYA INTERNATIONAL ECONOMICS RESEARCH SYMPOSIUM - 2026



PIERS - 2026

PROCEEDINGS

Volume XI

EDITORIAL COMMITTEE

Cheif-editor:

Prof. T. Vinayagathan

Members:

Prof. S. Vijesandiran
Prof. J.G. Sri Ranjith
Prof. Bianca TESCĂȘIU
Dr. A.D.H.K. Kankanamge
Ms. L. Weragoda

Editorial Assistant:

Ms. P. Anusha

Editorial Advisory Panel:

Snr. Prof. J.M.A. Jayawickrama
Retired Prof. S.G. Liyanage

CONTENTS

	Page
<i>Message from the Vice Chancellor, University of Peradeniya, Sri Lanka</i>	x
<i>Message from the Deputy Vice Chancellor, University of Peradeniya, Sri Lanka</i>	xi
<i>Message from the Dean, Faculty of Arts, University of Peradeniya, Sri Lanka</i>	xii
<i>Message from the Dean, Faculty of Economic Sciences and Business Administration, Transilvania University of Brasov, Romania</i>	xiii
<i>Message from the Head, Department of Economics and Statistics, Faculty of Arts, University of Peradeniya, Sri Lanka</i>	xiv
<i>Message from the Chairperson, PIERS – 2026</i>	xvi
<i>Message from the Coordinator, PIERS – 2026</i>	xviii
<i>Organizing Committee</i>	xxii
<i>Panel of Reviewers</i>	xxiii
<i>Programme Agenda</i>	xxiv
<i>Keynote Address</i>	
Beyond IMF: Sri Lanka's Critical Economic Challenges to Navigate Safely into Prosperity After 2027	xxxv
Dr. W.A Wijewardena Former Deputy Governor, Central Bank of Sri Lanka	
<i>Guest Speech</i>	
The Economic Situation of the European Economies Amidst Uncertainties and Global Power Dynamics	xlvi
Prof. Bianca TESCAȘIU Vice- Dean, Faculty of Economic Sciences and Business Administration, Transilvania University of Brasov, Romania	
<i>Extended Abstracts</i>	
Artificial Intelligence Readiness, Geopolitical Risk, and Economic Resilience: Evidence from Emerging and Developing Economies <i>Camelia Schiopu</i>	3
Economic and Non-Economic Determinants of Capital Flight in Sri Lanka: An Empirical Analysis <i>U. Kirishaliny and S.Vijesandiran</i>	9
The Impact of Economic & Non-Economic Factors on Balance of Payments: Empirical Evidence from Sri Lanka <i>N. Vithurshika and T. Vinayagathan</i>	14
The impact of Inflation on Bank Deposits: An Empirical Analysis of Sri Lanka <i>S. Dushanthi and P. Anusha</i>	19

Analyzing the Impact of Digital Adoption on Consumer Purchasing Behaviour of the Textile Industry in Sri Lanka <i>A.S.G.S. Bandara</i>	24
A Comparative Cross-Sectional Study of Nutritional Status of Children Aged 2-5 Years of Employed and Non-Employed Mothers in the Medadumbara Medical Officer of Health (MOH) Division of the Kandy District, Sri Lanka <i>A.S. Ariyaratna</i>	31
Mixed-Frequency Modelling of Exchange-Rate Volatility and Economic Policy Uncertainty in Sri Lanka: A GARCH-MIDAS Approach <i>B. Gayathiri and N. Neruja</i>	36
A Qualitative Analysis of Financial Literacy, Trust in Digital Financial Services, and Women's Digital Financial Inclusion: Evidence from Romania <i>Dana Adriana Lupşa-Tătaru</i>	42
The Impact of Banking Sector Development on Economic Growth: An Empirical Study Based on Sri Lankan Economy <i>T. Dilakshini and T. Vinayagathan</i>	46
The Impact of Economic and Non-Economic Factors on Domestic and Foreign Tourist Arrivals in Sri Lanka <i>A. Menuja and S. Vijesandiran</i>	52
The Impact of Digital Service Usage on Youth Spending Behavior in Sri Lanka <i>K.K.S. Dilmanthi and A.D.H.K. Kankanamge</i>	57
Impact of the Aswesuma Welfare Programme on Income and Living Standards of Rural Households in the Poratheevu Patru DS Division of Batticaloa District, Sri Lanka <i>B. Sobana and M. Priya</i>	61
India-China Geoeconomic Competition for Critical Minerals and Sri Lanka's Strategic Autonomy: An International Political Economy Analysis <i>S. Lakshana</i>	66
The Role of Microfinance on Women's Empowerment: An Empirical Study of Glen Alpin Estate in Badulla District <i>J. Hamsayini and S. Vijayakumar</i>	74
Exploring the Factors Affecting Intellectual Entrepreneurial Intention of Management Graduates of Sri Lanka <i>W.A.I.L. Senevirathna and H.K.G.N.D. Samarakoon</i>	79

The Relationship between Income Level and the Choice of Public and Private Healthcare Services in Sri Lanka <i>N.K.D. Lakshani</i>	84
The Impact of Group-Based Microcredit on Women's Economic Empowerment in Sri Lanka: Evidence from Kandy District <i>P.G.P.D. Jayaweera and H. M. W. A. Herath</i>	89
Influencer Credibility and Imitation Behavior in Junk Food Consumption among Young Adults: A Qualitative Study <i>I. Dilshani, S. Jeyapalan, C. Hansani, G. Kaluarachchi, O. Vidarshika and N. Dayapathirana</i>	94
Socioeconomic, Institutional and Environmental Determinants of Agriculture Land Abandonment in Sri Lanka: Reference to Central and North Western Provinces <i>A.I.M. Dimbulgasthenna and M.B. Ranathilaka</i>	98
The Impact of Fiscal Policy on Economic Growth in Sri Lanka: An Empirical Study <i>B. Niranjana and T. Vinayagathan</i>	103
Financial Resilience and Sustainability in South Asia: A Comparative Analysis of Selected SAARC Member States <i>Sorina BOTIS</i>	108
Determinants of Profitability of Commercial Banks: An Empirical Analysis of Sri Lanka <i>S. Thusiyanthan and P. Anusha</i>	111
The Impact of Economic Crisis on the Nutritional Status of Children in the St. Margaret Grama Niladhari Division in Nuwara Eliya District <i>T. Komathi and S. Vijayakumar</i>	116
Evaluating the Accuracy and Reliability of Tourism Earnings Estimation Method in Sri Lanka: A Comparative Analysis <i>H.G.M.S. Jayarathna, G.H.D. Nadeeka, C.S.V. Hewamadduma, R.W.M.N.G. Rajapaksha and M.B. Ranathilaka</i>	120
Reducing Uncertainty in Forest Conservation Decisions: Dendrochronological Evidence for Identifying and Monitoring High Conservation Value Forests <i>Lucian Mîzgăciu, Niță Mihai Daniel and Stăncioiu Petru Tudor</i>	125
The Impact of the Determinants on Gender Wage Gap in the Manufacturing Sector in Sri Lanka <i>A.M.G.K. Wijewardhana, N.M.W. Kulatunge and H.M.G.S. Jayarathne</i>	130

Conceptual Credit Scoring Framework for Two-Wheeler Financing: Identifying Key Credit Risk Determinants to Support Machine Learning-Based Credit Assessment in the Financial Sector of Sri Lanka <i>K.A.S. Dilmika</i>	135
The Impact of Exchange Rate on Foreign Tourism Revenue: An Empirical Research Based on Sri Lanka <i>N. Nivedha and T. Vinayagathan</i>	140
The Impact of Financial Literacy on Investment Behaviour among Public and Private Sector Employees in Sri Lanka <i>H.M.I.K. Herath and H.M.W.A. Herath</i>	145
Digitalization and Economic Growth in Sri Lanka: Evidence from ARDL Approach <i>U.S.F. Safna</i>	150
Beyond the Economic Complexity Framework: A Comparative Analysis of Bangladesh and Vietnam <i>M. A. Shaleh Sadiq and Debdatta Saha</i>	155
How do Demand-Side Factors Affect Unemployment Dynamics in Sri Lanka? Evidence from Overall and Youth Unemployment <i>Chesika Mahesh</i>	159
Evaluating Youth Perceptions of Anti-Corruption Reforms and Institutional Strengthening under Sri Lanka's NPP Government: A Case Study of University of Peradeniya <i>M.E.F. Shihara and B. Muneera</i>	166
A Critical Analysis of the Motherhood Penalty in Sri Lanka <i>R. Fernando and D.N.B. Gunewardena</i>	171
The Impact of Entrepreneurial Traits on MSME Performance: An Empirical Study Based on Kandy District, Sri Lanka <i>H.M.W.G.P.T. Wedagedara and A.V.K. Madhavi</i>	175
A Comparative Study of Human Capital, Labor Market Segmentation and Labor-Leisure Theories: Which Theory Best Explains Digital Freelancing in Sri Lanka? <i>C.S.I. Nethmini and Kalpa Rajapaksha</i>	180
Drivers of E-commerce Adoption among MSMEs: Evidence from the Apparel Sector in Sri Lanka <i>A. Walpolapitiya</i>	185

The Impact of Foreign Debt on Foreign Exchange Reserves: Empirical Evidence from Sri Lanka <i>U. Kirishaliny</i>	190
Impact of Income Inequality on Economic Growth in Sri Lanka <i>K. Shalini and S. Vijayakumar</i>	196
An Index-Based Framework for Measuring Macroeconomic Resilience and Identifying Shocks and crisis Periods: Evidence from Sri Lanka <i>W. A. K. Gayashan , A. K. G. Dayarathna , U. R. D. Pamoda , T. J. N. Perera, and S. J. S. De Mel</i>	201
Social and Economic Causes and Consequences of Unemployment among Educated Upcountry Youth: A Sociological Study of Sri Lanka's Plantation Communities <i>R. Surendran</i>	206



MESSAGE FROM THE VICE CHANCELLOR

University of Peradeniya

It is with great pleasure that I extend my warmest greetings to the Department of Economics and Statistics, Faculty of Arts, University of Peradeniya, on the occasion of the 11th Peradeniya International Economics Research Symposium (PIERS) – 2026.

Over the years, PIERS has established itself as an important academic forum that brings together scholars, researchers, policymakers, and practitioners from Sri Lanka and around the world to exchange knowledge, present research findings, and engage in meaningful dialogue on contemporary economic issues. The continued success of this symposium reflects the commitment of the Department of Economics and Statistics to promoting research, academic excellence, and international collaboration.

At a time when economies worldwide are confronted with complex and rapidly evolving challenges, rigorous economic research plays a vital role in deepening our understanding of emerging issues and informing effective and sustainable policy responses. I am confident that PIERS 2026 will provide a valuable platform for sharing innovative ideas, diverse perspectives, and research-based insights that will contribute to the advancement of economic knowledge and development at both national and international levels.

I commend the Department of Economics and Statistics and the Organizing Committee for their dedication and efforts in organizing this important international academic event. I also extend my appreciation to all researchers, academics, and participants whose valuable contributions will enrich the proceedings of the symposium.

I wish the 11th Peradeniya International Economics Research Symposium (PIERS) – 2026 every success and look forward to its continued growth and contribution to the advancement of economics research and scholarship.

Prof. Terrence Madhujith

Vice Chancellor

University of Peradeniya



**MESSAGE FROM THE
DEPUTY VICE CHANCELLOR**

University of Peradeniya

It gives me great pleasure to send my warm greetings and best wishes to the 11th Peradeniya International Economics Research Symposium (PIERS) – 2026. Now in its eleventh edition, PIERS has earned its place as a respected forum where scholars, policymakers, and practitioners from Sri Lanka and abroad come together to present new research, test ideas against one another, and examine emerging questions in Economics. That continuity is an achievement in itself, reflecting both the Department's sustained commitment and the confidence the research community has placed in this symposium.

Sri Lanka's path towards economic stability, resilience, and sustainable growth depends on sound evidence and rigorous analysis. The challenges before us are complex, and no single discipline or institution can address them alone. PIERS 2026 therefore comes at an opportune time, offering a space to examine contemporary economic issues critically and to bring research findings to bear on policy and public decision-making. The University of Peradeniya remains firmly committed to research excellence, innovation, and stronger national and international academic partnerships. Symposia such as PIERS give life to that commitment: they nurture a culture of inquiry, offer emerging researchers the opportunity to present their work alongside established scholars, and help ensure that the knowledge created within the University serves the wider society.

I commend the team of the Department of Economics and Statistics, the organizing committee, the reviewers, and all who have worked with such dedication to bring PIERS 2026 to fruition. My sincere appreciation also goes to the presenters and participants, whose research and perspectives are the substance of this symposium.

I am confident that the deliberations will be stimulating, will lead to new collaborations, and will yield insights of lasting value. I wish the 11th Peradeniya International Economics Research Symposium 2026 every success, and all participants a rewarding and memorable experience.

Prof. Ranjith W. Pallegama

Deputy Vice-Chancellor

University of Peradeniya



MESSAGE FROM THE DEAN

Faculty of Arts

University of Peradeniya

It gives me great pleasure to extend my warmest greetings to all participants of the 11th Peradeniya International Economics Research Symposium (PIERS – 2026), organized by the Department of Economics and Statistics, Faculty of Arts, University of Peradeniya. Over the past decade, PIERS has established itself as an essential platform for scholars, researchers, policy experts, and practitioners to share critical insights and advance economic knowledge with both local and global relevance.

At a time when economies globally and nationally face complex structural transformations driven by technological disruption, environmental pressures, shifting market dynamics and socioeconomic challenges the role of rigorous, evidence-based research in guiding policy and practice has never been more vital. In this context, PIERS 2026 serves as a crucial bridge between academic theory and real-world implementation, providing actionable solutions that can inform sustainable economic development across Sri Lanka and the broader international community.

I wish to commend the Department of Economics and Statistics and the organizing team whose dedication and hard work have brought this 11th edition of the symposium to fruition. Your continued commitment ensures that the Faculty of Arts remains a vibrant hub for scholarly engagement and a beacon of academic excellence.

I warmly welcome all distinguished keynotes, researchers, and participants from Sri Lanka and abroad attending PIERS 2026 at the Post Graduate Institute of Humanities and Social Sciences (PGIHS). May this symposium spark groundbreaking ideas, cultivate fruitful research collaborations, and advance our collective goal of leveraging economic research for the betterment of society.

I wish PIERS 2026 every success.

Dr. E.M.P.C.S. Ekanayake

Dean, Faculty of Arts

University of Peradeniya



MESSAGE FROM THE DEAN

Faculty of Economic Sciences and Business

Administration, Transilvania University of Brasov

Esteemed participants, As the Dean of the Faculty of Economic Sciences and Business Administration, Transilvania University of Brasov, it is a great honor for me to send a message with the occasion of the 11th Peradeniya International Economics Research Symposium (PIERS) – 2026 with the theme of “Navigating Development Paths Amidst Uncertainties, Hostilities and Global Power Dynamics”. I would like to express my sincere appreciation to the organizers for bringing us together around a topic of such importance and relevance. Conferences such as this one provide much more than an opportunity to share academic knowledge. They create a space for dialogue, collaboration, and the exchange of ideas between institutions, academics, students, and professionals.

The Faculty of Economics and Business Administration from Transilvania University of Brasov, Romania has become a partner of this conference starting with the 2018 edition, and we hope that this partnership will continue over time. In November 2018 we joined for the first time this valuable conference team and we met our wonderful colleagues from Sri Lanka; it was the beginning of a wonderful partnership. We were extremely impressed by the way you organized the previous editions of the PIERS conferences with a high level of professionalism and also by the friendliness of our partners from the University of Peradeniya. I am convinced that through our participation this year, as co-organizers, we will contribute to the strong development of the current partnership between our faculties and, more than this, I hope that this edition of the PIERS conference represents the perfect chance to start new collaborations. On behalf of our faculty, I would like to thank the organizers, the speakers, and all participants for their contribution to this event.

I wish you all inspiring presentations, fruitful discussions, and valuable opportunities for dialogue and cooperation. Good luck with the PIERS 2026 conference!

Prof. Gabriel Brătucu (PhD)

Dean, Faculty of Economic Sciences and Business Administration,
Transilvania University of Brasov, Romania



MESSAGE FROM THE HEAD

Department of Economics and Statistics

University of Peradeniya

It is with great pleasure that I warmly welcome all participants of the 11th Peradeniya International Economics Research Symposium (PIERS 2026), organized by the Department of Economics and Statistics, Faculty of Arts, University of Peradeniya.

Established in 1952, the Department of Economics and Statistics has been dedicated to economic research, and with the beginning of PIERS in 2013, we have created a platform for research and critical thought on current economic issues, and so the symposium represents our continued commitment to fostering economic thought.

The theme of PIERS 2026, “Navigating Development Paths Amidst Uncertainties, Hostilities, and Global Power Dynamics,” seeks to address today’s global economy with all its geopolitical tensions and rivalries, trade conflicts, ecological issues and technological transformations in mind.

For Sri Lanka, a country still in economic recovery while being part of a volatile global economic environment, our objectives are to sustain macroeconomic stability, promote investment and employment while reducing inequalities. Achieving these objectives requires informed policymaking that is based on evidence and awareness. Economic research thus becomes a vital tool for our long-term goals.

With this in mind, PIERS 2026 encourages research, collaboration, and the development of new ideas and new ways of approaching policymaking. By engaging with with local and international scholars alike, PIERS encourages and empowers researchers, while strengthening the role of the University of Peradeniya in supporting national development.

I wish to express my appreciation to the collaborating institutions, members of the organizing committee, academic and non-academic staff of the Department, research partners, and all those whose support have contributed to the symposium. I also extend my thanks and welcome to the keynote speaker, invited speakers, presenters, and delegates for participating and contributing in PIERS 2026.

I trust that the discussions and contributions of this symposium will strengthen research partnerships and informed evidence-based policymaking. I hope that the

research presented at this symposium will create new insights and contribute to global economic thought. I wish the 11th Peradeniya International Economics Research Symposium 2026 every success in advancing economic research and knowledge.

Senior Prof. W. L. Prasanna Perera

Head, Department of Economics and Statistics

Faculty of Arts

University of Peradeniya

Sri Lanka



MESSAGE FROM THE CHAIRPERSON

PIERS - 2026

Department of Economics and Statistics

University of Peradeniya

It is with great pleasure that I write this message for the 11th conference of the Peradeniya International Research Symposium (PIERS - 2026) scheduled to be held on the 14th October 2026, under the theme of “Navigating Development Paths Amidst Uncertainties, Hostilities and Global Power Dynamics”. This year’s symposium is collaboratively organized by the Department of Economics and Statistics, University of Peradeniya, Sri Lanka and Transilvania University of Brasov in Romania while there are many supportive partners who contributed to the resounding success of the conference.

Since its inception in 2013, PIERS has progressed into a well-organized premier forum providing an excellent platform for academics, researchers, scholars and students to present and disseminate their research findings, exchange knowledge, and engage in flourishing academic dialogue while strengthening international academic collaboration. The proceedings of PIERS 2026 stand as a testament of our collective commitment to advancing knowledge in Economics and fostering multidisciplinary discussions.

I firmly believe that this symposium will give a memorable experience to all presenters, participants and students in particular and hope you will take home pleasant long-lasting memories of this event. We, as a team, hope PIERS will continue to flourish with renewed energy and purpose, and I am confident that the legacy we have built together will inspire even greater achievements in the years to come. The success of PIERS 2026 reflects the collective dedication of many individuals. I sincerely thank our keynote speakers, authors, reviewers, session chairs, discussants and volunteers, as well as the University administration for their invaluable contributions and unwavering support.

I would like to express my deepest gratitude and warmest congratulations to all the committee members especially the Head and the Coordinator of the symposium for their dedicated efforts in convening a high-quality program of PIERS 2026. My special thanks also go to our collaborative partners, sponsors and institutional partners for making this event possible.

I wish the *Peradeniya International Economics Research Symposium 2026* every success and fruitful to all participants!

Prof. J. G. Sri Ranjith

Chairperson, PIERS – 2026

Department of Economics and Statistics

Faculty of Arts

University of Peradeniya



**MESSAGE FROM THE COORDINATOR
PIERS - 2026**

Department of Economics and Statistics

University of Peradeniya

It is a great pleasure and privilege to serve as the Coordinator of Peradeniya International Economics Research Symposium (PIERS) for the second time and to leave this message for the participants and readers. The collective effort of my colleagues and me as the organizing committee of this year has been guided by the experience gained from the 10th edition, as well as by our commitment to maintaining a solid and critical academic spirit in organizing the 11th edition of the PIERS.

The Peradeniya International Economics Research Symposium embodies a decade-long tradition of rigorous intellectual inquiry, transnational scholarly collaboration, and collective academic endeavor. The eleventh iteration of PIERS convenes at a critical historical juncture, marked by the intensification of the structural crisis of global capitalism and the proliferation of crises within the nation-states and, especially, across the Global South within the realities of clashes of imperial powers and ecological crises.

Thus, I must reiterate the essence of my message from the previous year: the responsibility of social scientists and scholars to envision not merely a different social system, but also a fundamentally different economic science, one that moves beyond the failures and limitations of the neoclassical economic framework.

Therefore, we have sought to uphold the principle that the 11th edition of the PIERS Conference should keep the door open to the rich heterogeneity of the social sciences, rather than confining inquiry within the narrow boundaries of mathematico-deductivism. We accepted papers from different disciplines and a multitude of tracks, including critical perspectives on growth dynamics, social reproduction, ecology, heterodox economics, politics and political economy, poverty and inequality, regional disparity, fiscal policy in the age of uncertainty and crisis, global finance, macro dynamics, and artificial intelligence etc. Thus, it is my deepest belief that we were able to maintain the critical tradition of PIERS in its 11th step as well.

I must also emphasize to our participants and readers that 11th PIERS is taking place at a crucial juncture, as the IMF's experiment in Sri Lanka has generated what have been described as "positive results," while leaving many of the economy's structural issues unaddressed and deepening existing social and political tensions. At the same time, Sri Lanka, like many other countries in the underdeveloped Global South, is being confronted with multiple and interconnected crises arising from global power dynamics, penetrated deeper into the spheres of food and energy crises, deepening poverty, sovereign debt defaults, and the furthering of debt traps and upholding populism as an alternative. These challenges have been further intensified by the war in the Middle East, the war in Ukraine, and the ongoing trade conflicts among the leading imperial powers.

It is against this backdrop that this year's symposium theme, *"Navigating Development Paths Amidst Uncertainties, Hostilities, and Global Power Dynamics"*, was conceived. The theme is by no means accidental. Rather, it reflects our attempt to bring economics closer to the realities of everyday life and to explore how economic thinking can engage with the complex and often contradictory conditions confronting societies today. It is also an invitation to examine the practical relevance of a real economics; one that moves beyond the boundaries of prevailing orthodoxy and remains attentive to the lived realities, structural constraints, and diverse experiences of economies in the Global South.

Organizing an international academic conference in the Global South is no easy task. It comes with a distinct set of challenges, ranging from financial constraints to significant time pressures. Considering these realities, the successful realization of the 11th PIERS would not have been possible without the advice, guidance, and unwavering support of the following individuals and institutions.

Thus, on behalf of the Organizing Committee, I extend my deepest gratitude to the Vice-Chancellor of the University of Peradeniya, the Deputy Vice-Chancellor, the Dean of the Faculty of Arts, University of Peradeniya, and the Dean of the Faculty of Economic Sciences and Business Administration, Transilvania University of Brasov, Romania, for their unwavering support and guidance in making the 11th Peradeniya International Economics Research Symposium a success.

I am especially grateful to Professor Bianca Tescasiu, Vice-Dean of the Faculty of Economics and Business Administration at Transilvania University of Brasov, for her patient and effective collaboration as the coordinator of the Romanian delegation. Her generous acceptance of our invitation to deliver the guest speech

on the topic of “*The Economic Situation of the European Economies Amidst Uncertainties and Global Power Dynamics*” added exceptional value to this year’s symposium.

I thank the World Bank for arranging a presentation on the title of *Shifting Gears: From Stabilization to Sustained Growth in Sri Lanka*.

A special note of appreciation also goes to Dr. W. A. Wijewardane for delivering a thought-provoking keynote speech on the topic of “*Beyond IMF: Sri Lanka’s Critical Economic Challenges to Navigate Safely into Prosperity After 2027*”. We are honored by your presence and thank you for contributing meaningfully to the conference dialogue.

I wish to thank all participating authors and presenters, both local and international, for sharing their research insights and engaging in rich academic discussions. Your contributions are at the heart of PIERS, and I sincerely hope to see your continued participation in the 12th edition.

My heartfelt thanks go to the PIERS 2026 Organizing Committee and subcommittees. The guidance of Snr. Professor Prasanna Perera, Head of the Department of Economics and Statistics, and Professor J.G. Sri Ranjith, Chair of PIERS 2026, has been instrumental in shaping this year’s event. I also wish to recognize the tireless contributions of the academic and non-academic staff of the Department of Economics and Statistics throughout the journey of organizing the symposium; without your support and kind cooperation, the 11th edition would not see the light of day.

Special thanks are due to the technical session chairs, discussants, and reviewers for their dedication in maintaining the academic rigor of the symposium. I also thank the university administration and the Director and staff of the Postgraduate Institute of Humanities and Social Sciences for their continued support. A very special note of thanks goes to Prof. T. Vinayagathan, Chief Editor and the editorial committee of the 11th PIERS proceedings, for their tireless efforts and dedication amidst time constraints and numerous challenges.

Last but certainly not least, I express my sincere appreciation to Ms. Anusha Pathmakanthan, Conference Secretary, for her tireless work and multitasking throughout the long process of organizing PIERS, to our dedicated assistant lecturers, and to our student volunteers from the Department of Economics and

Statistics. Your commitment and hard work made this event possible and memorable. Without you, this bright day would not have been realized!

I encourage you to approach the technical sessions with a spirit of deep critical engagement, and to embrace PIERS 2026, along with its future editions, as a dynamic platform for confronting the urgent intellectual and societal challenges of our time.

May each of you carry forward the spirit of inquiry, reflection, and courageous scholarship that this symposium seeks to inspire!

Dr. Kalpa Rajapaksha

Coordinator, PIERS - 2026

Department of Economics and Statistics

Faculty of Arts

University of Peradeniya

**11th Peradeniya International Economics Research Symposium
PIERS – 2026**

ORGANIZING COMMITTEE

Advisor:

Snr. Prof. W.L.P. Perera

Head, Department of Economics and Statistics, University of Peradeniya, Sri Lanka

Chairperson:

Prof. J.G. Sri Ranjith

Department of Economics and Statistics, University of Peradeniya, Sri Lanka

Coordinator:

Dr. Kalpa Rajapaksha

Department of Economics and Statistics, University of Peradeniya, Sri Lanka

Secretary:

Ms. P. Anusha

Department of Economics and Statistics, University of Peradeniya, Sri Lanka

Members – Department of Economics and Statistics:

Snr. Prof. W.L.P. Perera (Head)

Prof. D.N.B. Gunewardena

Snr. Prof. P.P.A.W. Athukorala

Prof. M.B. Ranathilaka

Prof. S.J.S. de Mel

Prof. K.M.R. Karunarathna

Ms. S. Rajendran

Dr. S.S.K.B.M. Dorabawila

Dr. T.N. Vidanage

Ms. L. Weragoda

Ms. C.S.V. Hewamadduma

Ms. A.S. Ariyaratna

Ms. U.S.F. Safna

Ms. H.M.I.K. Herath

Ms. B. Sobana

Mr. E.U. Jayarathna

Mr. J.G.W.S. Nishantha

Snr. Prof. O.G. Dayaratna Banda

Snr. Prof. J.M.A. Jayawickrama

Prof. S. Vijesandiran

Prof. H.M.W.A. Herath

Prof. J.G. Sri Ranjith

Prof. T. Vinayagathan

Dr. A.V.K. Madhavi

Dr. A.D.H.K. Kankanamge

Dr. Kalpa Rajapaksha

Ms. P. Anusha

Ms. P.G.P.D. Jayaweera

Ms. U. Krishaliny

Ms. H.M.W.G.P.T. Wedagedara

Ms. N.K.D. Lakshani

Ms. S.M.S.K. Kapilarathna

Ms. U.G.N.T. Gunathilaka

**11th Peradeniya International Economics Research Symposium
PIERS – 2026**

PANEL OF REVIEWERS

Department of Economics and Statistics, University of Peradeniya

Snr. Prof. J.M.A. Jayawickrama

Prof. D.N.B. Gunawardena

Prof. S. Vijesandiran

Prof. M.B. Ranathilaka

Prof. H.M.W.A. Herath

Prof. J.G. Sri Ranjith

Prof. K.M.R. Karunarathna

Prof. T. Vinayagathan

Retired Prof. S.G. Liyanage

Ms. S. Rajendran

Dr. S.S.K.B.M. Dorabawila

Dr. A.D.H.K. Kankanamge

Dr. A.V. K. Madhavi

Dr. T.N. Vidanage

Dr. R.K.M. Rajapaksha

Ms. L. Weragoda

Ms. P. Anusha

Department of Economics, University of Jaffna

Prof. S. Vijayakumar

PROGRAMME AGENDA



PIERS - 2026

Inauguration

Date: 14th October, 2026

Venue: Conference Hall, PGIHS

- 08.30 a.m. Registration of Participants
- 09.00 a.m. Arrival of the Chief Guest
- 09.05 a.m. Lighting of the Oil Lamp
- 09.10 a.m. University Anthem
- 09.15 a.m. Welcome Address by **Prof. J.G. Sri Ranjith** - Chairperson, PIERS 2026
- 09.25 a.m. Opening Remarks by **Snr.Prof. W.L.P. Perera**
Head, Department of Economics and Statistics,
University of Peradeniya, Sri Lanka
- 09.35 a.m. Address by **Dr. E.M.P.C.S. Ekanayake**
Dean, Faculty of Arts, University of Peradeniya, Sri Lanka
- 09.45 a.m. Address by **Prof. Ranjith Pallegama**
Deputy Vice Chancellor, University of Peradeniya, Sri Lanka
- 09.55 a.m. Guest Speech by **Prof. Bianca TESCASIU**
Vice-Dean of the Faculty of Economic Sciences and Business
Administration, Transilvania University of Brasov, Romania
- 10.20 a.m. Highlights of the Past Symposiums and Releasing of the Proceedings of
PIERS – 2026
- 10.25 a.m. Address by Chief Guest **Prof. W.M.T. Madhujith**
Vice Chancellor, University of Peradeniya, Sri Lanka
- 10.35 a.m. Keynote Address by **Dr. W.A. Wijewardena**
Former Deputy Governor of the Central Bank of Sri Lanka
- 10.50 a.m. Presenting Tokens of Appreciation
- 10.55 a.m. Vote of Thanks by **Dr. Kalpa Rajapaksha** - Coordinator, PIERS – 2026
- 11.10 a.m. Refreshments

TECHNICAL SESSIONS: SESSION SUMMARY

11.30 a.m.-1.15 p.m. **Technical Sessions I – IV**

- Session I** - Theme : Inequality, Gender, and Social Reproduction
- Session II** - Theme : Growth, Development, and Macroeconomic Challenges
- Session III** - Theme : Health, Regional Development, and Ecology
- Session IV** - Theme: Entrepreneurship, Business Management, and Technological Innovations

01.15p.m. **Lunch**

02.00 p.m. - 03.45 p.m. **Technical Sessions V – VIII**

- Session V** - Theme : External Sector, Banking, and Global Finance
- Session VI** - Theme : Sectoral Challenges, Tendencies, and Fiscal Policy
- Session VII** - Theme : Land, Labour, and Capital Markets
- Session VIII** -Theme: Crisis, Geopolitics, and Political Economy

03.45 p.m. – 04.00 p.m. **Tea Break**

Closing Session

04.00 p.m. – 04.30 p.m. **The World Bank Presentation**

Title: **“Shifting Gears: From Stabilization to Sustained Growth in Sri Lanka”**

04.30 p.m. – 5.00 p.m. **Concluding Panel Discussion**

Theme: **“The Role of Economic Science in an Era of Global Uncertainty and Structural Crisis”**

Chair: Dr. Kalpa Rajapaksha

Panelists: **Retired Prof. Sumanasiri Liyanage, Prof. D.N.B. Gunawardena, Snr. Prof. W.L.P. Perera, and Prof. J.G. Sri Ranjith**

05.00 p.m. – 05.15 p.m. **Awarding Certificates**

The End of the Conference

Technical Session I: Inequality, Gender, and Social Reproduction

Time: 11.30 a.m. – 1.15 p.m.

Venue: Room No. 301, Conference Hall, PGIHS

Chairperson: Prof. D.N.B. Gunewardena

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussants: Ms. S. Rajendran and Dr. A.V.K. Madhavie

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

11.30 a.m. – 11.35 a.m. Opening Remarks by Chairperson

11.35 a.m. – 01.05 p.m. Presentations:

1. A Qualitative Analysis of Financial Literacy, Trust in Digital Financial Services, and Women's Digital Financial Inclusion: Evidence from Romania
Dana Adriana Lupşa-Tătaru
2. Impact of the Aswesuma Welfare Programme on Income and Living Standards of Rural Households in the Poratheevu Pattru DS Division of Batticaloa District, Sri Lanka
B. Sobana and M. Priya
3. The Role of Microfinance in Women's Empowerment: An Empirical Study of Gilan Alphin Estate in the Badulla District
J. Hamsayini and S. Vijayakumar
4. The Impact of the Determinants on the Gender-Wage Gap in Sri Lankan Manufacturing Sector
A.M.G.K. Wijewardhana, N.M.W. Kulatunge, and H.M.G.S. Jayarathne
5. Impact of Income Inequality on Economic Growth in Sri Lanka
K. Shalini and S. Vijayakumar

01.05 p.m. – 01.10 p.m. Remarks by the Discussants

01.10 p.m. – 01.15 p.m. Closing Remarks by the Chairperson

Technical Session II: Growth, Development, and Macroeconomic Challenges

Time: 11.30 a.m. – 1.15 p.m.

Venue: Room No. 207, First Floor, PGIHS

Chairperson: Snr.Prof. J.M.A. Jayawickrama

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussant: Prof. S. Vijayakumar

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

11.30 a.m. – 11.35 a.m. Opening Remarks by Chairperson

11.35 a.m. – 01.05 p.m. Presentations:

1. Digitalization and Economic Growth in Sri Lanka: Evidence from ARDL Approach
U.S.F. Safna
2. Beyond the Economic Complexity Framework: A Comparative Analysis of Bangladesh and Vietnam
M. A. Shaleh Sadiq and Debdatta Saha
3. Economic and Non-Economic Determinants of Capital Flight in Sri Lanka: An Empirical Analysis
U. Kirishaliny and S. Vijesandiran
4. Influencer Credibility and Imitation Behavior in Junk Food Consumption among Young Adults: A Qualitative Study
Imasha Dilshani, Shirron Jeyapalan, Chamodhi Hansani, Gerard Kaluarachchi, Oshani Vidarshik, and Nirmani Dayapathirana
5. The Impact of Fiscal Policy on Economic Growth in Sri Lanka: An Empirical Study
B. Niranjana and T. Vinayagathan
6. The Impact of Inflation on Bank Deposits: An Empirical Analysis of Sri Lanka
S. Dushanthi and P. Anusha

01.05 p.m. – 01.10 p.m. Remarks by the Discussant

01.10 p.m. – 01.15 p.m. Closing Remarks by the Chairperson

Technical Session III: Health, Regional Development, and Ecology

Time: 11.30 a.m. – 1.15 p.m.

Venue: Room No. 208, First Floor, PGIHS

Chairperson: Prof. J.G. Sri Ranjith

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussants: Dr. A.D.H.K. Kankanamge and Ms. P. Anusha

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

11.30 a.m. – 11.35 a.m. Opening Remarks by Chairperson

11.35 a.m. – 01.05 p.m. Presentations:

1. A Comparative Cross-Sectional Study of Nutritional Status of Children Aged 2-5 Years of Employed and Non-Employed Mothers in the Medadumbara Medical Officer of Health (MOH) Division of the Kandy District, Sri Lanka

A.S. Ariyaratna

2. Social and Economic Causes and Consequences of Unemployment among Educated Upcountry Youth: A Sociological Study of Sri Lanka's Plantation Communities

R. Surendran

3. The Impact of The Economic Crisis on The Nutritional Status of Children in the St.Margaret Grama Niladhari Division of Nuwara Eliya District

T. Komathi and S. Vijayakumar

4. Reducing Uncertainty in Forest Conservation Decisions: Dendrochronological Evidence for Identifying and Monitoring High Conservation Value Forests

Lucian Mîzgaciu, Niță Mihai Daniel, and Stăncioiu Petru Tudor

01.05 p.m. – 01.10 p.m. Remarks by the Discussants

01.10 p.m. – 01.15 p.m. Closing Remarks by the Chairperson

Technical Session IV: Entrepreneurship, Business Management, and Technological Innovations

Time: 11.30 a.m. – 1.15 p.m.

Venue: Room No. 106, Ground Floor, PGIHS

Chairperson: Prof. Bianca TESCĂȘIU

*Vice-dean of the Faculty of Economic Sciences and Business Administration
Transilvania University of Brasov, Romania*

Discussant: Prof. T. Vinayagathan

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

11.30 a.m. – 11.35 a.m. Opening Remarks by Chairperson

11.35 a.m. – 01.05 p.m. Presentations:

1. Drivers of E-commerce Adoption among MSMEs: Evidence from the Apparel Sector in Sri Lanka

Aloka Walpolapitiya

2. The Impact of Entrepreneurial Traits on MSME Performance: An Empirical Study Based on Kandy District, Sri Lanka

H.M.W.G.P.T. Wedagedara and A.V.K. Madhavie

3. The Impact of Financial Literacy on Investment Behaviour among Public and Private Sector Employees in Sri Lanka

H.M.I.K. Herath and H.M.W.A. Herath

4. Exploring The Factors Affecting Intellectual Entrepreneurial Intention of Management Graduates of Sri Lanka

W.A.I.L. Senevirathna and H.K.G.N.D. Samarakoon

5. The Impact of Group-Based Microcredit on Women's Economic Empowerment in Sri Lanka: Evidence from Kandy District

P.G.P.D. Jayaweera and H. M. W. A. Herath

6. The Impact of Digital Service Usage on Youth Spending Behavior in Sri Lanka

K.K.S. Dilmanthi and A.D.H.K. Kankanamge

01.05 p.m. – 01.10 p.m. Remarks by the Discussant

01.10 p.m. – 01.15 p.m. Closing Remarks by the Chairperson

Technical Session V: External Sector, Banking, and Global Finance

Time: 02.00 p.m. - 03.45 p.m.

Venue: Room No. 301, Conference Hall, PGIHS

Chairperson: Snr. Prof. W.L.P. Perera

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussant: Ms. L. Weragoda

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

02.00 p.m. – 02.05 p.m. Opening Remarks by Chairperson

02.05 p.m. – 03.35 p.m. Presentations:

1. Conceptual Credit Scoring Framework for Two-Wheeler Financing: Identifying Key Credit Risk Determinants to Support Machine Learning-Based Credit Assessment in the Financial Sector of Sri Lanka

K.A.S. Dilmika

2. The Impact of Banking Sector Development on Economic Growth: An Empirical Study Based on Sri Lankan Economy

T. Dilakshini and T. Vinayagathan

3. The Impact of Economic & Non-Economic Factors on Balance of Payment: Empirical Evidence from Sri Lanka

N. Vithurshika and T. Vinayagathan

4. Financial Resilience and Sustainability in South Asia: A Comparative Analysis of Selected SAARC Member States

Sorina BOTIS

5. Determinants of Profitability of Commercial Banks: An Empirical Analysis of Sri Lanka

S. Thusiyanthan and P. Anusha

03.35 p.m. – 03.40 p.m. Remarks by the Discussant

03.40 p.m. – 03.45 p.m. Closing Remarks by the Chairperson

Technical Session VI: Sectoral Challenges, Tendencies, and Fiscal Policy

Time: 02.00 p.m. - 03.45 p.m.

Venue: Room No. 208, First Floor, PGIHS

Chairperson: Prof. H.M.W.A. Herath

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussant: Dr. T.N. Vidanage

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

02.00 p.m. – 02.05 a.m. Opening Remarks by Chairperson

02.05 p.m. – 03.35 p.m. Presentations:

1. Analyzing the Impact of Digital Adoption on Consumer Purchasing Behaviour of the Textile Industry in Sri Lanka

A.S.G.S. Bandara

2. The Impact of Economic and Non-Economic Factors on Domestic and Foreign Tourist Arrivals in Sri Lanka

A. Menuja and S.Vijesandiran

3. Mixed Frequency Modeling of Exchange Rate Volatility and Economic Policy Uncertainty in Sri Lanka: A GARCH-MIDAS Approach

B. Gayathiri and N. Neruja

4. The Relationship between Income Level and the Choice of Public and Private Healthcare Services in Sri Lanka

N.K.D. Lakshani

5. The Impact of Exchange Rate on Foreign Tourism Revenue: An Empirical Research Based on Sri Lanka

N. Nivedha and T. Vinayagathan

6. Evaluating the Accuracy and Reliability of Tourism Earnings Estimation Method in Sri Lanka: A Comparative Analysis

H.G.M.S. Jayarathna, G.H.D. Nadeeka, C.S.V. Hewamadduma, R.W.M.N.G. Rajapaksha, and M.B. Ranathilaka

03.35 p.m. – 03.40 p.m. Remarks by the Discussant

03.40 p.m. – 03.45 p.m. Closing Remarks by the Chairperson

Technical Session VII: Land, Labour, and Capital Markets

Time: 02.00 p.m. - 03.45 p.m.

Venue: Room No. 207, First Floor, PGIHS

Chairperson: Prof. S. Vijesandiran

*Department of Economics and Statistics, Faculty of Arts
University of Peradeniya, Sri Lanka*

Discussant : Prof. K.M.R. Karunarathna

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

02.00 p.m. – 02.05 p.m. Opening Remarks by Chairperson

02.05 p.m. – 03.35 p.m. Presentations:

1. A Comparative Study of Human Capital, Labor Market Segmentation and Labor-Leisure Theories: Which Theory Best Explains Digital Freelancing in Sri Lanka?

C.S.I. Nethmini and Kalpa Rajapaksha

2. How Do Demand-Side Factors Affect Unemployment in Sri Lanka? Evidence from Overall and Youth Unemployment

Chesika Mahesh

3. Socioeconomic, Institutional and Environmental Determinants of Agriculture Land Abundance in Sri Lanka: Reference to Central and North Western Provinces.

A.I.M. Dimbulgasthenna, M.B. Ranathilaka, C. Ekanayake, and E.M.P.C.S. Ekanayake

4. The Impact of Foreign Debt on Foreign Exchange Reserves: An Empirical Evidence from Sri Lanka.

U. Kirishaliny

5. A Critical Analysis of the Motherhood Penalty in Sri Lanka

R. Fernando and D.N.B. Gunewardena

03.35 p.m. – 03.40 p.m. Remarks by the Discussant

03.40 p.m. – 03.45 p.m. Closing Remarks by the Chairperson

Technical Session VIII: Crisis, Geopolitics, and Political Economy

Time: 02.00 p.m. - 03.45 p.m.

Venue: Room No. 106, Ground Floor, PGIHS

Chairperson: Prof. M.B. Ranathilaka

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Discussants: Prof. Sumanasiri Liyanage and Dr. Kalpa Rajapaksha

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka.*

02.00 p.m. – 02.05 p.m. Opening Remarks by Chairperson

02.05 p.m. – 03.35 p.m. Presentations:

1. An Index-Based Framework for Measuring Macroeconomic Resilience and Identifying Shocks and Crisis Periods: Evidence from Sri Lanka
W.A.K. Gayashan, A.K.G. Dayarathna, U.R.D. Pamoda, T.J.N. Perera, and S.J.S. De Mel
2. Artificial Intelligence Readiness, Geopolitical Risk, and Economic Resilience: Evidence from Emerging and Developing Economies
Camelia Schiopu
3. Evaluating Youth Perceptions of Anti-Corruption Reforms and Institutional Strengthening under Sri Lanka's NPP Government: A Case Study of University of Peradeniya
M.E.F. Shihara and B. Muneera
4. India–China Geoeconomic Competition for Critical Minerals and Sri Lanka's Strategic Autonomy: An International Political Economy Analysis
S. Lakshana

03.35 p.m. – 03.40 p.m. Remarks by the Discussants

03.40 p.m. – 03.45 p.m. Closing Remarks by the Chairperson

KEYNOTE ADDRESS

Beyond IMF: Sri Lanka's Critical Economic Challenges to Navigate Safely into Prosperity After 2027

W.A. Wijewardena

DBA (Banking and Finance)

Former Deputy Governor, Central Bank of Sri Lanka

Keywords: *Economic Challenges; Sri Lanka; IMF; Prosperity*

Introduction

Sri Lanka's economy stands at a crossroads. It has achieved a partial recovery from the severe economic crisis of 2020–2022, but the more formidable task is to prevent that recovery from unravelling, carry it through to completion, and place the economy on a sustainable medium- to long-term growth path. Because the crisis was largely man-made, though compounded by natural disasters, policymakers must create the fiscal and economic space needed to absorb future external shocks. Its foundations were laid by successive governments from the early 2000s through excessive commercial borrowing to bridge a widening savings–investment gap, a growth strategy centred on the domestic economy, profligate fiscal policy accommodated by monetary policy, and inadequate emphasis on export growth. These vulnerabilities accumulated gradually before becoming catastrophic after 2020, when taxes were reduced below fiscally sustainable levels, agricultural policy was abruptly redirected towards overnight organic conversion, and monetary expansion was pursued under the influence of modern monetary theory. Together, these decisions produced a crisis that struck the economy from every direction.

To survive this existential crisis, Sri Lanka had little choice but to seek assistance from the International Monetary Fund (IMF). The Fund responded with its standard framework of financial programming—a package whose primary purpose is macroeconomic stabilisation rather than the direct generation of growth. It seeks to restrain aggregate demand and bring key nominal indicators, including inflation, the exchange rate, government revenue, and the budget balance, within prescribed limits. Applied too mechanically, however, this approach can resemble a physician

judging a patient's health solely by the figures in a laboratory report. Governments may therefore be commended for meeting predetermined revenue targets without sufficient regard to how the measures used to raise that revenue affect investment, production, and household welfare.

In his election manifesto, President Anura Kumara Dissanayake promised that, if elected, he would renegotiate the IMF agreement reached by the previous administration. He challenged the emphasis on revenue-based fiscal consolidation, arguing that it overlooked the urgent need for a more balanced approach encompassing both revenue and expenditure. This implied that, rather than imposing additional taxes on an already burdened population, his government would curb wasteful state spending.

Yet, once in office, the realities of global finance asserted themselves. The government continued with the existing programme, constrained by intense and unyielding pressure from international donors and left with no viable alternative. Sovereign default affords little room for ideological pride; by 2024, continuity had become a bitter but unavoidable necessity.

An assessment of the current position reveals that the economy Sri Lanka, inherited to Sri Lankans after 2027, will remain burdened by significant fiscal risks. Those risks include, as explained later, serious governance risks relating to both fiscal and monetary policies. At present, the headline indicators may suggest stability, but the underlying structural trend is deeply troubling: a beneficial budget balance is being attained not by cutting unproductive subsidies but productive capital expenditure programs. This has been validated by a recent report released by the think tank Verité Research. Accordingly, the revenue of the government during the first half of 2026 has increased by record 56%. But subsidies and transfers have shot up by 54%, while the capital expenditure has amounted to only 16% of the budgeted numbers.

Today, Sri Lanka is entering the final stretch of its IMF Extended Fund Facility programme. If it secures the two remaining tranches, the country will be widely commended for completing its tenth IMF programme, after failing to complete seven of the previous seventeen. According to official communications, Sri Lanka is to complete the program by end-2026. However, there is policy uncertainty about whether Sri Lanka will go for a further program with IMF. The Central Bank Governor, at a recent press conference, prompted by a journalist, clarified that it is

left to the government to go for a further IMF program. The Ministry of Finance, the other player in this game is tight-lipped about a new program with IMF. Since the work involved in negotiating with IMF for an extension will take at least six months, unless it is started right now, Sri Lanka will be without IMF backing when the current program completes its term. Since the present program has not delivered all the expected results, the abrupt ending of the marriage with IMF would practically mean that the country's current program, though all the tranches have been drawn by the country, in real terms, is also an incomplete program.

Thus, what is the ground reality faced by Sri Lanka? Without a successor IMF programme or immediate multilateral support, responsibility for the economy will rest fully with Sri Lanka's own leaders. The external supporting wheels will come to a halt, leaving them to confront the country's structural realities without a protective cushion. Growth remains dangerously weak. Poverty is rising across every province, while widening inequality increasingly separates the prosperous from the desperate. At the macroeconomic level, the fiscal numbers may appear polished. But at the household level, individual budgets are being squeezed by heavy taxation. This implies that without proper fiscal and monetary governance, the government's headline success is a failure at the household level. The government also fails in its capital expenditure program due to under-spending. Households also fail in theirs due to lack of resources which have been transferred to the government sector through direct and indirect taxation, on one side, and through unseen inflation taxation due to high inflation targeting by the Central Bank without considering the people's predicaments, on the other. Domestic and external shocks continue to loom, and the economy remains vulnerable to sudden surges in inflation and severe exchange-rate pressure. This is Sri Lanka's true baseline. Stabilisation is merely the absence of chaos; it is not the transformation required to deliver lasting prosperity to the people.

The Current Baseline: Post-IMF Stabilisation

The current IMF framework did precisely what it was designed to do: arrest the immediate haemorrhage in Sri Lanka's already fragile external position and restore a measure of predictability to its markets. More importantly, the IMF's seal of approval served as an indispensable geopolitical passport. Without that assurance of compliance, Sri Lanka would have been left to navigate the crisis largely on its own.

With that assurance, Sri Lanka unlocked crucial financial and diplomatic support: renewed backing from Western partners, cooperation from major regional powers, and engagement from bilateral creditors such as India and China. This restoration of international confidence culminated in a significant and widely publicised milestone: Fitch Ratings upgraded Sri Lanka's sovereign credit rating from the default-adjacent 'CCC' category to 'B-', with a Stable Outlook in September 2026. The other two rating agencies, Standard and Poor's and Moody's, are also to follow a matching suit.

This is undeniably a welcome development. It confirms that Sri Lanka's short-term macroeconomic stabilisation programme has achieved its immediate objectives and signals to the world that the country is no longer in active default. Yet, as researchers and professionals, we must look beyond the headline and examine the hard data objectively. A 'B-' credit rating remains deeply problematic: it is four full notches below the 'BB-' rating Sri Lanka held in 2014 and six notches below the minimum investment-grade threshold. Sri Lanka has therefore not fully recovered the ground it lost; it has merely climbed out of the abyss. In global financial markets, the country remains classified as a highly speculative, high-risk borrower falling in the language of financial circles to the 'junk category'.

This upgrade will eventually allow Sri Lanka to return to global commercial capital markets and, in principle, issue sovereign bonds to help bridge its still-significant savings–investment gap. But the country must re-enter these markets with its eyes wide open. Such access comes at a heavy—and potentially punishing—cost. High commercial interest rates would place an enormous burden on future national budgets. Sri Lanka therefore risks returning to a pattern that has persisted since independence eight decades ago: what the Cambridge economist Joan Robinson described in 1959 as the risky practice of borrowing tomorrow's wealth to finance today's survival.

It is useful to examine the mechanics of this challenge. If national savings are to rise sufficiently to finance Sri Lanka's vast investment needs, the external current account must move towards a sustainable surplus. That is not a matter of preference; it is an accounting necessity. Nor can such a surplus be achieved by suppressing imports indefinitely and resorting to selective exchange controls. Sri Lanka cannot stop importing fuel, medicine, machinery, and industrial raw materials without crippling domestic production. The only durable solution is therefore to expand foreign-exchange earnings rapidly and substantially. Sri Lanka

must produce more, innovate more, and sell more to the world. On exchange controls, though Sri Lanka has pledged to the rest of the world that it would not impose any restrictions on current transactions when it accepted IMF's Article VIII status four decades ago, there are still large gaps between what is promised and what is practised. The country had promised personal foreign currency (PFC) account holders when they brought foreign currency to the country that they would be permitted to take that money out of the country at any time of their choice with no questions asked. However, a restriction imposed after the country went through its worst foreign exchange crisis that the moneys lying to their credit could not be freely taken out is still dictating its terms. The account holders can utilise that money for current payments – capital payments are barred anyway – only for educational and medical expenditure abroad, supported by valid documents. If an account holder wants to give a gift to a child living abroad, he cannot do so.

Core Economic Challenges: Navigating the Icebergs

As Sri Lanka moves beyond the IMF safety zone, its economic ship faces four massive and deeply rooted structural icebergs. Unless the country changes course decisively, they could tear apart its prospects for lasting prosperity:

- **The Competitiveness Trap:** For decades, Sri Lanka sheltered behind protectionist walls—high tariffs, complex para-tariffs, and a preference for import substitution over the rigours of global competition. The result has been weak domestic industries, low productivity relative to its regional peers, and an export basket that has remained dangerously narrow and largely stagnant for thirty years. The country continues to depend too heavily on garments and tea. Sri Lanka must now pivot decisively towards a genuinely export-driven growth model—one that earns foreign exchange through competitive trade rather than repeatedly borrowing it through sovereign bonds.
- **The Global and Domestic AI Divide:** Sri Lanka is falling dangerously far behind the global technology curve. Artificial intelligence adoption remains exceptionally low, placing the country near the bottom of global measures of AI readiness and adoption. This is not merely an IT problem; it is a macroeconomic and social challenge. Domestically, a small, urban, high-income group is already using advanced AI tools to expand its opportunities and wealth, while much of the population remains poor, digitally excluded, and at risk of falling even further behind. Regionally, the contrast is stark. Sri Lanka's

neighbours—particularly India—are moving rapidly to integrate AI across technology, services, and manufacturing, while the country remains a hesitant and sluggish adopter. If Sri Lanka is to achieve sustainable prosperity, it must accelerate both AI adoption and its capacity to adapt, using technology to leapfrog long-standing structural constraints rather than deepen them.

- **The Human Capital Crisis:** Sri Lanka’s classrooms, research laboratories, and corporate offices are being depleted at an alarming rate as the professional brain drain accelerates. The country is losing many of its most capable researchers, doctors, engineers, accountants, and senior academics, who are seeking better opportunities abroad in response to heavy taxation and prolonged economic stagnation. At the same time, the domestic education system remains poorly aligned with global realities. It is widely criticised as outdated and overly dependent on rote learning, with insufficient emphasis on critical thinking, creativity, and problem-solving. Without developing and retaining an adequate pool of skilled professionals, Sri Lanka cannot keep pace with countries advancing rapidly around it. Building these capabilities is therefore essential to securing the competitive advantage required for sustainable prosperity.
- **Institutional Rigidities:** Sri Lanka’s state-owned enterprises, except state banks which are money making machines, remain a substantial and persistent drain on public finances, absorbing billions of rupees each year because of political patronage, weak governance, and chronic mismanagement. At the same time, frequent shifts in the regulatory environment undermine policy predictability, eroding entrepreneurial confidence and discouraging foreign direct investment. Bureaucratic inefficiency compounds these problems by acting as a structural brake on reform and obstructing the digital transformation that many of Sri Lanka’s regional peers achieved years ago.

Strategic Anchors for a Prosperous Future

To navigate these four icebergs safely, Sri Lanka must secure **three new strategic anchors**. Yet, as economists, we must confront candidly the difficult macroeconomic trade-offs that will shape each choice:

- **Global Value Chain Integration and Fiscal Realignment:** Sri Lanka must move beyond exporting low-tech products and begin supplying highly specialised components and services to global production networks. Its strategic

location along the main Indian Ocean shipping route—an advantage underused for generations—should support its emergence as a hub for green logistics, advanced technology services, and high-value niche agriculture. Yet this outward transformation cannot succeed while the domestic engine is starved of investment. Government’s widely praised revenue gains have imposed a painful cost on households and the private sector, particularly small and medium-sized enterprises (SMEs), the backbone of the economy. Liquidity constraints are forcing these firms to reduce capital investment to dangerously low levels. At the same time, much of the additional tax revenue is being absorbed by recurrent state consumption rather than channelled into development. Capital expenditure remains stagnant as a share of GDP, while actual utilisation by ministries falls below even those inadequate allocations. In effect, Sri Lanka is taxing investment to finance consumption—a structural failure that will substantially weaken its future growth potential.

- **The Green and Digital Transition under Monetary Constraints:** The transition to a green, sustainable economy and the expansion of digital infrastructure are no longer optional; they are structural imperatives for attracting high-quality foreign direct investment (FDI). Global corporations increasingly require carbon-neutral supply chains and seamless digital ecosystems, and they will invest elsewhere if Sri Lanka cannot provide them. Yet this transition must unfold against a darkening monetary horizon. The current low-inflation environment remains fragile, and renewed external shocks—such as global commodity-price increases or freight disruptions—could quickly reignite inflation. In that event, the Central Bank of Sri Lanka would face a severe policy dilemma: it may be compelled to reverse its accommodative stance and raise interest rates once again. Such monetary tightening would further constrain credit growth, weaken investment, and dampen the country’s prospects for sustained economic expansion.
- **Inclusive Economic Growth and the Reserve Dilemma:** Safe navigation also requires a resilient social fabric, and that depends on inclusive economic growth. If real incomes continue to decline for the majority while prosperity remains concentrated among a small elite, socio-political unrest will inevitably return to the streets. No economic model can endure in a fractured society. Yet policy stability is also constrained by the Central Bank’s urgent need to rebuild foreign exchange reserves. To avoid another collapse like that of 2022, it must

purchase dollars from the market and raise the national reserve stock to safer levels. Sustained intervention of this kind can place pressure on the exchange rate and complicate monetary management. More troublingly, even with aggressive reserve accumulation, Sri Lanka may remain well below the IMF's internationally recognised foreign reserve adequacy benchmarks. The country is therefore running hard merely to remain structurally vulnerable.

Two Specific governance issues

In my view, two fundamental policy governance issues can be clearly demonstrated by examining the fiscal policy of the Ministry of Finance and the monetary policy of the central bank. I choose to view both institutions as monopoly companies endowed with ultra-powers. Both can set their "prices" at their own discretion—a power granted to them in the trust that they will use it for the betterment of society.

The Ministry of Finance has the absolute power to set tax rates at its whim, and the public has no power to reject it. If citizens resist, the Ministry wields sovereign authority to enforce compliance under the threat of legal action. This involves freezing bank accounts, charging late fees, compounding opportunity interest costs, and collecting dues from existing assets. If all else fails, it can put citizens behind bars. The central bank does not have the power to imprison people, but its authority over monetary policy is equally absolute. It can set interest rates at will and compel commercial banks to obey. If a bank disobeys, the central bank can punish it with heavy penalties or ultimately put it out of business by cancelling its license. The entire cost structure of the economy shifts when commercial banks fall in line. This makes private transactions entirely more expensive or cheaper or selectively alters the costs of specific transactions. Both fiscal and monetary mechanisms, therefore, represent absolute power.

Because taxes represent a compulsory transfer of wealth from the people to the state, the public loses financial autonomy while the government gains it. The government is expected to return this wealth through public expenditure. However, this spending may not benefit the individual taxpayer directly, and it frequently benefits undeserving classes who successfully arbitrage the system. In Sri Lanka, a classic example occurred in 1994 when the government reduced the price of a loaf of bread to Rs. 3.50. While intended to support low-income families, a subsequent study revealed that rich people were utilizing the subsidized bread to feed their

pets—an objective that was never intended. Similarly, in the realm of monetary policy, once the central bank announces its policy rates and demand-management measures, the public is left with no choice but to follow. Given the coercive weight of both policies, rigorous governance is absolutely critical.

On the fiscal side, there are built-in public accountability mechanisms. Public finance is constitutionally placed under the purview of the people's representatives, who are expected to vote on bills with the citizens' best interests at heart. However, because parliamentarians lack the technical knowledge or the time to vet every complex tax and revenue law, a special standing committee—the Committee on Public Finance (COPF)—was established. Unfortunately, this committee suffers from severe institutional weaknesses. First, it lacks teeth; it can only report its recommendations to Parliament, and if Parliament chooses to ignore them, the committee's energy is entirely wasted. Second, it lacks expertise, and there is no current mechanism in Sri Lanka to provide that independent technical support. As a result, the committee's chairman is regularly seen pleading with the Speaker to establish a Parliamentary Budget Office. Finally, the committee is outnumbered by government members whose primary loyalty lies with their political party, while opposition members are frequently incentivized to critique policies simply to embarrass the government.

Governance at the central bank is even less clearly laid out. While some unofficial measures exist, such as a stakeholder consultative committee, its deliberations are shielded from the public domain, denying citizens crucial insights. Recently, the central bank initiated a public consultation practice regarding the appropriate inflation target to be agreed upon with the government for the next cycle, yet the outcomes of this exercise remain unknown. Beyond this isolated effort, there is no formal mechanism to accommodate public views when formulating monetary policy. Consequently, the governance structures tasked with controlling these two institutional monopolies remain profoundly weak. This vulnerability is especially pronounced when the country seeks support from multilateral lending agencies like the IMF. In that case, it is ultimately the IMF that dictates terms to both the Ministry of Finance and the central bank.

The real-world consequences of these governance failures are clearly illustrated by the independent think tank Verité Research, which analyzed the government's revenue and expenditure during the first half of 2026. Their findings indicate that the state's primary revenue sources remain customs duties and income taxes.

Revenue from customs duties has been heavily reliant on the monopoly pricing of vehicle importations, driving local vehicle prices up to multiples of what they cost in other nations. While the IMF has complimented the government on its stellar revenue record, this praise ignores the disastrous realities on the ground: vehicles are now piling up in sales centres completely devoid of buyers, threatening a severe systemic crisis in the financial sector.

On the expenditure side, Verité Research highlighted that while the government succeeded in significantly reducing the budget deficit, it did so artificially—by failing to spend the funds allocated for capital expenditure, which languished at a mere 16%. Meanwhile, the government continues to spend the bulk of taxpayers' funds on consumption subsidies, particularly the fuel subsidy implemented to keep domestic prices stagnant despite rising global oil prices.

These are substantial, systemic issues that demand the immediate attention of economists. It is up to the research community to analyse these dynamics deeply and bring forth the necessary data and recommendations to shift the focus of our policymakers.

Conclusion: A Call to Action

Sri Lanka's post-IMF future will not be determined by circumstance, but by choice. Building a stable and prosperous economy will demand discipline, consistency, and the courage to sustain reform long after the immediate crisis has faded. If the country retreats once again into political expediency and familiar policy failures, the outcome is already known: another cycle of fragile expansion, painful collapse, and eventual recourse to an eighteenth IMF programme.

Sri Lanka's immediate difficulty is that aggregate demand is recovering faster than aggregate supply, exposing the weakness of the real economy beneath the appearance of macroeconomic stabilisation. Even if the country secures a rollover or successor IMF facility, external financing alone will not resolve the deeper constraints: inadequate national savings, insufficient investment, the need to shift resources into fast-growing sectors over the medium to long term, and the absence of a comprehensive strategy for real-sector expansion. Nor will an IMF programme necessarily capture the full range of national priorities. Sri Lankan authorities must themselves address poverty, unequal income distribution, climate-related risks, and the urgent task of making the country a place to which its young people wish to

return rather than one they feel compelled to leave. This agenda must also be underpinned by substantially stronger governance of fiscal and monetary policy. Households and firms are already meeting higher tax obligations by curtailing consumption and postponing investment; if, in addition, they must bear inflation under a target of 5 per cent, with a tolerance band of two percentage points on either side, they are compelled to pay an unseen inflation tax as well. The combined burden amounts to be a double blow—akin to the Sinhala saying that the person who has fallen from a tree is then gored by a bull. Such consequences are too serious for fiscal and monetary choices to be made without transparent reasoning, meaningful consultation, institutional accountability, and careful consideration of their distributional and real-economy effects. The post-IMF policy emphasis must therefore go beyond stabilising nominal indicators: Sri Lanka must create real wealth, and, even more importantly, ensure that people feel they are the owners and beneficiaries of that wealth. Designing and implementing this broader, domestically owned programme of productive, inclusive, and accountable transformation is the critical navigation path Sri Lanka must now take.

That choice places a profound responsibility on everyone gathered at this symposium. These challenges cannot remain abstract academic concerns, nor can valuable research be allowed to gather dust. Economists, researchers, and academics must become the architects of a new policy framework—one grounded in evidence rather than intuition. Your data must illuminate the choices before the state; your empirical work must distinguish what succeeds from what fails; and your innovations must help ease fiscal constraints, strengthen household resilience, and close the country's technological divide.

Let us therefore turn our collective intellect into national capability. Let us build an economy sustained by high productivity, technological adaptability, fiscal discipline, and global competitiveness—not by repeated external rescue. If we navigate with evidence, resolve, and courage, Sri Lanka can move beyond stabilisation towards a future that is resilient, inclusive, prosperous, and truly self-sustaining.

GUEST SPEECH

The Economic Situation of the European Economies amidst Uncertainties and Global Power Dynamics

Prof. Bianca TESCAȘIU (PhD)

*Faculty of Economics and Business Administration,
Transilvania University of Brasov, Romania*

Keywords: *Economic Situation; Economic Uncertainties; Global Power Dynamics*

Introduction

European economies are currently operating in an increasingly complex international environment. During the last years, European Union's economy has been characterized by economic uncertainty, technological transformation, geopolitical tensions, and profound changes in global power relations; so, the conditions under which European economies operate have changed significantly in recent years.

Several phenomena affected EU in the last decade. COVID-19 pandemic, the war in Ukraine, disruptions in global supply chains, energy-market volatility, inflationary pressures and increasing competition from major global economic powers have challenged the resilience of European economies. At the same time, globally, EU faces a high competition from United States and China which play a central role in the economic world, while emerging economies are increasing their economic and geopolitical influence.

The European Union has traditionally been organized as social economic model. It means that the social dimension of the entire economy is not neglected by the member states and, also, by Europe. European economies are strongly connected to global markets through trade, investment, financial flows and international supply chains; therefore, Europe's exposure to external shocks increased. More than this, due to the external factors influence, new challenges in economy appeared (as, for instance the energy crisis following Russia's invasion of Ukraine highlighted Europe's vulnerability to external energy dependencies).

Against this background, the economic situation of European economies cannot be understood solely through traditional indicators such as GDP growth, inflation,

unemployment or public debt. It must also be examined in relation to Europe's position within a changing global economic and geopolitical system.

European Economies in a Changing Global Environment

The economic indicators show that 2026 represents a “challenging year” for the whole Europe (see Fig 1)

GDP	Inflation	Deficit	Unemployment
EU:	EU:	EU:	EU:
2025: 1.5%	2025: 2.5%	2025: -3.1%	2025: 6.0%
2026: 1.1%	2026: 3.1%	2026: -3.5%	2026: 6.0%
2027: 1.4%	2027: 2.4%	2027: -3.6%	2027: 6.0%
Euro area:	Euro area:	Euro area:	Euro area:
2025: 1.4%	2025: 2.1%	2025: -2.9%	2025: 6.3%
2026: 0.9%	2026: 3.0%	2026: -3.3%	2026: 6.4%
2027: 1.2%	2027: 2.3%	2027: -3.5%	2027: 6.4%

Fig 1: EU’s Economic Indicators – an Overview

Source: Spring 2026 Economic Forecast: Slowdown in growth as energy shock drives up inflation, European Commission report

The situation stands differently in different member states (MS). In terms of GDP, the situation is heterogeneous. Some of the MS maintain a resilient trajectory, there are, also, face stagnation or negative performances in 2026. The prognosis shows moderate economic rebound for 2027 (see Fig 2).

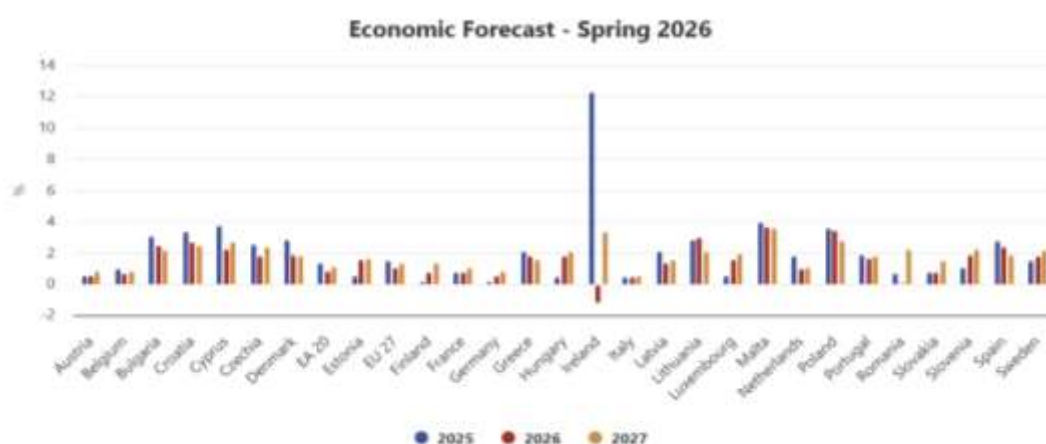


Fig 2: EU GDP

Source: European Commission, 2026

As seen, Ireland encountered a negative increase of GDP. Also, Romania has a very insignificant increase of GDP (0.1%).

Regarding the inflation, the situation is presented in Fig 3. As seen, inflation represents a serious issue for some European countries in 2026 – Romania (7%), Croatia (4.6%), Estonia and Lithuania (4.4) are the countries with the biggest inflation rate, but, at the same time there are a consistent group of countries with higher inflation rate than EU27 value (3.1%).

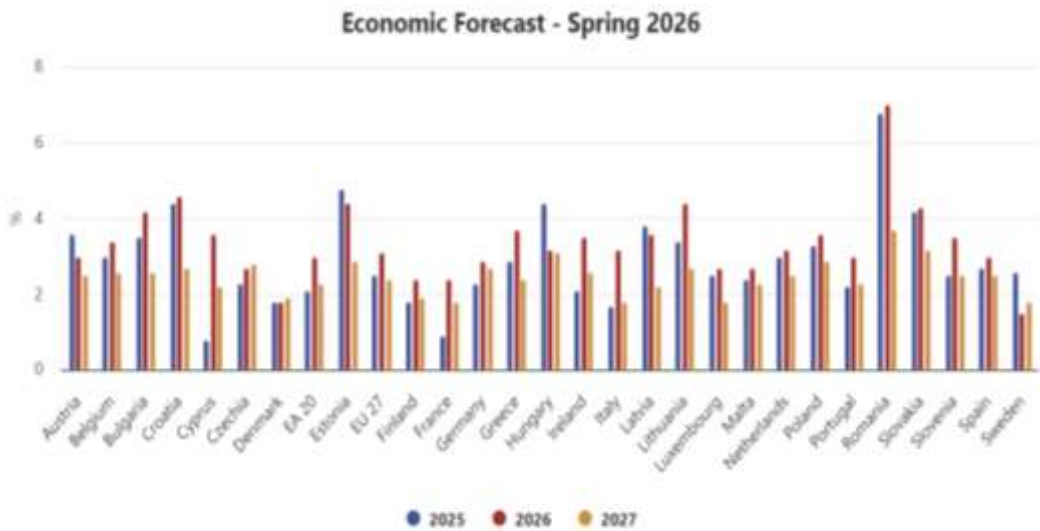


Fig 3: EU Inflation

Source: European Commission, 2026

Inflation has been one of the most important economic challenges facing European economies in recent years. Higher energy and food prices, supply-chain disruptions and changes in demand contributed to significant increases in consumer prices. The inflationary environment affected households, businesses and governments and created difficult choices for economic policymakers. Therefore, the European Central Bank has had to balance the objective of maintaining price stability with the need to avoid unnecessarily weakening economic activity.

A very problematic matter for EU economies is represented by unemployment. The unemployment rate is recording high levels -in some states, even very high levels - relative to the European average (a consistent number of MS face high rates of unemployment).

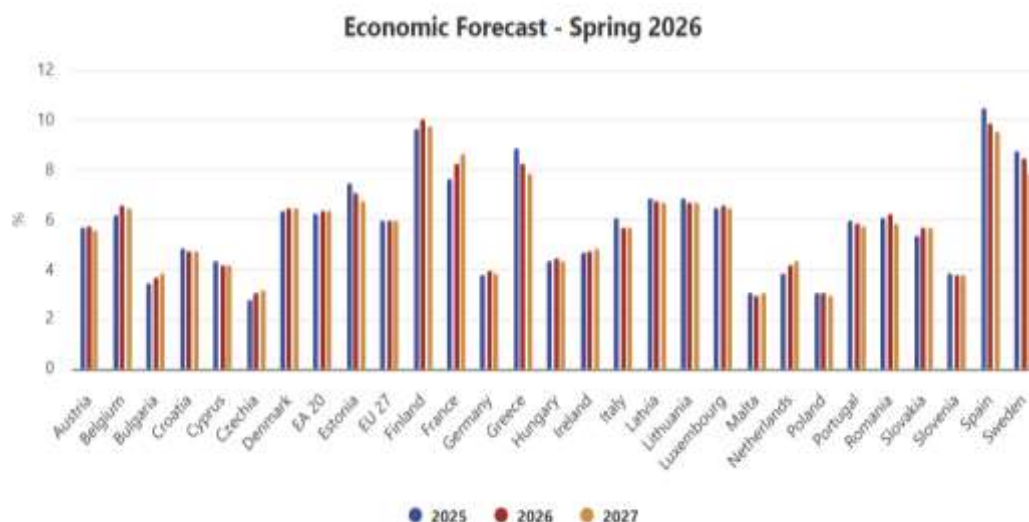


Fig 4: EU Unemployment

Source: European Commission, 2026

European Union amidst Uncertainties and Global Power Dynamics

The challenge for the EU is therefore not simply to maintain economic growth, but to strengthen productivity and competitiveness while preserving social and environmental objectives. In these circumstances, a series of new challenges – other than economic aspects – define the new preoccupations in European policies: geopolitics and the changing global landscape; EU - US and EU - China relations; the war in Ukraine and European security; energy security; climate change; digital transformation and artificial intelligence; EU enlargement and relations with the neighborhood; European Union strategic autonomy. All these aspects define new approaches with certain impact on the role of European Union in the world.

One of the most important issues refers to the strategic dimension of Europe's economic future. Considering the purpose of reducing the dependence on Russian fossil fuel, EU has accelerated the efforts to diversify its energy sources and to develop renewable energy. Investments in renewable energy, electricity networks, sustainable transport and low carbon technologies increased in the last years. Nevertheless, the conflict in Iran deepened the problem, with direct influences on European economy. As the European institutions report, the share of green energy in the EU is steadily rising, reaching over 54% in the spring and summer of 2026, driven by wind, solar, and hydroelectric generation. The goal for 2030 is that

42.5% of gross final energy consumption to come from renewable sources by 2030, with an ambitious target of 45%.

At the same time, European companies face strong international competition in green technologies. The development of electric vehicles, batteries, solar technologies, semiconductors and other strategic industries has become closely connected to global economic competition. Although companies from some fields require an extension of the timeframe allocated for achieving these objectives.

Regarding these aspects, the challenge for Europe is therefore to reconcile environmental objectives with industrial competitiveness. Climate policies need to be accompanied by measures that support innovation, investment and the ability of European companies to compete internationally.

Another important aspect that guides European policies refers to technological development. Artificial intelligence, digitalization, semiconductors, cloud infrastructure and cybersecurity are not only economic sectors but also strategic assets. European Union is one of the most powerful entities in terms of Research and Development, because of a series of initiatives (The Horizon Europe program, The Digital Decade initiative, The European Innovation Act, Strategic Technologies for Europe Platform -STEP). The main weaknesses of Europe's assets regarding technological development resides in the fact that knowledge is not enough transferred into the large-scale commercial applications and in the use of AI in the field, compared to USA and China. Therefore, EU investments in the field are growing – for instance, in 2025, EU initiated InvestAI initiative, aiming to mobilize up to €200 billion for artificial intelligence.

European Union remains the world leader regarding the climate global change, with an ambitious goal of “climate neutrality” in 2050. Despite this, EU is facing a real problem regarding maintaining the environmental ambitions of the European Green Deal and the need to ensure energy security and affordable prices for citizens, particularly in the current geopolitical context. Due to the difficulty of the process, some of the goals had to be adjusted – for instance, the automobile industry really faces problems both in the case of producers, as well as consumers. The automotive industry is simultaneously undergoing electrification, facing weaker domestic demand and intensified competition from Chinese manufacturers. The Commission presented an action plan for the sector for 2025, followed by an automotive package that includes greater flexibility regarding CO₂ emission

standards, €1.8 billion for the "Battery Booster" initiative, and simplification measures. In March 2026, the Commission proposed the Industrial Acceleration Act, which introduces "Made in EU" and/or low-carbon emission requirements for certain public support and procurement schemes in strategic sectors. Major manufacturers (such as the Volkswagen Group) are making enormous efforts to avoid collective fines estimated at billions of euros.

Overall, EU's strategic autonomy integrates all the aspects that generate uncertainty for Europe. It means that Europe's capacity to protect its own interests without affecting its role in the international markets by remaining connected to these. To achieve the goal of strategic autonomy, European Union must improve its governance system and its politics.

Strategic autonomy involves, in the first place, reducing dependencies in defense and security (considering especially The Ukraine War geopolitical situation). In this sense, it must be mentioned that there is a high degree of dependency in terms of military equipment (especially from USA). To counter this dependence, the EU launched a program – SAFE -, a financial instrument that provides loans of up to €150 billion for joint defense procurement from Europe.

In the second place, strategic autonomy involves technology and AI. European Union encourages technological development to increase the competitiveness of innovation and development (for instance, European Chips Act that aims to increase its market share in semiconductor production, seeking to narrow the technological gap with the US and Asia).

In the third place, strategic autonomy means the capability to survive and to develop in an efficient economy. To achieve this goal, European Union developed a strategy – The European Economic Security Strategy. It must be mentioned that Europe remains critically dependent on imports from outside the EU for essential raw materials (such as rare metals from China or other materials from Turkey and South Africa).

Conclusion

The economic situation of European economies is shaped by a combination of internal structural challenges and external transformations. Inflation, relatively weak growth, energy security and technological competition are interacting with geopolitical tensions and the redistribution of global economic power.

The main challenge of Europe is to transform its own resources into sustainable competitiveness tools, to maintain economic stability and social cohesion. In an increasingly uncertain international environment, Europe must learn to combine innovation with resilience, openness with strategic security and development with environmental sustainability.

EXTENDED ABSTRACTS

Artificial Intelligence Readiness, Geopolitical Risk, and Economic Resilience: Evidence from Emerging and Developing Economies

Camelia Schiopu

*Management and Economic Informatics Department,
Transilvania University of Brasov, Romania*

Keywords: *Artificial Intelligence; Economic Resilience; Geopolitical Risk; Emerging Economies; Digital Transformation*

Introduction

Artificial Intelligence (AI) is increasingly recognized as a general-purpose technology with the potential to transform productivity, innovation, and economic development. However, developing economies differ substantially in their ability to benefit from AI due to disparities in digital infrastructure, human capital, institutional quality, and regulatory capacity, while the AI-for-development literature has focused predominantly on advanced economies (Trabelsi, 2024; Khan et al., 2024).

Artificial Intelligence Readiness refers to the extent to which a country possesses the institutional, technological, human capital, and regulatory conditions necessary to effectively adopt and benefit from AI technologies (Porcher, 2020). As a multidimensional concept, AI readiness provides the foundation for digital transformation and strengthens countries' capacity to respond to emerging economic challenges.

At the same time, rising geopolitical uncertainty has become an important source of economic vulnerability, increasing the need for stronger economic resilience. Economic resilience refers to the capacity of an economy to withstand and recover from external shocks (Briguglio, 2016). Within this context, AI readiness may enhance resilience by strengthening adaptive capacity, improving resource allocation, and supporting the continuity of economic activity during periods of disruption.

Despite growing interest in AI and economic development, limited empirical evidence exists on the relationship between AI readiness and economic resilience in emerging and developing economies under conditions of geopolitical risk.

Accordingly, the study seeks to answer the following research question: *To what extent is AI readiness associated with economic resilience in emerging and developing economies, and how is this relationship conditioned by geopolitical risk?*

Objectives

The main objective of this study is to examine the relationship between AI readiness and economic resilience in emerging and developing economies under conditions of geopolitical uncertainty. Further, this study investigates whether geopolitical risk moderates this relationship and derives policy implications for strengthening economic resilience.

Methodology

This study employs a quantitative research design based on panel data for a selected multi-regional sample of 23 emerging and developing economies over the period 2019–2025. The sample spans Europe, Asia, Latin America, the Middle East, and Africa, providing geographical diversity and capturing heterogeneous economic and geopolitical contexts. The initial country-year panel comprises 161 observations (23 countries $\times$ 7 years). Secondary data were collected from the World Bank's *World Development Indicators* (WDI), the Oxford Insights *Government AI Readiness Index*, the *Worldwide Governance Indicators* (WGI), and the country-specific *Geopolitical Risk Index* developed by Caldara and Iacoviello (2022). UNCTAD data were additionally used to complete six missing FDI observations for 2025. The final baseline estimation sample contains 157 country-year observations because unemployment data for Ukraine are unavailable for 2022–2025; these missing values were not imputed.

Economic resilience is the dependent variable, which is measured through an Economic Resilience Index (ERI), consistent with the conceptualization of resilience as the capacity to withstand and recover from external shocks (Briguglio, 2016). The ERI combines standardized GDP per capita growth (+), GDP-deflator inflation (–), and unemployment (–). Higher values indicate greater macroeconomic resilience. Robustness checks use winsorized inflation and, alternatively, GDP growth.

$$ERI_{it} = \frac{z(GDPpcGrowth_{it}) - z(Inflation_{it}) - z(Unemployment_{it})}{3}$$

AI readiness is the independent variable, which is measured by the Oxford Insights Government AI Readiness Index (0–100) for 2019–2025. Given methodological changes in the 2025 edition, standardized scores and the 2019–2024 periods are used as robustness checks.

Geopolitical risk is the moderate variable, which is measured using the country-specific GPR indices of Caldara and Iacoviello (2022). Monthly observations are aggregated to annual means; annual maxima are used as a robustness measure.

Control variables are trade openness, FDI net inflows (% of GDP), and Government Effectiveness. World Development Indicator (WDI) is the primary source for trade and FDI, while Government Effectiveness is drawn from the World Governance Indicator (WGI). Six missing FDI observations for 2025 are completed using UNCTAD inflows and WDI. Internet use is included only in a 2019–2024 robustness specification because of insufficient 2025 coverage. Other initially considered controls were not retained when incorporated into the ERI or when their inclusion created conceptual overlap.

Table 1 summarizes the variables included in the baseline empirical specification, their operationalization, and the corresponding data sources.

Table 1: Variables, Measurements and Data Sources

Variable	Measurement	Source
Economic Resilience Index (ERI)	Standardized composite: GDP per capita growth (+), inflation (–), unemployment (–)	WDI; authors' calculations
AI Readiness	Government AI Readiness Index (0–100)	Oxford Insights
Geopolitical Risk (GPR)	Annual mean of country-specific monthly GPR index	Caldara and Iacoviello (2022)
Trade openness	Trade (% of GDP)	WDI
FDI	Net inflows (% of GDP)	WDI; UNCTAD/ WDI*
Government Effectiveness	Governance estimate	WGI

Note: For six countries with missing WDI FDI observations in 2025, FDI (% of GDP) was calculated using UNCTAD FDI inflows and WDI GDP.

To examine whether geopolitical risk conditions the relationship between AI readiness and economic resilience, the empirical model includes an interaction term between mean-centered AI readiness and geopolitical risk:

$$ERI_{it} = \alpha + \beta_1 AI_{it} + \beta_2 GPR_{it} + \beta_3 (AI_{it} \times GPR_{it}) + \gamma' X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where, X_{it} denotes the vector of controls variable, μ_i country effects, and λ_t year effects. The interaction coefficient tests the proposed moderating role of geopolitical risk.

Panel-data estimation considers pooled OLS, fixed-effects (FE), and random-effects (RE) specifications. Because the conventional Hausman test was numerically unstable, the FE–RE assessment was complemented by a Mundlak-type approach and panel diagnostics, supporting two-way fixed effects (country and year) as the main specification. Standard errors are clustered by country, with wild cluster bootstrap inference used given the 23 clusters. Robustness checks consider alternative ERI measures, standardized AI readiness, annual-maximum GPR, Internet use, and influential-country exclusions.

Results and Discussion

The empirical analysis was conducted using pooled OLS, country fixed-effects (FE), and two-way fixed-effects (TWFE) specifications. Multicollinearity does not appear to be a major concern, as the variance inflation factors (VIFs) for the explanatory variables range from 1.03 to 3.04. Table 2 reports the main estimation results.

Table 2: Results of Main Panel Regression

Variables	Pooled OLS	Country FE	Two-way FE
AI Readiness	0.0346***	0.0373*	0.0044
	(0.001)	(0.060)	(0.621)
Geopolitical Risk	−0.0803	−0.3843	−0.6072
	(0.708)	(0.180)	(0.125)
AI Readiness × GPR	0.0148	0.0686	0.0433
	(0.587)	(0.238)	(0.368)
Trade openness	0.0027*	−0.0063	−0.0292
	(0.059)	(0.741)	(0.268)
FDI	0.0011	0.0013	0.0062*
	(0.299)	(0.331)	(0.060)

Government Effectiveness	−0.1257	−0.4356*	0.5414
	(0.297)	(0.080)	(0.452)
Observations	157	157	157
R ²	0.229	0.483	0.662
Country FE	No	Yes	Yes
Year FE	No	No	Yes

Notes: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

AI readiness is positively associated with economic resilience in pooled OLS ($\beta = 0.0346$, $p = 0.001$) and marginally significant in the country FE model ($\beta = 0.0373$, $p = 0.060$), but becomes small and statistically insignificant under TWFE ($\beta = 0.0044$, $p = 0.621$). Thus, the positive cross-country association is not robust to controlling jointly for country and year effects.

Geopolitical risk is negatively associated with economic resilience in the TWFE specification ($\beta = -0.6072$), although the coefficient is not statistically significant at conventional levels ($p = 0.125$). More importantly, the interaction between AI readiness and geopolitical risk is statistically insignificant ($\beta = 0.0433$, $p = 0.368$). The results therefore do not provide empirical support for the hypothesized moderating effect of geopolitical risk on the relationship between AI readiness and economic resilience. Diagnostic tests indicate heteroskedasticity (Breusch–Pagan, $p < 0.001$), supporting country-clustered inference. The insignificant interaction remains robust to alternative ERI constructions, standardized AI readiness, annual-maximum GPR, influential-country exclusions, and an Internet-use specification estimated for 2019–2024 due to insufficient 2025 coverage.

Conclusion and Policy Recommendations

This study examined the relationship between AI readiness, geopolitical risk, and economic resilience across 23 emerging economies over 2019–2025. Although AI readiness is positively associated with resilience in pooled estimates, this relationship is not robust to country and year fixed effects. The results also provide no empirical support for the hypothesized moderating effect of geopolitical risk, suggesting that cross-country differences in AI readiness may reflect broader structural and institutional characteristics rather than a robust within-country resilience effect.

From a policy perspective, AI readiness should be viewed as part of a broader set of institutional and macroeconomic capabilities rather than as an isolated resilience mechanism. Investments in digital infrastructure, human capital, and institutional capacity remain relevant to digital transformation, but the present evidence does not establish AI readiness as a buffer against geopolitical risk. Future research should extend the time horizon and incorporate more direct measures of AI adoption.

References

- Briguglio, L. (2016). Exposure to external shocks and economic resilience of countries: evidence from global indicators, *Journal of Economic Studies*, 43(6), pp. 1057–1078.
- Caldara, D. and Iacoviello, M. (2022). Measuring geopolitical risk, *American Economic Review*, 112(4), pp. 1194–1225.
- Khan, M.S., Umer, H. and Faruqe, F. (2024). Artificial intelligence for low income countries, *Humanities and Social Sciences Communications*, 11, article 1422.
- Porcher, S. (2020). Measuring artificial intelligence capabilities and readiness', *Academy of Management Proceedings*, 2020(1).
- Trabelsi, M.A. (2024). The impact of artificial intelligence on economic development, *Journal of Electronic Business & Digital Economics*, 3(2), pp. 142–155.

Economic and Non-Economic Determinants of Capital Flight in Sri Lanka: An Empirical Analysis

U. Kirishaliny and S. Vijesandiran

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Capital Flight; Governance; ARDL Approach; Sri Lanka*

Introduction

Capital flight refers to the movement of financial assets from a country to foreign economies, which may be caused by economic and non-economic factors such as economic uncertainty, macroeconomic instability, political instability, weak institutions, or expectations of higher returns abroad (Ndikumana and Boyce, 2003). It represents unrecorded or abnormal outflows that reduce the resources available for domestic development (World Bank, 1985). It weakens growth, reduces investment, increases unemployment, and deepens dependence on external borrowing in countries with high rates of capital flight (Liyanage, 2016). Sri Lanka's capital flight data was estimated using basic information from Central Bank of Sri Lanka (2025) for the period of 1990–2025; accordingly, it moved from US\$ 8,037.7 million in 2011 to US\$ 5,398.7 million in 2020, turned sharply negative at US\$ -3,184.1 million in 2022, and reversed to US\$ 2,873.4 million in 2023, amid the country's sovereign default, economic crisis and political shocks

Empirical evidence on the effects of these determinants on capital flight is mixed across developing countries. Ndikumana and Boyce (2003) found that external debt significantly increases capital flight, and Abille and Adjei (2025) confirmed this for Sub-Saharan Africa while showing that governance weakens the relationship. Yıldırım and Bal (2025) identified the exchange rate as the main driver in Türkiye, with inflation and interest rates insignificant, while Abbas et al. (2025) showed that the relevant drivers differ by region. In Sri Lanka, existing studies have focused mainly on macroeconomic determinants of capital flows (Liyanage, 2016; Godagampala and Vijesandiran, 2019), and evidence combining both economic and non-economic (governance) determinants is limited. This inconsistency, together with the limited country-specific evidence, motivates this study.

Objective

This study attempts to examine the impact of economic and non-economic determinants on capital flight in Sri Lanka adopting a time series econometric analysis.

Methodology

This study uses annual data of Sri Lanka over the period 1990–2025. The study examines the impact of economic and non-economic determinants on Capital flight by using Budget Deficit Rate (BDR), GDP Growth Rate (GDPG), Inflation Rate (INF), Interest Rate Differential (IRD), Trade Openness (TO) as explanatory economic variables; and Control of Corruption (COC), Political Stability (PS), Rule of Law (ROL) as non-economic explanatory variables in order to generate policy recommendations for reducing capital outflows and supporting macroeconomic stability.

The relevant data were collected from secondary sources: the Annual Reports of the Central Bank of Sri Lanka, the World Development Indicators, and the World Bank's Worldwide Governance Indicators. The data for non-economic variables are available only from the year 1996, the values for the period 1990–1995 were extrapolated backwards, as a result the study period was confined to the period 1990–2025, since both economic and non-economic determinants are central concern to this study.

The multiple regression model specified for this study is given as below:

$$CF_t = \beta_0 + \beta_1 BDR_t + \beta_2 GDPG_t + \beta_3 INF_t + \beta_4 IRD_t + \beta_5 LNCOC_t + \beta_6 LNER_t + \beta_7 LNPS_t + \beta_8 LNROL_t + \beta_9 TO_t + \varepsilon_t$$

where; ε_t is white noise error term. COC, PS, ROL and EXR are transformed into natural logarithms and the other variables are used in their original values. The analytical procedures include ADF and PP unit root tests; AIC-based lag selection; the ARDL Bounds testing approach (Pesaran et al., 2001) for long-run cointegration; an ARDL error correction model (ECM) to capture short-run dynamics and the speed of adjustment; diagnostic tests (Breusch–Godfrey for serial correlation, Breusch–Pagan–Godfrey for heteroskedasticity and Ramsey RESET for misspecification); and a pairwise Granger causality test. The ARDL approach is suitable for a mixture of I(0) and I(1) series (Pesaran et al., 2001). However, the effective sample is relatively low considering the number of

regressors, so the degrees of freedom are limited; this is acknowledged as a limitation of this study.

Results and Discussion

The ADF/PP tests confirm that the variables GDPG, INF, and IRD are stationary at level $[I(0)]$, while the variables CF, BDR, LNER, LNPS, LNCOC, and LNROL are at 1st difference $[I(1)]$. E-Views selected ARDL(2,2,2,1,2,2,1,2,2) by AIC. The bounds test F-statistic of 8.220 exceeds the upper bound (3.68) at 1%, confirming a long-run cointegrating relationship (Table 1).

Table 1: The Results of ARDL Bounds Test

Test Statistic	Value	I(0) bound (1%)	I(1) bound (1%)
F-statistic (k = 9)	8.220	2.50	3.68

Table 2: The Results of Long-run Relationships

Variable	Coefficient	Prob.
BDR	-1322.16**	0.035
GDPG	631.50**	0.029
INF	-262.48**	0.022
IRD	-269.25**	0.036
LNCOC	-14609.84	0.272
LNER	-295.36	0.882
LNPS	-605.77**	0.017
LNROL	-16245.34*	0.088
TO	-27313.67	0.225

*Note: p-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.*

The long-run results (Table 2) show BDR and INF have significant negative effects on CF, and GPDG a significant positive effect a larger fiscal deficit signals unsustainable finances and future inflation risk induced by the taxation, and the results prompting outward hedging consistent with Ndikumana and Boyce (2003); inflation erodes real asset values, pushing capital abroad; and stronger growth raises domestic returns, keeping capital onshore. IRD is significantly negative, contrary to interest parity, likely reflecting a risk premium (wider gap = higher perceived risk) rather than a return incentive. PS is significant and ROL weakly

significant (10%), both negative counter to theory, possibly because periods of higher measured stability coincided with capital account liberalization easing legal outflows, echoing Abille and Adjei (2025). However, COC, ER and TO variables do not have significant impact on CF in the long run.

The coefficient of error correction term is significant and negative (-0.698) implies that about 69.8% of disequilibrium is corrected every year. D(BDR(-1)) is significantly positive, D(INF) and D(IRD) are significantly negative in the same year, matching their long-run role as confidence/risk signals; D(ER) is significantly negative, consistent with depreciation triggering immediate flight; and D(TO(-1)) is significantly positive, consistent with delayed repatriation of trade earnings.

Table 3: Results of ECM

Regressor	Coefficient	Prob.
D(BDR(-1))	1223.66***	0.0001
D(INF)	-188.41***	0.0006
D(IRD)	-451.01***	0.0001
D(LNER)	-22133.93***	0.0004
D(TO(-1))	79494.02***	0.0000
CointEq(-1)	-0.6981***	0.0000
R-squared	0.9822	

*Note: p-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively. Short-run terms which are not significant omitted from the table due to space constraint.*

According to the Diagnostic test results provided in the Table 4, the model is well specified. Granger causality tests show a bidirectional relationship between BDR and CF ($p = 0.008 / 0.022$), and CF Granger-causes INF ($p = 0.011$) and IRD ($p = 0.034$), and weakly LNER ($p = 0.057$). No other variable shows significant causality with CF in either direction.

Table 4: The Results of Diagnostic Tests

Test	Statistic	Conclusion
Serial Correlation (BG LM)	$p = 0.196$	None
Heteroskedasticity (BPG)	$p = 0.780$	Homoscedastic
Functional Form (RESET)	$p = 0.346$	No misspecification

Conclusion and Policy Recommendations

This study examined the impact of economic and non-economic determinants on capital flight in Sri Lanka for the period 1990–2025. The model passes all diagnostics, and the bounds test confirms strong long-run cointegration. A higher budget deficit, higher inflation, and a wider (risk-driven) interest rate differential raise capital flight in the long run, which strongly reduces growth; political stability and rule of law are significant but counter-signed; corruption control, the exchange rate, and trade openness are insignificant. Adjustment to equilibrium is fast (~70% per year), and capital flight and the budget deficit reinforce each other via Granger causality.

These findings point to fiscal discipline and price stability as central to containing capital flight. The study recommends fiscal consolidation and low, predictable inflation as core policy plans, and managing the interest rate gap so it reflects genuine return incentives rather than a rising risk premium. The counter-intuitive governance results warrant further country-specific investigation possibly reflecting capital account liberalization alongside institutional gains suggesting a need for complementary reforms such as greater capital account transparency alongside continued institutional strengthening.

References

- Abille, A.B. and Adjei, I. (2025). Does better governance abate the external debt–capital flight revolvment in sub-Saharan Africa?, *Journal of Government and Economics*, 17, 100136.
- Godagampala, G.D.N.M. and Vijesandiran, S. (2019). The effect of macroeconomic determinants on capital flight in Sri Lanka, in *Proceedings of the Peradeniya International Economics Research Symposium (PIERS) 2019*. Peradeniya: University of Peradeniya, pp. 51-56.
- Liyanage, E. (2016). Determinants of capital inflows: evidence from Sri Lanka, *Staff Studies*, Central Bank of Sri Lanka, 44(1&2).
- Ndikumana, L. and Boyce, J.K. (2003). Public debts and private assets: explaining capital flight from sub-Saharan African countries, *World Development*, 31(1), pp. 107-130.

The Impact of Economic and Non-Economic Factors on Balance of Payments: Empirical Evidence from Sri Lanka

N. Vithurshika and T. Vinayagathan

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Balance of Payments; ARDL Model; Foreign Direct Investment*

Introduction

The history of Sri Lanka's Balance of Payments (BOP) deficit reflects the complex economic journey of a developing island nation navigating global dynamics and structural. Balance of Payments serves as a crucial economic indicator for countries with open economic policies engaged in international trade. Over the past few decades, the trend of the Balance of Payments globally has been changing. International trade, investment, and financial flows have been growing rapidly due to various factors such as globalization, trade liberalization, technological advancements, the rise of multinational corporations, international price fluctuations, and exchange rate variations. As a result, export-dominant countries like China, Germany, Japan, and Singapore are seen as BOP surplus countries, while import-dependent economies like the United States, Chile, Brazil, India, and Britain are seen as BOP deficit countries (UNCTAD Handbook of Statistics, 2022).

Sri Lanka is located as an international hub along a major maritime route in the Indian Ocean. This geopolitical position has granted Sri Lanka a significant place in international trade, engaging it in numerous economic transactions related to exports, imports, and foreign services. Sri Lanka's Balance of Payments has faced various challenges over the past several decades. In particular, the Balance of Payments continues to be impacted by factors such as being an import-dependent economy, the export economy relying on only a few products, increasing foreign debt, the continuous depreciation of the Sri Lankan Rupee, global fuel price hikes, US tariff changes, global crises, internal unrest, and conflicts such as the US and Israel-Iran wars. Beyond macroeconomic variables, non-economic and institutional factors have significantly disrupted Sri Lanka's BOP equilibrium. Severe economic crises, acts of violence such as the Easter Sunday attacks, and external shocks like

the COVID-19 pandemic have undermined stability. Furthermore, weaknesses in governance including political instability, rule of law, government effectiveness, and Voice & Accountability have eroded international investor confidence. Most studies related to Sri Lanka's Balance of Payments have examined only a few economic factors. Therefore, this study aims to analyze the impact of economic and non-economic factors on Sri Lanka's Balance of Payments using econometric techniques, utilizing data from 1977 to 2024.

Objectives

The main objective of this study is to investigate the impact of economic and non-economic factors on the Balance of Payments. This study also examines the short run and long run relationships between the variables.

Methodology

This study utilizes annual time-series data spanning from 1977 to 2024. The data of dependent variable, Balance of Payments (BOP), and the independent variables, Gross Domestic Product (GDP), Inflation (INF), Exchange Rate (EXR), Foreign Direct Investment Inflows (FDIN), and Reserve Assets (RA), were sourced from the World Bank's World Development Indicators database. Meanwhile, data for Political Stability and Absence of Violence (PSAV), Rule of Law (ROL), and Government Effectiveness (GOVE) were obtained from the World Governance Indicators of the World Bank database. Following the existing theoretical and empirical literature this study employs the below regression model.

$$BOP_t = \beta_0 + \beta_1 GDP_t + \beta_2 INF_t + \beta_3 EXR_t + \beta_4 FDIN_t + \beta_5 RA_t + \beta_6 PASV_t + \beta_7 \ln ROL_t + \beta_8 \ln GOVE_t + \varepsilon_t$$

where ε is the white noise error term. Descriptive analysis was conducted to check the trend of the variables that are included in the model. Unit root tests such as ADF and PP were used to test the stationarity properties of each variable. AIC and SIC were used to select the optimal lag length of the variables that can be included in the model. Further, this study employed ARDL Bounds test technique in order to examine the existence of cointegrating and long run relationship between the variables. In addition, short-run dynamic relationships and long-run adjustments among the variables were investigated using the Error Correction version of the ARDL Model. Finally, the Wald Test method based on Granger causality approach was used to identify the causal relationships between the variables.

Results and Discussion

Both ADF and PP unit root tests approaches confirmed the absence of I(2) variables. AIC suggested to use ARDL (3,3,3,3,3,3,3,3,3) model for this analysis. Moreover, ARDL Bounds testing approach confirmed that there exists a co-integrating relationship between the variables since we reject the null hypothesis of no co-integration as test statistics are greater than I(1) critical value at 5% level of significance as shown in Table 1.

Table 1: Results of ARDL Bounds Test

Test Statistic	Value	I(0) bound (1%)	I(1) bound (1%)
F-statistic (k = 8)	7.220	2.11	3.15

Since ARDL Bounds test confirmed the existence of cointegrating relationship between the variables there should be a long-run relationship among the variables. The results are given in Table 2.

Table 2: Results of Long run Relationship

Variables	Coefficient	Probability
GDP	-1.400795	0.0115**
INF	-3005597.	0.8338
EXR	-1.103701	0.0010***
FDIN	0.998121	0.6668
RA	2.51E+08	0.0010***
PSAV	36928854	0.0000***
ROL	-29347107	0.9230
GOVE	9172678	0.0000***

*Note: p-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.*

Table 2 reveals that GDP and EXR have statistically significant negative impacts on Sri Lanka's Balance of Payments in the long-run at the 5% significance levels. Due to the country's structural import dependency, GDP expansion drives massive imports of machinery, fuel, and consumer goods, causing dollar outflows that widen the current account deficit. Similarly, currency depreciation elevates import costs for essential raw materials required by key export sectors (apparel and agriculture), deteriorating the overall BOP position. Holding other factors constant, a one US \$ increase in GDP and one unit increase in exchange rate reduces the BOP by 1.400795 and 1.103701 US \$, respectively.

Conversely, Reserve Assets, Political Stability and Absence of Violence, and Government Effectiveness have statistically significant and positive relationships with the BOP in the long-run. A one-unit increase in RA, PSAV, and GOVE improves the BOP by 2.51E+08, 36,928,854 and 9,172,678 US \$, respectively. Meanwhile, INF, FDIN, and Rule of Law show no statistically significant long-run impact. The insignificance of Foreign Direct Investment Inflows is attributed to profit and dividend repatriations offsetting initial capital inflows, while trade dynamics depend more heavily on global prices and macro stability than on domestic legal frameworks.

Moreover, the selected ARDL model passes the diagnostic testing such as no heteroscedasticity, no serial correlation and no omitted variable(s) and also CUSUM test confirmed the stability of the selected model.

The coefficient of error correction term (ECT) is negative and statistically significant at the 1% level, demonstrating a rapid speed of adjustment where short-run disequilibrium corrects toward long-run steady state line with the speed of 40% per annum following external shocks. In the short run, all explanatory variables GDP, INF, EXR, FDIN, RA, PSAV, ROL, and GOVE have statistically significant impacts on the BOP at various lag lengths. While current value of GDP and ER have a significant negative impacts on the BOP, lagged GDP (GDP-2) and lagged ER (EXR-1, EXR-2) exert a positive impacts, driven by immediate productivity boosts and temporary export price competitiveness under the Marshall-Lerner condition. Furthermore, current and lagged values of Inflation (INF), FDIN, Government Effectiveness (GOVE), and Political Stability (PSAV) have significant mixed (positive/negative) relationship with BOP in the short run. Conversely, current value of Reserve Assets (RA) and Rule of Law (ROL) does not have statistically significant relationship with BOP in the short run while lagged value of these variables (RA-2 and ROL-1, ROL-2) have statistically significant impact on the BOP, reflecting Central Bank interventions to defend the currency during short-term external account pressures.

Conclusion and Policy Recommendations

This study uses the ARDL Bounds testing approach to examine how economic and non-economic factors influenced Sri Lanka's BOP during the period of 1977 - 2024. The study found that RA, GOVE, and PSAV improve the BOP significantly in the long run. In contrast, GDP and EXR show an inverse relationship in the long

run. In the short run, most variables, including inflation, FDIN, and the ROL exert a positive effect on BOP. Additionally, an error correction term of -0.40 indicates a rapid adjustment from short-run deviations to long-run steady state line. Overall, the findings suggest that policymakers should focus not only on economic measures like exchange rate management and FDI attraction, but also on institutional reforms that enhance governance, political stability, and public sector efficiency. However, this study is limited by the availability of annual institutional indicators prior to 1997. Future studies could explore quarterly data and non-linear ARDL (NARDL) framework to capture asymmetric impacts.

References

- Central Bank of Sri Lanka, (2013). Annual Report - 2012. Colombo: Sri Lanka.
- Priyatharsiny, S., (2017). Impact of exchange rate depreciation on balance of payments: Empirical evidence from Sri Lanka, *PIERS 2017*, Faculty of Arts, University of Peradeniya, pp.34–40.
- Sinnathamby, M., (2008). Economy of Sri Lanka: Theories & practices, Kumaran Book House , Kumaran Press (Pvt) Ltd 361,1/2 dam street, Colombo-12.
- UNCTAD, (2023). Handbook of Statistics 2022. Geneva: United Nations Conference on Trade and Development.
- World Bank, (2025). Trade Economics Data 2024. Washington DC: USA

The Impact of Inflation on Bank Deposits: An Empirical Analysis of Sri Lanka

S. Dushanthi and P. Anusha

Department of Economics and Statistics, Faculty of Arts, University of Peradeniya, Sri Lanka

Keywords: *Bank Deposits; Inflation; Average Weighted Deposit; ARDL Bounds Test*

Introduction

Considering the key role of banks in financial markets and economic stability, understanding the relationship between inflation and bank deposit behavior is a crucial issue. Deposits serve as the primary source of funding for bank lending activities. However, rising inflation creates economic uncertainty and adversely affects savers' financial decisions where inflation exceeded interest rates, both economic growth and savings rates were significantly lower.

Banks contribute to economic growth by mobilizing public savings and providing credit to individuals and enterprises, thereby driving investment and production. A nation's capital fundamentally originates from its people's savings. These funds transition into capital investments that fuel economic expansion when individuals deposit their unconsumed income into banks.

Although various factors influence deposit behavior, the impact of inflation as a key macroeconomic driver remains particularly significant in explaining these fluctuations (Hasanov et al., 2020). Between 1990 and 2024, total bank deposits have consistently increased; however, the year-on-year deposit growth rate exhibits significant volatility, while inflation also shows a fluctuating trend. In this regard, inflation, which stood at 7.7% in 1995, surged to 49.72% in 2022. Furthermore, the year-on-year deposit growth rate recorded 15.94% in 1996, whereas it dropped to 8.1% in 2024 (Central Bank of Sri Lanka, 2025).

Furthermore, numerous researchers have highlighted that both positive and negative relationships exist between inflation and bank deposits. Empirical studies reveal mixed findings: Youssef et al. (2017) indicate that inflation exerts a positive impact on bank deposits, whereas Jayawarsha and Wulandari (2021) demonstrate a

negative impact. Conversely, Morina and Osmani (2019) conclude that inflation has no significant impact on bank deposits. Therefore, analyzing the effect of inflation on bank deposits becomes crucial for the country's financial stability.

This study is motivated by the key role of bank deposits in financial intermediation and the competing effects of inflation on saving behavior. While rising prices erode the real value of deposits, accompanying interest rate adjustments (AWDR) can raise returns and encourage savings. This dynamic is vital for Sri Lanka, a remittance dependent economy where foreign inflows form a key basis for banking liquidity. Since total deposits include both domestic savings and a substantial share of remittances, understanding how inflation impacts overall deposit level is essential. However, empirical evidence on the short and long run effects of inflation on aggregate deposits in Sri Lanka remains limited. Using an ARDL Bounds testing approach (1990 – 2024), this study fills this gap by evaluating how inflation and deposit rates shape total bank deposits in the banking system.

Objective

The main objective of this research is to empirically investigate the short-run and long-run impacts exerted by inflation on bank deposits in Sri Lanka.

Methodology

This study adopts the Fisher Effect theory, which posits that nominal interest rates adjust one for one with expected inflation to maintain a stable real interest rate. It provides the theoretical framework for analyzing how inflation and interest rates jointly influence bank total deposits. This study used annual time-series data from 1990 to 2024. The period starts from 1990 to reflect Sri Lanka's post financial deregulation era, while 2024 was set as the cutoff as it was the latest official data available from the Central Bank of Sri Lanka during model estimation. The empirical model employs Total Bank Deposits (TD) as the dependent variable, while Inflation (INF), Average Weighted Deposit Rate (AWDR), GDP per capita growth rate (GDPPCGR), Money Supply (MS) and Total Number of Bank Branches (TBB) serve as the independent variables. Data for these selected variables were obtained from the Central Bank of Sri Lanka (CBSL) Annual Reports for domestic financial metrics, and the World Bank Open Data platform for macroeconomic indicators such as inflation and GDPPCGR.

Among the data for the variables selected for this study, TD and MS are measured in Sri Lankan Rupees (LKR) in Millions, TBB in absolute counts, while INF, AWDR, and GDPPCGR are used in percentage forms. Therefore, the variables TD, MS, and TBB have been transformed into natural logarithm form. The model for this study is defined as follows:

$$LTD_t = \alpha_0 + \alpha_1 INF_t + \alpha_2 AWDR_t + \alpha_3 GDPPCGR_t + \alpha_4 LMS_t + \alpha_5 LTBB_t + u_t$$

This study utilized Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests approaches to determine the order of integration and stationarity of the variables. Information criteria including AIC, SIC, HQIC, and LR were employed to select the optimal lag length for the variables included in the model.

To address the objective of this study, understanding long-run relationships and cointegration among variables, the ARDL Bounds Testing approach was applied. Furthermore, the ARDL Error Correction Model (ECM) was used to capture short-run dynamics and long-run adjustments, while the Granger Causality Test was conducted to identify causal relationships between the variables.

Results and Discussion

The ARDL Bound test results confirmed the existence of cointegrating relationship between the variables in the selected ARDL (3, 3, 3, 3, 3, 3) model as the computed F-statistics ($F_{cal} = 10.378$) exceed the upper critical bound [$I(1) = 3.38$] at 5% significance level. This suggests that there exists a long run relationship between the selected variable under this study. The results for the long-run relationship among the variables are presented in Table 1.

Table 1: Results of Long-Run Relationships among Variables

Dependent variable - LTD					
Variables	INF	LMS	LTBB	GDPPCGR	AWDR
Coefficients	0.008625**	0.713430***	0.718646*	-0.018653	0.042223*
P-Values	(0.0192)	(0.0004)	(0.0511)	(0.3441)	(0.0923)
R ²	0.999937				

According to this analysis, long-term INF, LTBB, LMS, and AWDR have a significantly positive impact on LTD; however, GDPPCGR does not have any significant impact. Particularly, the positive long-run coefficient of inflation indicates that a 1% increase in inflation leads to a 0.8625% increase in total bank

deposits. This positive relationship is primarily because higher inflation increases the operational and living costs for businesses and households, requiring them to hold larger transaction balances in their current and savings accounts. Additionally, inflated prices drive up nominal credit demand, and as commercial banks extend more loans to cover these costs, new deposits are generated within the banking system under the "loans create deposits" mechanism. Furthermore, in line with the Fisher Effect, central banks raise policy rates during inflationary periods to control spending, which prompts commercial banks to offer higher deposit rates (AWDR) and encourages the public to save more. During such periods, high volatility in alternative markets like equities and real estate also drives risk-averse investors toward the safety of commercial bank deposits. These mechanisms collectively explain the positive impact, which is consistent with previous empirical studies by Youssef et al. (2017) and Mohammad & Bachouche (2020).

The results of ECM show that second-lagged LTD, as well as INF and LMS at lags 1 and 2, negatively impact current LTD in the short run. Conversely, LTBB consistently has a positive effect across all lags, while AWDR and GDPPCGR exert a statistically significant positive impact on LTD at lags 1 and 2 in the short run. Additionally, the Granger causality test confirms unidirectional causality from LMS to LTD and bidirectional causality between AWDR and LTD.

These causal dynamics align with monetary theory and Sri Lanka's economic realities. The unidirectional causality from LMS to LTD demonstrates that money supply expansion enhances commercial bank liquidity and deposit growth. Meanwhile, the bidirectional causality between AWDR and LTD highlights a mutual feedback loop where higher interest rates attract savings, and banks continuously adjust deposit rates to manage liquidity needs during policy shifts.

Conclusion and Policy Recommendations

This empirical study analyzes the impact of inflation on total bank deposits (LTD) in Sri Lanka using annual data (1990 – 2024). Applying the ARDL bounds test, the optimal ARDL (3, 3, 3, 3, 3, 3) model confirms a long-run cointegrating relationship among the variables. In the long run, INF, LMS, AWDR, and LTBB exert a significant positive impact on LTD. Furthermore, the Error Correction Model (ECM) shows a highly significant correction term of -0.7467, indicating a rapid annual speed of adjustment (74.67%) toward long-run equilibrium following short-run shocks.

Based on the empirical findings, key policy implications emerge for monetary authorities and financial institutions in Sri Lanka. First, the Central Bank of Sri Lanka should pursue targeted inflation control alongside maintaining competitive deposit interest rate (AWDR) to safeguard real yields and foster sustained deposit mobilization. Second, expansionary monetary policy (LMS) must be strategically aligned with financial stability measures to ensure liquidity directly feeds into deposit growth without exacerbating inflationary pressures. Lastly, commercial banks should leverage spatial expansion through branch networks particularly in underserved rural sectors to enhance financial inclusion and solidify the long-run deposit base.

References

- Jayawarsa, A.K., Wulandari, I.G.A.A., Saputra, K.A.K. and Saputri, N.M.M.D. (2021). Public financial deposits in state owned banks: from an inflation perspective and bank Indonesia interest rates. *International Journal of Business, Economics and Law*, 24(1), pp. 105–112.
- Mohamed Youssef, A.M., Lashin Mohamed Mansi, A. and Mohamed Hassan Shahwan, T. (2022). The impact of interest and inflation rates on deposits behavior of banks: the case of Egypt. *The Academic Journal of Contemporary Commercial Research*, 2(1), pp. 55–80.
- Central Bank of Sri Lanka (2025). *Economic and Financial Statistics: Time Series Data (1990–2024)*. Colombo: Sri Lanka.
- World Bank (2025). *World Development Indicators: Data for Sri Lanka (1990–2024)*. Washington DC: USA.

Analyzing the Impact of Digital Adoption on Consumer Purchasing Behaviour of the Textile Industry in Sri Lanka

A.S.G.S. Bandara

National Human Resources Development Council of Sri Lanka

Keywords: *Digital Adoption; Consumer Behavior, Textile Industry*

Introduction

Digital technology has drastically changed consumer buying behaviours, altering how they search for information, evaluate options, and make purchases. With the rise of e-commerce, mobile apps, digital marketing, and online payment systems, businesses can deliver seamless and tailored customer experiences outside of the traditional brick-and-mortar store (Kemp, 2017). In the global context, digital transformation has emerged as a powerful force in the retail and textile sectors, where companies are leveraging digital solutions to enhance customer interactions and market penetration (Featherman and Pavlou, 2003). Sri Lankan textile retailers are taking the plunge into the digital realm to boost customer engagement and reach new markets.

The emergence of digital platforms, however, does not necessarily mean that consumers will adopt them, because there are also psychological and behavioural factors that affect consumers' buying decisions. Despite the growing availability of digital purchasing channels in Sri Lanka's textile industry, there is limited empirical evidence on how digital adoption affects consumer purchasing behaviour and how factors such as perceived risk, perceived value, promotional benefits, performance expectancy, and effort expectancy influence consumers' decisions to adopt digital purchasing channels. Thus, it is essential to conduct research to analyze the impact of the considered factors of digital adoption on the purchasing behaviour of consumers in the textile industry in Sri Lanka.

Objectives

The objectives of this study are to examine the impact of digital adoption on consumer purchasing behaviour in the Sri Lankan textile industry and the factors influencing consumers' adoption of digital purchasing channels.

Methodology

This study examines the impact of digital adoption on consumer purchasing behaviour in the Sri Lankan textile industry using a quantitative research approach. Primary data were collected from 309 consumers through a structured questionnaire. The respondents had experience purchasing or considering the purchase of textile products through digital purchasing channels. The questionnaire gathered information on respondents' demographic characteristics, their use and adoption of digital purchasing channels, and their purchasing behaviour. It also measured the factors influencing digital adoption, namely perceived risk, perceived value, promotional benefits, performance expectancy, and effort expectancy. Digital adoption was considered the key explanatory variable, while consumer purchasing behaviour was considered the main outcome variable. The data were analyzed using SPSS. Both descriptive and inferential statistical techniques were employed to analyze the study variables and achieve the research objectives.

Results and Discussion

Cronbach's Alpha test was used to test the reliability of data, which measures the extent to which the questionnaire's measure is consistent or predictable in this research, should be higher than 0.7.

Table 1: Results of Reliability Test

Variables	Cronbach's Alpha	No. of Items
Performance Expectancy	0.805	4
Effort Expectancy	0.772	4
Perceived Risk	0.713	3
Perceived Value	0.746	4
Promotional Benefits	0.695	4
Digital Adoption (Dependent variable)	0.809	4

Since the reliability statistics show Cronbach's Alpha greater than .70 for every variable, with promotional benefits having 0.695, which is closer, it is concluded that both independent and dependent variables are considered reliable. The following KMO values for all variables exceeded the recommended threshold of 0.50, ranging from 0.574 to 0.912. Bartlett's test of sphericity was statistically significant for all constructs ($p < 0.001$), confirming that the data were suitable for factor analysis and demonstrating the adequacy of the measurement items.

Table 2: Testing Validity of Data

Variables	KMO (>0.5)	p-value
Performance Expectancy	0.800	0.000***
Effort Expectancy	0.849	0.000***
Perceived Risk	0.912	0.000***
Perceived Value	0.756	0.000***
Promotional Benefits	0.574	0.000***
Digital Adoption (dependent variable)	0.778	0.000***

Note ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Correlation and regression analyses were used to examine the relationships between digital adoption factors and consumer purchasing behaviour.

This finding aligns with the Technology Acceptance Model (Davis, 1989), which identifies perceived usefulness and ease of use as major determinants of technology adoption. Further, Diffusion of Innovation Theory (Rogers, 2003) highlights the impact of perceived benefits on adoption decisions. The Perceived Value Theory (Zeithaml, 1988) and Perceived Risk Theory (Bauer, 1960) offer theoretical support for the idea that consumer perception of value and uncertainties influence their digital purchasing habits.

Table 3: Results of Spearman's Correlation Analysis

Variables		Digital Adoption	Consumer Purchasing Behavior
Digital Adoption	Correlation Coefficient	1.000	.213**
	Sig. (2-tailed)	.	.000
	N	309	309
Consumer Purchasing Behavior	Correlation Coefficient	.213**	1.000
	Sig. (2-tailed)	.000	.
	N	309	309

Note: ** represents the correlation coefficient is significant at the 1% level of significant (2-tailed).

Correlation analysis identified a positive and statistically significant relationship between digital adoption and consumer purchasing behaviour ($r_s = 0.213$, $p < 0.001$). Although the relationship strength was weak, the finding indicates that digital adoption has a significant association with consumer purchasing behaviour in the Sri Lankan textile industry.

A multiple linear regression was utilized to investigate the influence of perceived risk, perceived value, promotional benefits, performance expectancy, and effort expectancy on consumers' digital adoption.

The regression model was statistically significant ($F = 110.600$, $p < 0.001$) and explained 64.6% of the variation in digital adoption ($R^2 = 0.646$). The findings indicate that performance expectancy, effort expectancy, perceived risk, perceived value, and promotional benefits collectively contribute to explaining consumers' digital adoption behaviour. Effort expectancy had the strongest significant positive influence ($\beta = 0.309$, $p < 0.001$), followed by performance expectancy ($\beta = 0.274$, $p < 0.001$) and perceived value ($\beta = 0.247$, $p < 0.001$). Promotional benefits also showed a significant positive effect ($\beta = 0.081$, $p = 0.042$). However, perceived risk was not statistically significant ($p = 0.273$). Overall, the findings indicate that ease of use, usefulness, and value perceptions are key drivers of digital adoption.

The findings of this study provide important insights into the factors affecting digital adoption and its relationship with consumer purchasing behaviour in the Sri Lankan Textile industry. The results indicate that effort expectancy, performance expectancy, perceived value and promotional benefits are the significant factors impacting digital adoption, whereas perceived risk was not found to have a significant impact.

The findings indicate that effort expectancy was a strong variable of digital adoption. This suggests that consumers are more likely to adopt digital platforms when they feel easy to use, simple to navigate and with minimal effort. This result is supported by the TAM model (Davis, 1989), which suggests perceived ease of use is a key determinant of digital adoption. As textile products require physical evaluation before purchasing, an easy-to-use digital platform can reduce customer uncertainty. Hence, textile retailers should focus on developing easy and friendly platforms. Another significant factor is performance expectancy, and it indicates that consumers are more likely to use digital platforms when they save time and provide convenience and efficiency. This supports the perceived usefulness of the TAM Model (Davis, 1989). Hence, retailers should focus on providing practical benefits and more efficient.

Table 4: Model 1 Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.804 ^a	.646	.640	.35873	.646	110.60	5	303	.000

Table 5: Coefficients (Model 1)

Model (1)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Zero-order	Partial	Part	Tolerance	VIF
Constant	-.370	.254		-1.45	.146					
Performance Expectancy	.298	.065	.274	4.591	.000	.733	.255	.157	.327	3.06
Effort Expectancy	.352	.072	.309	4.869	.000	.744	.269	.166	.290	3.44
Perceived Risk	.042	.038	.039	1.098	.273	.118	.063	.038	.910	1.09
Perceived Value	.286	.063	.247	4.554	.000	.709	.253	.156	.398	2.51
Promotional Benefits	.109	.053	.081	2.046	.042	.437	.117	.070	.752	1.33

Note: "a" denotes Dependent Variable (Digital Adoption)

The results illustrate that perceived value has a significant impact on digital adoption, which indicates that consumers evaluate whether the benefits received from digital platforms justify the cost, effort and concern. The findings support Perceived Value Theory (Zeithmal, 1988), which shows that purchase decisions are influenced by the assessments of the benefits received. Therefore, retailers should focus to create value driven digital platforms. The findings indicate that promotional benefits have a positive impact on digital adoption. This suggests that online discounts, offers and loyalty rewards encourage customers to use digital platforms. Therefore, textile retailers should focus on promotional benefits. In contrast, perceived risk did not have a statistically significant impact on digital adoption. Improvements in payment security, customer reviews and return policies have resulted in reducing consumers' concern about online purchasing. Finally, the findings demonstrated a positive relationship between digital adoption and

consumer purchasing behaviour. This indicates that acceptance and use of digital platforms can impact consumer purchasing behaviour.

Conclusion and Policy Recommendations

This study examined the effect of digital adoption on consumer purchasing behaviour in the textile industry of Sri Lanka. The research was conducted with the base of theories such as Perceived Value Theory (Zeithaml, 1988), Diffusion of Innovation Theory (Rogers, 2003), Technology Acceptance Model (Davis, 1989), and Perceived Risk Theory. The results suggest that there is a significant correlation between digital adoption and consumers' purchasing behaviour.

The study also revealed that effort expectancy was the most significant variable for digital adoption, with emphasis on user-friendly and convenient digital platforms. Performance expectancy and perceived value were also found to be significant, indicating that consumers have a greater tendency to use digital purchasing channels when they feel there are clear benefits, efficiency and value from using online channels. Promotional benefits had a positive but somewhat less effect, suggesting that price reductions and online promotions can play a role in promoting adoption, but not as significant as usability and perceived benefits. In contrast, the perceived risk was not shown to have a statistically significant impact on the adoption of digital purchase, implying that consumers might have become more confident and familiar with digital purchase platforms.

The study findings suggest that textile retailers should enhance the usability of digital platforms by providing simple navigation, attractive product displays, and convenient checkout processes. They should highlight benefits such as time savings, convenience, product availability, and personalized services. Increasing customer value through competitive prices, loyalty programmes, and exclusive offers is also important. Furthermore, maintaining secure payment systems and customer trust, together with targeted promotions, can strengthen digital engagement and encourage purchasing behaviour.

References

- Bauer, R.A. (1960). Consumer behaviour as risk taking', in Hancock, R.S. (ed.) *Dynamic Marketing for a Changing World*. Chicago: American Marketing Association, pp. 389–398.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology, *MIS Quarterly*, 13(3), pp. 319–340.
- Featherman, M.S. and Pavlou, P.A. (2003). Predicting e-services adoption: A perceived risk facets perspective, *International Journal of Human-Computer Studies*, 59(4), pp. 451–474.
- Kemp, S. (2017). Digital in 2017: Global overview [Online] Available at: <https://wearesocial.com/sg/blog/2017/01/digital-in-2017-global-overview/>
- Rogers, E.M. (2003). *Diffusion of Innovations*. 5th edn. New York: Free Press.
- Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence, *Journal of Marketing*, 52(3), pp. 2–22.

A Comparative Cross-Sectional Study of Nutritional Status of Children Aged 2-5 Years of Employed and Non-Employed Mothers in the Medadumbara Medical Officer of Health (MOH) Division of the Kandy District, Sri Lanka

A.S. Ariyaratna

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Underweight; Stunting; Wasting; Malnutrition; Employed Mothers; Non-Employed Mothers*

Introduction

Child nutrition is a fundamental component of human development and plays a significant role in determining children's health, cognitive development, educational performance, and future economic productivity. Proper nutrition during early childhood is especially important because this period is essential for physical and mental growth. Inadequate nutrition can result in conditions such as underweight, stunting, and wasting, while also affecting children's learning abilities, health, and productivity later in life. Therefore, identifying the factors that influence children's nutritional well-being is important from both social and economic perspectives.

A mother's role plays a crucial role in determining a child's nutritional status. It is important to study how women's participation in the workforce affects child nutrition. Maternal employment represents an important socioeconomic determinant of child nutrition, operating through the competing mechanisms of income generation and maternal time allocation. Employment can enhance household economic resources, potentially improving access to diverse and nutritious foods, healthcare, and other essential services. However, paid employment may simultaneously reduce mothers' time for direct childcare, meal preparation, breastfeeding, feeding supervision, and health monitoring, increasing reliance on alternative caregivers. Conversely, non-employed mothers may have greater time availability for childcare, food preparation, breastfeeding, and supervision of children's dietary needs, but the absence of employment income may constrain household resources available for nutritious food and healthcare.

The existing evidence therefore suggests that the relationship between maternal employment status and child nutrition is complex and may be influenced by household income, maternal education, child age, feeding practices, and the availability of alternative childcare. Although several international studies have examined this issue, evidence specific to the Sri Lankan context remains limited, particularly at the community level. Since mothers often perform both caregiving and income-generating roles, understanding how these competing responsibilities are associated with children's nutritional well-being is important for child health and household welfare. Therefore, the present study was undertaken to compare the nutritional status of children aged 2–5 years of employed and non-employed mothers in the Medadumbara Medical Officer of Health (MOH) Division in the Kandy District in Sri Lanka.

Objectives

1. To compare the nutritional status of children aged 2–5 years of employed and non-employed mothers using Weight-for-Age Z-score (WAZ), Height-for-Age Z-score (HAZ), and Weight-for-Height Z-score (WHZ).
2. To assess the association between maternal employment status and children's nutritional outcomes (WAZ, HAZ, and WHZ), considering selected maternal, household, and child characteristics.

Methodology

This study used a comparative cross-sectional research design to investigate the relationship between maternal employment status and the nutritional status of children aged 2-5 years. The study was conducted in the Medadumbara Medical Officer of Health (MOH) Division of the Kandy District, Sri Lanka. The study sample consisted of 80 mothers, including 40 employed mothers and 40 non-employed mothers, with children aged 2-5 years. Participants were recruited from two infant and child clinics and two child weighing centers located within the selected study area. Primary data were collected through a structured questionnaire designed to capture comprehensive information on the demographic, socio economic, employment, household, childcare, and child nutrition characteristics of the respondents. In addition to the questionnaire data, in every children's height was measured using a measuring tape and weight was measured using a Salter scale to assess each child's nutritional status. Children's nutritional status was

assessed using three anthropometric indicators based on the WHO Child Growth Standards: Weight-for-Age Z-score (WAZ), Height-for-Age Z-score (HAZ), and Weight-for-Height Z-score (WHZ). We recorded the age, gender, weight, and height data for each child using standardized measurement procedures. These measurements were then compared with the corresponding WHO Child Growth Standards to calculate the relevant Z-scores.

WAZ was derived from the child's weight, age, and sex and was used to assess weight relative to age. HAZ was derived from the child's height, age, and sex and was used to assess linear growth and identify growth retardation or stunting. WHZ was derived from the child's weight, height, and sex and was used to assess weight relative to height and identify wasting or acute nutritional problems. Z-scores were calculated using the relevant WHO reference standards, and children were then classified into nutritional-status categories according to the relevant WHO standard deviation cutoff scores.

$$Y_i = B_0X_{0i} + B_1X_{1i} + B_2X_{2i} + B_3X_{3i} + B_4X_{4i} + B_5X_{5i} + B_6X_{6i} + u_i$$

Multiple linear regression analysis was conducted to examine the association between maternal employment status and children's nutritional outcomes while controlling for relevant maternal, household, and child characteristics. The explanatory variables included maternal age, maternal educational attainment, monthly household income, household food expenditure, child age, and maternal employment status, with employment status specified as a binary variable distinguishing employed and non-employed mothers. Three separate regression models were estimated using the same set of explanatory variables but different nutritional outcomes as dependent variables: WAZ was used in the first model to assess weight relative to age, HAZ in the second model to assess linear growth and height relative to age, and WHZ in the third model to assess weight relative to height and acute nutritional status. This modelling approach enabled the study to examine the adjusted association between maternal employment and each dimension of children's nutritional status while holding the other observed characteristics constant.

Results and Discussion

Results found that there is a clear difference in weight for age between the children of employed mothers and those of non-employed mothers. While 75% of the children of non-employed mothers are in the appropriate weight range, only 42.5%

of the children of employed mothers are in the appropriate weight range. Also, 32.5% of the children of employed mothers are in the at-risk category for underweight, 17.5% are in the moderate underweight category, and 7.5% are in the severe underweight category. The regression results show that maternal employment is associated with a decrease in children's WAZ by about 0.947 units, indicating a decrease in age-appropriate weight among children of employed mothers. Maternal age, education, and food expenditure also show negative associations, while household income and child age have positive associations with WAZ. Overall, the model explains 18.8% of the variance in WAZ and is statistically significant at the 5% level. In terms of height for age in childrens, 60% of the children of employed mothers are stunted or at risk of stunting, while only 40% are of normal height. On the other hand, 80% of the children of non-employed mothers are of normal height, while only 15% are stunted or at risk of stunting. Thus, in our sample, it is seen that children of non- employed mothers have a better nutritional status, and children of employed mothers have an inherent tendency to be stunted.

The regression model indicates that factors such as mother's age, education level, income, food expenditure, child's age, and occupation can explain 17.7% of the variation in child's height for age. Based on the results, it can be seen that both the children of employed mothers and the children of non-employed mothers are almost the same in terms of weight for height. Of the 40 children of employed mothers, most of them, 97.5% are in the normal weight range, and a very low percentage of 2.5% were reported as moderately severe malnutrition. On the other hand, the majority of the children of non-employed mothers were in the normal weight range. Moderately severe malnutrition or other conditions were not reported. Accordingly, only 2.5% of the children of employed mothers were found to be malnourished, while it was found that there was no such condition among the children of non-employed mothers. It is shown that the employment status of the mother has a negative correlation with the weight for height of the children. The regression results show that maternal employment is negatively associated with children's WHZ, while child age, maternal age, and food expenditure have positive relationships. Overall, the model is statistically significant and explains approximately 26% of the variance in WHZ.

Conclusion and Policy Recommendations

The findings suggest that children of non-employed mothers generally demonstrated better nutritional outcomes than children of employed mothers in the study area. In terms of weight-for-age, 75% of children of non-employed mothers were in the appropriate weight range compared to 42.5% of children of employed mothers, and for height-for-age, 80% of children of non-employed mothers were of normal height compared to 40% of children of employed mothers. Although the regression results also showed a negative association between maternal employment and WAZ, HAZ and WHZ, these findings suggest an association rather than a causal effect. Therefore, improving the nutrition of children of employed mothers should be supported through on-site childcare facilities, breastfeeding facilities, flexible working arrangements, adequate maternity and breastfeeding leave, and nutrition education for mothers and alternative caregivers. At the same time, children of non-employed mothers should continue to be provided with nutrition education and guidance on a balanced and affordable diet, and the economy should be strengthened to enable access to nutritious food. In this regard, child nutrition programmes should consider household income, food expenditures, childcare arrangements, and feeding practices, along with maternal employment status, to ensure adequate nutritional care for all children.

References

- Zewdu, D. and Handiso, Y.H. (2020). Under-nutrition of 2–5 years old children and associated factors among employed and unemployed women: A comparative cross-sectional study, *Cogent Food & Agriculture*, 6(1), p.1801215.
- Shrestha, P. (2012). A comparative study on nutritional status among children (3-5 years) of employed and unemployed mothers in selected areas at Mangalore, *International Journal of Scientific Research*, 3(6), pp. 372–373.
- Weerasekara, P.C., Withanachchi, C.R., Ginigaddara, G.A.S. and Ploeger, A. (2020). Food and nutrition-related knowledge, attitudes, and practices among reproductive-age women in marginalized areas in Sri Lanka, *International Journal of Environmental Research and Public Health*, 17(11), p. 3985.

Mixed-Frequency Modelling of Exchange-Rate Volatility and Economic Policy Uncertainty in Sri Lanka: A GARCH-MIDAS Approach

B. Gayathiri and N. Neruja

Department of Economics, Faculty of Arts, University of Jaffna, Sri Lanka

Keywords: Exchange Rate Volatility; Economic Uncertainty; GARCH-MIDAS

Introduction

Exchange rate stability is a key macroeconomic concern for emerging economies, given the implications of exchange-rate volatility for inflation, trade, capital flows, and financial stability. This concern is particularly relevant to Sri Lanka, where heightened external uncertainty and foreign exchange pressures have continued to pose challenges to exchange-rate stability (Central Bank of Sri Lanka, 2026). Economic Policy Uncertainty (EPU), reflecting uncertainty surrounding future economic policy, can influence exchange-rate dynamics through changes in capital flows, interest-rate expectations, and investor risk perceptions (Baker, Bloom and Davis, 2016). Existing studies have documented significant links between policy uncertainty and exchange-rate behaviour using various GARCH-based approaches (Kido, 2016; Ekeocha et al., 2025), while GARCH-MIDAS research has demonstrated the usefulness of separating short-run and long-run components of exchange-rate volatility and incorporating low-frequency uncertainty measures (Zhou et al., 2020).



Source: Author's computation using R (RStudio), based on Central Bank of Sri Lanka exchange rate data and EPU index (2000–2026).

Figure 1 shows a gradual depreciation of the rupee followed by a sharp fall during the 2022 crisis, when the rate rose from about 202 LKR per US dollar in early March 2022 to a peak of 363.4 in October 2022. This is a rise of roughly 80% in the rupee price of the dollar, equivalent to a loss of about 45% in the rupee's dollar value. EPU also rose during the crisis and reached a series high of 0.69 in July 2025. However, empirical evidence for Sri Lanka remains limited, particularly regarding whether domestic policy uncertainty contributes to the persistent component of exchange-rate volatility. This study addresses this gap by examining the effect of National EPU on the long-run component of Sri Lanka's exchange-rate volatility using the GARCH-MIDAS framework, with conventional GARCH(1,1), EGARCH(1,1), and GJR-GARCH(1,1) models used for comparison.

Objectives

The main objective is to examine the influence of economic policy uncertainty on exchange-rate volatility in Sri Lanka. The specific objectives are: (1) To examine the statistical properties and stationarity of the exchange-rate and EPU series; (2) To estimate the effect of national EPU on the long-run component of exchange-rate volatility using GARCH-MIDAS; and (3) To compare the out-of-sample volatility forecasts of GARCH-MIDAS-EPU with those of GARCH(1,1).

Methodology

The analysis uses monthly LKR/USD exchange rates from the Central Bank of Sri Lanka for January 2000–April 2026 and a quarterly national EPU index built with the news-based approach of Baker et al. (2016). Stationarity is assessed with the KPSS tests, and ARCH effects and serial dependence with the ARCH-LM (Engle, 1982) and Ljung–Box tests. Economic Policy Uncertainty (EPU) can increase persistent exchange-rate risk by raising risk premia, disrupting capital flows, and increasing uncertainty about the currency's fundamental value (Baker et al., 2016; Kido, 2016). The GARCH-MIDAS framework of Engle, Ghysels and Sohn (2013) captures this mechanism by decomposing exchange-rate volatility into short-run dynamics and a long-run component driven by a lower-frequency variable, without requiring data aggregation or interpolation (Ghysels, Santa-Clara and Valkanov, 2005; Conrad and Loch, 2015). Accordingly, the study tests whether EPU significantly increases the long-run component of exchange-rate volatility, with $H_1: \theta > 0$ and $H_0: \theta = 0$.

The GARCH-MIDAS specification is clarified as:

$$r_{i,t} = \mu + \sqrt{\tau_i \times h_{i,t}} \varepsilon_{i,t}, \varepsilon_{i,t} | \Phi_{i-1,t} \sim N(0, 1) \quad (1)$$

$$h_{i,t} = (1 - \alpha - \beta) + \alpha (r_{i-1,t} - \mu)^2 + \beta h_{i-1,t} \quad (2)$$

$$\tau_i = m + \theta \sum_{k=1}^K \phi_k(\omega_1, \omega_2) X_{i-k} \quad (3)$$

In Equation (1), μ is the unconditional mean return and $h_{i,t}$ is the short-run volatility component. Equation (2) is its GARCH(1,1) type recursion, where α and β are the ARCH and GARCH terms, non-negative with $\alpha + \beta < 1$ to ensure stability. Equation (3) is the long-run component, held constant across the months of each quarter to accommodate the mixed monthly/quarterly frequency. The superscript $(r\omega)$ allows the model to be estimated separately for National and Global EPU. $m^{(r\omega)}$ is the intercept, and $\theta^{(r\omega)}$ the key coefficient captures the effect of EPU on long-run volatility; a positive, significant $\theta^{(r\omega)}$ indicates greater policy uncertainty raises the secular level of currency risk. The Beta-polynomial weights $\phi_k(\omega_1, \omega_2)$ are non-negative and sum to one, determining how EPU's influence decays across the K lagged quarters.

Alongside the formal diagnostics, two figures are used to check the model visually. The estimated long-run component, τ_i , and short-run component, $h_{i,t}$, are plotted separately to confirm that the model is genuinely picking up two distinct forces a slow, EPU-driven trend and quicker, mean-reverting shocks rather than one masking the other.

The last 62 monthly observations (about 20% of the sample) are held out for out-of-sample evaluation. Forecasts of GARCH-MIDAS-EPU and GARCH(1,1) are compared with realised volatility, proxied by squared monthly returns, using MSE, RMSE and MAE. All models are estimated in R.

Results and Discussion

Objective 1: To examine the Statistical Properties

Table 1: Descriptive statistics and diagnostic tests

Statistic	Exchange rate (EX)	EX returns	EPU
Mean	156.59	0.46	0.16
Standard deviation	76.72	2.32	0.15
Skewness	1.39	5.95	1.26
Kurtosis	3.72	59.58	4.53
Observations (frequency)	316 (monthly)	315 (monthly)	106 (quarterly)
Test (returns)	Statistic	<i>p</i> -value	Decision
ARCH-LM(5)	129.93	0.001***	ARCH effect
ARCH-LM(10)	128.10	0.001***	ARCH effect
Ljung–Box Q(5)	110.12	0.001***	Autocorrelation
Ljung–Box Q(10)	111.71	0.001***	Autocorrelation
Ljung–Box Q ² (5)	111.13	0.001***	Volatility clustering
Ljung–Box Q ² (10)	111.45	0.001***	Volatility clustering

*Note: The reported figures are ARCH-LM and Ljung–Box test statistics evaluated at lag lengths $k = 5$ and $k = 10$. The ARCH-LM test examines the null hypothesis of no conditional heteroscedasticity, while the Ljung–Box Q and Q² tests examine the absence of serial dependence in exchange-rate returns and squared returns, respectively. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.*

Objective 2: To examine the effect of EPU on long-run volatility

Table 2: Unit-root and stationarity tests

Variable	ADF level	ADF 1st diff.	KPSS level	KPSS 1st diff.	Order of integration
Exchange rate	−2.0546* (0.0553)	−6.1462*** (0.0100)	4.0866*** (0.0100)	0.1118 (0.1000)	I(1)
EX returns	−6.1825*** (0.0100)	−7.0062*** (0.0100)	0.0695 (0.1000)	0.0094 (0.1000)	I(0)
EPU	−1.9974 (0.5777)	−7.7462*** (0.0100)	0.4811** (0.0459)	0.0701 (0.1000)	I(1)

*Note: ***, ** & * represent variables are statistically significant at 1%, 5% and 10% respectively.*

The tests classify the exchange rate and EPU as I(1) and the returns as I(0): the ADF test does not reject a unit root in the levels of either series at the 5% level, the KPSS test rejects stationarity, and both series are stationary after differencing. The model therefore uses returns in the mean and short-run equations, with EPU as the low-frequency variable.

Table 3: GARCH-MIDAS-EPU Estimates

Parameter	Estimate	Std. error	t-value	p-value
μ	0.2168	0.0828	2.6191	0.0088***
m	-0.0481	0.2391	-0.2012	0.8405
θ	8.1307	1.2212	6.6582	<0.0001***
α	0.3147	0.1122	2.8057	0.0050***
β	0.9000	0.1359	6.6225	<0.001***
$\log(\omega_1)$	2.0324	0.4524	4.4922	<0.001***
$\log(\omega_2)$	1.3204	0.3236	4.0807	<0.001***

Note: μ is the unconditional mean of the exchange-rate return series; α and β denote the ARCH and GARCH terms, respectively; and θ is the slope coefficient capturing the effect of EPU on long-run volatility. The terms ϕ and m denote the (Beta-polynomial-weighted) MIDAS weight and the long-run constant term, respectively. Figures in parentheses are the standard errors of the corresponding parameter estimates, and ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

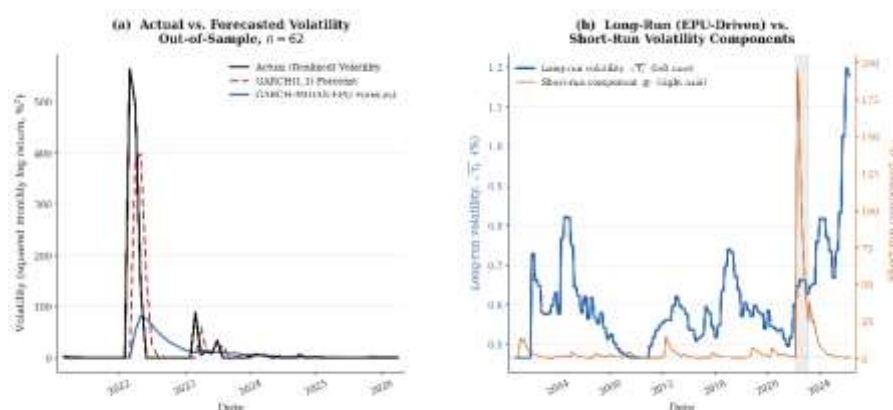


Figure 2: Out-of-sample volatility forecasts (a) and long-run versus short-run components (b)

Source: author's computation using R (RStudio), based on Central Bank of Sri Lanka exchange-rate data and EPU index.

Figure 2(b) confirms that the two components behave differently. The short run component spikes in the 2022 crisis and decays quickly, whereas the long run component moves slowly, rises around the EPU peak of the mid-2000s and increases sharply at the end of the sample, when EPU reached its series high.

Objective 3: Out-of-Sample Forecast Performance

Table 4: Out-of-Sample Forecast Evaluation

Model	MSE	RMSE	MAE
GARCH(1,1)	9,339.633	96.642	30.548
GARCH-MIDAS-EPU	9,259.079	96.224	38.329

Note: errors are computed against squared monthly returns over the 62-month hold-out period.

The GARCH-MIDAS-EPU model records slightly lower MSE (9,259.079) and RMSE (96.224) than GARCH(1,1) (9,339.633 and 96.642), but a higher MAE (38.329 versus 30.548). Overall, forecasting performance is mixed, with only marginal gains in MSE and RMSE. Thus, the primary contribution of the GARCH-MIDAS-EPU model appears to be explanatory rather than predictive.

Conclusion and Policy Recommendations

This study finds that EPU has a positive and statistically significant effect on the long-run component of Sri Lanka's exchange-rate volatility, alongside significant volatility clustering. The findings suggest that greater policy uncertainty is associated with increased exchange-rate instability (Engle, Ghysels and Sohn, 2013; Adrian, Natalucci and Wu, 2024). Policy priorities should therefore include improving the transparency and predictability of economic policies, strengthening foreign-exchange market management, maintaining adequate reserve buffers, and incorporating EPU indicators into macroeconomic monitoring frameworks. Overall, reducing policy uncertainty can complement conventional monetary and fiscal measures in supporting exchange-rate stability. Future research could extend the analysis to other South Asian economies and alternative uncertainty measures.

References

- Adrian, T., Natalucci, F. and Wu, J. (2024). Financial stability implications of emerging market currency developments, *IMF Blog*, 22 July.
- Baker, S.R., Bloom, N. and Davis, S.J. (2016). Measuring economic policy uncertainty, *Quarterly Journal of Economics*, 131(4), pp. 1593–1636.
- Central Bank of Sri Lanka (2026). *Financial Stability Review 2025*. Colombo: Central Bank of Sri Lanka.
- Engle, R.F. (1982). Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation, *Econometrica*, 50(4), pp. 987–1007.

A Qualitative Analysis of Financial Literacy, Trust in Digital Financial Services, and Women's Digital Financial Inclusion: Evidence from Romania

Dana Adriana Lupşa-Tătaru

Transilvania University of Braşov, Romania

Keywords: *Financial Literacy; Digital Financial Inclusion; Trust; Women; Romania*

Introduction

Digital financial inclusion requires more than access to banking applications: it also depends on the knowledge and confidence needed to use them. Financial literacy refers to the knowledge and understanding supporting informed financial decisions (Lusardi and Mitchell, 2014), whereas digital financial competencies concern the practical use of digital tools. Trust is understood here as confidence in the security, reliability and integrity of digital financial services and their providers (McKnight, Choudhury and Kacmar, 2002). The present study examines perceived rather than objectively tested financial literacy.

Romania provides a relevant setting. The World Bank's Global Findex Database 2021 reports substantial differences in financial account ownership between Romanian women and men aged 15 and above, while Eurostat reports that only around 28% of Romania's population aged 16–74 had at least basic digital skills in 2023, compared with approximately 56% across the EU (Demirgüç-Kunt et al., 2022; Eurostat, 2023). These are population-level indicators of financial access and general digital skills; they do not measure the interviewees' knowledge, establish individual relationships between trust and financial literacy, or directly measure digital financial inclusion among Romanian women.

The study addresses a context-specific qualitative gap: how women in Braşov describe the interplay of perceived financial literacy, digital security concerns and previous banking experiences. Its contribution is exploratory and interpretive, not a representative estimates for Romanian women.

Objectives

The general objective is to explore how perceived financial literacy and trust relate to women's engagement with digital financial services among ten interviewees in Braşov. Specifically, the study examines (1) perceived financial literacy, (2) trust and willingness to use digital services, (3) barriers and facilitators, and (4) implications for financial education and institutional communication.

Methodology

A qualitative exploratory design was used. Ten semi-structured interviews were conducted with women living in Braşov between May and December 2025. Participants represented different age groups and professional backgrounds; these characteristics were used to introduce diversity of perspectives, not to conduct subgroup comparisons. Participants were recruited through an open invitation posted in a Facebook group for women entrepreneurs. Participation was voluntary, and women who responded to the invitation were included in the study. This constitutes voluntary-response, non-probability sampling; the recruitment channel may have favored women already active in entrepreneurial networks and online communities. The exact age distribution and occupational composition are not reported here. The sample is not statistically representative.

The interview guide covered perceived financial literacy, trust in digital financial technologies, experiences with digital banking, perceived risks, barriers to adoption and financial education. All participants provided informed consent; their responses were anonymized and transcribed for analysis.

The transcripts were manually analyzed using a hybrid deductive–inductive thematic approach informed by Braun and Clarke (2006). The deductive categories reflected the research questions-financial literacy, trust and inclusion-while inductive coding captured additional patterns in participants' accounts. Analysis followed six stages: repeated reading of transcripts; initial manual coding; grouping codes into candidate themes; reviewing themes against coded passages and full transcripts; defining and naming themes; and writing the thematic account. No specialized qualitative analysis software was used. The resulting themes are interpretive categories, not quantitative prevalence estimates.

Results and Discussion

Four interrelated themes were identified. First, perceived financial literacy was associated with confidence in digital financial decision-making. P01 explained: “I feel more confident using digital financial services and making informed financial decisions when I have sufficient financial knowledge.” P02 similarly noted: “Understanding how financial products work helps me feel more confident when using digital banking services. I prefer to know exactly what I am doing before making a financial decision.”

Second, participants linked trust to concerns about fraud, cybersecurity and privacy. As P03 stated “I find digital banking very convenient, but I am concerned about online fraud and the security of my personal data. I sometimes hesitate before making transactions because I am not entirely sure how well my money and information are protected.” This illustrates how convenience and perceived risk can coexist.

Third, previous experience was associated with greater confidence. P04 reported: “My previous experiences with online banking have been positive, and this has made me more confident in using digital financial services. The more I use these services without encountering problems, the more comfortable I feel managing my finances online.” Fourth, financial education and institutional transparency were seen as mutually reinforcing. P05 observed: “I would feel more confident using digital financial services if banks explained more clearly how they protect my money and personal data. I also believe that financial education would help me better understand the risks and make safer financial decisions.”

The accounts indicate that perceived financial knowledge and trust operate together in participants’ descriptions of digital financial engagement. This is consistent with financial-literacy research emphasizing informed decision-making (Lusardi and Mitchell, 2014) and with conceptual research treating trust as a multidimensional condition of online transactions (McKnight, Choudhury and Kacmar, 2002). The contextual contribution is to show how security concerns, experience and requests for institutional clarity appear alongside perceived knowledge in these ten accounts. These interviews cannot establish causality or the prevalence of these concerns in Romania.

Conclusions and Policy Recommendations

The interviews suggest that financial literacy alone may not address all perceived barriers to digital financial engagement. Educational institutions could combine financial concepts with practical training in identifying fraud, protecting personal information and making secure digital transactions. Financial institutions could explain security procedures, consumer rights and complaint channels in accessible language. Policymakers and educators could involve women with diverse experiences when designing and testing such initiatives. These are implications derived from the reported themes, not interventions evaluated in this study.

The sample comprises ten women in one city and captures self-reported perceptions rather than objectively measured knowledge or observed financial behavior. Further research should recruit across Romanian regions and socioeconomic groups and combine qualitative accounts with validated measures of financial literacy and trust.

References

- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3(2), pp. 77–101.
- Demirgüç-Kunt, A., Klapper, L., Singer, D. and Ansar, S. (2022). The global finindex database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. Washington, DC: World Bank.
- Eurostat (2023). 56% of EU people have basic digital skills'. Eurostat News, 15 December. Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20231215-3>
- Lusardi, A. and Mitchell, O.S. (2014). The economic importance of financial literacy: Theory and evidence, *Journal of Economic Literature*, 52(1), pp. 5–44.
- McKnight, D.H., Choudhury, V. and Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology, *Information Systems Research*, 13(3), pp. 334–359.

The Impact of Banking Sector Development on Economic Growth: An Empirical Study Based on Sri Lankan Economy

T. Dilakshini and T. Vinayagathan

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Economic Growth; Banking Sector Development; ARDL Model; Financial Development*

Introduction

The banking sector plays a key role in promoting economic growth by mobilizing savings, providing credit for investment, facilitating financial transactions and improving the allocation of financial resources (Levine, 2005). Financial development can contribute to economic growth by increasing the availability of funds for productive activities and improving the efficiency of financial intermediation. McKinnon-Shaw financial development framework emphasizes that financial liberalization and financial deepening can enhance investment and economic growth by improving the functioning of financial markets.

The banking sector of Sri Lanka has undergone considerable development over the past several decades after the introduction of open economic policies in 1977. The banking sector subsequently experienced technological advancement, expansion of banking infrastructure and increased financial intermediation. However, despite the continued development of the banking sector, Sri Lanka's economic growth has remained unstable, particularly during periods of economic and financial crises, despite experiencing periods of recovery. This contrasting pattern raises the question of whether banking sector development has contributed significantly to Sri Lanka's economic growth over the long term.

Previous empirical studies have reported mixed findings regarding the direction and strength of the relationship between banking sector development and economic growth. While King and Levine (1993) and Perera and Ichihashi (2016) find a positive relationship between these two variables, Awdeh (2012) and Ibrahim and Abdalla (2020) report weak, negative, or reverse-causal relationships. These divergent findings indicate that the nature and direction of this relationship remains

inconclusive, particularly in the Sri Lankan context. Therefore, this study attempts to address this research gap by investigating the impact of banking sector development on economic growth in Sri Lanka.

Objectives

The main objective is to identify the impact of banking sector development on economic growth in Sri Lanka. This study also examines the short run and long run relationships between the variables included in the model.

Methodology

This study is grounded in the McKinnon-Shaw (1973) financial development framework, which posits that financial liberalization and banking sector development stimulate savings mobilization, investment, and economic growth. Annual time-series data for Sri Lanka from 1977 to 2024 were obtained from the Central Bank of Sri Lanka Annual Reports, the World Bank's World Development Indicators, and the UNDP Human Development Report. Gross Domestic Product (GDP) is employed as a proxy for economic growth and is specified as the dependent variable, while Gross Capital Formation (GCF), Human Development Index (HDI)¹, Bank Credit to the Private Sector (BCPS), Population Growth Rate (POP), Bank Deposits (BDEP), Trade Openness (TO), Real Interest Rate (RIR) and Inflation Rate (INF) are employed as independent variables.

The following model is used for this study:

$$GDP_t = \beta_0 + \beta_1 GCF_t + \beta_2 HDI_t + \beta_3 BCPS_t + \beta_4 POP_t + \beta_5 BDEP_t + \beta_6 TO_t + \beta_7 RIR_t + \beta_8 INF_t + \varepsilon_t$$

where, ε_t is the white noise error term.

Stationarity properties of each series were examined using the ADF and PP unit root test approaches. Since the variables were found to be a mixture of I(0) and I(1), the ARDL Bounds testing approach was employed to examine whether a cointegrating and long-run relationship exists among the variables. The error correction version of the ARDL model was also employed to investigate the short-run dynamic relationships between the variables and the long-run adjustment of the

¹ HDI is included to capture the quality dimension of human capital, while population growth rate is included to capture demographic changes and labour-force expansion that may influence economic growth.

model. The optimal lag length was selected using the Akaike Information Criterion (AIC). Diagnostic tests, including the Breusch-Godfrey test for autocorrelation, Breusch-Pagan-Godfrey test for heteroskedasticity, Jarque-Bera test for normality, Ramsey RESET for omitted variables, and CUSUM test for stability were conducted to verify model reliability, and the Granger causality test was applied to identify the direction of causal relationship among the variables.

Results and Discussion

The descriptive analysis indicates that both the banking sector and the Sri Lankan economy experienced considerable changes during the study period. Although banking sector indicators generally expanded over time, economic growth showed substantial fluctuations, particularly during periods of economic instability. These patterns suggest that banking sector expansion alone may not necessarily translate into stable economic growth.

Both the ADF and PP unit root test techniques confirm that the variables are either $I(0)$ or $I(1)$, with no $I(2)$ variables. This satisfies an important condition for applying the ARDL Bounds testing approach. Based on the AIC, the ARDL (3, 1, 3, 3, 2, 0, 3, 2, 3) model was selected as the best-fitting model. The Bounds test confirmed the existence of a cointegrating relationship among the variables as the computed F-statistic (4.830215) exceeds the upper-bound critical value (3.15) at 5% significance level.

Table 1 below indicates that gross capital formation, human development index, bank deposits and inflation have a statistically significant positive impact on GDP in the long run. This indicates that, alongside capital accumulation and human capital, the deposit-mobilization function of the banking sector is the channel through which the sector contributes most strongly to long-run growth in Sri Lanka. Trade openness has a statistically significant negative impact on GDP in the long-run, consistent with Sri Lanka's persistent trade deficit and heavy reliance on imports relative to exports. Bank credit to the private sector, population growth rate and real interest rate do not have statistically significant long-run impact, suggesting that credit expansion has not yet been fully channeled into long-run productive capacity, possibly due to structural inefficiencies in credit allocation.

Table 1: The Results of Long run Relationship

GCF	HDI	BCPS	POP	BDEP	TO	RIR	INF
0.78989**	4.84E+11**	-2.80E+7	-1.23E+8	6.21E+8**	-4.30E+8**	1.07E+8	1.17E+9***
(0.0144)	(0.0200)	(0.8706)	(0.9226)	(0.0351)	(0.0110)	(0.6154)	(0.0028)

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively. $R^2 = 0.973126$

Table 2 below depicts that the coefficient of error correction term (-0.7199) is negative and significant, indicating that about 71.99% of disequilibrium in GDP is corrected each year one period after the exogenous shocks. Gross capital formation, bank credit to private sector and trade openness have statistically significant positive impact on GDP, while the real interest rate has a statistically significant negative impact on GDP in the short run.

Table 2: Results of Error Correction Model (Short run Coefficients)

Dependent Variable : D(DGDP)			
Variables	Lag order		
	0	1	2
D(DGDP)		0.174893** (0.0291)	0.498158*** (0.0001)
D(DGCF)	1.195219*** (0.0000)		
D(DHDI)	2.11E+11*** (0.0000)	-8.58E+10*** (0.0000)	-9.58E+10*** (0.0000)
D(DBCPS)	44326149*** (0.0000)	1.11E+08*** (0.0000)	1.61E+08*** (0.0000)
D(DPOP)	5.41E+08*** (0.0000)	-3.29E+08*** (0.0000)	
D(DTO)	5448541*** (0.0000)	3.40E+08*** (0.0000)	1.50E+08*** (0.0000)
D(DRIR)	-69725909*** (0.0000)	-2.62E+08*** (0.0000)	
D(DINF)	67999343*** (0.0000)	-6.61E+08*** (0.0000)	-2.01E+08*** (0.0000)
CointEq(-1)*	-0.719997*** (0.0000)		
R-squared	0.982153		
F-statistic	4.830215		

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

The diagnostic test results reported in Table 3 indicate that the estimated model is generally reliable. The Breusch-Godfrey test does not indicate a statistically significant serial correlation problem, while the Breusch-Pagan-Godfrey test does not indicate the presence of heteroskedasticity. The Jarque-Bera test also indicates that the residuals are normally distributed. The CUSUM plot (Figure 1) remains within the 95% confident bounds throughout the sample period which confirming the stability of the selected model.

Table 3: The Results of the Diagnostic Tests

Test	Probability value
Jarque-Bera test for normality	0.3272
Breusch-Pagan-Godfrey test for heteroscedasticity	0.9701
Ramsey's RESET test for omitted variables	0.0040
Breusch-Godfrey LM test for serial correlation	0.0681

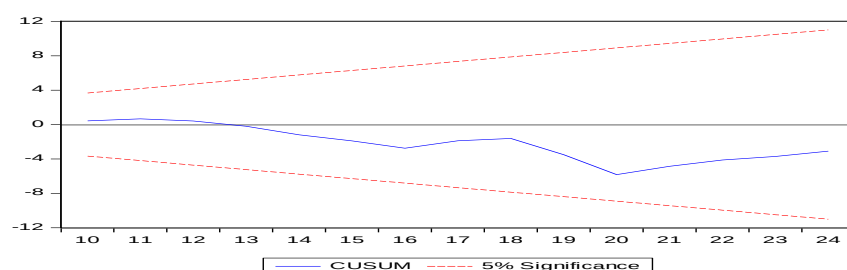


Figure 1: Results of CUSUM Test

The Granger causality test results revealed a bidirectional causal relationship between GDP and BDEP, as well as between GCF and BDEP. In addition, unidirectional causality was identified from HDI to GDP, GDP to GCF, HDI to INF, POP to GDP, GCF, RIR and INF, TO to GDP, and INF to GCF and BDEP. These findings indicate the presence of both mutually reinforcing and unidirectional causal linkages among economic growth, banking sector development and other macroeconomic factors in Sri Lanka.

Conclusion and Policy Recommendations

This study examined the impact of banking sector development on economic growth in Sri Lanka using annual data from 1977 to 2024. The ARDL Bounds test confirms the existence of a long-run relationship among the variables. In the long run, GCF, HDI, BDEP and INF have positive and statistically significant impacts

on GDP. TO has a statistically significant negative impact. Moreover, GCF, BCPS and TO have a positive and significant impact on GDP, whereas RIR has a negative impact in the short run. The bidirectional causality between BDEP and GDP further indicates a mutually reinforcing relationship between financial intermediation and economic growth.

These findings imply that policy should prioritize deposit mobilization and depositor confidence over credit expansion, given the stronger long-run effect of bank deposits on economic growth. Credit should be redirected toward productive sectors like SMEs through better risk appraisal, while capital formation and human development gains should be reinforced via improved investment climate and continued investment in education and health. Price stability and trade policies addressing the deficit remain equally important. The study's reliance on aggregate banking-sector data and evidence of nonlinearity (RESET test) point to the need for future research using nonlinear ARDL, structural break tests, and cross-country or panel-based approaches.

References

- Central Bank of Sri Lanka, (2024). *Annual Reports (1977 – 2022) and Annual Economic Reviews (2023 – 2024)*, Colombo: Central Bank of Sri Lanka.
- Ibrahim, M.H. and Abdalla, A.M. (2020). The Impact of Banking Sector Development on Economic Growth: Evidence from Sudan. *International Journal of Business Management and Economic Research*, 11(3). pp.1797-1804.
- King, R.G. and Levine, R. (1993). Finance and Growth: Schumpeter Might Be Right. *The Quarterly Journal of Economics*, 108(3), pp.717-737.
- Levine, R. (2005). Finance and Growth: Theory and Evidence. *Handbook of Economic Growth*, 1, pp.865-934.
- Perera, R. and Ichihashi, M. (2016). Financial Development and Economic Growth in Sri Lanka. *IDECDP2 Series*, 6(6), pp.1-23

The Impact of Economic and Non-Economic Factors on Domestic and Foreign Tourist Arrivals in Sri Lanka

A. Menuja and S. Vijesandiran

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Domestic Tourism; Foreign Tourism; Economic Factors; Non-Economic Factors; ARDL Model*

Introduction

Tourism is defined as the temporary movement of individuals to countries or places outside their usual place of residence for a period of at least 24 hours and a maximum of six months, followed by their return to their usual place of residence (United Nations, 1945). Tourism plays a major role in economic, social and cultural development and is considered as an essential sector for the sustainable development of many developing countries. Both domestic and foreign tourist arrivals influenced by economic and non-economic factors (Cho, 2010).

Globally, tourism is a key sector driving economic growth, contributing 10% to global GDP and 357 million jobs in 2024. In Sri Lanka, formal tourism began in 1966 and expanded under introduction of liberalization of economy and open market-economy policies since 1977. Despite the setbacks from 1983–2009 due to internal ethnic conflict based civil war situation and the COVID-19 pandemic from 2020 onwards, the tourism sector of Sri Lanka rebounded through various strategic recovery plans the tourism sector was regained and driven towards the tourist arrivals of 2,053,465 in 2024 (World Bank Group, 2025) and grow as the second largest revenue generator and key contributor to economic growth. The Sri Lankan tourism sector comprises both domestic and foreign tourists, each contributing uniquely to national economic resilience. Prior empirical studies (Kulatunge, 2025; Mayoshi, 2021) have confirmed that macroeconomic factors determine the international tourist arrivals and they primarily examined aggregate foreign tourism demand. Consequently, clear research gap remains regarding the comparative influence of economic and non-economic determinants on domestic versus foreign arrivals using long - term time series data. This literature gap motivates to this study.

Objective

The objective of this study is to examine the impact of economic and non-economic factors on domestic and foreign tourist arrivals in Sri Lanka.

Methodology

This study is based on Consumer Demand Theory, where two separate regression models were specified to reflect distinct utility- maximization behaviours, budget constraints, and empirical sensitivities of domestic and foreign tourists. The study utilizes annual time-series data from 1990 to 2024, sourced from the Central Bank of Sri Lanka, the Sri Lanka Tourism Development Authority (SLTDA) and World Bank database. Per Capita GDP (PCG), Exchange Rate (EXR), Inflation (INF) and Trade Openness (TOP) are considered as the economic variables representing economic demand and price competitiveness, while Political Stability (POL), Registered Hotel Rooms (RHR), ICT usage (ICT), and a dummy variable (D1) for natural disasters and other damages (DIS) were selected as the non-economic variables representing supply capacity, information accessibility and shock impacts. ADF and PP unit root tests were used to test the stationarity of the variables and the ARDL Bounds test was selected to test long-run equilibrium relationships while the ARDL Error Correction Model was used for short-run dynamics, and the Granger causality test was used to identify the causal linkages among the variables.

Results and Discussion

Model (1): TFA (Foreign Tourism Analysis Results)

For the foreign tourism model, stationarity tests revealed a mix of I(0) and I(1) variables, leading to the selection of the optimal ARDL(1,0,2,2,1,2,0) model via AIC criteria. Long-run estimates indicate that foreign tourist arrivals (TFA) are positively affected by EXR, ICT, TOP, INF, POL, and RHR which confirm that exchange rate competitiveness, open trade, safety, supply capacity and digital connectivity are key drivers of international tourist arrivals. A Positive relationship is found between foreign tourist arrivals and inflation in Model (1). In this study, the impact of the exchange rate, covid-19 recovery, advertising and the purchasing power of tourists can be cited as reasons for the increase in foreign tourist arrivals when inflation rises. In the short run, D(TOP), D(INF), D(RHR), and D(POL)

exert positive impacts, while natural disasters (D1) show a negative impact, with 55.56% of short-run disequilibrium adjusting back to long-run equilibrium annually via a statistically significant error correction term at 5% level. Diagnostic and CUSUM tests were verified model stability without serial correlation, heteroscedasticity and with normality, while high explanatory power ($R^2 = 0.965303$) confirms that the model explains for most of the variation in tourism arrivals. Finally, Granger causality tests established bidirectional causality between TFA and POL, and between ICT and EXR and Unidirectional causality TFA to EXR, RHR and INF; POL to EXR, RHR and INF; RHR to EXR and INF; INF to ICT and TOP; ICT to TFA.

Table 1: Results of TFA (Long-run Relationship)

Variables	Coefficient	Probability	Variables	Coefficient	Probability
EXR	4855.581	0.0913*	D(TOP)	14792.52	(0.0010)***
TOP	36100.38	0.0027***	D(INF)	10768.31	(0.0000)***
INF	94343.91	0.0001***	D(POL)	7522.865	(0.0142)**
POL	25307.20	0.0010***	D(RHR)	23780.69	(0.0000)***
RHR	55379.34	0.0000***	D1	-110092.2	(0.0436)**
ICT	7431.765	0.0864*			

Table 2: Results of TFA (Short-run Relationship)

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Model (2): TDA (Domestic Tourism Analysis Results)

For the domestic tourism model, stationarity tests indicated a mix of $I(0)$ and $I(1)$ variables, leading to the selection of the optimal ARDL (1,0,2,1,0,2) model via AIC criteria. The ARDL Bounds test confirmed long-run cointegration, showing that domestic tourist arrivals (TDA) have a positive long-run relationship with RHR, INF, and POL. Similarly, the positive effect of RHR and POL indicates that domestic tourists, like foreign tourists, prioritize safety and accessible accommodation infrastructure. In Model (2), based on a long-term analysis, there is a positive relationship between domestic tourism arrivals and inflation. That is, high inflation sometimes decreases people's personal income, leading them to choose domestic tourism over foreign tourism. In the short run, $D(INF)$ has a positive impact, with 45.13% of short-run disequilibrium caused by external shocks adjusting back toward long-run equilibrium annually via a statistically significant error correction term. Diagnostic and CUSUM tests verified structural stability and the validity of all econometric assumptions, while an R^2 value of

0.862769 confirmed that 86.27% of the variation in arrivals is explained by the model. Finally, Granger causality tests established a bidirectional causal relationship between RHR and ICT; while, PCG, POL and ICT have unidirectional causality with TDA; TDA causes RHR and INF; POL causes RHR; RHR and ICT cause INF and INF causes RHR.

Table 3: Results of TDA (Long-run Relationship)

Variables	Coefficient	Probability
PCG	15165.08	0.4726
INF	67915.48	0.0112**
POL	16088.41	0.0763*
RHR	24925.97	0.0009***
ICT	986.7577	0.6252

Table 4: Results of TDA (Short-run Relationship)

Variables	Coefficient	Probability
D(INF)	13604.61	(0.0000)***
D(POL)	-781.3652	(0.8233)
D(ICT)	-4196.057	(0.1646)
D1	3076.857	(0.9452)

Conclusion and Recommendations

The findings confirm that with political stability, registered hotel rooms and inflation positively influencing tourist arrivals in long-run, while natural disasters negatively affect foreign arrivals in short-run. For the foreign tourism model, the economic factors EXR, TOP, INF and non-economic factors POL, ICT and RHR have positive long-run relationships with foreign tourist arrivals. In the short run, TOP, INF, RHR, and POL exert positive impacts. For the domestic tourism model, the ARDL Bounds test confirmed long-run cointegration for domestic tourist arrivals (TDA), having a positive long-run relationship with economic variable INF and non-economic variables RHR and POL. In the short run, INF has a positive impact. The Granger causality tests established a bidirectional causal relationship between RHR and ICT; while unidirectional causality was found among the other identified variable relationships. Foreign tourist arrivals exhibit a faster speed of adjustment at a rate of 55.6% compared to domestic tourism arrivals (45.1%), indicating that foreign tourist arrivals have the capability to recover very quickly from external shocks.

Based on positive long-run impact of the variables, EXR, TOP, ICT, POL and RHR on tourism arrivals, the Sri Lankan government should strengthen policies that support foreign tourism and enhance foreign exchange earnings. To leverage exchange rate competitiveness and trade openness, policymakers could implement targeted international digital marketing campaigns and streamline e-visa procedures. Furthermore, strengthening global quality standards in hotel

infrastructure (RHR), improving digital connectivity (ICT) and maintaining political stability (POL) are important for supporting the long – term resilience and sustainable growth of the tourism sector. At the same time, domestic tourism should be considered as a protective buffer and serve as a protective shield during crisis situations. This requires expanding travel routes to rural and heritage regions, maintaining fair pricing, and developing affordable accommodation and public transport. The study recommends giving equal priority to economic and non-economic factors.

References

- Central Bank of Sri Lanka. (2025). Annual Report 2024. Retrieved from www.cbsl.lk
- Fibriyani, V., Akramiah, N., and Pudyaningsih, R., (2024). The influence of inflation rates on international tourist arrivals via Air Gateways in Indonesia during 2017-2024. *Proceeding of the International Conference on Economics, Accounting, and Taxation*, 1(2), pp.450-459.
- Kulatunge, K. M. S. C., (2025). Determinants of international tourism demand for Sri Lanka. *Sri Lanka Journal of Economics, Statistics, and Information Management*, 4(1), pp.71-89.
- Mayoshi, R.M.M., (2021). Determinants of international tourism demand in Sri Lanka. In: *Proceedings of the 12th International Conference on Business & Information*, pp.1-13.
- Sri Lanka Tourism Development Authority (SLTDA). (2025). Annual statistical report 2024: Tourism sector. Colombo, Sri Lanka: SLTDA. Retrieved from www.sltda.gov.lk

The Impact of Digital Service Usage on Youth Spending Behavior in Sri Lanka

K.K.S. Dilmanthi and A.D.H.K. Kankanamge

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Digital Services; Youth Spending; Consumer Behaviour; Digital Economy*

Introduction

The rapid growth of digital technology and internet services have transformed how people communicate, shop, access information and make financial transactions. In Sri Lanka, young people aged 15–29 represent an important group of digital service users who access a wide range of services through smartphones and internet connections. These include communication, mobile payments, mobile banking, online shopping, delivery services, entertainment, streaming platforms, social media and educational applications.

Digital services provide convenience and easy access to products and services and may reduce the effort involved in making purchases. At the same time, the increasing use of digital services may be associated with changes in consumer spending. However, limited empirical evidence is available on the factors associated with increased spending among Sri Lankan youth. Understanding these patterns is important for consumers, businesses and policymakers.

This study contributes to the limited empirical literature on digital service usage and youth spending in the Sri Lankan context. Rather than focusing only on a single digital payment or online shopping platform, the study considers digital service usage broadly and examines the association of convenience, trust and security, social influence, promotional factors, digital exposure, infrastructure and demographic characteristics with increased spending among Sri Lankan youth aged 15–29 years. The study also applies binary logistic regression with marginal effects to identify and quantify the factors associated with the probability of increased spending.

The increasing adoption of digital services among Sri Lankan youth may be associated with changes in spending patterns, but limited empirical evidence exists to identify the factors associated with increased spending and to clarify their relative statistical significance. Thus, this study attempt to answer the following research Questions: (1) How does digital service usage influence the spending behavior of Sri Lankan youth? (2) What key factors influence the relationship between digital service usage and youth spending behavior?

Objectives

Main objective of this study is to examine the impact of digital service usage on the spending behavior of Sri Lankan youth aged 15–29 years. Further, this research aim to identify the key factors influencing youth to use digital services.

Methodology

This study used a quantitative cross-sectional research design based on primary data. The target population consisted of Sri Lankan youth aged 15–29 years. A sample of 172 respondents was selected using convenience sampling from 22 districts across Sri Lanka. Data were collected using a structured survey questionnaire and analyzed using STATA 12 and Microsoft Excel.

A Binary Logistic Regression model was applied to examine factors associated with increased spending behavior. The explanatory variables included convenience, trust and security, social influence, promotional factors, digital exposure, infrastructure, age, gender, medium income and high income. Average marginal effects were used to interpret the changes in the probability of increased spending.

Results and Discussion

Descriptive Statistics: The descriptive results show that 52.9% of respondents reported increased spending associated with digital service usage. Digital exposure recorded the highest mean score (3.934), followed by convenience (3.488) and promotional factors (3.442). The mean scores for trust and security, social influence and infrastructure were 3.180, 2.866 and 3.145, respectively.

Model Performance and Diagnostic Tests: The logistic regression model was statistically significant overall (LR chi-squared (10) = 55.13, $p < 0.001$), with a

Pseudo R^2 of 0.2318. The highest Variance Inflation Factor (VIF) was 1.81, indicating no evidence of serious multicollinearity. The Hosmer–Lemeshow goodness-of-fit test produced $p = 0.626$, indicating an adequate model fit. The model correctly classified 76.16% of cases.

Binary Logistic Regression and Marginal Effects: Convenience ($p = 0.043$), promotional factors ($p < 0.001$) and digital exposure ($p = 0.036$) were statistically significant at the 5% level. Trust and security ($p = 0.833$), social influence ($p = 0.890$), infrastructure ($p = 0.426$), age ($p = 0.214$), gender ($p = 0.184$), medium income ($p = 0.313$) and high income ($p = 0.172$) were not statistically significant.

Based on the reported marginal effects, the marginal effects were 0.1971 for convenience, 0.1064 for promotional factors and 0.0600 for digital exposure. These values should be interpreted as changes in predicted probability associated with a one-unit increase in the respective explanatory variable, holding the model's other variables at their observed values.

The findings indicate that the statistically significant predictors identified in the model were primarily related to convenience, promotional factors and digital exposure. Convenience was significantly associated with increased spending, suggesting that ease of access and purchasing may be related to a higher probability of increased spending. Promotional factors were also statistically significant, indicating an association between discounts, cashback, loyalty rewards, free shipping, limited-time offers and targeted advertising and increased spending. Digital exposure was likewise significantly associated with increased spending, suggesting that greater exposure to digital services may be related to a higher probability of increased spending. In contrast, trust and security, social influence, infrastructure, age, gender and income categories were not statistically significant at the 5% level in this sample.

Conclusion and Policy Recommendations

The findings indicate that selected aspects of digital service usage are significantly associated with increased spending among Sri Lankan youth aged 15–29 years. Convenience, promotional factors and digital exposure were statistically significant predictors of increased spending, whereas trust and security, social influence, infrastructure, age, gender and income were not statistically significant at the 5% level. Overall, the findings highlight the importance of digital service

convenience, promotional activities and digital exposure when examining youth spending in Sri Lanka.

Based on the findings, digital service providers and marketers should promote responsible and transparent digital marketing practices, particularly when using discounts, cashback offers, loyalty rewards and limited-time promotions. Digital financial literacy programmes should be strengthened to help young people manage budgets and make informed spending decisions when using digital services. Digital payment and shopping platforms could also provide user-friendly spending-management features such as budget tracking, spending limits and transaction alerts. These measures can support young consumers in obtaining the benefits of digital services while managing unnecessary or unplanned expenditure.

The study is subject to several limitations. First, the sample consisted of 172 respondents and was selected using convenience sampling, which limits the generalizability of the findings. Second, the cross-sectional design and self-reported responses do not establish causal relationships. Third, the study examined a selected set of behavioral, technological and demographic factors and therefore does not cover all possible determinants of youth spending.

References

- Agarwal, S., Ghosh, P., Li, J. and Ruan, T., (2024). Digital payments and consumption: Evidence from the 2016 demonetization in India. *The Review of Financial Studies*, 37(8), pp.2550-2585.
- Barodawala, S.H. (2025). A study on digital payment apps affecting the spending habits among youngsters in Andheri, *International Journal for Multidisciplinary Research (IJFMR)*.
- Hou, L., Hsueh, S.C. and Zhang, S., (2021). Digital payments and households' consumption: A mental accounting interpretation, *Emerging Markets Finance and Trade*, 57(7), pp.2079-2093.
- Nanayakkara, S., (2021). A descriptive analysis on digital behaviour of young adults in Sri Lanka. *International Journal of Business and Management Invention*.
- Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making* 12 (3):183–206.

Impact of the Aswesuma Welfare Programme on Income and Living Standards of Rural Households in the Poratheevu Pattru DS Division of Batticaloa District, Sri Lanka

B. Sobana and M. Priya

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Aswesuma Welfare Programme; Living Standards; Rural Households*

Introduction

Poverty reduction and social protection remain central concerns for developing economies, and Sri Lanka is no exception. Following the unprecedented 2022 economic crisis, poverty rose sharply: about 24.5% of the population fell below the national poverty line. Because roughly 77.4% of the population lives in rural areas, the impact has fallen disproportionately on rural households (World Bank, 2024). In response, the Government of Sri Lanka introduced the Aswesuma Welfare Programme in 2023, replacing the earlier Samurdhi scheme. Cash transfers to eligible households began in July 2023 (IMF, 2023), and aim to raise beneficiary income, safeguard food security, and support education, health and overall living standards (Hülßen et al., 2025).

Despite these stated objectives, there has been little empirical clarity on whether Aswesuma has generated a genuine, lasting improvement in beneficiary households' economic position, or merely short-term relief for daily consumption needs, amid concerns about benefit adequacy, selection fairness, payment delays, and weak grievance-handling mechanisms (Hajara and Santhirakumar, 2024). Earlier studies on poverty alleviation programmes in Sri Lanka similarly report implementation shortcomings and mixed outcomes for rural households (Navirathan and Mustafa, 2019), while related research on rural food security points to continuing vulnerability among low-income households despite existing welfare support (Padmakanthi et al., 2025). The Poratheevu Pattru Divisional Secretariat Division of Batticaloa district is a rural and agriculture-dependent area vulnerable to climatic and market shocks (Poratheevu Pattru DS Division Report, 2025). Existing Aswesuma studies focus mainly on access, targeting and implementation (Hajara and Santhirakumar, 2024; Hülßen et al., 2025), so

evidence on changes in beneficiaries' income and living standards, and the factors associated with them, in rural settings remains limited. This study addresses this gap with household-level primary evidence from the division.

Objectives

The main objective of the study is to evaluate the economic impacts of the Aswesuma Welfare Programme on the income and living standards of rural households in the Poratheevu Pattru DS Division, Batticaloa District in Sri Lanka. The specific sub-objectives are to: (i) examine changes in household income brought about by the programme; (ii) assess changes in living standards, including food, education, health and housing; (iii) examine changes in beneficiary households' expenditure and saving patterns; (iv) evaluate the level of beneficiary satisfaction; and (v) identify key challenges in programme implementation.

Methodology

Primary data were collected from 205 Aswesuma beneficiary households in the Poratheevu Pattru DS Division using a structured questionnaire administered in two sections: household socio-demographic characteristics, and a set of five-point Likert-scale items covering household income, consumption expenditure, savings, beneficiary satisfaction, and implementation challenges. The collected responses were entered into Microsoft Excel and analysed by using E-Views and STATA software. In this cross-sectional survey, households were selected from 4,101 beneficiary households using Simple random sampling technique; findings are not generalised to all beneficiaries.

Three composite indices were derived from the Likert-scale items using the average-score method: the Living Standard Index (LSI, covering food, education, health and housing), the Beneficiary Satisfaction Score (BSS), and the Implementation Challenge Score (ICS). The reliability and internal consistency of these indices were assessed using Cronbach's Alpha. Descriptive statistics were used to summarize the characteristics of the study variables. Changes in household income, consumption expenditure and savings before and after the programme were compared using reported values. As there is no non-beneficiary comparison group, these changes are descriptive, not causal. Pearson correlation analysis was used to examine the strength and direction of association between the study variables, and a multiple linear regression model, estimated using OLS, was used

to assess the association between each explanatory variable and the Living Standard Index, specified as:

$$LSI = \beta_0 + \beta_1 ABA + \beta_2 DRB + \beta_3 HCE + \beta_4 HS + \beta_5 BSS + \beta_6 ICS + \varepsilon$$

where *ABA* is the monthly Aswesuma benefit amount, *DRB* is the duration of receiving benefits, *HCE* is monthly household consumption expenditure, *HS* is monthly household savings, *BSS* is the beneficiary satisfaction score, and *ICS* is the implementation challenge score. Model diagnostics included the Variance Inflation Factor (VIF) to check for multicollinearity, the Jarque-Bera test for normality, the Breusch-Pagan-Godfrey test for heteroskedasticity, and the Breusch-Godfrey LM test for serial correlation. As *HCE*, *HS* and *BSS* may be jointly determined with living standards; coefficients are read as conditional associations, not causal effects.

Results and Discussion

Table 1 below shows that the mean LSI was 3.228 (SD = 0.889) on a five-point Likert-scale, suggesting a moderate level of living standards among beneficiary households. The average monthly *ABA* was Rs. 8,645.12, received over an average of 2.09 years, while mean *HCE* and *HS* stood at Rs. 23,515.12 and Rs. 1,946.34 respectively. Average *BSS* is 3.085 and the average *ICS* 3.418, indicating moderate satisfaction alongside a moderate degree of implementation difficulty.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Living Standard Index (LSI)	3.228	0.889	1	5
Benefit amount (ABA), Rs.	8,645.12	4,387.48	2,500	17,500
Benefit duration (DRB), yrs	2.09	0.844	1	3
Consumption expenditure (HCE), Rs.	23,515.12	11,212.01	4,000	60,000
Savings (HS), Rs.	1,946.34	3,162.60	0	20,000
Satisfaction Score (BSS)	3.085	1.076	1	5
Challenge Score (ICS)	3.418	1.011	1	5

A before-and-after comparison indicated that average monthly household income rose from Rs. 11,803.90 prior to receiving Aswesuma to Rs. 22,148.54 afterwards, an increase of about 87.6%. Average monthly *HCE* rose from Rs. 20,425.37 to Rs. 23,515.12, and average monthly *HS* rose from Rs. 709.27 to Rs. 1,946.34, together suggesting a general improvement in the economic position of beneficiary households since joining the programme; without a comparison group, and given

other factors (e.g., post-crisis recovery), these are not attributed solely to Aswesuma.

The research instrument demonstrated high internal consistency, with Cronbach's Alpha values of 0.9444 for the LSI, 0.9245 for the *BSS*, and 0.9099 for *ICS*, all exceeding the 0.90 threshold for very high reliability. Pearson correlation analysis showed that the LSI was positively associated with the *ABA* ($r = 0.5$), *DRB* ($r = 0.321$), *HCE* ($r = 0.148$), *HS* ($r = 0.223$) and, most strongly, *BSS* ($r = 0.846$), while it was negatively associated with *ICS* ($r = -0.471$). All VIF values were well below the conventional threshold of 5 (mean VIF = 1.57), indicating that multicollinearity was not a concern among the explanatory variables.

The OLS regression results (Table 2) show that the model explained 73.49% of the variation in the LSI ($R^2 = 0.7349$; Adjusted $R^2 = 0.7269$), with the overall model statistically significant ($F = 91.47$, $p = 0.0000$). The *ABA* ($\beta_1 = 0.3958$, $p = 0.0159$), *HCE* ($\beta_3 = 0.0000088$, $p = 0.0097$), *BSS* ($\beta_5 = 0.7349$, $p = 0.0000$) and *ICS* ($\beta_6 = 0.1009$, $p = 0.0174$) each had a statistically significant positive association with the living standards of beneficiary households, whereas the *DRB* ($p = 0.2390$) and *HS* ($p = 0.9938$) did not. Notably, the *ICS* was negatively correlated with the LSI ($r = -0.471$) but has a small positive conditional coefficient, a sign reversal probably reflecting overlap with the *BSS*, so it is interpreted cautiously. Diagnostic tests did not indicate violations of the OLS assumptions: the Jarque-Bera test indicated normally distributed residuals ($p = 0.0581$), the Breusch-Pagan-Godfrey test indicated no heteroskedasticity ($p = 0.3358$), and the Breusch-Godfrey LM test indicated no serial correlation ($p = 0.6802$). As the design is cross-sectional, these results indicate associations, not causal effects.

Table 2: OLS Regression Results

Variable	Coefficient	t-value	Prob.
Constant	0.2876	1.096	0.2746
Benefit amount (ABA)	0.3958**	2.432	0.0159
Benefit duration (DRB)	0.0490	1.181	0.2390
Consumption expenditure (HCE)	0.0000088***	2.612	0.0097
Savings (HS)	-0.000000008	-0.008	0.9938
Satisfaction Score (BSS)	0.7349***	16.47	0.0000
Challenge Score (ICS)	0.1009**	2.398	0.0174

Note: *** and ** denote statistical significance at the 1% and 5% levels, respectively. $R^2 = 0.7349$, Adjusted $R^2 = 0.7269$, F -statistic = 91.47 ($p = 0.0000$), $n = 205$. Dependent variable: LSI.

Conclusion and Policy Recommendations

This study evaluated the economic effects of the Aswesuma Welfare Programme on the income and living standards of rural households in the Poratheevu Pattru DS Division of Batticaloa district, using primary data from 205 beneficiary households. Beneficiaries reported higher income, consumption and savings since joining, and living standards were positively associated with benefit amount, consumption expenditure and satisfaction, while duration of receipt and savings were not significant. Given the cross-sectional design, single division and no comparison group, these are associations and reported changes, not causal effects.

The study recommends periodically revising the Aswesuma benefit amount in line with living costs and inflation; strengthening implementation to improve transparency, payment timeliness, and grievance handling; improving coordination among the Welfare Benefits Board, the Ministry of Finance, and divisional and district secretariats; and complementing the programme with livelihood-development interventions such as vocational training and self-employment support, so that short-term income support translates into lasting improvements in rural households' well-being. Future research could use panel data with a comparison group and quasi-experimental methods, such as Propensity Score Matching or Difference-in-Differences, to assess the programme's long-term impact across other districts.

References

- Hajara, M.S. and Santhirakumar, S., (2024). An empirical analysis of Aswesuma poverty alleviation program in rural area: A study based on the Ankumbura division.
- Navirathan, V. and Mustafa, A., (2019). A study of outcomes of the poverty alleviation programme in Batticaloa district of Sri Lanka. *GIS-Business*, 13(4), pp.41-53.
- Padmakanthi, N.D., Jayaweera, R., Dias, A. and Thamarapani, D., (2025). Are low-income households in Sri Lanka adequately food secure? An empirical Analysis with Special Reference to the Rural Sector in Sri Lanka. *Social Sciences*, 14(12), p.717.

India–China Geoeconomic Competition for Critical Minerals and Sri Lanka’s Strategic Autonomy: An International Political Economy Analysis

S. Lakshana

Department of Political Science, Faculty of Arts,
University of Peradeniya, Sri Lanka

Keywords: *Critical Minerals; Geoeconomic Competition; Strategic Autonomy; Political Economy*

Introduction

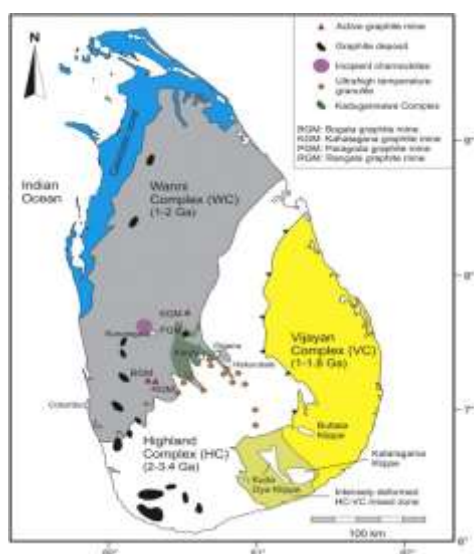


Figure 1: Graphite Mining in Sri Lanka:
World's Purest Source of Vein Graphite

The global transition towards renewable energy, electric mobility, battery technologies, and advanced digital industries has transformed critical minerals from conventional geological resources into strategically significant components of contemporary global production networks (Kalantzakos, S. 2020). Graphite is particularly important because of its role in battery technologies and other clean-energy applications. Consequently, competition over critical minerals increasingly extends beyond access to geological resources to include processing capacity, refining technologies, technological knowledge, industrial capabilities, market access, and participation in global value chains.

Sri Lanka occupies a distinctive position within this emerging critical-mineral landscape. The country has a long-established graphite industry and is recognised for its natural vein graphite, which possesses distinctive geological characteristics and high carbon purity. Historically, graphite has contributed to Sri Lanka's mineral exports. A recent policy commentary note states that Sri Lanka's mineral industry remains relatively small-scale and concentrated in products such as premium vein graphite and heavy mineral sands, while the new National Mineral Policy seeks to deepen economic gains from the mineral sector and attract foreign

investment (Gallage, 2026). The changing structure of global demand has increased the strategic significance of graphite. Its importance depends not only on resource availability but also on processing, refining, technological upgrading, and integration into higher-value global production networks. According to the International Energy Agency (IEA, 2025), global graphite demand increased from approximately 3,813 kilotons in 2021 to 4,766 kilotons in 2024 and is projected to reach approximately 11,010 kilotons by 2040. Meanwhile, the three largest graphite-producing countries accounted for approximately 93% of global mining output in 2024, while the three largest refining countries accounted for approximately 99% of global refining capacity (IEA, 2025). These trends demonstrate that strategic advantage increasingly depends on higher-value value-chain capabilities rather than resource ownership alone. This creates a particular challenge for Sri Lanka. Possessing valuable mineral resources does not automatically provide strategic autonomy, industrial upgrading, or bargaining power. Sri Lanka may remain dependent on external actors for processing technologies, investment, financing, specialized skills, market access, and downstream manufacturing. The key issue is therefore whether Sri Lanka possesses the institutional, technological, industrial, and governance capabilities required to convert its resources into sustainable economic and strategic benefits. The 2026 policy note identifies limited domestic processing capacity as an important constraint in Sri Lanka's mineral sector. The issue becomes more significant amid India–China geo-economics competition in the Indian Ocean. India and China are major economic and strategic actors in Sri Lanka's external environment. Sri Lanka's graphite exports to India remained small relative to India's total graphite imports in 2025, although discussions on mineral exploration cooperation and possible investment in vein graphite indicate emerging interest. External competition can create opportunities for foreign investment, technology partnerships, infrastructure development, market access, and participation in international supply chains. Existing scholarship has largely examined India–China competition through maritime security, infrastructure, ports, debt, connectivity, and broader geopolitical rivalry, while comparatively less attention has been given to critical minerals, global value chains, domestic productive capacity, and small-state strategic autonomy. Accordingly, this study asks: How can Sri Lanka convert its critical-mineral potential, particularly natural vein graphite, into domestic productive capabilities.

Objectives

The primary objective of this study is to analyze how Sri Lanka's critical-mineral potential interacts with India–China geoeconomic competition and to evaluate how this interaction influences small-state strategic autonomy. Specifically, this study seeks to address (1) Assess the strategic positioning of Sri Lanka's natural vein graphite within global clean-tech supply chains and refining concentration patterns; (2) Analyze how Indian and Chinese economic interests, trade relationships, and investment frameworks shape Sri Lanka's mineral-sector trajectories; (3) Evaluate whether foreign critical-mineral investments contribute to domestic industrial upgrading or reinforce value-chain dependency and (4) Develop and apply the Strategic Mineral Triangle Framework (SMTF) to identify institutional and governance conditions that enable small states to narrow the Strategic Conversion Gap and enhance strategic autonomy.

Methodology

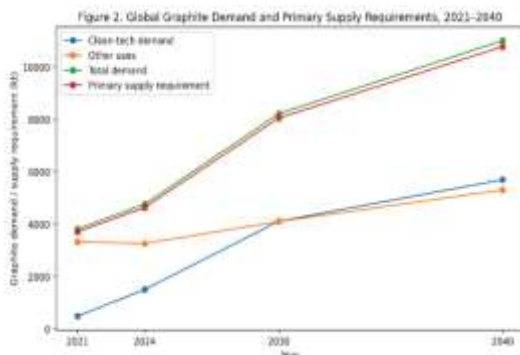
This study adopts a qualitative case-study methodology focusing on Sri Lanka's critical-mineral sector, particularly natural vein graphite. Sri Lanka is a significant case due to its strategic Indian Ocean location, post-2022 economic vulnerabilities, and graphite resources relevant to emerging global critical-mineral supply chains. The study is theoretically grounded in International Political Economy (IPE), geo-economics, and small-state strategic autonomy. IPE, developed through the work of scholars such as Robert Gilpin (1987), Susan Strange (1988), and Keohane and Nye (1977), examines the interaction between political power and international economic relations. Here, it is used to analyze resource, capital, technology, market, and dependency relations. Geo-economics, associated with Edward Luttwak (1990), examines the use of economic instruments to pursue strategic objectives, while small-state strategic autonomy concerns policy flexibility, diversified partnerships, and bargaining capacity.

These perspectives are integrated into three analytical dimensions: resource dependency and value chains, geo-economics interests and instruments; and strategic autonomy and policy space. The framework guides analysis of ownership, investment, technology, processing, trade, foreign engagement, and Sri Lanka's control over strategic mineral resources. The study primarily relies on qualitative documentary analysis of IEA, IMF, and World Bank reports, Sri Lankan government and policy documents, geological reports, investment frameworks, and

critical-mineral supply-chain studies. Sources were selected based on relevance and credibility. The analysis involved thematic coding, interpretation through the three analytical dimensions, and cross-source comparison and triangulation. So, the preliminary findings are primarily based on documentary evidence.

Results and Discussion

Global Graphite Demand and Supply Concentration

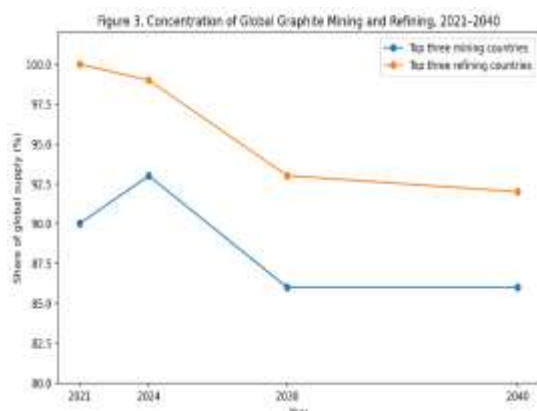


Source: International Energy Agency (IEA)

The preliminary findings indicate that Sri Lanka's critical-mineral challenge is not merely the possession of geological resources but the capacity to transform those resources into higher-value economic capabilities. Global graphite demand is expanding, particularly through clean-energy technologies. According to the IEA

(2025), total graphite demand increased from 3,813 kilotons in 2021 to 4,766 kilotons in 2024 and is projected to reach 11,010 kilotons by 2040. Clean-technology demand increased from 487 kilotons in 2021 to 1,505 kilotons in 2024 and is projected to reach 5,700 kilotons by 2040. These trends demonstrate the increasing economic relevance of graphite within energy-transition supply chains. However, expanding demand does not imply an equal distribution of economic benefits. Graphite supply chains remain highly concentrated. In 2024, the three largest graphite-producing countries accounted for approximately 93% of global mining output, while the three largest refining countries accounted for approximately 99% of global refining capacity. The IEA projects that concentration will remain substantial through 2040. This concentration indicates that processing, refining, technology development, and downstream manufacturing can be strategically more consequential than extraction alone (IEA, 2025).

Sri Lanka's Strategic Conversion Gap



Source: International Energy Agency (IEA)

The evidence indicates that Sri Lanka's mineral challenge is best understood as a capability-conversion problem. The country possesses a distinctive vein-graphite resource base, but resource ownership alone does not determine the level of strategic benefit retained domestically. The supplied 2026 policy note describes Sri Lanka's mineral industry as relatively small-scale and identifies limited domestic processing capacity as a constraint. It also reports that Sri Lanka's graphite exports to India constituted only a very small share of India's total graphite imports in 2025, demonstrating the limited scale of Sri Lanka's current market presence. These conditions illustrate the Strategic Conversion Gap. The gap is not equivalent to an absence of resources. Rather, it concerns the distance between resource endowment and the capabilities required to capture greater value through processing, technology, skilled labour, research, downstream manufacturing, and diversified market access. Narrowing the gap therefore requires coordinated investment in domestic processing, technological development, institutional capacity, skills, research, and market diversification.

India–China Geoeconomic Competition and Sri Lanka

The supplied policy note indicates that India's interest in Sri Lankan minerals focuses particularly on vein graphite and mineral sands, with cooperation in geology, mineral resources, and potential graphite investment under discussion. However, Sri Lanka remains a marginal supplier relative to India's overall graphite demand. Thus, India's strategic interest appears to relate more to future resource, investment, and supply-chain opportunities than current supply volumes. China represents a different set of linkages through its extensive processing capacity, infrastructure presence, and trade relations. Sri Lanka's mineral exports remain marginal within China's overall imports, while limited domestic processing capacity may increase dependence on external downstream processing. Therefore, Sri Lanka is not currently a major mineral supplier to either India or China; rather, the strategic issue concerns how external interests may influence future

investment, technology transfer, processing, and bargaining conditions. Beyond India and China, Sri Lanka's critical-mineral policy is influenced by wider initiatives involving the United States, European Union, Australia, and Japan. Uneven external engagement highlights the importance of partnership diversification, domestic processing capacity, and state bargaining capability, rather than dependence on a single external partner.

Macro-economic Realities and Geo-economic Dynamics

Sri Lanka's strategic choices regarding critical minerals have gained importance following the 2022 sovereign debt crisis, which exposed vulnerabilities such as high external debt, limited export diversification, and dependence on foreign capital. In 2023, the IMF approved a 48-month Extended Fund Facility of SDR 2.286 billion (approximately US\$3 billion), while the economy recorded around 5% GDP growth in 2024 (International Monetary Fund, 2023). However, structural constraints in industrial and technological development remain. Within this context, India–China geoeconomic competition offers opportunities for foreign investment, technology partnerships, and market access. Yet, such competition creates bargaining space rather than automatic bargaining power. The strategic benefits of critical-mineral investment therefore depend on domestic value addition, technology transfer, productivity enhancement, and industrial capacity building. Ultimately, Sri Lanka's critical-mineral strategy should focus not simply on attracting capital, but on reducing value-chain dependency and achieving long-term structural transformation and sustainable integration into global value chains.

The Strategic Mineral Triangle Framework (SMTF)

To address the identified problem, this study proposes the Strategic Mineral Triangle Framework (SMTF) as a policy-oriented analytical framework (see Annexure 1). It explains how domestic productive capacity, external geo-economics competition, and state governance and negotiating capacity interact to determine whether critical-mineral development strengthens strategic autonomy or reinforces dependency. The first element, Resource and Productive Capacity, includes mineral availability, geological knowledge, exploration, processing, skilled labor, research, technology, and participation in higher-value activities. Resource ownership alone provides limited strategic advantage without productive capacity. The second, External Geo-economics Competition, encompasses foreign investment, technology partnerships, financing, market access, and supply-chain

interests involving India, China, and other partners. The third and central element, State Governance and Negotiating Capacity, covers transparent licensing, investment assessment, institutional coordination, environmental governance, technology-transfer mechanisms, and domestic capability development. The SMTF identifies two pathways. A dependency pathway may emerge where weak governance results in extraction, limited value addition, and continued reliance on external technology and markets. Conversely, a capability-building pathway can promote technology transfer, domestic processing, skills, research, and market diversification. Thus, the SMTF places domestic institutional capacity and policy choices at the Centre of converting external geo-economics competition into strategic outcomes.

Conclusion and Policy Recommendations

Critical minerals have become central to contemporary geo-economics competition. Rising graphite demand and concentrated processing capacity show that strategic advantage depends not only on resource ownership but also on technology, value chains, industrial capabilities, and market access (IEA, 2025). For Sri Lanka, vein graphite offers potential participation in emerging critical-mineral supply chains; however, resource ownership and limited processing capacity alone do not guarantee strategic autonomy. The study introduces the Strategic Conversion Gap to describe the distance between possessing valuable mineral resources and developing the capabilities needed to convert them into sustainable economic and strategic benefits. India–China competition creates both opportunities and constraints, while outcomes depend largely on Sri Lanka’s institutional capacity to govern external engagement, promote value addition, secure technology transfer, develop skills and research, and diversify markets and partnerships. The Strategic Mineral Triangle Framework (SMTF) links resource and productive capacity, external geo-economics competition, and state governance and negotiating capacity. It highlights the need to assess foreign investment not only by capital inflows but by its contribution to domestic capabilities and long-term value-chain participation. Thus, Sri Lanka’s strategic mineral policy is fundamentally a capability-building challenge.

Thus, this study suggests policy recommendations that aligns mineral licensing strictly with the National Mineral Policy (2026); implements Strategic Conversion Gap Assessments and evaluates foreign investment proposals based on quantifiable

commitments; pursues Balanced Diversification by engaging transparently with regional and global partners; strengthens National R&D Infrastructure; and ensures that mineral development is accompanied by transparent licensing and environmental governance.

References

- Gallage, H. (2026). NIICE Commentary 12576, Supplied policy notes on Sri Lanka's critical minerals, geopolitics, and geoeconomics', 22 June.
- International Energy Agency (2025a, b). *Global critical minerals outlook 2025*. Paris: International Energy Agency.
- International Monetary Fund (2023). *IMF Executive Board Approves US\$3 Billion Under the New Extended Fund Facility Arrangement for Sri Lanka*. Washington, DC: International Monetary Fund.
- Kalantzakos, S. (2020). The race for critical minerals in an era of geopolitical realignments, *The International Spectator*, 55(3), pp. 1–16.
- Smith, R.K. (1987). Explaining the non-proliferation regime: Anomalies for contemporary international relations theory', *International Organization*, 41(2), pp. 253–281.
- World Bank (2024, 2025). *Sri Lanka Development Update: Opening to the Future*. Washington, DC: World Bank.

Annexure 1



Figure 4: Created by Author, Source: Miro's AI diagram generator 2026

The Role of Microfinance in Women's Empowerment: An Empirical Study of Glen Alpin Estate in the Badulla District, Sri Lanka

J. Hamsayini¹ and S. Vijayakumar²

¹*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

²*Department of Economics, Faculty of Arts,
University of Jaffna, Sri Lanka*

Keywords: *Microfinance Services; Women's Empowerment; Income; Self-Employment*

Introduction

Women's participation in social, economic, and political activities is important for the economic development of a country. Women's empowerment is a key factor in achieving sustainable economic growth. When women have equal access to education, employment, and financial resources, they can develop their skills and improve their quality of life. This not only benefits women themselves but also contributes to the well-being of their families and society. However, compared with developed countries, many women in developing countries still face social discrimination and economic inequality.

According to the Asian Development Bank (ADB, 2007), microfinance refers to the provision of a range of financial services, including savings, loans, payment services, and insurance, to low-income households and micro entrepreneurs to support income generating activities.

Poverty is more severe in Sri Lanka's plantation sector. According to the Department of Census and Statistics (2021), 51.3% of the estate population lives in multidimensional poverty. This situation is especially common in plantation districts such as Nuwara Eliya, Badulla, and Monaragala. Most women in these areas have limited access to education, employment opportunities, and financial services. The UNDP Sri Lanka Gender Report (2023) states that about 55% of plantation women do not have access to formal financial institutions, making it difficult for them to achieve economic empowerment.

Badulla District has one of the highest levels of multidimensional poverty in Sri Lanka. According to the UNDP Sri Lanka Gender Report (2023), around 63% of the district's population belongs to the plantation community, where women make up a large proportion of the workforce. These women face many challenges, including low income, limited property ownership, low levels of education and skills, and poor access to formal financial services. Therefore, it is important to examine how microfinance services influence the economic empowerment of plantation women. This study investigates the impact of microfinance on the economic empowerment of plantation women in the Badulla District using appropriate econometric methods.

This study contributes empirical evidence on the role of microfinance in women's empowerment by focusing on women in Glen Alpin Estate, Badulla District. In addition, the study examines the relationship between economic and social empowerment. Previous studies have examined the role of microfinance in women's empowerment in different areas. However, limited research has been conducted on women in plantation communities in the Badulla District, particularly in specific estates such as Glen Alpin Estate. Most studies have focused on the general benefits of microfinance, while less attention has been given to the economic and social empowerment of plantation women. Therefore, there is a need for further research to understand how microfinance is related to the economic and social empowerment of women in Glen Alpin Estate.

Objectives

The main objective of this study is to assess the role of microfinance services in the empowerment of women in Glen Alpin Estate, Badulla District in Sri Lanka. Furthermore, a sub-objective is to analyze the role of microfinance services in the economic and social empowerment of women.

Methodology

This study adopted a mixed-method to examine the role of microfinance services in women's empowerment. Quantitative data were used to assess economic empowerment through income, savings, expenditure, and education, while qualitative data explored social empowerment, decision-making, participation, and challenges.

Population and Sample: The study population consisted of 80 women in Glen Alpin Estate who had obtained microfinance services for agricultural activities. A sample of 40 women, representing 50% of the population, was selected using simple random sampling. A sampling frame was prepared by compiling a list of eligible women, and each woman was assigned a unique number. The final 40 participants were selected through a lottery method, giving each eligible woman an equal chance of being selected. Data were collected from these 40 selected women using the structured questionnaire.

Data Collection: Primary data were collected through a structured questionnaire and semi-structured interviews. The questionnaire was prepared in Tamil and used a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Secondary data were obtained from the Central Bank of Sri Lanka, Department of Census and Statistics, Badulla District Secretariat, journal articles, books.

Data Analysis and Measurement: The collected data were analyzed using Excel and STATA. Descriptive analysis was used to summarize the economic and social empowerment indicators. Cronbach's Alpha was used to test the reliability of the measurement items. Multiple regression analysis was used to examine the factors influencing economic empowerment. The economic empowerment was measured using six indicators: income, savings, loan repayment, training, education expenditure, and consumption expenditure. Social empowerment was measured using five indicators: decision-making, self-confidence, leadership, communication, and social participation. These indicators were measured using five-point Likert-scale items, and Economic Empowerment Index (EEI) and Social Empowerment Index (SEI) were constructed based on the respective indicators.

Results and Discussion

The reliability test confirmed that all major variables had acceptable internal consistency, with Cronbach's Alpha values above 0.70. Economic empowerment factors ranged from 0.7028 to 0.9885, while social empowerment factors ranged from 0.7317 to 0.8532, confirming the reliability of the research instrument. The descriptive analysis showed varying levels of economic and social empowerment. Improvements were observed in monthly income, savings, education expenditure, and consumption capacity after receiving microfinance services. However, loan repayment remained a major concern, creating financial pressure for some women.

Social empowerment also varied across dimensions, particularly in communication and participation in formal institutions.

Table1: Results of Regression Anlaysis

Variable	Coefficient	t- value	P - value	95% Conf. Int	
Monthly Income	4.19894	6.36	0.04	2.855	5.5426
Monthly Saving	6.143123	2.97	0.00	1.936	10.349
Education Expenditure	1.236244	0.61	0.04	2.916	5.3890
consumption expenditure	-4.876821	8.17	0.00	6.09	3.6617
loan repayment	-6.136475	10.1	0.00	7.36	4.9063
Training	119070.6	11.0	0.00	9.71	14095
Constan	424759.1	7.15	0.00	3039	5456.

$R^2=0.9469$, Prob > F = 0.0000

The Multiple Regression Analysis showed that the model was statistically significant (Prob > F = 0.0000) and explained 94.69% of the variation in economic empowerment. Monthly income, savings, education, and training had positive and statistically significant effects on economic empowerment, while consumption and loan repayment had negative and statistically significant effects. These findings indicate that higher income, savings, education, and training strengthen women's economic empowerment, whereas higher consumption and loan repayment burdens may reduce the benefits of microfinance services.

Table 2: The Results of Economic Empowerment and Social Empowerment

Variable	Coefficient	t- value	P - value	95% Conf. Int.	
EEI	.5146695	4.83	0.000	.29876	.730577

$R^2 = 0.7200$, Prob > F = 0.0000

The Simple Linear Regression Analysis revealed a positive and statistically significant relationship between economic and social empowerment ($\beta = 0.5147$, $p = 0.000$). The R^2 value of 0.7200 indicates that 72% of the variation in social empowerment was explained by economic empowerment. This suggests that improved economic conditions are associated with greater confidence, decision-making ability, leadership, communication, and social participation.

Conclusion and Policy Recommendations

The findings show that microfinance services have contributed positively to the economic empowerment of women in Glen Alpin Estate. Improvements were observed in monthly income, savings, education expenditure, and training. However, loan repayment and consumption created financial pressure for some women. This indicates that improvements in economic conditions are associated with greater confidence, decision-making ability, leadership, communication, and social participation. Based on these findings, microfinance institutions should provide more suitable and flexible loan repayment arrangements to reduce financial pressure on women. Women should also be encouraged to use loans for productive and income-generating activities rather than mainly for consumption. Regular training on financial management, savings, loan management, and small business activities should be provided to improve the effective use of microfinance services. In addition, programmes should strengthen women's confidence, communication, leadership, and decision-making abilities to support their social empowerment.

References

- Chandratilaka, M.D.L.A., Dissanayake, H., Mendis, O. and Iddagoda, A., (2023). The effect of microfinance on women empowerment: Special reference to Sri Lanka. *Management Academy*, 7(1), pp.31-53.
- Dharmawardhana, T., Weerakkody, R., Buhary, R., Rathnayake, D. and Dissanayaka, A., (2019). Access to and utilization of microfinance by rural poor in Uva Province. *Hector Kobbekaduwa Agrarian Research and Training Institute*.
- Hansen, N., (2015). The development of psychological capacity for action: The empowering effect of a microfinance programme on women in Sri Lanka. *Journal of Social Issues*, 71(3), pp.597-613.
- Herath, H.M.W.A., Guneratne, L.H.P. and Sanderatne, N., (2016). Impact of microfinance on women's empowerment: A case study on two microfinance institutions in Sri Lanka. *Sri Lanka Journal of Social Sciences*, 38(1).

Exploring the Factors Affecting Intellectual Entrepreneurial Intention of Management Graduates of Sri Lanka

W.A.I.L. Senevirathna¹ and H.K.G.N.D. Samarakoon²

¹ *Faculty of Management, Cardiff Metropolitan University, UK*

² *Department of Business Management, Faculty of Management, International College of Business & Technology, Sri Lanka*

Keywords: *Entrepreneurial Intention; Entrepreneurship Education; Management Graduates*

Introduction

Prelipcean and Ungureanu (2023) emphasized that entrepreneurship has the ability to contribute to the economic development of a nation. Intellectual entrepreneurship is a form of general entrepreneurship. According to Cherwitz and Sullivan (2002), the term “intellectual entrepreneurship” refers to a vision for higher education, innovation, knowledge-based education, and creativity. Abosede and Onakoya (2013) indicated that intellectual entrepreneurship entails contextual thinking “outside the box” and applying intuition and rationality within the learning cycle. Lüthje & Franke (2003) interpreted that entrepreneurial intention is the willingness to launch a business, and it is predicted by factors such as risk-taking tendencies, locus of control, and attitudes toward self-employment.

However, Ranasinghe and Logendra (2015) state that producing employable graduates is one of the main challenges faced by universities in Sri Lanka. In 2024, the overall unemployment rate in Sri Lanka was 4.2% (Census and Statistics Department, 2024). According to the 2023 employability survey conducted by Sri Lanka’s Ministry of Education, the overall graduate employability rate is 69.1%. It indirectly indicated approximately 30% of the unemployment rate among graduates.

The Theory of Planned Behavior (TPB), Intellectual Property Rights (IPR), Knowledge Spillover Theory, and Social Cognitive Theory are the basic theories identified in the literature in relation to intellectual entrepreneurial intention. Ummah & Athambawa (2021) investigated the Factors influencing on Entrepreneurial Intention among Undergraduates. However, there is a limited

attention of scholars towards the qualitative research investigations of factors affecting the entrepreneurial intention among graduates both in state and private universities in Sri Lanka. The current study utilizes to identify the factors that influence intellectual entrepreneurial intention among the management graduates of Sri Lankan universities.

Objectives

The objectives of this study are as follows: (1) to identify how management graduates of Sri Lankan universities perceive and interpret intellectual entrepreneurship as a career pathway; (2) to explore what factors influence the development of intellectual entrepreneurial intention among management graduates in Sri Lankan universities, and (3) to investigate how institutional environments and contextual conditions within Sri Lankan universities shape management graduates' intentions to engage in intellectual entrepreneurship.

Methodology

An inductive approach has been utilized for research design. The non-probability sampling technique, the purposive sampling, was utilized since this is a qualitative research study. The convenience sampling technique was also utilized due to the convenient accessibility of the researcher to the selected sample. The population for the current study consists of the management graduate students who graduated from the Sri Lankan universities during the years between 2020 and 2025. According to the latest detailed report available under the graduate output chapter of the University Grants Commission Sri Lanka, the approximate number of graduates who graduated during the considered period is 37520. (University Grants Commission - Sri Lanka, 2020 - 2025).

The sample size of the study was 12 graduate students who graduated during the period between 2020 and 2025 from Sri Lankan universities. The study included twelve (12) management graduates. The data required for this study was collected through in-depth interviews. The average time taken for the interviews is 30 to 45 minutes by using MS Teams' online platform, over the phone and face-to-face discussions. Since the data saturation was achieved at the 12th interview, and no new themes or viewpoints emerged, the sample size even though it only represented 0.0335% of the target population confirmed the sample's suitability for this qualitative study.

Results and Discussion

The primary method of data analysis for this study is thematic analysis. Free coding was used as the first stage of data analysis to arrange and interpret the in-depth interview material. The qualitative data generated through the participant interviews were subjected to thematic analysis in alignment with the research questions, and the emerging themes and key findings are presented below.

RQ1: How do Management graduates perceive and interpret intellectual entrepreneurship as a career pathway?

Table 1: Theme Summary for Research Question 01

Theme	Sample statements of participants	Result
Awareness of intellectual entrepreneurship	“I have studied entrepreneurship as a subject during my degree program.” (Graduate IV)	Participants had a positive perception of intellectual entrepreneurship. They pursued traditional employment rather than entrepreneurial careers.
Intellectual entrepreneurship is a career pathway	“Intellectual entrepreneurship is a good opportunity. Nowadays, many graduates do not prefer fixed working hours. Entrepreneurship provides more freedom. (Graduate VII)	

RO2: What factors influence the intellectual entrepreneurial intention among Management graduates in Sri Lanka?

Table 2: Theme Summary for Research Question 02

Theme	Sample statements of participants	Result
Personal Attitude towards entrepreneurship	“I have an interest. I am doing a small business. I do paintings, like notepad painting.” (Graduate VI)	Social pressures, financial constraints, and limited knowledge remain key barriers, highlighting the need for stronger entrepreneurship education and practical support to convert intentions into entrepreneurial action.
Subjective Norms	“Family members and society expect management graduates to have stable jobs in reputed companies” (Graduate I)	
Perceived Behavioural Control	“I have confidence. In my opinion, I would like to attend courses or workshops to learn more about entrepreneurship” (Graduate IV)	

Entrepreneurship Education	“I think the main factors are knowledge and willingness. Also, time and commitment are important.” (Graduate VI)	
Motivating and demotivating Factors	“The first factor is money and the second factor is my passion” (Graduate VII)	

RQ3: How do institutional environments and contextual conditions within Sri Lankan universities shape Management graduates’ intentions to engage in intellectual entrepreneurship?

Table 3: Theme Summary for Research Question 03

Theme	Sample statements of participants	Result
University Guidance	“In our university we have specialized department for entrepreneurship.” (Graduate V)	The university currently provides limited institutional support. Most participants believe that greater support and intervention are needed.
Required modifications to Improve Intellectual Entrepreneurial Intention	“I think Universities should provide more awareness about intellectual entrepreneurship.” (Graduate III)	

Conclusion and Policy Recommendations

The study offers comprehensive insights to prove that management graduates see intellectual entrepreneurship as a flexible career option. The first research question is clarified by the participants by showing their interest in becoming intellectual entrepreneurs. The findings indicated that entrepreneurial education, personal attitudes, social norms, and perceived behavioral control are major factors affecting the entrepreneurial intention. Further, the current study has identified new factors, beyond those previously mentioned, such as financial strength, flexibility, and market competition, limited awareness, and the risk associated with intellectual entrepreneurship as the factors that reduce the intellectual entrepreneurial intention.

The findings indicated that the institutional support of universities towards the intellectual entrepreneurship should be strengthened. Several recommendations can be made to universities and the government to reduce the gap between management graduates' perceptions and their actual career choices. These include updating management degree curricula to incorporate relevant intellectual entrepreneurship content, encouraging graduates to participate in workshops and practical awareness sessions, facilitating innovation-related competitions, strengthening industry collaborations, and promoting intellectual entrepreneurship within society. These strategies can use to motivate university graduates to develop stronger intellectual entrepreneurial intentions.

References

- Lüthje, C. and Frank, N., (2003). The making of an entrepreneur, testing a model of entrepreneurial intent among Engineering students at MIT. *R&D management*. *R&D Management*, 33(2), pp. 135-147.
- Prelipcean, G. and Ungureanu, A., (2023). *Entrepreneurship in emerging Economies: The role of innovation and institutions*. s.l.:s.n.
- Ranasinghe, A. and Logendra, R., (2015). Graduate employment, employable attributes and attribute gap in developing countries: A case study from Sri Lanka.
- Ummah, M. and Athambawa, M. B., (2021). Factors influencing on entrepreneurial intention among undergraduates: Special reference with Arts stream undergraduate. *KALAM – International Journal*, 14(3), pp. 1391-6815.
- University Grants Commission - Sri Lanka, (2020 - 2025). *Sri Lanka University Statistics Report*, s.l.: University Grants Commission - Sri Lanka.

The Relationship between Income Level and the Choice of Public and Private Healthcare Services in Sri Lanka

N.K.D. Lakshani

*Department of Economics & Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Income Level; Healthcare Services; Government Hospital; Private Hospital*

Introduction

The healthcare system in Sri Lanka plays an important role in maintaining and improving public health. Since Sri Lanka has an established healthcare system comprising both the public and private sectors, people have the opportunity to obtain medical treatment from either sector. These two sectors differ in terms of the accessibility, quality, and cost of healthcare services. The public healthcare sector is primarily funded and managed by the government and provides free medical services to all citizens. The main objective of the healthcare services provided free of charge by the government is to improve and promote public health. In addition to the public healthcare system, the private healthcare sector in Sri Lanka has also expanded significantly, providing specialized healthcare services, shorter waiting times, and modern medical facilities. However, its primary objective is to maximize profits.

Due to the recent COVID-19 pandemic and economic crisis in Sri Lanka, people faced various difficulties in accessing healthcare services. During this period, numerous challenges emerged within the country's public healthcare system. Under such circumstances, the public healthcare system was unable to adequately meet the healthcare needs of the population, resulting in significant difficulties in accessing essential medical services. Consequently, although treatment in private hospitals involved high costs, people were compelled to seek healthcare from the private sector in the hope of receiving better and more timely medical treatment. In this context, individual income can be identified as a critical factor influencing decisions regarding the choice of healthcare services.

Objectives

This study attempts to examine the impact of income on the choice between public and private healthcare services as well as tries to determine other factors influencing healthcare choices in Sri Lanka.

Methodology

For the purpose of investigating the influence of income on the decision to choose healthcare services between public and private hospitals, the Kandy district of the Central Province was selected as the study area. A sample of 100 individuals was selected using a random sampling method. Both qualitative and quantitative data were used in this study. Primary data were used as the main source of information, while secondary data were also used as a supplementary source. However, primary data were given greater emphasis in this study. The questionnaire consisted of two main sections. Section A included demographic questions covering information such as age, gender, years of education, occupation, monthly income, and marital status. Section B included questions related to healthcare choices, particularly the factors considered by individuals when selecting a hospital. In addition, several open-ended questions were included in the questionnaire, allowing respondents to provide answers freely and express their opinions. Multiple-choice questions and Yes/No questions were also used. Accordingly, a structured questionnaire was prepared and distributed both online and physically among the 100 individuals selected from the population, through which the primary data were collected. Furthermore, a combination of descriptive and quantitative analytical methods was used to analyze and interpret the data. For this purpose, a logistic regression model was employed.

Results and Discussion

The findings of the study revealed that income level, age, educational level, occupation, rural–urban residence, availability of health insurance coverage, quality of services, distance to the hospital, waiting time, nature of the illness, previous experiences, facilities and technology, and cost of treatment influence individuals' choices between public and private hospitals. Furthermore, the study findings revealed that 92% of individuals strongly consider their income level when choosing between public and private healthcare services. By obtaining the marginal effects from the logistic regression model, it was possible to assess the

effect of individual income level on the decision to choose public or private healthcare services.

Table 1: The Results of Impact of Income Level on Healthcare Choices

Dependent Variable: Choice of Healthcare Services (Private Hospitals = 1, Public Hospitals = 0)

Variable	dy/dx	P> z
Income (<i>Inc</i>)	0.007	0.012**
Health insurance (<i>Insur</i>)	0.397	0.042**
Age (<i>Age</i>)	0.011	0.233
Number of educational years (<i>Edu</i>)	0.355	0.045**
Number of family members (<i>FmlySize</i>)	-0.160	0.041**
Cost of treatment (<i>TreatmntCst</i>)	-0.007	0.081*
Nature of the disease (<i>NatrDiseas</i>)	-0.599	0.000***
Gender (<i>Gendr</i>)	0.067	0.241

Note: ***, **, and * represent that variables are statistically significant at the 1%, 5%, and 10%, respectively.

The marginal effect associated with income (Inc_i) was 0.007. Accordingly, when an individual's income increases by one rupee, the probability of choosing a private hospital over a public hospital increases by 0.007. The p-value (0.012) is lower than the significance level of 0.05, it can be confirmed that income has a statistically significant positive effect on the decision to choose private hospitals. In addition, the marginal effect associated with health insurance ($Insur_i$) was 0.397. This indicates that individuals with health insurance are 0.397 more likely to choose private hospitals compared with individuals without health insurance. This demonstrates a statistically significant positive effect. Similarly, when an individual's age (Age_i) increases by one year, the probability of choosing a private hospital increases by 0.011; however, this effect is statistically insignificant. Likewise, when educational level (Edu_i) increases by one year, the probability of choosing a private hospital increases by 0.355, although this effect is also statistically significant. Furthermore, the marginal effect associated with the number of family members ($FmlySize_i$) was -0.160. This means that when the number of family members increases by one person, the probability of choosing a private hospital decreases by approximately 16%. This represents a statistically significant negative effect. Moreover, when the cost of treatment ($TreatmntCst_i$) increases by one rupee, the probability of choosing a private hospital decreases by 0.007, demonstrating a statistically significant negative effect. In addition,

compared with individuals suffering from non-chronic illnesses, individuals with chronic illnesses are 59% less likely to choose private hospitals. This indicates that the nature of the illness has a statistically significant negative effect on the choice of private healthcare services.

Accordingly, the study results confirmed that income level and health insurance coverage have statistically significant positive effects on individuals' choice between public and private healthcare services. In contrast, the number of family members, cost of treatment, and nature of the illness have statistically significant negative effects on the choice of private hospitals.

Conclusion and Policy Recommendations

The findings of this study conclude that several factors influence individuals' decisions when choosing healthcare services between public and private hospitals in Sri Lanka. These factors include individual income, medical treatment costs, waiting time, health insurance coverage, facilities and technology, nature of the illness, quality of service, previous experiences, occupation, educational level, rural or urban residence, and age. Among these factors, individual income, medical treatment costs, waiting time, and health insurance coverage were identified as having a strong influence on healthcare choice decisions. Furthermore, the study concludes that individual income has a significant positive effect on the choice of private hospitals. Therefore, the findings indicate that income level plays an important role in individuals' decisions to choose between public and private healthcare services. This is because income level directly affects an individual's ability to pay for healthcare services. Therefore, the findings suggest that individuals with higher income levels have greater access to expensive healthcare services such as private hospitals, specialist medical treatment, and treatments involving advanced technology. They also have greater freedom to choose their preferred doctor, hospital, or treatment method, as well as better access to leading medical specialists. In contrast, low-income individuals have to rely on free public healthcare services provided by the government due to financial constraints. The policy implications identified from the findings of this study, which examined the factors influencing healthcare choices between public and private hospitals and the impact of individual income levels on these choices, suggest that free treatment in public hospitals should primarily be provided to low and middle-income groups. This is because, when the government provides free healthcare services to

everyone, financially well-off individuals may also use public hospitals, thereby limiting the opportunities available to financially disadvantaged individuals to access treatment. Therefore, access to free healthcare services should be regulated based on income levels.

References

- Bamfo, B.A. and Dogbe, C.S.K., (2017). Factors influencing the choice of private and public hospitals: Empirical evidence from Ghana. *International Journal of Pharmaceutical and Healthcare Marketing*, 11(1), pp.80-96.
- Ghimire, A. and Barmashakha, S., (2024). Determinants of patient preference for private hospitals over public hospitals: An empirical study. *NPRC Journal of Multidisciplinary Research*, 1(3), pp.69-91.
- Malik, J. and Varma, D.K., (2018). Factors affecting patient's decision in selecting government and private hospitals in Delhi, India. *Journal of Management Research and Analysis*, 5, pp.149-156.

The Impact of Group-Based Microcredit on Women's Economic Empowerment in Sri Lanka: Evidence from Kandy District

P.G.P.D. Jayaweera and H. M. W. A. Herath

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Group-based Microcredit; Women's Empowerment; Microcredit Index; Empowerment Index*

Introduction

Women's economic empowerment is an important component of inclusive economic development. Women may face limitations in accessing financial resources, participating in income generating activities, controlling economic resources and making economic decisions in developing countries. Therefore, microcredit programs have been introduced to improve women's access to financial resources and support their economic participation. According to Consultative Group to Assist the Poor (CGAP), microcredit is the extension of very small loans to low-income people who lack access to traditional banks. CGAP views microcredit as just one specific tool within the broader category of microfinance, emphasizing that it works best when borrowers already have steady cash flow.

Group based microcredit has received considerable attention because it combines financial services with group responsibility, peer support and social interaction. Group-based microcredit programs provide women with access to credit while also encouraging group participation, regular meetings, peer support and financial responsibility. These features may contribute to women's ability to engage in income generating activities and strengthen their economic decision making.

In Sri Lanka, various organizations such as Samurdhi, SANASA, Berendina and other microfinance institutions have implemented group-based credit programs targeting low-income communities, particularly women. These programs are expected to improve women's economic conditions by increasing their access to financial resources and promoting entrepreneurship. Existing studies on microcredit and women's empowerment have often focused on the availability or participation in microcredit programs with empowerment frequently assessed

through single outcomes such as income, employment or household decision making and many have measured microcredit participation simply as a binary indicator of participation or non-participation. However, women's economic empowerment is a multidimensional concept. Limited attention has been given to examining the extent of women's engagement with group-based microcredit programs using a composite measure alongside a multidimensional measure of women's economic empowerment. Therefore, there is important to examine whether the extent of women's engagement with group-based microcredit programs, rather than simply whether women have access to microcredit is associated with multidimensional economic empowerment.

Objectives

The main objective of the study was to examine the impact of group-based microcredit on women's economic empowerment in Kandy district. The specific objectives were: (1) to examine the level of economic empowerment of women involved in group-based microcredit programs and (2) to analyze the socioeconomic factors associated with women's economic empowerment.

Methodology

The study adopted quantitative research approach and used primary cross-sectional data. A sample of 60 women was selected from the Kandy District and data were collected from selected Grama Niladhari Divisions in the Ganga Ihala Divisional Secretariat and Udapalatha Divisional Secretariat in Kandy District. Purposive sampling method was used to select respondents who met the predefined eligibility criteria relevant to the study. The respondents were women aged 18 years or above, residing in the selected areas of Kandy District and participating in group-based microcredit programs. They had relevant experience with program activities and were willing to provide information required for the study. Initially, an eligible participant was identified and additional eligible participants were reached with the assistance of existing participants. Thus, respondent identification involved a chain-referral approach within the purposively defined target population. This approach enabled the researcher to reach women with direct experience of group-based microcredit programs and the issues examined in the study. Data were collected using a structured questionnaire containing questions related to socioeconomic characteristics, group-based microcredit engagement and women's economic empowerment. Women's economic empowerment was measured using

the Women's Economic Empowerment Index (WEI) developed by Herath et al. (2016), based on four dimensions as agricultural affairs (WEIAg), domestic affairs (WEIDo), business activities (WEIBu) and social affairs (WEISoc).

$$WEI = \frac{WEIAg + WEIDo + WEIBu + WEISoc}{4}$$

The main independent variable was measured using the Group-Based Microcredit Index (GBMI) based on four dimensions as Loan Access (LA), Productive Loan Utilization (LU), Group Participation (GP) and Repeat Credit (RC). The GBMI and WEI were constructed using Likert scale items measuring women's engagement with group-based microcredit programs.

$$GBMI = \frac{LAI + LUI + GPI + RCI}{4}$$

Education level (EDU), household size (HS) and age (AGE) were included as control variables. Descriptive statistics, correlation analysis, multiple linear regression and multicollinearity diagnostics were conducted using Stata. The estimated regression model was:

$$WEI_i = \beta_0 + \beta_1 GBMI_i + \beta_2 HS_i + \beta_3 EDU_i + \beta_4 AGE_i + \epsilon_i$$

Results and Discussion

The multiple linear regression analysis revealed that the estimated model was statistically significant ($p=0.0000$), indicating that the independent variables jointly had a significant impact on women's economic empowerment. R^2 value of 0.81 implies that approximately 81% of the variation in women's economic empowerment explained by the variables included in the model.

GBMI had a positive and statistically significant relationship with women's economic empowerment ($\beta = 0.4115$, $p= 0.0000$). This indicates that a one unit increase in GBMI was associated with an estimated 0.412 unit increase in WEI holding other variables constant. Therefore, the study provides evidence of a positive and statistically significant relationship between group-based microcredit and women's economic empowerment among the women in study area. The descriptive findings showed that the overall mean WEI was 3.975, indicating a high level of women's economic empowerment. Among the four dimensions, social affairs recorded the highest mean score (4.083, SD = 0.519), followed by agricultural affairs (3.967, SD = 0.497), domestic affairs (3.950, SD = 0.429) and business activities (3.900, SD = 0.500). In terms of the overall empowerment

classification, 48 respondents (80.0%) had a high level of economic empowerment, while 12 respondents (20.0%) had a moderate level. None of the respondents were classified as having a low level of empowerment. These findings indicate that the women generally experienced a high level of economic empowerment. Regarding socioeconomic factors, family size had a significant negative relationship with women's economic empowerment ($\beta = -0.2424$, $p = 0.004$), while education had a significant positive relationship ($\beta = 0.0552$, $p = 0.028$). In contrast, age was not statistically significant ($\beta = -0.0002$, $p = 0.937$).

Multicollinearity diagnostic was conducted using the VIF. The VIF values ranged from 1.03 to 3.77, with a mean VIF of 2.51. The results indicate that multicollinearity was not a serious concern in the regression model.

The regression results indicated that engagement with group-based microcredit programs had a positive and statistically significant relationship with women's economic empowerment. This finding is consistent with previous empirical evidence that microcredit can contribute to different dimensions of women's empowerment. Herath, Guneratne and Sanderatne (2016), found evidence of improvements in dimensions of women's empowerment, control over resources, household decision-making, self-confidence and women's status within the family and community. Similarly, with Al-Shami, Razali and Rashid (2018) examined the effect of Amanah Ikhtiar Malaysia (AIM) microcredit on women's empowerment. The consistency between these studies and the present findings may be explained by the fact that microcredit can provide women with greater access to financial resources, while group-based programs can additionally provide opportunities for peer support, information sharing and collective participation.

Conclusion and Policy Recommendations

The study concluded that engagement with group-based microcredit program had a positive and statistically significant impact on women's economic empowerment in the study area. The positive coefficient of GBMI indicates that women with higher levels of engagement with group-based microcredit program affected to demonstrate higher levels of economic empowerment. Based on the findings, several policy implications can be highlighted. Microfinance institutions should strengthen group-based microcredit program and important to focus not only on loan provision but also on women's economic empowerment outcomes. As well as, group-based microcredit program should be combined with entrepreneurship,

financial management, bookkeeping and business development training to help women to use credit productively. Furthermore, group meetings should be used as platforms for financial education, business knowledge sharing, peer support and networking rather than focusing only on loan repayment. Special attention should be given to women from lower income households and women with greater household responsibilities and microfinance institutions should monitor women's empowerment outcomes using multidimensional indicators rather than evaluating program success only through loan disbursement and repayment rates.

References

- Al-Shami, S.S.A., Razali, R.M. and Rashid, N., (2018). The effect of microcredit on women empowerment in welfare and decisions making in Malaysia. *Social Indicators Research*, 137(3), pp.1073-1090.
- Herath, H.M.W.A., Guneratne, L.H.P. and Sanderatne, N., (2016). Impact of microfinance on women's empowerment: a case study on two microfinance institutions in Sri Lanka. *Sri Lanka Journal of Social Sciences*, 38(1).
- Jayasinghe, J.M.M.M. and Herath, H.M.W.A., (2013). Impact of microcredit on women empowerment: Evidence from thrift and credit Co-operative societies of Anamaduwa Divisional Secretariate Divisions in Sri Lanka. *Faculty of Arts, University of Peradeniya*, pp.43-47.

Influencer Credibility and Imitation Behavior in Junk Food Consumption among Young Adults: A Qualitative Study

**I. Dilshani, S. Jeyapalan, C. Hansani, G. Kaluarachchi, O. Vidarshika
and N. Dayapathirana**

*SLIIT Business School, Sri Lankan Institute of Information Technology,
Malabe, Sri Lanka*

Keywords: *Imitation Behavior; Influencer Marketing; Perceived Credibility; Social Media Influencers*

Introduction

Social media influencers have become key in how organizations relate to their customers because of the frequently-changing nature of social media sites. Through influencer marketing, firms can share information regarding their products in an engaging way to specific groups of people. Influencer marketing has thus become an essential digital marketing strategy because influencers can help in establishing a communication channel between brands and customers via social media platforms (Liu and Zheng, 2024). In addition, (Ooi et al., 2023) further highlight that influencer credibility is another vital element when important role in the attitudes of consumers towards the influencers and the product or service they are promoting. In contrast to traditional advertising, influencer marketing is seen as personal in nature because influencers create a certain level of familiarity among themselves and their followers due to constant interactions on social media platforms.

However, the success of influencer marketing will highly depend on the level of credibility of the influencer. According to the Source Credibility Theory, the characteristics of a source of communication, especially expertise, trustworthiness, and attractiveness, may impact the persuasion efficacy of the message. (Weismueller et al., 2020). With regards to social media, previous research has established that influencer credibility has previously influenced consumer reaction to the influencer influence and purchase intentions (Liu and Zheng, 2024). Moreover, contemporary literature has established that influencer expertise, trustworthiness, and attractiveness have previously been important dimensions of credibility among consumers in social media platforms.

The research on the marketing of unhealthy food products demonstrated that young people usually become targets of promotion of unhealthy food items through digital and social media environment have stated that unhealthy food promotion and the role of influencers play the key roles in the promotion of such kind of food among young people (Kucharczuk et al., 2022). This is also an issue which applies to the Sri Lankan context. The World Health Organization's Sri Lanka STEPS 2021 Survey investigated the dietary behaviour of consuming fast food and eating processed food that is high in salt content as part of the nation's national risk factors of non-communicable diseases assessment (World Health Organization, 2021). This implies that the context of social media exposure and dietary related health issues makes it pertinent to study the issue of junk food marketing by influencers. This study qualitatively explores the factors that influence the perceived credibility of social media influencers and analyses the ways in which this credibility affects imitation behaviour with respect to junk food consumption among young adults.

Objectives

Main objective of this study is to explore how perceived social media influencer credibility influences imitation behavior toward junk food consumption among young adults in Sri Lanka. Specific objectives are (1) to explore the factors of perceived influencer on credibility imitation behavior of junk food consumption; (2) to explore the consequences of imitation behavior relying on influencers' marketing of junk food and (3) to provide recommendations to mitigate the consequences of junk food consumption through influencer marketing.

Methodology

Qualitative research approach was applied in this research, and this involved the use of both exploratory and inductive research design whose objective was identification of perceptions of the young adults concerning the credibility of the social media influencers, relationship between perceptions of credibility of social media influencers and imitation behavior as well as consumption of junk food. In this case, phenomenology research design was used to explore the experiences of the participants about the influence of recommendations from social media influencers on the food consumed by the participants.

The participants for this research were chosen through purposive sampling method, and there were 15 participants aged between 18 and 25 years who were exposed to recommendations from the social media influencers. Data was collected using semi-structured interviews that involved collection of the experiences and perceptions of the participants about the regarding issues related to credibility and imitation behavior towards junk food consumption through social media influencers. Data was analysed based on thematic analysis (Braun & Clarke, 2006).

Results and Discussion

Influencer credibility became the first theme with factors such as influencer, followers, trust, credibility, partnership and similarity being found to be significant. It was pointed out by the participants that the influencers that were perceived to be authentic and talked about their own experiences were more trusted. At the same time, relatability contributed to influencer credibility due to similarities between the lifestyle or interests of influencers and their followers. However, the possibility of over-commercialization and lack of sponsor disclosure may affect the level of trust. Such results are consistent with the Source Credibility Theory that focuses on the role of source features in persuasion (Weismueller et al., 2020).

The second theme, the effects of imitation behavior, found that the participants were able to encourage themselves to try or buy junk foods after watching the influencers eating or suggesting certain products. Short videos were found to be appealing and entertaining, as well as readily available. Cravings, repetitive eating, eating behaviors, social influence, and increased spending were some of the outcomes mentioned by the participants. These results corroborate other studies that suggest that social media is an influential way through which junk foods are marketed among youth (Kucharczuk et al., 2022). It is also relevant to the situation of Sri Lanka, where eating behaviors are acknowledged in the country's non-communicable diseases' risk factors (World Health Organization, 2021).

Mitigation strategies, which were the third theme, were transparency in sponsorship, review honesty, health awareness, critical analysis of influencer's content, and nutrition value, ingredients, and portion size consideration. The participants also highlighted self-control and healthy food choice as means to mitigate the negative effects. In general, the results indicate that the credibility of

influencers, as well as engaging social media content, might lead to imitation in relation to junk food consumption among the participants.

Conclusions and Policy Recommendations

This study revealed the following factors which affected the perception of social media influencer credibility among the participants: influencer, followers, trust, credibility, partnership and similarity. Moreover, the results show that credible recommendations from influencers and interesting short videos could foster imitation of unhealthy eating habits such as consumption of junk foods, experimenting with new products, craving and spending.

Thus, influencers and brands need to make sponsorships transparent and market the food items truthfully. To critically analyse the influencers' advice, digital and advertisement literacy needs to be improved for young consumers. Awareness of health can include thinking about the nutrition, composition, quantity, and health implications.

References

- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101.
- Kucharczuk, A. J., Oliver, T. L. and Dowdell, E. B.(2022). Social media's influence on Adolescents' food choices: A mixed studies systematic literature review. *Appetite*, 168, 105765.
- Liu, X. and Zheng, X. (2024). The persuasive power of social media influencers in Brand credibility and purchase intention. *Humanities and Social Sciences Communications*, 11.
- Ooi, K. B., Lee, V.H., Hew, J.J., Leong, L.Y., Tan, G. W.H. and Lim, A.F. (2023). Social media influencers: an effective marketing approach? *Journal of Business Research*, 160, 113773.
- World Health Organization (2021). *World health statistics 2021: Monitoring health for the SDGs, sustainable development goals*. [online] www.who.int. Available at: <https://www.who.int/publications/i/item/9789240027053>
- Weismueller, J., Harrigan, P., Wang, S. and Soutar, G. (2020). Influencer endorsements: How advertising disclosure and source credibility affect consumer purchase intention on social media. *Australasian Marketing Journal*, 28, 160–170.

Socioeconomic, Institutional and Environmental Determinants of Agriculture Land Abandonment in Sri Lanka: Reference to Central and North Western Provinces

A.I.M.Dimbulgasthenna¹, M.B.Ranathilaka², C. Ekanayake³ and E. M. P.C.S Ekanayake⁴

¹ *PGIHS, University of Peradeniya, Sri Lanka*

² *Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

³ *Department of Agrarian Development, Colombo, Sri Lanka*

⁴ *Faculty of Arts, University of Peradeniya, Sri Lanka*

Keywords: *Agriculture Land Abandonment; Central Province; North Western Province; Sri Lanka*

Introduction

Agricultural land abandonment poses a significant challenge to agricultural productivity, food security, rural livelihoods, and sustainable land management. Globally, it is associated with population ageing, labour shortages, alternative employment, low farm profitability, institutional constraints, and climate related risks. In Sri Lanka, approximately 80,405 acres of paddy land were abandoned in 2020, compared with around 49,730 acres in 2021 and 2022 and 48,000 acres in 2023 (Ministry of Agriculture, 2024). Farmers' abandonment decisions may be influenced by socioeconomic factors such as age, labour availability, off farm employment, and profitability, institutional factors including tenure security, credit, irrigation, and extension services, and environmental pressures such as drought, floods, and irregular rainfall. Despite the scale of the issue, farm level evidence across Sri Lankan districts remains limited. Therefore, this study examines the socioeconomic, institutional, and environmental determinants of agricultural land abandonment in Kandy, Matale, Nuwara Eliya, Kurunegala, and Puttalam districts to support targeted strategies for improved land use, rural livelihoods, and food security.

Objectives

The main objective of this study is to identify and examine the socioeconomic, institutional, and environmental factors influencing agricultural land abandonment in the Central and North Western Provinces of Sri Lanka, with particular focus on Kandy, Matale, Nuwara Eliya, Kurunegala, and Puttalam districts. The study also aims to identify district level differences in land abandonment and provide evidence to support targeted strategies for sustainable agricultural land use.

Methodology

The study was conducted in Kandy, Matale, Nuwara Eliya, Kurunegala, and Puttalam districts of Sri Lanka using a mixed methods approach. Quantitative data were collected from 850 farmers through proportionate stratified sampling, with the five districts treated as separate strata. In addition, qualitative data were obtained through 36 farmer interviews and focus group discussions (FGDs).

Agricultural land abandonment was specified as a binary dependent variable (1 = abandoned, 0 = otherwise). A binary Logistic regression model was employed to examine its socioeconomic, institutional, environmental, and spatial determinants. The model specified as below:

$$\ln\left(\frac{P_i}{1 - P_i}\right) = \beta_0 + \beta_1 AGE_i + \beta_2 EDU_i + \beta_3 OFFEMP_i + \beta_4 LSIZE_i + \beta_5 MDIST_i + \beta_6 IRR_i \\ + \beta_7 TENURE_i + \beta_8 CREDIT_i + \beta_9 EXT_i + \beta_{10} CLIMATE_i + \beta_{11} DKANDY_i \\ + \beta_{12} DMATALE_i + \beta_{13} DNELIYA_i + \beta_{14} DKURUNEGALA_i + u_i$$

where P_i represents the probability of land abandonment. The explanatory variables include age, education, off farm employment, land size, distance to farmland, irrigation, tenure security, credit, extension services, and climate shocks, with Puttalam as the reference district. The model was estimated using E-Views, and results were interpreted using odds ratios. Descriptive statistics were used to examine district level patterns, while qualitative evidence was used to contextualize and triangulate the regression findings.

Results and Discussion

Agricultural land abandonment varied substantially across the five districts. Puttalam recorded the highest abandonment rate (55%), followed by Kurunegala (49%), Matale (38%), Kandy (32%), and Nuwara Eliya (27%). The differences

indicate that abandonment varies across local socioeconomic, agricultural, and environmental, accessibility, and institutional conditions. The sample had a mean farmer age of 53.8 years, while 64% reported off farm employment, 46% had access to irrigation, and 39% had access to credit, indicating an ageing farming population, livelihood diversification, and incomplete access to productive resources.

Table 1: The Results of Binary Logistic Regression

Variable	Coefficient	Std.Error	Z Statistic	Prob.	Odds Ratio
AGE	0.047	0.014	3.481	0.000	1.048
OFFEMP	0.865	0.249	3.481	0.000	2.380
LSIZE	-0.592	0.170	-3.481	0.000	0.553
MDIST	0.633	0.182	3.481	0.000	1.883
IRR	-1.384	0.398	-3.481	0.000	0.250
TENURE	-1.021	0.293	-3.481	0.000	0.360
CREDIT	-0.518	0.168	-3.090	0.002	0.596
EXT	-0.462	0.200	-2.308	0.021	0.630
CLIMATE	0.903	0.259	3.481	0.000	2.470
DKANDY	-0.542	0.233	-2.326	0.020	0.581
DMATALE	-0.318	0.219	-1.450	0.147	0.728
DNELIYA	-0.811	0.246	-3.291	0.001	0.445
DKURUNEGALA	-0.204	0.206	-0.992	0.321	0.815
Statistic			Value		
LR statistic			421.75		
Prob. (LR statistic)			0.001		
McFadden R-squared			0.436		
Correctly Classified			84.0%		
Correctly Classified -Non abandoned			93.2%		
Correctly Classified -Abandoned			70.7%		

The Binary Logistic Regression model was statistically significant (LR = 421.75, $p < 0.001$), with a McFadden R^2 of 0.436 and an overall classification accuracy of 84.0%. Age, off-farm employment, distance to agricultural land, and climate shocks significantly increased the odds of land abandonment. Specifically, age increased the odds by 4.8% (OR = 1.048), off-farm employment by 2.38 times (OR = 2.380), distance by approximately 88% (OR = 1.883), and climate shocks by approximately 147% (OR = 2.470). Education was not statistically significant.

In contrast, larger landholdings, irrigation, tenure security, credit, and extension services reduced abandonment odds by approximately 45%, 75%, 64%, 40%, and 37%, respectively. District effects were also evident, with significantly lower abandonment odds in Kandy (OR = 0.581) and Nuwara Eliya (OR = 0.445) compared with Puttalam, while Matale and Kurunegala were not statistically significant. Qualitative evidence supported the quantitative findings, highlighting alternative employment, labour constraints, land fragmentation, irrigation, climate shocks, markets, and institutional factors. So, agricultural land abandonment is a multidimensional process influenced by interacting socioeconomic, institutional, environmental, and spatial factors.

Conclusion and Policy Recommendations

The findings demonstrate that agricultural land abandonment in the Central and North Western Provinces is a multidimensional and spatially heterogeneous process. Age, off farm employment, distance to agricultural land, and climate shocks increased the likelihood of abandonment, while larger landholdings, irrigation, tenure security, credit, and extension services reduced it. Significant district differences further highlight the importance of local socioeconomic, institutional, environmental, and accessibility conditions. The findings suggest that policies should be context specific. Puttalam and Kurunegala require greater attention to climate resilience, irrigation, and labour constraints, while Kandy and Matale need measures addressing land fragmentation and accessibility. In Nuwara Eliya, strengthening irrigation, high value crop production, cooperatives, and market linkages may help sustain cultivation. Across districts, improved access to credit, secure tenure, extension services, labour saving technologies, and markets is important. So, an integrated approach is needed, with priority given to land where abandonment can realistically be prevented or productive use restored. However, the cross sectional nature of the data limits causal interpretation. Future studies should use panel data and incorporate profitability, labour, migration, market, fragmentation, crop, machinery, and detailed climate related factors.

References

- Besley, T. (1995). Property rights and investment incentives: Theory and evidence from Ghana, *Journal of Political Economy*, 103(5), pp. 903–937.
- Chaudhary, S., Wang, Y., Dixit, A.M., Khanal, N.R., Xu, P., Fu, B., Yan, K., Liu, Q., Lu, Y. and Li, M. (2020). A synopsis of farmland abandonment and its driving factors in Nepal', *Land*, 9(3), 84.
- Lobell, D.B., Burke, M.B., Tebaldi, C., Mastrandrea, M.D., Falcon, W.P. and Naylor, R.L. (2008). Prioritizing climate change adaptation needs for food security in 2030, *Science*, 319(5863), pp. 607–610.
- Mameno, K. and Kubo, T. (2022). Socio-economic drivers of irrigated paddy land abandonment and agro-ecosystem degradation: Evidence from Japanese agricultural census data', *PLoS ONE*, 17(4), e0266997.
- Subedi, Y.R., Kristiansen, P. and Cacho, O. (2022). Drivers and consequences of agricultural land abandonment and its reutilisation pathways: A systematic review, *Environmental Development*, 42, 100681.

The Impact of Fiscal Policy on Economic Growth in Sri Lanka: An Empirical Study

B. Niranjana and T. Vinayagathan

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Economic Growth, Fiscal Policy, Income Taxes, ARDL Model*

Introduction

Economic growth is an important goal of every economy. It refers to a sustained increase in the production of goods and services and is commonly measured by Gross Domestic Product (GDP). Fiscal policy, through government revenue and expenditure, can influence consumption, saving, investment, income distribution and overall economic activity. Therefore, effective fiscal policy is important for promoting economic growth and maintaining economic stability (Phullel, 2023).

Government revenue in Sri Lanka has remained relatively low compared with government expenditure requirements. Total government revenue declined from 28.9% of GDP in 1978 to 12.6% in 2010 and further declined to 9.2% in 2020, 8.3% in 2021, and 8.4% in 2022. This decline was related to weaknesses in tax administration, tax reductions, tax exemptions and increased dependence on indirect taxation. The situation became more difficult following the 2019 tax concessions, the Easter Sunday attacks, the COVID-19 pandemic, and the economic crisis of 2022. However, following fiscal reforms under the IMF supported programme, government revenue increased to 13.5% of GDP in 2024 (CBSL, 2024).

Previous studies have reported mixed findings on the relationship between fiscal policy and economic growth. Paudel and Verma (2016), Maheswaranathan and Jeewanthi (2021), Tendengu, Kapingura and Tsegaye (2022), and Osusala and Jones (2014) reported a positive relationship between fiscal policy and economic growth. In contrast, Hlongwane, Mongale and Tala (2018), Dinca and Trifan (2013), and Rexha, Bexheti and Ukshini (2019) found a negative relationship. In Sri Lanka, Maheswaranathan and Jeewanthi (2021) examined fiscal policy and economic growth using data from 1990 to 2019, while Vinayagathan and Sri

Ranjith (2021) focused on public debt, budget deficits and tax policy reforms. These studies provide useful evidences. However, the debate on the relationship between fiscal policy and economic growth remains inconclusive.

Objectives

The main objective of the study is to examine the impact of fiscal policy on economic growth of Sri Lanka. This study attempts to investigate the short run and long run relationship between revenue, expenditure and economic growth.

Methodology

This study uses annual time-series data for Sri Lanka covering the period from 1977 to 2024. Economic growth is measured by Gross Domestic Product (GDP), which is used as the dependent variable. The explanatory variables are Government Expenditure (GE), Income tax (IT), Indirect tax revenue (TRID), Public Debt (PD), Inflation (INF), and Gross Fixed Capital Formation (GFCF). The data are obtained from the Central Bank of Sri Lanka (CBSL) Annual Reports and the World Development Indicators (WDI).

The regression model used in this study is specified as follows:

$$GDP_t = \beta_0 + \beta_1 GE_t + \beta_2 IT_t + \beta_3 TRID_t + \beta_4 PD_t + \beta_5 INF_t + \beta_6 GFCF_t + \mu_t$$

To examine the time-series properties of the variables, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests are applied. Since the variables are integrated at different levels, I(0) and I(1), the Autoregressive Distributed Lag (ARDL) Bounds Testing approach is used to examine the existence of a long-run relationship among the variables. The Error Correction Model (ECM) is then used to identify both short-run and long-run effects. A Wald test is also applied to examine the joint significance of the relevant variables. The analysis is conducted using E-Views 10 and Microsoft Excel 2010.

Results and Discussion

The ADF unit root test results show that GDP is stationary at level, I(0), while the other variables are stationary at first difference, I(1). Since the variables have a mixed order of integration, the ARDL approach is adopted in this study to estimate the parameters. Based on the Akaike Information Criterion (AIC), ARDL (2, 2, 2, 0, 0, 1, 0) model is selected as the best model among the top 20 models. The

diagnostic tests (Table 1) indicate that the model is normally distributed and has no serial correlation, specification error, and heteroscedasticity. The CUSUM test also confirms that the model is stable. The ARDL Bounds Test produces an F-statistic of 7.02, which is higher than the 5% upper critical value of 3.77, confirming the existence of a long-run relationship among the variables.

Table 1: The Results of Diagnostic Tests

Test	Probability value
Normality Test (Jarque - Bera)	0.572453
Serial Correlation (BG LM test)	0.2151
Ramsey RESET test	0.0730
Heteroscedasticity test (BPG)	0.2120

Table 2 below presents the long run and short run results from the ARDL Bounds test and Error correction version of ARDL model respectively.

Table 2: Results of Selected ARDL Model

Dependent Variable: GDP						
Panel A: Long-run Coefficient Estimates						
GE	IT	TRID	PD	INF	GFCF	R ²
1.23E+09 (0.2668)	7.50E+9* (0.0852)	6.12E+9* (0.0964)	-6.93E+8** (0.0142)	-50186966** (0.0231)	92362496 (0.5101)	0.828268
Panel B: Short-run Coefficient Estimates						
Lag Order	GE		IT		INF	
0	2.27E+07*** (0.0000)		1.94E+09*** (0.0000)		-1.09E+08*** (0.0000)	
1	-2.45E+08*** (0.0000)		-8.61E+08*** (0.0000)		-	
Panel C: Error Correction Representation						
CointEq(-1) = -0.410*** (0.0000)						

Note: ***, ** & * represent variables are statistically significant at 1%, 5% and 10% respectively.

The long-run results show that income tax (IT) and indirect tax revenue (TRID) have positive and statistically significant relationships with economic growth at the 10% level. This suggests that higher tax revenue is associated with higher economic activity in the long run. Public debt (PD) and inflation (INF) have negative and statistically significant effects on economic growth at the 5% level. This indicates that higher public debt and inflation are associated with lower

economic growth. Government expenditure (GE) and gross fixed capital formation (GFCF) have positive coefficients, but their effects are not statistically significant in the long run.

In the short run, government expenditure and income tax have positive and statistically significant effects on economic growth in the current period, while inflation has a negative and statistically significant effect. However, the lagged values of government expenditure and income tax show negative effects, indicating that the short-run impact of fiscal policy variables may change over time. The error correction coefficient is -0.410, which is statistically significant. This indicates that approximately 41% of the short-run disequilibrium is adjusted towards the long-run equilibrium each year.

Overall, the findings show that fiscal policy variables have different effects on economic growth in the short run and long run. Tax revenue contributes positively to economic growth in the long run, while high public debt and inflation are associated with lower economic growth. The results also show that the effects of government expenditure and capital formation are not statistically significant in the long run.

Conclusion and Policy Recommendations

The study finds that fiscal policy has different effects on economic growth in Sri Lanka in the short run and long run. In the long run, direct tax and indirect tax revenue have positive and statistically significant relationships with economic growth, while public debt and inflation have negative and statistically significant relationships. Government expenditure and gross fixed capital formation have positive but statistically insignificant effects in the long run. The short-run results show significant effects of government expenditure, income tax, and inflation on economic growth. The significant error correction term confirms the existence of a long-run adjustment process.

Based on these findings, the government should strengthen tax administration and improve direct tax collection to increase revenue and reduce excessive dependence on borrowing, as well as ensure the effective debt management and control of unnecessary borrowing. These measures can help create a more stable fiscal environment and support sustainable economic growth in Sri Lanka.

References

- Maheswaranathan, S. and Jeewanthi, K.M.N. (2021). Empirical investigation of the influence of fiscal policy on Sri Lankas economic growth from 1990 to 2019. *Asian Journal of Economic Modelling*. 9(2), pp. 122-131.
- Phullel, H. (2023). Effects of fiscal policy on economic growth: Empirical evidence from South Asian countries. *The Lumbini Journal of Business and Economics*, 11(1), pp. 286-296.
- Vinayagathan, T. and Sri Ranjith, J.G. (2021). Public debt, budget deficit and tax policy reforms for fiscal consolidation in Sri Lanka: rationale and feasibility'. *Sri Lanka Journal of Social Sciences*. 44(1), pp. 97-109.
- Central Bank of Sri Lanka Annual Report (2025). Colombo: Central Bank of Sri Lanka.
- World Development Indicator of the World Bank Annual Report. (2025). World Bank: Washington DC.

Financial Resilience and Sustainability in South Asia: A Comparative Analysis of Selected SAARC Member States

Sorina BOTIS

Transilvania University of Brasov, Romania

Keywords: *SAARC; Financial Resilience; Financial Sustainability; Economic Criteria; Economic Growth*

Introduction

SAARC countries provide a regional framework for cooperation in areas such as economic development, trade, poverty reduction, education, healthcare, agriculture, climate change, disaster management, and cultural exchange. Against this background, the paper assesses the capacity of the selected economies to absorb economic and financial shocks and maintain sustainable economic development. The SAARC countries have significant economic and strategic importance in South Asia; however, they differ substantially in terms of economic growth, inflation, public debt, fiscal balance, current account position, foreign direct investment, non-performing loans, labour productivity and international reserves. Hence, the main research problem addressed by this study is the difficulty of assessing and comparing the financial resilience of India, Pakistan, Bangladesh and Sri Lanka within the SAARC region using a common set of economic indicators. The study focuses on identifying differences in the degree of financial resilience among the selected SAARC economies and highlights the main macroeconomic factors contributing to their vulnerability or capacity to withstand economic and financial shocks.

Objectives

The general objective of the study is to assess and compare the financial resilience and sustainability of selected SAARC member states (India, Pakistan, Bangladesh and Sri Lanka). The study has the following specific objectives: to examine the evolution of key macroeconomic and financial indicators; to assess the main sources of financial vulnerability in the selected economies; to evaluate the role of external factors, including FDI, trade, remittances and foreign exchange reserves, in financial resilience; to compare the financial resilience of India, Pakistan, Bangladesh and Sri Lanka; to develop a simplified Financial Resilience Score

based on selected indicators; to identify the main strengths and vulnerabilities of the selected economies and discuss the potential contribution of SAARC regional cooperation to financial resilience.

Methodology

The study uses a quantitative method, including descriptive statistical analysis and a composite financial resilience scoring method based on selected economic indicators, descriptive and comparative approach of the main and common economic and financial indicators and calculating comparable financial resilience scores in the above four selected SAARC countries over the period 2022–2025. This is a relevant period because it captures recent economic and financial developments and calculating the scores for each year also allows you to observe how resilience changes over time, not just the situation in a single year.

The analysis focuses on key indicators such as public debt, external debt, inflation, current account balance, foreign exchange reserves, non-performing loans, FDI and GDP growth. A simplified Financial Resilience Score (FRS) is developed due to limitations in the availability and comparability of data. Selected indicators are converted into scores from 1 to 10, with higher scores indicating greater resilience. The final score is used to compare the relative financial resilience of the four countries and to identify their main strengths and vulnerabilities.

Results and Discussion

The results indicate significant differences in financial resilience among the selected SAARC member states. The differences in resilience scores can be economically explained by differences in fiscal stability, inflation, external vulnerabilities, financial sector stability, FDI, international reserves, labour productivity and economic growth. These factors interact with each other and determine the capacity of each economy to absorb shocks and maintain sustainable development. India shows the strongest overall resilience, with a resilience score of 73, 24, supported by its economic diversification, sustained growth and foreign exchange reserves. Bangladesh presents a moderate level of resilience, with a resilience score of 49, 9, while Pakistan (resilience score of 46, 91) and Sri Lanka (resilience score of 37, 47), show financial vulnerabilities, particularly related to fiscal pressures, external financing, inflation and foreign exchange constraints.

The Financial Resilience Scores confirm these differences highlight the importance of sustainable debt levels, adequate foreign exchange reserves, financial-sector stability, controlled inflation and stable economic growth in strengthening the capacity of economies to absorb financial and economic shocks.

Conclusion and Policy Recommendations

India needs to strengthen fiscal policy, gradually reduce the fiscal deficit and public debt, maintain price stability, and continue attracting FDI and productive investment. Maintaining strong growth while creating larger fiscal buffers would further improve resilience. For Pakistan, fiscal discipline needs to be strengthened, also improve domestic revenue collection, reduce dependence on external financing, increase foreign-exchange reserves, and reinforce the stability of the banking and financial sector. Bangladesh and Sri Lanka must prioritize reducing inflation, strengthening foreign exchange reserves, improving domestic revenue mobilization, addressing banking sector vulnerabilities, and diversifying exports and sources of FDI.

References

- Asian Development Bank (ADB) (2025). *Asian Development Outlook 2025: Growth Prospects and Economic Developments in Developing Asia*. Manila: Asian Development Bank.
- Asian Development Bank (ADB) (2025). *Key Indicators for Asia and the Pacific 2025*. Manila: Asian Development Bank.
- Brunnermeier, M.K. and Oehmke, M. (eds.) (2013). *The Handbook of Financial Crises*. Oxford: Oxford University Press.
- International Monetary Fund (2025) *Regional Economic Outlook: Asia and Pacific*. Washington, DC: International Monetary Fund.
- World Bank (2025). *South Asia Development Update*. Washington, DC: World Bank.

Determinants of Profitability of Commercial Banks: An Empirical Analysis of Sri Lanka

S. Thusiyanthan and P. Anusha

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Commercial Bank Profitability; Return on Assets; ARDL Model*

Introduction

The banking sector plays a key role in the functioning of a country's financial system by mobilizing savings, allocating financial resources, facilitating investment and supporting economic activities. Commercial banks are particularly important because they provide credit and other financial services to households and businesses while contributing to financial stability and economic development. Therefore, maintaining a sustainable level of profitability is essential for the efficient operation and long-term stability of the banking sector.

In Sri Lanka, commercial banks have experienced considerable changes in their operating environment over the past three decades. Increased competitions, domestic and international economic shocks, changes in interest rates, inflationary pressures and fluctuations in economic activity have affected the profitability of the banking sector. The profitability of commercial banks also declined substantially during periods of economic and financial stress, particularly during the recent economic crisis. These developments highlight the importance of identifying the factors that determine bank profitability in Sri Lanka.

Previous studies have identified both bank-specific and macroeconomic factors as important determinants of profitability. However, there is a need for further empirical evidence using a long time-series framework that considers both short-run and long-run relationships.

Objective

The main objective of this study is to identify the major internal and external factors that determine the profitability of commercial banks in Sri Lanka. This study also examines the short run and long run relationships between the variables.

Methodology

This study focuses on the period of 1990 to 2024 using annual time-series data from the Central Bank of Sri Lanka Annual Reports and the World Bank's World Development Indicators. Return on Assets (ROA) is employed as the dependent variable representing commercial bank profitability, while Capital Adequacy Ratio (CAR), Bank Size (BS), Reserve Ratio (RR), Lending Interest Rate (LIR), Inflation (IN), and Economic Growth Rate (GDPGR) are employed as independent variables. Unit root properties were examined using the ADF and PP tests. Since the variables were found to be a mixture of $I(0)$ and $I(1)$, the ARDL Bounds testing approach was employed to examine cointegration and estimate the long-run and dynamic short-run relationships, with the optimal lag length selected using the Akaike Information Criterion (AIC). Diagnostic tests - Breusch-Godfrey serial correlation, Breusch-Pagan-Godfrey heteroskedasticity, Jarque-Bera normality, Ramsey RESET, and CUSUM stability - were conducted to verify model reliability, and the Granger causality test was applied to identify the direction of causal relationship among the variables. All estimations were carried out using E-views 10.

Results and Discussion

The descriptive analysis indicates that the profitability of Sri Lankan commercial banks has experienced considerable fluctuations during the study period. ROA remained at a relatively stable level during the early period but experienced declines during periods of financial and economic difficulties. The profitability of commercial banks subsequently recovered during periods of improved economic conditions, while the recent economic crisis created substantial pressure on bank profitability. The dissertation identifies notable fluctuations in ROA during the global financial crisis, the COVID-19 period and the 2022 economic crisis.

The ADF and PP unit root tests confirmed that the variables are either $I(0)$ or $I(1)$, with no $I(2)$ variables. This satisfies an important condition for applying the ARDL Bounds Testing approach. Based on the AIC, the ARDL (2, 3, 3, 3, 3, 3, 3) model was selected as the best-fitting model. The Bounds test produces an F-statistic of 8.746704, which exceeds the relevant upper-bound critical value at the 5 percent significance level (3.28). Hence, the null hypothesis of no levels relationship is rejected, confirming the existence of a long-run relationship among the variables.

As shown in Table 1, the long-run estimates show that Bank Size, Inflation and Economic Growth Rate have positive and statistically significant impacts on ROA, while Capital Adequacy Ratio and Reserve Requirement do not have statistically significant long-run impacts. The strongest statistically significant relationship is associated with Economic Growth Rate, followed by Bank Size. The positive relationship between Inflation and profitability may reflect the ability of banks to adjust lending rates and other income-generating activities in response to inflationary conditions, which may support interest income and profitability. However, this relationship should be interpreted cautiously, as the positive link doesn't imply that higher inflation necessarily improves bank profitability.

Table 1: The Results of Long run Relationship

CAR	LNBS	RR	LIR	IN	GDPGR
-0.043549 (0.2445)	0.510227*** (0.0089)	0.006148 (0.8561)	0.025989 (0.1541)	0.016921* (0.0724)	0.164121*** (0.0001)

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively. $R^2 = 0.983541$

The short-run results indicate that Bank Size, Lending Interest Rate, Inflation and Economic Growth Rate have significant positive effects on ROA. The results therefore demonstrate that the determinants of commercial bank profitability may differ between the short run and long run.

Table 2: The Results of the Diagnostic Test

Panel B: Diagnostic Test	
Test	Probability
Jarque–Bera test for normality	0.1058
Breusch-Pagan-Godfrey test for heteroscedasticity	0.3866
Ramsey's RESET test for omitted variables	0.3052
Breusch-Godfrey LM test for serial correlation	0.9098

The diagnostic test (Table 2) indicates that the estimated ARDL model does not suffer from serial correlation, heteroskedasticity or omitted-variable problems, while the residuals are normally distributed. The stability tests also confirm that the selected ARDL model is stable.

The Granger causality analysis further shows a unidirectional causal relationship from Bank Size and Reserve Requirement to ROA, whereas Capital Adequacy Ratio has a bidirectional causal relationship with ROA. These findings indicate that bank-specific characteristics and selected regulatory factors have important implications for commercial bank profitability.

Conclusion and Policy Recommendations

This study confirms that, in the long run, Bank Size, Inflation and Economic Growth Rate have significant positive effects on ROA. In the short run, Bank Size, Lending Interest Rate, Inflation and Economic Growth Rate significantly and positively influence profitability. The findings also demonstrate causal relationships between selected bank-specific variables and profitability. Overall, macroeconomic factors appear more influential based on statistical significance across the estimated models, while Bank Size remains the main significant internal factor. However, the Granger causality results highlight the continued importance of internal factors, including Bank Size, Reserve Requirement and Capital Adequacy Ratio. This comparison is based on statistical significance rather than coefficient magnitude, as the variables are measured in different units.

Based on these findings, several policy recommendations can be proposed. Commercial banks may consider adopting strategies to improve operational efficiency and manage their asset base effectively, as Bank Size is positively associated with profitability, while ensuring that expansion is supported by effective risk management and efficient resource allocation. Policymakers may also consider maintaining macroeconomic stability, while banks could strengthen interest-rate and asset-liability management practices to respond effectively to changing inflationary and financial conditions. Furthermore, policies that support sustainable economic growth, productive economic activities, investment and business development may contribute to banking-sector profitability, given the positive effect of Economic Growth Rate on ROA. Finally, commercial banks and financial regulators may consider capital adequacy and reserve-related policies carefully, as the Granger causality results indicate interactions between these variables and profitability. Regulatory policies should seek to balance financial stability with banks' capacity to undertake lending and investment activities. Overall, these measures may contribute to improving the profitability and resilience of Sri Lanka's commercial banking sector.

References

- Central Bank of Sri Lanka, (2024). Annual Report 1990-2024, Colombo: Sri Lanka.
- Claessens, S., Coleman, N. and Donnelly, M. (2018). Determinants of bank profitability in emerging markets, *BIS Working Papers*, no. 686, Bank for International Settlements, Basel.
- De Silva, D.P.N., Chinna, K., and Azam, S.M.F. (2019). Major determinants on the profitability of Sri Lankan local commercial banks, *European Journal of Economic and Financial Research*, 3(4), pp. 22–35.
- Ruwanthika, W.M.T., Wijekoon, W.M.H.N. and Gunathilaka, R.C. (2022), Determinants of banks' profitability: Empirical evidence from Sri Lanka, *International Journal of Accountancy*, 2(2), pp. 40–55.
- Thevaruban, J.S. (2017), Drivers of commercial banks profitability in Sri Lanka, *Global Journal of Management and Business Research*, 17(6), pp. 15–23.

The Impact of Economic Crisis on the Nutritional Status of Children in the St. Margaret Grama Niladhari Division of Nuwara Eliya District

T. Komathi¹ and S. Vijayakumar²

*¹Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

*²Department of Economics, Faculty of Arts,
University of Jaffna, Sri Lanka*

Keywords: *Economic Crisis; Household Income; Food Security; Child Nutrition; Estate Sector*

Introduction

Sri Lanka's economic crisis created significant challenges for households in meeting food, healthcare and other essential expenditures. These challenges were particularly important for low-income plantation households, where reduced purchasing power and increasing food prices can affect household food consumption and child nutrition. Children under five years are particularly vulnerable to inadequate nutrition because this period is important for physical growth and development. Previous studies have shown that economic shocks can affect child nutrition through household income, food prices, food consumption and access to health services. Bardosono et al. (2007) found that economic crisis conditions were associated with child malnutrition among poor households in Indonesia. Black et al. (2013) highlighted the importance of adequate nutrition for child growth and development. More recent evidence also indicates that economic growth and improvements in socioeconomic conditions are important for reducing childhood malnutrition (Büttner et al., 2023). Education is also an important component of human capital and can influence household socioeconomic outcomes (Becker, 1964). In Sri Lanka, the economic difficulties during the crisis period created additional pressure on household living conditions and expenditure (Central Bank of Sri Lanka, 2023). The St. Margaret Grama Niladhari Division is a plantation community where many households depend on relatively low-income employment. However, limited evidence is available on how the economic crisis affected the nutritional status of children in this specific local setting. Therefore, this study examines the relationship between the economic crisis and the

nutritional status of under-five children, focusing on household income, food expenditure, education, family size, and healthcare and government assistance.

Objectives

The main objective of this study is to examine the impact of the economic crisis on the nutritional status of under-five children in the St. Margaret GN Division by assessing changes in household income and food consumption, examining children's nutritional status, identifying associated socioeconomic factors, and providing recommendations based on the findings.

Methodology

The study was conducted in the St. Margaret Grama Niladhari Division of Nuwara Eliya District. The area consists of 1,768 households, of which 288 households have children under five years of age. A sample of 50 low-income households receiving Aswesuma assistance was selected using simple random sampling. Primary data were collected mainly from mothers using a structured questionnaire covering household income, food expenditure, food consumption, education, healthcare, family size and government assistance. Secondary information was obtained from relevant GN records, medical and anthropometric records and other available reports. Nutritional status was considered as the dependent variable, while household food expenditure (COST), income (INC), education (EDU), family size (FS), healthcare (HEAL) and government assistance (GOV_HELP) were the independent variables. The multiple linear regression model is specified as:

$$Y_i = \beta_0 + \beta_1 COST_i + \beta_2 INC_i + \beta_3 EDU_i + \beta_4 FS_i + \beta_5 HEAL_i + \beta_6 GOVHELP_i + \varepsilon_i$$

The study used descriptive statistics, reliability analysis, Pearson correlation analysis, paired-sample analysis and multiple linear regression. Data were analysed using Excel and SPSS.

Results and Discussion

The findings show that average monthly household income decreased from Rs. 46,865 to Rs. 36,750, while average food expenditure increased from Rs. 38,519 to Rs. 53,130. Only 23% of households reported satisfactory food consumption, while 77% reported unsatisfactory food consumption. The average BMI decreased from 16.33 kg/m² before the crisis to 13.72 kg/m² after the crisis. Among the children

studied, 15 were underweight, 7 were stunted and 4 were overweight according to the measures used in the study.

Pearson correlation analysis shows strong positive relationships between nutritional status and income ($r = 0.955$), education ($r = 0.933$), and healthcare ($r = 0.922$). In contrast, food expenditure ($r = -0.879$), family size ($r = -0.958$), and government assistance ($r = -0.906$) show negative relationships with nutritional status. The reduction in household income may reduce the quantity and quality of food that families can afford, which may affect children's nutritional status. Similarly, rising food expenditure may place additional pressure on household budgets and limit adequate food consumption. Larger families may also face difficulties in distributing limited household resources among family members. The negative relationship with government assistance should be interpreted cautiously because households receiving assistance may already be economically vulnerable. The multiple regression model shows R^2 of 0.920, indicating that approximately 92% of the variation in the nutritional-status measure is explained by the variables included in the model, and the overall model was statistically significant ($p < 0.001$). The estimated model is given below:

$$\hat{Y}_i = 19.469 - 2.361COST_i + 1.717INC_i + 0.471EDU_i - 0.919FS_i \\ + 1.186HEAL_i + 0.314GOVHELP_i$$

Income, education, and healthcare have positive coefficients, while food expenditure, family size, and government assistance have negative coefficients. The negative association of government assistance should be interpreted cautiously, as households receiving greater assistance may already be more economically vulnerable. The higher VIF values for education (8.202), family size (5.928) and government assistance (5.816) indicate possible multicollinearity; therefore, their individual regression coefficients should be interpreted with caution. Overall, the household-level findings indicate that the economic crisis was associated with reduced household income, increased food expenditure, inadequate food consumption and poorer nutritional outcomes among the children studied. The statistical results show strong relationships between these socioeconomic factors and nutritional status, while the household-level findings provide an explanation of how reduced income and increased food costs may affect food consumption and, consequently, children's nutritional status.

Conclusion and Policy Recommendations

This study found that the economic crisis was associated with reduced household income, increased food expenditure, inadequate food consumption, and poorer nutritional status among children under five in the St. Margaret Grama Niladhari Division. Among the 50 households studied, 77% reported unsatisfactory food consumption, while average household income decreased from Rs. 46,865 to Rs. 36,750 and food expenditure increased from Rs. 38,519 to Rs. 53,130. The average BMI also decreased from 16.33 to 13.72 kg/m². Income, education and healthcare showed positive relationships with nutritional status, while food expenditure, family size and government assistance showed negative relationships. The regression model explained 92% of the variation in nutritional status ($R^2 = 0.920$, $p < 0.001$). In the St. Margaret GN Division, it is recommended to strengthen livelihood and income-generating opportunities for low-income plantation families, improve food and nutritional support for vulnerable households, provide nutrition education to parents, and conduct regular nutritional monitoring of children under five through local health services.

References

- Bardosono, S., Sastroamidjojo, S. and Lukito, W. (2007). Determinants of child malnutrition during the 1999 economic crisis in selected poor areas of Indonesia, *Asia Pacific Journal of Clinical Nutrition*, 16(3), pp. 512–526.
- Becker, G.S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. New York: National Bureau of Economic Research.
- Black, R.E., Victora, C.G., Walker, S.P., Bhutta, Z.A., Christian, P., de Onis, M., Ezzati, M., Grantham-McGregor, S., Katz, J., Martorell, R., and Uauy, R. (2013). Maternal and child undernutrition and overweight in low-income and middle-income countries, *The Lancet*, 382(9890), pp. 427–451.
- Büttner, N., Heemann, M., De Neve, J.-W., Verguet, S., Vollmer, S. and Harttgen, K. (2023). Economic growth and childhood malnutrition in low- and middle-income countries, *JAMA Network Open*, 6(11), e2342654.
- Central Bank of Sri Lanka (2023). *Annual Report 2022*. Colombo: Central Bank of Sri Lanka.

Evaluating the Accuracy and Reliability of Tourism Earnings Estimation Method in Sri Lanka: A Comparative Analysis

**H.G.M.S. Jayarathna, G.H.D. Nadeeka, C.S.V. Hewamadduma,
R.W.M.N.G. Rajapaksha and M.B. Ranathilaka**

*Postgraduate Institute of Humanities and Social Sciences,
University of Peradeniya, Sri Lanka*

Keywords: *Tourism Statistics; Accuracy; Regression Model; Estimation Method*

Introduction

Tourism has become a strategically important sector in Sri Lanka, contributing significantly to foreign exchange earnings, employment and economic development. Following the end of the civil conflict in 2009, the sector experienced rapid growth, particularly between 2010 and 2018. However, tourism has also been highly vulnerable to major shocks, including the 2019 Easter attacks, the COVID-19 pandemic and the 2022 economic crisis. Despite these challenges, tourism remains an important source of foreign exchange and a key contributor to economic recovery. Accurate measurement of tourism earnings is therefore essential for economic planning and policymaking. Tourist spending varies according to nationality, income, duration of stay, accommodation, destination and season (Wang and Davidson, 2010; Brida and Scuderi, 2013). Changes in digital payments, travel patterns, inflation and exchange rates have further increased the complexity of tourist expenditure.

Objectives

The main objective of this research is to evaluate the accuracy and reliability of the current tourism earnings estimation method used in Sri Lanka. Sub objectives are: (1) to examine whether tourist expenditure varies significantly across different regions; (2) to analyze seasonal variations in tourist expenditure behaviour and (3) to assess the adequacy and frequency of updates to tourism expenditure data used in official estimation methods.

Methodology

This study adopts a deductive approach and quantitative research design to evaluate the accuracy and reliability of Sri Lanka's tourism earnings estimation methodology. The official estimation framework, $TE = N \times ALS \times ADS$, where N represents tourist arrivals, ALS average length of stay, and ADS average daily expenditure, is used as the baseline for comparison. Primary data were collected through structured questionnaires administered to a sample of 50 international tourists. Data collection was carried out at key tourism hubs: Kandy City, Peradeniya City, Galle Fort, and Sigiriya. A convenience sampling technique was used to select these specific high-traffic destinations, while individual respondents at these locations were intercepted using a simple random sampling method to minimize selection bias. Secondary data were obtained from SLTDA, CBSL, UNWTO, and relevant literature. Data were analyzed using Stata. Descriptive statistics were used to summarize tourist expenditure patterns, while estimated tourism earnings were compared with official earnings using differences. One-way ANOVA was employed to examine whether tourist expenditure significantly differs across regions and seasons. Multiple regression analysis was used to identify the determinants of tourist expenditure, with the model specified as:

$$\text{Expenditure} = \beta_0 + \beta_1(\text{Length of Stay}) + \beta_2(\text{Region}) + \beta_3(\text{Season}) + \varepsilon$$

Results and Discussion

The descriptive results provide an overview of how international tourists spend during their stay in Sri Lanka. On average, tourists stayed for 9.84 days, which is slightly higher than the official average of 8.5 days reported by CBSL. Their average daily expenditure was USD 136.24, resulting in an average total expenditure of USD 1,340.60 per tourist. However, spending varied considerably among tourists, with total expenditure ranging from USD 310 to USD 4,120. This variation may be linked to differences in length of stay, accommodation choices, income levels and travel preferences.

A critical evaluation of the official Central Bank of Sri Lanka (CBSL) framework $TE = N \times ALS \times ADS$ demonstrates that it provides a highly resilient aggregate macro-baseline, exhibiting an exceptionally narrow error margin of only 1.58% when compared against our primary survey baseline (\$3.22 billion official vs. \$3.17 billion survey). However, a deeper structural analysis reveals that this

aggregate accuracy is sustained by a 'counter-balancing error' effect within the baseline equation parameters. The official method underestimates the average length of stay (CBSL reports 8.5 days vs. our tracked 9.84 days) while simultaneously overestimating average daily expenditure (CBSL reports \$148.26 vs. our tracked \$136.24). Consequently, while the final macro-level output appears highly accurate, the underlying operational parameters lack precision because they rely on static national averages that obscure micro-level variances. This confirms that the current estimation framework is reliable for aggregate national budgeting, but structurally limited for granular policy planning.

Table 1: Asian and Non-Asian Tourist Expenditure Differences

Source	SS	df	MS	F	Sig.
Between Groups	8,965	1	8,965	6.24	0.016
Within Groups	69,076	48	1,439.1		
Total	78,041	49			

A one-way ANOVA (Table 1) was used to examine whether tourist expenditure differs between Asian and Non-Asian tourists. The results show an F-value of 6.24 and a p-value of 0.016, which is below the 5% significance level. Therefore, the null hypothesis is rejected, indicating that tourist expenditure differs significantly between the two groups. This suggests that tourists' geographical origin may influence their spending behavior due to differences in income, travel preferences, length of stay, and spending patterns. Hence, considering tourist origin when estimating tourism earnings could provide more accurate results.

A one-way ANOVA (Table 2) was conducted to examine whether tourist expenditure differs between peak and off-season periods. The results show an F-value of 5.18 and a p-value of 0.027, which is below the 5% significance level. Therefore, the null hypothesis is rejected, indicating that tourist spending differs significantly across seasons.

Table 2: ANOVA Results (Seasonal Differences)

Source	SS	df	MS	F	Sig.
Between Groups	9,824	1	9,824	5.18	0.027
Within Groups	91,102	48	1,897.9		
Total	100,926	49			

This suggests that the timing of travel affects tourist spending, mainly due to differences in accommodation prices, tourism demand, events, and the availability of services. Therefore, considering seasonal variations rather than using a single annual average expenditure could improve the accuracy of tourism earnings estimates.

Table 3: Regression Results

Variable	Coefficient	Std. Error	t-value	p-value
Constant	72.43	20.14	3.62	0.001
Length of Stay	4.35	1.31	3.32	0.002
Asian (1=Asian, 0=Non-Asian)	9.27	3.72	2.49	0.016
Season (1= Peak, 0=Off)	6.48	2.86	2.27	0.028
R ² = 0.45	F = 12.34			
Adjusted R ² = 0.41	Prob > F = 0.000			

The regression results (Table 3) show that the model is statistically significant and explains about 45% of the variation in tourist expenditure. Lengths of stay, tourist origin, and travel season all have a positive effect on spending. Each additional day increases expenditure by approximately USD 4.35, while Asian tourists spend about USD 9.27 more than Non-Asian tourists. Similarly, peak-season tourists spend around USD 6.48 more than those travelling in the off-season.

While the survey-based aggregate tourism earnings estimate (USD 3.17 billion) aligns closely with the official CBSL baseline (USD 3.22 billion), the primary sample size (N=50) remains a constraint when generalizing to national-level dynamics. These subgroup dynamics should be interpreted as exploratory indicators, as small sample sizes can reduce the statistical power of comparative tests.

Overall, the findings suggest that tourist spending is influenced by both tourist characteristics and the timing of travel. Including these factors in tourism earnings estimation could therefore provide a more accurate picture than relying only on a single national average.

Conclusion and Policy Recommendations

The study concludes that the current tourism earnings estimation method in Sri Lanka provides a reliable aggregate estimate, with only a 1.58% difference between the official and survey-based estimates. However, the findings highlight important variations that should be considered in improving the estimation method. First, regarding regional/tourist-group differences, tourist expenditure was found to differ significantly between Asian and Non-Asian tourists, indicating the importance of considering tourist origin when estimating earnings. Second, regarding seasonal variation, expenditure differed significantly between peak and off-season periods, suggesting that a single annual average may not fully reflect actual spending patterns. Third, regarding the adequacy and updating of expenditure data, differences between the official and survey-based length of stay and daily expenditure indicate the need for more frequently updated and disaggregated data. Therefore, tourism earnings estimation could be strengthened by regularly updating expenditure information and incorporating tourist origin, season, and length of stay.

References

- Australian Bureau of Statistics (2022). Tourism satellite accounts and economic measurement of tourism in Australia. Canberra: ABS.
- Central Bank of Sri Lanka (2025). Tourism sector analysis report: Arrivals and earnings discrepancy in Sri Lanka. Colombo: Central Bank of Sri Lanka.
- Eurostat (2020). Tourism satellite accounts in the European Union. Luxembourg: European Commission.
- Sri Lanka Tourism Alliance (2025). Tourism spending in Sri Lanka: Are we getting it right? Colombo: Sri Lanka Tourism Alliance.

Reducing Uncertainty in Forest Conservation Decisions: Dendrochronological Evidence for Identifying and Monitoring High Conservation Value Forests

Lucian Mîzgaciu, Niță Mihai Daniel, and Stăncioiu Petru Tudor

Transilvania University of Brasov, Romania

Keywords: *Natural Capital; Forest Conservation Value; Dendrochronology; Environmental Policy*

Introduction

High Conservation Value (HCV) and old-growth forests cannot be identified reliably through a single structural attribute. Large trees, canopy height and biomass may indicate mature structure, but they do not directly demonstrate how long trees or cohorts have persisted. Dendrochronology adds this temporal dimension by recording annual growth, minimum tree age at coring height, periods of suppression and release, and synchronous growth anomalies. The Postăvaru Mountain case study evaluates tree-ring evidence as verification and monitoring layer within an integrated HCV framework, rather than as a stand-alone basis for assigning HCV status (Brown et al., 2013; European Commission, 2023; McElhinny et al., 2005).

The study combines tree-ring records with measured diameter at breast height (DBH) for three sampling units (POS-1, POS-2 and POS-3) and three principal species: *Abies alba*, *Fagus sylvatica* and *Picea abies*. The central premise is that age and size provide complementary evidence: large trees are important structural and habitat elements, while old trees provide direct evidence of temporal continuity. A robust conservation assessment therefore needs dendrochronology alongside deadwood, regeneration, microhabitats, biodiversity and landscape context (Mu et al., 2023; Petritan et al., 2017).

Objectives

The study aims to: (1) quantify ring-record age and measured DBH across the three sampling units and species; (2) test the relationship between tree size and ring-record age; (3) reconstruct historical DBH trajectories from raw ring widths anchored to measured 2024 DBH; (4) characterize raw and detrended growth

dynamics, including recent changes and synchronous anomaly years; and (5) translate these outputs into repeatable indicators for screening, verifying and monitoring forests with potential high conservation value.

Methodology

The dataset used in this study was collected directly from the field as part of the author's doctoral research in forestry at Transilvania University of Braşov, Romania, in collaboration with colleagues Mihai Daniel Niţă and Tudor Stăncioiu. Fieldwork was supported by an international research project. The dataset comprises forest inventory measurements, diameter at breast height (DBH) data, and core samples for dendrochronological analysis. Subsequent processing and analysis of the annual tree-ring data were carried out as part of the author's doctoral research.

As summarized in Table 1, the analytical dataset comprised an inventory workbook with tree identifiers and measured DBH, six Tucson-format raw ring-width (.rwl) datasets and six detrended chronology files. Of 107 raw ring-width series, 105 (98.1%) were matched to inventory trees. Ring-record age was defined as the number of annual rings represented from the first dated ring through 2024. It is therefore a minimum age at coring height, because a core can miss the pith and does not include the time needed for a tree to reach coring height (Petritan et al., 2017).

Historical DBH was reconstructed backward from measured 2024 DBH using cumulative radial growth, while detrended growth was assessed primarily with the *spline_diff* variable (observed ring value minus the fitted spline). Values were standardized within trees as z-scores, and annual POS × species chronologies were averaged when at least five trees contributed. A centered seven-year running mean summarized medium-term trends. Spearman rank correlation was used to quantify the association between age and DBH. For demonstration, ≥ 150 rings and ≥ 70 cm DBH were used as illustrative old-tree and large-tree screening thresholds; these were explicitly not treated as universal HCV criteria (Mu et al., 2023).

Table 1: Distribution of Dendrochronological Samples across Sampling Units and Tree Species

Sampling unit / species	Matched trees	Share (%)
POS-1 / <i>A. alba</i>	22	21.0
POS-1 / <i>F. sylvatica</i>	20	19.0
POS-1 / <i>P. abies</i>	14	13.3
POS-2 / <i>A. alba</i>	20	19.0
POS-2 / <i>F. sylvatica</i>	16	15.2
POS-3 / <i>P. abies</i>	13	12.4

Results and Discussion

The main age-DBH results are summarized in Table 2. Ring-record ages ranged from 42 to 297 years and measured DBH from 10.5 to 118.1 cm. Across all trees, ring-record age and DBH were moderately correlated (Spearman $\rho = 0.60$, $p < 0.001$), but the strength of the relationship varied markedly among groups. The strongest relationship occurred in POS-2 *Fagus sylvatica* ($\rho = 0.87$, $p < 0.001$), whereas several other group-level relationships were not statistically significant. This heterogeneity shows why DBH alone is an unreliable substitute for direct age evidence in mixed forest conditions (Mu et al., 2023).

POS-2 showed the strongest temporal-continuity signal. Its median ring-record age was 145 years, its 90th percentile age was 198 years, and 18 of 36 sampled trees (50.0%) contained at least 150 rings. The oldest tree-ring record, a *Fagus sylvatica*, contained 297 rings. POS-1 had a younger median age of 82.5 years and only 12.5% of sampled trees reached 150 rings, but it contained the largest stems, including *Picea abies* with DBH values above 110 cm. POS-3 had a median age of 109 years and a maximum of 135 rings; none of its sampled trees reached 150 rings, although two exceeded 70 cm DBH.

Table 2: Key Dendrostructural Indicators by Sampling Unit

POS	Median age	P90 age	Max age	Max DBH (cm)
POS-1	82.5	162.5	180	118.1
POS-2	145.0	198.0	297	93.1
POS-3	109.0	128.2	135	80.6

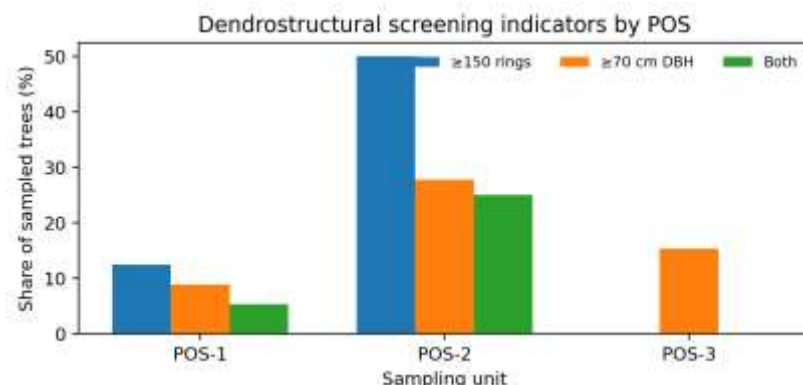


Figure 1: Illustrative age-size screening indicators. Thresholds are Demonstration Values, not Universal HCV Criteria.

As shown in Figure 1, the joint age-size screen further illustrates the contrast among units. In POS-2, 25.0% of sampled trees met both illustrative criteria (≥ 150 rings and ≥ 70 cm DBH), compared with 5.4% in POS-1 and none in POS-3. This confirms that sampling units can express different conservation-relevant attributes: temporal continuity, very large veteran structures, or younger cohorts containing large trees.

Recent raw ring-width changes varied among groups, with the largest declines in POS-2 *Fagus sylvatica* (-35.8%) and POS-1 *Picea abies* (-22.9%). Because raw ring width also reflects age, size and competition, these values are descriptive monitoring signals rather than direct evidence of climate response or degradation.

Detrended chronologies identified synchronous growth anomalies, including strong negative departures in 2013, 2000, 1987, 2012 and 2024. These years can be used as temporal flags for comparison with drought, storms, and insects, harvesting or remotely detected canopy change.

Conclusion and Policy Recommendations

The Postăvaru case study shows that dendrochronology provides a rigorous temporal component for HCV identification and monitoring. POS-2 contains the clearest old-tree continuity signal, POS-1 retains an important veteran-tree structural legacy despite a younger median age, and POS-3 contains large spruce trees even though its sampled ring record is younger. These contrasts reinforce the

need to combine direct age evidence with present-day forest structure (European Commission, 2023; Mu et al., 2023).

For operational policy and management, dendrochronology should be embedded in a multi-source framework. Landscape pre-screening should use disturbance history, canopy structure and connectivity; field verification should measure DBH, species composition, deadwood, regeneration, microhabitats and structural heterogeneity; and increment cores should be collected from a stratified subset including large, intermediate and potentially old suppressed trees (Brown et al., 2013; European Commission, 2023; McElhinny et al., 2005).

Dendrochronology can complement conventional inventories and remote sensing by providing data on growth history. It facilitates on-the-ground spot checks, priority setting, and long-term monitoring of forests with potential conservation value. For applications in Sri Lanka, thresholds must be calibrated based on local forest types, species, productivity, disturbance regimes, and conservation objectives. The case study from Romania can be adapted for Sri Lanka.

References

- Brown, E., Dudley, N., Lindhe, A., Muhtaman, D.R., Stewart, C. and Synnott, T. (eds.) (2013, updated 2017). Common guidance for the identification of High Conservation Values. HCV Resource Network
- European Commission, Directorate-General for Environment (2023). Guidelines for defining, mapping, monitoring and strictly protecting EU primary and old-growth forests. Brussels: European Commission.
- McElhinny, C., Gibbons, P., Brack, C. and Bauhus, J. (2005). Forest and woodland stand structural complexity: Its definition and measurement, *Forest Ecology and Management*, 218, pp. 1–24.
- Mu, Y., Lindenmayer, D.B., Zheng, S., Yang, Y., Wang, D. and Liu, J. (2023) ‘Size-focused conservation may fail to protect the world’s oldest trees’, *Current Biology*, 33(21), pp. 4641–4649.
- Petritan, A.M., Bouriaud, O., Frank, D.C. and Petritan, I.C. (2017) Dendroecological reconstruction of disturbance history of an old-growth mixed sessile oak-beech forest, *Journal of Vegetation Science*, 28, pp. 117–127.

The Impact of the Determinants on Gender Wage Gap in the Manufacturing Sector in Sri Lanka

A.M.G.K. Wijewardhana, N.M.W. Kulatunge, and H.M.G.S. Jayarathne

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Wage; Educational Level; Experience Level; Employment Type; Descriptive Analysis*

Introduction

Manufacturing sector in Sri Lanka comprises a disproportionate wage distribution in the gender roles. As in the Annual Report of the Department of Census and Statistics, the Labor Force Participation Rate (LFPR) has a declining trend based on the data accounted from 2017 to 2024 (DCS, 2024). This wage differential is defined as the overall difference between the mean wages of male workers and female workers expressed as the proportion of female wages to male wages (Premarathna, 2018). Based on the study conducted in Sri Lanka the average salary of a woman is 27% less than the male salary per hour and the gap is going to broaden in informal employment and lower deciles of income (ADB, 2025; ILO, 2024).

Although almost 70% of apparel sector (an important export industry that provides over USD 5 billion of revenue) workers are women, their occupations are mostly restricted to the low-skilled and low-paid workforce with limited upward mobility (Kulatunga, 2021; Weerakkody, 2019). The existing studies point out the existence of a gender wage gap in Sri Lanka and have studied wage differentials across the country and across different sectors. No comprehensive researches have been carried out to show how individual and firm factors together affect gender wage gap. Furthermore, limited researches have been studied on the combined effects of level of education, type of employment, work experience and size of firm using micro data for manufacturing sector. According to the official data for 2022, the gender wage gap in the manufacturing industry was about 40.1%. Additionally, evidence from the International Labour Organization (ILO), estimated that for manufacturing workers, the wages of women were about 27% lower on average after controlling for observable variables (ILO, 2024).

Objectives

The primary objective of the research study is to examine the influence of the determinants of gender-wage such as educational level, employment status, experience level and firm size, on the gender-wage gap in the manufacturing sector in Sri Lanka.

Methodology

The research study also employs a quantitative mechanism to discover the existence of gender-wage gap in the manufacturing sector in Sri Lanka with reference to empirical evidence in two large scale companies namely A and B. Madushika and Samaraweera (2024) examined the determinants of gender-based occupational segregation in Sri Lanka is determined through quantitative approach as the data collected can be analyzed numerically (Madushika P & Samaraweera G, 2024). The quantitative approach thereby offers a systematic investigation into the research study. The study employs a descriptive analysis with the use of empirical raw data collected from the respective manufacturing companies. This study employed a simple random sampling technique to collect sample data from 75 employees including both the genders. Specifically, within the large-scale segment, 38 responses were gathered from company A and 37 were collected from company B located in western region in Sri Lanka. Primary data were collected through a structured questionnaire to gather the demographic data and the objective-oriented data.

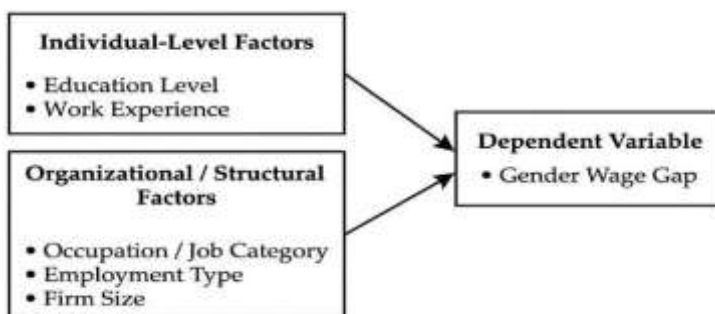


Figure 1: Conceptual Framework

Results and Discussion

The findings indicated that education, employment status, work experience, and firm size are associated with gender-wage disparity. Education factor was

positively associated with wage levels across the sample. However, gender differences remained evident among employees with comparable educational qualifications.

Table 1: Pivot Table for Determination of the Influence of Higher Pay for Employees with Higher Education Regardless of Gender

Average of Salary_ Codes	Female	Male	Grand Total
Advanced Level	2	2	2
Bachelor's Degree	4.55	5.79	5.22
Bachelor's Degree, Masters	-	7	7
Diploma/ Certificate	5	4.66	4.80
Diploma/Certificate/Bachelor's Degree	2	-	2
Masters	6.28	7.71	7
Ordinary Level	1	4	1.6
Postgraduate Degree	-	8	8
Postgraduate Degree, Masters	-	8	8
Grand Total	4.30	6.05	5.21

Higher mean salary code was recorded among male employees over female employees particular with degree and postgraduate-level employees. Thus, it proved that educational attainments alone do not eliminate gender-based wage disparities. The analysis revealed 65.33% of respondents agreed that increased educational and training opportunities for women could reduce gender wage disparities. Furthermore, Permanent full-time employment accounted for 76% of the sample and was predominantly associated with higher wage categories, whereas casual or temporary employment was concentrated in the lower wage categories, with 90% of casual/temporary workers earning LKR 50,000 or below. Hence it was observed that employment type contributes to observed gender-wage disparity.

Table 2: Gender and Employment Type at Different Wage Levels

Wage category	Employment type	Male	Female	Total
< LKR 30,000	Casual/temporary	0	5	5
LKR 150,000– 199,999	Permanent full-time	5	1	6
LKR 200,000+	Permanent full-time	11	4	15
LKR 200,000+	Contract	1	0	1

In terms of work experience, it was observed that the male employees earn higher wage levels than female employees within comparable experience categories. 30.77% of male respondents compared with 11.11% of female respondents in the relevant comparison earned LKR 200,000 or above. Thus, it indicates that the experience may not be equally distributed between male and female employees. Based on the firm size results, 42.11% of respondents agreed or strongly agreed that gender pay differences were lower in larger firms than in smaller firms, compared with 13.16% who disagreed or strongly disagreed. However, 43.42% remained neutral, indicating the absence of a strong consensus. Hence, it is evident that larger firms necessarily have lower gender wage gaps.

Conclusion and Policy Recommendations

The descriptive findings suggest that higher education higher work experience are associated with higher wages, while permanent employment is associated with access to higher-paying positions. Nevertheless, gender differences remain visible within these categories, particularly at higher educational and experience levels. Based on the study, enabling access to training opportunities which enhance the educational level among female employees can be implemented to reduce the gender-wage disparity in the manufacturing sector. Secondly men are seemingly engaged more in permanent fulltime employment status compared with women. Women are less likely to commit themselves in full scale responsibilities due to the handling between cooperate work and house core. Hence Offering flexible or hybrid work options to all employees including both the genders equally support work-life balance and avoid assuming that women are solely responsible for caregiving. The empirical evidence proved that 30 % of men earn above LKR 200,000 compared to 11% of women based on the experience level. It is recommended to support for career continuity for around the 4–7 year, if this coincides with family formation, policies like paid parental leave, flexible return-to-work arrangements, and protecting promotion eligibility during leave can

prevent the "motherhood penalty" from showing up as a wage gap in the manufacturing sector. Finally, it is recommended for larger firms to induce women workforce by financial incentives a bonus to enhance their working commitments.

References

- Bank, Asian Development , (2025). *Exploring the factors behind low female labor force participation in Sri Lanka*, s.l.: s.n.
- ILO research report, I. L. O., (2024). *The gender pay gap in Sri Lanka: A statistical review with policy implications*. International Labour Office., s.l.: s.n.
- Kulatunga, S. T. K., (2021). *External Sector Gender Wage Gaps in Sri Lanka: An Analysis Using Matching Techniques*. s.l.:ECONSTOR.
- Madushika P & Samaraweera G, (2024). Determinants of gender-based occupational segregation of employed individuals in Sri Lanka.. *Sri Lanka Journal of Economics, Statistics and Information Management*, 3(2), pp. 33-53.
- Weerakkody, W. S., (2019). Women Machinists in Garment Factories and Social Success: The Case Study of Garment Factories in Katunayake Free Trade Zone, Sri Lanka.

Conceptual Credit Scoring Framework for Two-Wheeler Financing: Identifying Key Credit Risk Determinants to Support Machine Learning- Based Credit Assessment in the Financial Sector of Sri Lanka

K. A. S. Dilmika

*Department of Statistics, Faculty of Graduate Studies,
University of Sri Jayewardenepura, Sri Lanka*

Keywords: *Credit Scoring; Two-Wheeler Financing; Credit Risk; Machine Learning; Finance Sector*

Introduction

Sri Lanka's finance sector supports financial inclusion and household economic activity, with two-wheeler financing providing important consumer credit for employment and income-generating activities. However, inflation, income volatility, and rising living costs have increased credit-risk pressures (Central Bank of Sri Lanka, 2025). Traditional judgment-based credit assessment may limit consistency and predictive accuracy, increasing default and non-performing-loan risks. Evidence indicates that data-driven and machine-learning approaches can improve credit-risk classification (Lessmann *et al.*, 2015; Baesens, Rösch and Scheule, 2016), while PCA can identify influential determinants and reduce variable redundancy (Jolliffe and Cadima, 2016). However, evidence specific to Sri Lanka's two-wheeler financing sector remains limited, highlighting the need for statistically validated credit-risk determinants and a conceptual machine-learning credit-scoring framework.

Objectives

The main objective of this study is to identify the key determinants of credit risk and develop a conceptual credit scoring framework for the two-wheeler financing sector in Sri Lanka to support future machine learning-based credit assessment in Sri Lanka's finance sector. Sub Objectives are: (1) to identify borrower-related, financial, and loan-related variables associated with repayment performance in the two-wheeler financing sector in Sri Lanka; (2) to assess the relative importance of the identified credit risk determinants within Sri Lanka's finance sector and (3) to develop a conceptual credit scoring framework for the two-wheeler financing sector that can support future machine learning-based credit assessment in Sri Lanka's finance sector.

Methodology

This study adopted a quantitative cross-sectional design to identify key credit-risk determinants and develop a conceptual machine learning-based credit assessment framework for Sri Lanka's two-wheeler financing sector. Data were collected from customers of licensed finance companies across multiple provinces between December 2025 and June 2026 using a structured questionnaire and stratified sampling. Of 387 responses received, 372 valid responses were retained after screening, giving a usable response rate of 96.1%. Eleven borrower, financial, employment, debt, repayment, and transaction-related variables were examined. Correlation analysis, the Kaiser-Meyer-Olkin (KMO) measure, and Bartlett's Test of Sphericity confirmed the suitability of the data for Principal Component Analysis (PCA). PCA was conducted using Python analytical libraries to reduce dimensionality while retaining relevant variance (Jolliffe and Cadima, 2016). The analysis identified five key determinants: repayment history, monthly income, employment stability, debt-to-income ratio, and transaction behaviour. These determinants were subsequently incorporated into a conceptual machine learning-based credit assessment framework. The framework includes data preprocessing, feature selection, model development, performance evaluation, and credit-risk classification, providing a structured basis for future implementation using supervised algorithms such as logistic regression, decision trees, random forests, and gradient boosting (Lessmann *et al.*, 2015; Baesens, Rösch and Scheule, 2016). Thus, the methodology provides an empirically grounded foundation for future operational credit-scoring applications in Sri Lanka's two-wheeler financing sector.

Results and Discussion

Preliminary diagnostic tests confirmed the suitability of the dataset for multivariate analysis. Correlation analysis indicated adequate interrelationships among variables, while the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity supported the application of Principal Component Analysis, indicating that the dataset possessed sufficient shared variance for reliable component extraction (Jolliffe and Cadima, 2016). PCA was applied to the original 11 credit-related variables, and components with eigenvalues greater than one were retained. The analysis reduced the dimensionality of the dataset and identified five dominant determinants of credit risk in Sri Lanka's two-wheeler

financing sector. The extracted variables exhibited the highest factor loadings and collectively represented the principal dimensions of borrower credit risk.

Table 1: Principal Component Analysis Results - Most Influential Credit-Risk Determinants

Variable	Factor Loading	Interpretation
Repayment history	0.84	Very high influence
Monthly income	0.79	High influence
Employment stability	0.76	High influence
Debt-to-income ratio	-0.72	High negative influence
Transaction behaviour	0.68	Moderate to high influence

The results indicate that repayment history was the strongest determinant of credit risk, followed by monthly income and employment stability. The negative loading observed for the debt-to-income ratio suggests that a higher debt burden relative to income is associated with weaker repayment performance. Transaction behaviour also demonstrated a meaningful contribution, indicating that borrower financial behaviour provides additional predictive information beyond traditional demographic and income variables. These findings are consistent with established credit-scoring literature, which identifies repayment history, income capacity, and leverage indicators as core predictors of default risk (Thomas, Edelman and Crook, 2002; Lessmann *et al.*, 2015). The proposed machine-learning credit assessment process was structured as a sequential data pipeline integrating data acquisition, preprocessing, feature extraction, model development, and credit-risk decision support.



Figure 1: Proposed Data Pipeline for Machine Learning-Based Credit Assessment

Source: Developed by the author.

The PCA findings were subsequently used to develop a conceptual machine learning-based credit scoring framework for the two-wheeler financing sector in Sri Lanka. The framework was designed to illustrate the theoretical and analytical relationships between the statistically identified determinants and borrower credit risk. Specifically, the five influential determinants extracted through PCA were treated as the primary input variables of the proposed credit-scoring process. The framework demonstrates how borrower characteristics and behavioural financial indicators can be transformed into a structured credit-risk assessment mechanism that supports future machine learning applications in lending decisions.

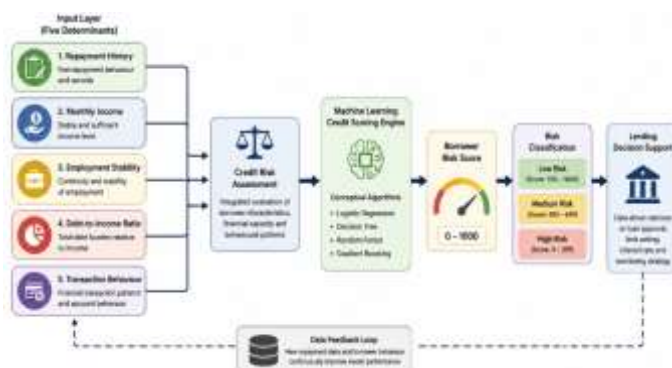


Figure 2: Conceptual Credit Scoring Framework

Source: Developed by the author.

Figure 2 illustrates that repayment history, monthly income, employment stability, debt-to-income ratio, and transaction behaviour jointly influence the credit-risk assessment process. These determinants constitute the input layer of the proposed machine learning credit-scoring engine, which generates a borrower risk score and classifies applicants into low-, medium-, or high-risk categories. The resulting risk classification provides decision support for loan approval, credit-limit determination, interest-rate assessment, and portfolio monitoring. The framework therefore integrates behavioural, financial, and repayment-related information into a unified credit-assessment structure and provides an empirically grounded foundation for future predictive credit-scoring implementation in Sri Lanka's finance sector.

Conclusion and Policy Recommendations

This study identified key credit-risk determinants in Sri Lanka's two-wheeler financing sector and developed a conceptual machine learning-based credit assessment framework using 372 valid responses from customers of licensed

finance companies. PCA reduced 11 credit-related variables to five dominant determinants: repayment history, monthly income, employment stability, debt-to-income ratio, and transaction behaviour. Repayment history emerged as the strongest determinant, followed by monthly income and employment stability, while the debt-to-income ratio showed a negative loading. These findings highlight the importance of integrating financial capacity, repayment behaviour, employment characteristics, and transaction behaviour into credit-risk assessment. The findings are broadly consistent with established credit-scoring research (Thomas, Edelman and Crook, 2002; Lessmann *et al.*, 2015). The present study extends this evidence by incorporating transaction behaviour within the specific context of two-wheeler financing in Sri Lanka. The integration of PCA-based dimensionality reduction with a conceptual machine learning credit-scoring framework provides an empirically grounded basis for future predictive implementation. From a policy perspective, finance companies can incorporate these determinants into standardized credit assessment, borrower screening, portfolio monitoring, and early-warning systems. Strengthening digital data infrastructure and analytical capabilities may further support effective credit-risk management. Future research should validate the framework using longitudinal loan-performance data and develop operational machine-learning models to assess predictive performance.

References

- Baesens, B., Rösch, D. and Scheule, H. (2016). *Credit Risk Analytics: Measurement Techniques, Applications, and Examples in SAS*. 2nd edn. Hoboken, NJ: John Wiley & Sons.
- Central Bank of Sri Lanka (2025). *Annual Report 2024*. Colombo: Central Bank of Sri Lanka.
- Jolliffe, I.T. and Cadima, J. (2016). Principal component analysis: A review and recent developments, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 374(2065), p. 20150202.
- Lessmann, S., Baesens, B., Seow, H.-V. and Thomas, L.C. (2015). Benchmarking state-of-the-art classification algorithms for credit.

The Impact of Exchange Rate on Foreign Tourism Revenue: An Empirical Research Based on Sri Lanka

N. Nivedha and T. Vinayagathan

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Tourism Revenue, ARDL Bound Test, Exchange Rate, Macroeconomic Stability*

Introduction

Tourism and the exchange rate plays key role in influencing Sri Lanka's external sector and economic stability. Following the introduction of the open market economic policy in 1977, economic activities related to foreign trade and foreign exchange earnings expanded significantly. Tourism has become an important source of foreign exchange earnings and contributes to employment and various tourism-related economic activities. The exchange rate also plays an important role in determining the international price competitiveness of Sri Lanka's tourism sector. Historically, Sri Lanka experienced substantial changes in its exchange rate, with the exchange rate against the US dollar increasing from LKR 8.87 in 1977 to LKR 302.12 in 2024. Similarly, tourist arrivals increased from 153,665 in 1977 to 2,053,465 in 2024. However, the tourism sector experienced considerable fluctuations due to the civil conflict, Easter Sunday attacks, COVID-19 pandemic, political instability and the recent economic crisis.

The relationship between exchange rates and tourism revenue has received considerable attention due changes in the value of the domestic currency can influence international tourists' expenditure decisions and the competitiveness of tourism services. In Sri Lanka, tourism revenue increased substantially over the long term while experienced significant declines during major economic and external shocks. Although previous studies have examined the relationship between exchange rate and tourism-related activities in Sri Lanka, limited studies have focused on the relationship between exchange rate and foreign tourism revenue over a longer period while considering other important economic factors.

Objectives

The main objective of this study is to examine the impact of exchange rate on tourism revenue in Sri Lanka. Further, this study investigates the short run and long run relationship between exchange rate and tourism revenue in Sri Lanka in order to achieve the main objective.

Methodology

This study used annual time series data of Sri Lanka over the period of 1977-2024. The data for the variables are obtained from the annual reports of the Central Bank of Sri Lanka (CBSL), Sri Lanka Tourism Development Authority Annual Report and World development indicator of the World Bank data base. The study used Tourism Revenue (LNTR) as the dependent variable and Exchange Rate (EX), Inflation Rate (INF), Openness (OPEN), Gross Domestic Product Growth Rate (GDPGR), Environmental Pollution (ENVP) and Political Stability and Absence of Violence (PSAV) as independent variables. The explanatory variables were measured using their respective indicators and included based on their theoretical relevance to tourism revenue, including exchange-rate competitiveness, inflation, trade openness, economic growth, environmental conditions, and political stability. The regression model of this study can be constructed as follows:

$$TR_t = \alpha_0 + \alpha_1 EX_t + \alpha_2 INF_t + \alpha_3 OPEN_t + \alpha_4 GDPGR_t + \alpha_5 ENVP_t + \alpha_6 PSAV_t + u_t$$

where, u is the white noise error term. TR and EX variables are transformed into a natural logarithm, while the other variables were used in percentage of GDP form in this study.

The study adopted the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests to determine the order of integration of the variables. The Akaike Information Criterion (AIC) was used to select the optimum lag length for the variables. Since the variables are stationary at mixed orders of $I(0)$ and $I(1)$, the Auto-Regressive Distributed Lag (ARDL) approach was used to examine the long-run relationship among the variables. The Error Correction version of the ARDL approach was then used to determine the short-run relationship and the speed of adjustment towards the long-run equilibrium. The diagnostic tests were also conducted to examine the validity and stability of the estimated model. All econometric analyses were performed using E-Views statistical software.

Results and Discussion

Both ADF and PP unit root approaches confirmed that there is no I(2) variables. The AIC criterion suggested using ARDL model (2, 0, 1, 1, 0, 0, 0) for this analysis. According to the diagnostic test results, the Breusch-Godfrey LM test of autocorrelation suggests that residuals are not serially correlated. Jarque-Bera test confirmed that residuals are distributed normally while Ramsey RESET test result confirms that there is no specification error in the estimated model. The test of Whites' test detected that error variance are homoscedasticity. Moreover, the recursive estimates of the CUSUM plot lie within the upper and lower critical bounds at the 5% significance level, indicating that the parameters of the estimated model are stable. The results of the ARDL Bounds test are presented below.

Table 1: Results of ARDL Bounds Test

Test Statistic	Value	Significance	Lower Bound I(0)	Upper Bound I(1)
F-Statistic	6.2993	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Above table depict that the calculated F-statistic (6.2993) is greater than the critical value of the upper bound (3.28) at the 5% significance level. Therefore, it is confirmed that there exist a cointegrating relationship between the variables under considered in this study.

Table 2 below shows the results of the long run relationship. Accordingly, exchange rate, inflation, openness, gross domestic product growth rate, environmental policy, and political stability and absence of violence have a positive and statistically significant impact on tourism revenue, while environmental pollution does not have statistically significant impact on it although it affects tourism revenue positively.

The positive long-run coefficient of the exchange rate suggests that a depreciation of the Sri Lankan Rupee is associated with higher tourism revenue, potentially through improved price competitiveness for foreign visitors and an increase in the domestic-currency value of tourism expenditure.

Table 2: Results of Long Run Relationship

LNEX	INF	OPEN	GDPGR	ENVP	PSAV
0.3791** (0.0116)	0.0205* (0.0581)	0.0263* (0.0638)	0.0549*** (0.0047)	0.0036 (0.9231)	0.04577*** (0.0073)

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

According to Table 3 below, variables such as inflation (INF) and openness (OPEN) have a positive and significant impact on the tourism revenue in the short run. Furthermore, the coefficient of the error correction term is negative and significant, which implies that the tourism revenue model can get back to the long run steady state line with a speed of 88.64% in each period one period after the exogenous shock.

Table 3: Results of Short Run Relationship and Long Run Adjustment

Lag	ΔLNTR	ΔINF	ΔOPEN
0		0.006058 (0.0713)*	0.037927 (0.0000)***
1	0.265569 (0.0074)***		
(CointEq(-1)) = -0.886421 (0.0000)***			

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Conclusion and Policy Recommendations

The empirical findings of this study show that the exchange rate, inflation rate, openness, gross domestic product growth rate, and political stability have important relationships with tourism revenue in Sri Lanka in the long run. The results further indicate that the exchange rate plays an important role in determining tourism revenue, as changes in the value of the Sri Lankan Rupee can influence the price competitiveness of Sri Lanka as a tourist destination. Furthermore, the coefficient of error correction term confirms the existence of an adjustment mechanism towards long run equilibrium among the variables.

This study identifies that tourism revenue in Sri Lanka is closely associated with exchange rate movements, macroeconomic conditions, openness, economic growth, and political stability. Based on the findings of this study, policymakers should focus on maintaining a stable and competitive exchange rate while avoiding

excessive exchange rate volatility that may create uncertainty in the tourism sector. Additionally, controlling inflation, promoting sustainable economic growth, improving openness, and maintaining political stability are important to strengthen Sri Lanka's tourism sector. Macroeconomic policies should also focus on containing inflation and preserving tourism price competitiveness. The positive relationship between trade openness and tourism revenue highlights the importance of strengthening international economic openness and tourism-related external linkages. Furthermore, sustainable economic growth and political stability should be supported to create a favourable environment for tourism development and investment. The government should also improve tourism infrastructure, promote Sri Lanka as a competitive international tourist destination, and implement policies that enhance the resilience and long-term sustainability of the tourism industry. These measures can contribute to increasing tourism revenue and supporting overall economic development in Sri Lanka.

References

- Jena, S.K. and Dash, A.K. (2020). Does Exchange Rate Volatility Affect Tourist Arrival in India: A Quantile Regression Approach, *Regional and Sectoral Economic Studies*, 20(2), pp.65-84.
- Sanjaya, K.J.M.S. (2025). The Impact of Exchange Rate Fluctuation on Tourist Arrivals of Sri Lanka, *International Journal of Multidisciplinary Research and Analysis*, 8(5), pp.2454-2467.
- Central Bank of Sri Lanka. (2024). *Annual Report 2024*, Colombo: Sri Lanka
- Sri Lanka Tourism Development Authority (SLTDA). (2024). *Annual Statistical Report 2024: Tourism Sector*. Colombo, Sri Lanka: SLTDA.
- World Bank (2025). *World Development Indicators*. Washington, DC: USA

The Impact of Financial Literacy on Investment Behaviour among Public and Private Sector Employees in Sri Lanka

H.M.I.K Herath and H.M.W.A Herath

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Financial Knowledge; Financial Behaviour; Financial Attitude; Investment Behaviour*

Introduction

Financial literacy has become more important as individuals are required to make a wide range of financial decisions in their daily lives. Changes in financial markets, the availability of different financial products, and increasing opportunities for individuals to participate in investment activities have made financial knowledge and decision making skills more important than ever. According to the Central Bank of Sri Lanka (2021), financial literacy encompasses financial knowledge, attitudes, and behaviours necessary to make informed financial decisions and achieve financial well-being. Financial knowledge covers basic concepts such as inflation, interest rates, and investment and borrowing risks, while financial attitudes relate to money management and future financial planning. Financial behaviour includes practices such as saving, investment planning, rational purchasing, and monitoring cash flows, which are important for making sound financial decisions. These dimensions are interconnected and may collectively influence how individuals approach to personal investment decisions.

Investment behaviour refers to the way individuals make decisions regarding their investments, including their investment objectives, knowledge of financial markets, investment frequency, risk preferences, and expected returns (Goud, 2022). Thus, investment behaviour reflects not only the choice of investment instruments but also the factors that influence individuals' investment decisions. In Sri Lanka, individuals have access to a range of investment opportunities, including bank deposits, government securities, shares, unit trusts and other financial instruments.

The main research problem is the limited empirical evidence on how financial literacy influences investment behaviour among employees in Sri Lanka, particularly across the public and private sectors.

Objectives

The main objective of this study is to examine the impact of financial literacy on personal investment behaviour. In order to achieve this, financial literacy was further divided into three dimensions; financial knowledge, financial attitude, and financial behaviour. Accordingly, the objectives of this study are as follows: (1) to examine the impact of financial knowledge, financial behaviour, financial attitude on investment behavior and (2) to compare investment behaviour between public and private sector employees in Sri Lanka.

Methodology

The study was conducted in the Gampola area of the Udapalatha Divisional Secretariat Division, Kandy District, Sri Lanka. A total of 60 employees from both the public and private sectors were selected using convenience sampling, comprising 30 public-sector employees and 30 private-sector employees.

Data were collected through a structured questionnaire consisting of three main sections. The first section comprised demographic information of the respondents. The second section captured financial literacy, which was measured through three dimensions: financial knowledge, financial attitudes and financial behaviour. These dimensions were measured using a total of 21 statements. The third section captured personal investment behaviour using 20 statements, covering key aspects such as investment planning, information seeking, risk assessment, and investment diversification. The overall investment behaviour score was calculated from these 20 statements, with higher scores (5) indicating a higher level of investment behaviour while lower scores (1) indicating a lower level of investment behaviour. The financial literacy and investment behaviour responses were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. A multiple linear regression model was employed to examine the impact of financial literacy on personal investment behaviour. The empirical model estimated was:

$$IB_i = \beta_0 + \beta_1 FK_i + \beta_2 FB_i + \beta_3 FA_i + \beta_4 JS_i + \varepsilon_i$$

Where, $i = 1, 2, \dots, 60$, ε_i is white noise error term, IB_i is the dependent variable of the model, which denotes the investment behaviour. The other variables are independent variables where, FK_i denotes financial knowledge; FB_i denotes financial behaviour; FA_i denotes financial attitude and JS_i denotes job sector. The collected data were analysed using STATA software. Descriptive statistics were used to describe respondents' investment characteristics. Before conducting the multiple regression analysis, several diagnostic tests were performed to assess the suitability of the regression model.

Results and Discussion

The multiple regression model was statistically significant, $F(4, 55) = 28.86$ and $p = 0.000$, indicating that the combination of financial knowledge, financial behaviour, financial attitude, and job sector significantly predicts investment behaviour. The model explained a substantial proportion of the variation in investment behaviour, with an R^2 of 0.6773. This indicates that 67.7% of the variation in investment behaviour is explained by the four predictor variables, indicating a strong overall model fit.

Consistent with the objectives of this study, financial knowledge had a statistically significant positive effect on investment behaviour ($\beta = 0.451$, $p = 0.002$). A one-unit increase in financial knowledge increases investment behaviour by 0.451 units, holding all other variables constant. This was the strongest predictor, indicating that employees with better financial knowledge are more likely to engage in sound investment behaviour. Financial behaviour also had a statistically significant positive effect on investment behaviour ($\beta = 0.348$, $p = 0.003$) indicating that a one-unit increase in financial behaviour leads to a 0.348 unit increase in investment behaviour, holding other variables constant. This highlights that employees who practice sound financial habits, such as budgeting, saving regularly, and monitoring their expenses, are more likely to exhibit positive investment behaviour. Financial attitude was statistically significant and positive, though it was comparatively weaker predicting the investment behaviour ($\beta = 0.321$, $p = 0.029$). A one-unit increase in financial attitude increases investment behaviour by 0.321 units, holding other variables constant, indicating that employees who are more favourable towards saving, planning, and long-term financial goals are more inclined toward positive investment behaviour.

An independent sample t-test was conducted to compare investment behaviour between public and private sector employees. According to the results, there was no statistically significant difference between the two groups ($t(58) = 0.474$, $p = 0.637$), with private sector employees ($M = 3.825$) reporting marginally higher investment behaviour than government sector employees ($M = 3.742$). This finding aligns with the regression results, where job sector was similarly found to be an insignificant predictor of investment behaviour ($\beta = -0.089$, $p = 0.400$). Taken together, both analyses point in the same direction, with government sector employees showing marginally lower investment behaviour, although this difference is not statistically significant. Moreover, the VIF results indicate no significant multicollinearity among the independent variables, as all VIF values are below 5, with a mean VIF of 1.77. Additionally the Breusch–Pagan test confirms that the regression model does not suffer from heteroskedasticity ($p = 0.3989 > 0.05$), indicating that the error variance is constant. Together, these results support the validity and reliability of the regression model used in this study. The descriptive analysis showed that Fixed Deposits and Gold were the most commonly held investments among respondents, reflecting a preference for secure, familiar, and tangible assets over more complex financial instruments. This highlights a tendency toward traditional investment patterns focused on stability and wealth preservation.

These findings are consistent with Bhushan (2014), who found that higher financial literacy increases awareness of financial products and influences individuals' investment preferences. Similarly, Adil et al. (2022) reported that financial literacy significantly and positively influences investment decisions among individual investors. These findings support the present study's result that greater financial literacy contributes to better investment behaviour.

Conclusion and Policy Recommendations

The findings demonstrate that financial literacy significantly influences investment behaviour among public and private sector employees. Financial knowledge, financial behaviour, and financial attitude were found to have positive effects on investment behaviour, with financial knowledge showing the strongest influence. In contrast, job sector did not significantly influence investment behaviour. The preference for Fixed Deposits and Gold also indicates that respondents tend to favour traditional and relatively secure investments. The study highlights the

importance of strengthening financial literacy through educational programmes, employee financial literacy programs, and awareness campaigns. Such initiatives can improve employees' understanding of investment options, risks, and returns, encouraging more informed and diversified investment decisions beyond traditional instruments. Employers could also provide regular practical investment guidance to support informed and diversified investment decisions.

References

- Adil, M., Singh, Y. and Ansari, M.S., (2022). How financial literacy moderate the association between behaviour biases and investment decision?. *Asian Journal of Accounting Research*, 7(1), pp.17-30.
- Bhushan, P., (2014). Relationship between financial literacy and investment behaviour of salaried individuals. *Journal of Business Management & Social Sciences Research*, 3(5), pp.82-87.
- Central Bank of Sri Lanka, (2021). *Financial Literacy Survey Sri Lanka 2021*, Colombo: Sri Lanka
- Goud, M.M., (2022). A study on the saving and investment behaviour of individual investors. *Journal of Commerce & Accounting Research*, 11(1), p.23.
- Kumari, D.A.T., (2020). The Impact of Financial Literacy on Investment Decisions: With Special Reference to Undergraduates in Western Province, Sri Lanka. *Asian Journal of Contemporary Education*, 4 (2), pp.110-126.

Digitalization and Economic Growth in Sri Lanka: Evidence from ARDL Approach

U.S.F. Safna

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Mobile Penetration; Cointegration; Digitalization; Economic Growth*

Introduction

Digitalization has become an important component of modern economic development, with mobile technologies, internet access, digital financial services, and ICTs increasingly influencing production, consumption, and economic transactions. Digitalization is generally expected to promote economic growth by improving productivity, reducing transaction costs, expanding market access, and supporting financial inclusion. In Sri Lanka, digital infrastructure has expanded considerably, with mobile subscriptions exceeding the population in recent years, while government initiatives have increasingly promoted digital financial services and the development of a digital economy.

However, the relationship between digitalization and economic growth may not always be immediately positive. The literature identifies a digital productivity paradox, where substantial adoption of digital technologies does not necessarily generate corresponding productivity gains. The benefits of digitalization may require complementary investments in skills, infrastructure, organizational capacity, and institutional development. Therefore, digitalization may generate adjustment costs and even temporary negative effects before its potential long-run benefits are realized.

In Sri Lanka, empirical evidence on the short-run and long-run effects of digitalization on economic growth remains limited. Existing studies have largely emphasized the potential benefits of digital transformation, while less attention has been given to whether its effects differ across time horizons. Hence, the research problem is whether increasing digitalization in Sri Lanka contributes to economic growth immediately or whether its benefits emerge only after an adjustment period.

Objectives

The study aims to: (1) Examine the long-run relationship between digitalization and economic growth in Sri Lanka; (2) Assess the short-run effect of digitalization on economic growth in Sri Lanka; (3) Examine the speed of adjustment towards long-run equilibrium following short-run deviations and (4) Determine whether the short-run and long-run effects of digitalization differ, providing evidence on the dynamic nature of the digitalization growth relationship.

Methodology

This study investigates the relationship between digitalization and economic growth in Sri Lanka using annual data from 1995 to 2025, obtained from the World Development Indicators (WDI). The explanatory variables are the natural log of mobile subscriptions per capita (100) as a proxy for digitalization ($\ln\text{MOBILE}_t$), the natural log of gross fixed capital formation ($\ln\text{GFCF}_t$) as a proxy for domestic investment, and the natural log of foreign direct investment inflows ($\ln\text{FDI}_t$). A structural dummy variable is included to control for major economic and external shocks that may have affected Sri Lanka's economic performance during the study period, including the civil war period, the 2019 Easter Sunday attacks, the COVID-19 pandemic, and the 2022 economic crisis. The dummy takes the value 1 during the identified shock periods and 0 otherwise. The linear regression model is:

$$\ln\text{GDPPC}_t = \beta_0 + \beta_1 \ln\text{MOBILE}_t + \beta_2 \ln\text{GFCF}_t + \beta_3 \ln\text{FDI}_t + \beta_4 D1_t + \varepsilon_t$$

The analysis begins with the Augmented Dickey-Fuller (ADF) unit root test to check for stationarity of the variables. Lag length that can be included in the model was selected using AIC. Next, the ARDL Bounds test is conducted to examine the presence of a long run equilibrium relationship. If cointegration is confirmed, the Error Correction Model (ECM) is estimated to capture both short run dynamics and long run relationships, with the error correction term (ECT) indicating the speed of adjustment to equilibrium. To ensure robustness, all the diagnostic tests are applied.

Results and Discussion

The Augmented Dickey-Fuller test was used to determine the order of integration of the variables. The results indicate that the variables are a mixture of I(0) and I(1), with none integrated at I(2), satisfying the precondition for the ARDL bounds testing approach. The lag length selection criteria suggest a maximum lag length of two for the estimation process.

The ARDL Bounds testing approach confirms the existence of a long-run equilibrium relationship between digitalization and economic growth in Sri Lanka. The calculated F-statistic of 10.343 exceeds the upper-bound critical value of 4.28 at the 1 percent significance level, confirming the presence of a statistically significant long-run relationship among the variables. Below Table 1 depict the results of long run relationships.

Table 1: Long-run Estimates

Variable	Coefficient	t-statistic	Prob.
lnMOBILE	0.141	7.832	0.000***
lnGFCF	0.342	2.973	0.007***
lnFDI	0.210	3.098	0.005***
D1	-0.088	-2.139	0.043**
Constant	6.686	17.270	0.000***

Note: ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Digitalization, measured by mobile penetration, has a positive and statistically significant long-run coefficient of 0.141, indicating that a 1 percent increase in mobile penetration is associated with approximately a 0.141 percent increase in GDP per capita in the long run, holding other factors constant. Gross fixed capital formation and FDI also exhibit positive and statistically significant long-run coefficients of 0.342 and 0.210, respectively. The shock dummy (D1), included to capture major economic and external shocks, and has a negative and statistically significant coefficient of -0.088 , indicating an adverse association between major shock periods and GDP per capita.

Table 2 presents the Short-run Dynamics from the Error Correction model. The error correction coefficient is negative and statistically significant at -0.285 , indicating that approximately 28.5 percent of deviations from the long-run

equilibrium are corrected within one year. The contemporaneous change in mobile penetration has a negative but statistically insignificant coefficient, while its first lag has a negative and statistically significant coefficient of -0.096 . This indicates that the short-run response to digitalization is not immediately positive. In contrast, changes in gross fixed capital formation and FDI have positive and statistically significant short-run effects, with coefficients of 0.288 and 0.033 , respectively.

Table 2: The Results of Error Correction Model

Variable	Coefficient	t-statistic	Prob.
COINTEQ(-1)	-0.285	-8.962	0.000***
D(LNGDP_PC(-1))	-0.527	-4.297	0.000***
D(lnMOBILE)	-0.038	-1.145	0.264
D(lnMOBILE(-1))	-0.096	-2.156	0.042**
D(lnGFCF)	0.288	8.382	0.000***
D(lnFDI)	0.033	4.404	0.000***

*Note: ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.*

The model explains approximately 88.6 percent of the variation in GDP per capita growth, with an adjusted R-squared of 0.860. The overall model is statistically significant ($F = 34.133$, $p < 0.001$).

Diagnostic test results are presented in Table 3 below. Overall, the diagnostic tests indicate that the estimated model does not exhibit significant serial correlation, heteroskedasticity, non-normality, or functional-form misspecification.

Table 3: Diagnostic Test Results

Diagnostic Test	Statistic	Probability
Breusch–Godfrey Serial Correlation LM Test	$F = 0.605$	0.559
Breusch–Pagan–Godfrey Heteroskedasticity Test	$F = 1.568$	0.199
Jarque–Bera Normality Test	$JB = 1.724$	0.422
Ramsey RESET Test	$F = 0.001$	0.999

Note: The null hypotheses of no serial correlation, homoskedasticity, normality, and correct functional form are not rejected at the 5% significance level.

Conclusion and Policy Recommendations

The study finds a significant long-run relationship between digitalization and economic growth in Sri Lanka. Digitalization has a positive and significant long-run effect on GDP per capita, while its short-run effect is negative and significant. This suggests that the benefits of digitalization may not be realized immediately, as the adoption of new technologies can involve initial adjustment costs for firms, workers, and the economy. Over time, however, improved digital connectivity and technology adoption can contribute to higher productivity and economic growth. The negative and significant error correction term (-0.285) further indicates that approximately 28.5% of short-run deviations from the long-run equilibrium are corrected each year, confirming a gradual adjustment process. These findings suggest that Sri Lanka should treat digitalization as a long-term growth strategy rather than expecting immediate economic gains. Policies should focus on reducing short-run adjustment costs through digital skills development, training, improved digital infrastructure, and support for firms and workers adapting to technological changes. In addition, encouraging FDI in digital-intensive sectors could strengthen the long-run contribution of digitalization to economic growth.

Overall, the findings indicate that digitalization may initially create adjustment pressures but can generate positive economic benefits over time when supported by appropriate skills, infrastructure, investment, and complementary policies.

References

- Erangi, D.H.N. and Stecenko, I., (2024). Digital transformation in Sri Lanka: Evaluating progress and addressing challenges. *Green, Blue and Digital Economy Journal*, 5(2), pp.1-11.
- Gamage, P. and Halpin, E.F., (2007). E-Sri Lanka: bridging the digital divide. *The Electronic Library*, 25(6), pp.693-710.
- Perera, W.A.M.C., Nimeshi, G.K.S., Ranwala, R.S. and Panditharathna, K.M., (2024). The role of digitalization during the pandemic: Small entrepreneurs in Sri Lanka. *Sri Lanka Journal of Marketing*, 10(1).
- Perera, N., (2021). Impact of digital transformation in measuring business performance of small & medium scale businesses in Sri Lanka. *International Journal of Economics, Business and Management Research*, 5(7), pp.1-25.

Beyond the Economic Complexity Framework: A Comparative Analysis of Bangladesh and Vietnam

M. A. Shaleh Sadiq and Debdatta Saha

Faculty of Economics, South Asian University, New Delhi, India

Keywords: *Economic Complexity; Revealed Comparative Advantage; Handicraft; Ubiquity; Diversity*

Introduction

Understanding the nexus between a country's trade structure and level of economic development has long been a foundational preoccupation within development economics. Rooted in classical theories of comparative advantage (Ricardo, 1817) and exploiting the Revealed Comparative Advantage (RCA) index (Balassa, 1965), the Economic Complexity Framework (ECF), as proposed by Hidalgo and Hausmann (2009), has provided a robust link between the diversification and sophistication of a country's export basket and its future growth prospects. The divergent export trajectories of Bangladesh and Vietnam since the mid-1990s provide a salient context to revisit the economic complexity framework.

Bangladesh, despite resilient growth, the narrow export basket, heavily concentrated on textiles, apparel, and ready-made garments (RMG), reflects both path dependence and a persistent lock-in effect. Vietnam, in contrast, entered global markets relatively late, with a low-technology base in agro-commodities and mineral products, but has managed to transition into an exporter of diversified and complex products, including electronics and machinery. This juxtaposition highlights a paradox within the ECF: Bangladesh, despite having an ostensibly favourable starting point in relatively complex production, has remained entrenched in low-complexity, while Vietnam has successfully transformed its initially disadvantaged baseline into a ladder of complexity upgrading.

This paper aims to revisit the economic complexity framework through a comparative export-performance analysis of Bangladesh and Vietnam with particular focus on handicraft products, a labour-intensive and culturally embedded subsector. Hence, the central research question is whether the economic complexity framework is sufficient to explain Bangladesh's persistent comparative

advantage in the artisanal and craft sector relative to Vietnam. While ECF offers valuable insight regarding overall macroeconomic competitiveness, it's inherently unable to capture micro-level and sectoral institutional and cultural dynamics.

Objectives

The objectives of this paper are: (1) to examine the revealed comparative advantage for Bangladesh and Vietnam using both the standard and net-export-adjusted measures; (2) to assess how economic complexity has emerged in the countries in question and the extent to which the standard RCA-based ECF explains their divergent growth trajectories; and (3) to evaluate whether ECF is able to explain Bangladesh's resilient comparative advantage in textile-based handicrafts relative to Vietnam adequately.

Methodology

The trade data used in this paper is extracted from the CEPII-BACI database, which compiles statistics from the UNCOMTRADE database. The export and import data for both countries are extracted at the 6-digit level of the Harmonised System (HS) of product classifications (HS6), covering the period 1996-2024. Country-specific macroeconomic indicators such as GDP per capita, Merchandise Trade (% of GDP), FDI Net Inflow (% of GDP), Inflation (CPI), Total Trade (% of GDP), Government Consumption Expenditure (% of GDP) are collected from the World Development Indicators database

The RCA is computed for both countries following Balassa (1965).

$$RCA_{cp} = \frac{\frac{X_{cp}}{X_c}}{\frac{X_{wp}}{X_w}}$$

where, X_{cp} is the export of product p by country c ; X_c is the total exports of country c ; X_{wp} is world's exports of product p ; and X_w is total world exports. The modified RCA is also computed using net export data to address distortions from re-exports or import dependence. To understand the dynamics of comparative advantage, this paper extends beyond point-in-time RCA by analysing its stability (Coefficient of Variation) and volatility (year-to-year absolute changes) over a 28-year period. Levene's tests are employed to statistically compare the stability and volatility of RCA between the two countries for each product, identifying where advantages are not just different but significantly more or less robust.

By following the standard method of reflections (Hidalgo & Hausmann, 2009), we first constructed a binary country-product incidence matrix:

$$M_{cp} = \begin{cases} 1 & \text{if } RCA_{cp} \geq 1 \\ 0 & \text{if } RCA_{cp} < 1 \end{cases}$$

From above matrix, two measures: Diversity and Ubiquity are derived as follows

- Diversity: $k_{c,0} = \sum_p M_{cp} (RCA_{cp} \geq 1)$
- Ubiquity: $k_{p,0} = \sum_c M_{cp} (RCA_{cp} \geq 1)$

Using these two metrics, Economic Complexity Index (ECI) is calculated for Bangladesh and Vietnam over time. Similarly, Product Complexity Index (PCI) is calculated to understand the complexity of the products in which each country specialises.

Results and Discussion

Bangladesh's export profile remains heavily concentrated in textiles and garments, accounting for 80% of the country's total exports. In contrast, Vietnam's export composition has diversified from agriculture and mineral commodities to electronics and machinery. Patterns of RCA follow a similar trajectory along the divergent path of export performance between Bangladesh and Vietnam. ECI also reflects these trajectories, wherein Bangladesh ranks persistently lower and remains on a stagnant ladder. On the contrary, Vietnam experienced a sharp rise in its ECI ranking, particularly after 2005, which coincides with increased FDI inflows and export upgradation. PCI trends also reinforce this contrast, as Vietnam's exports transitioned towards high-complexity products, while Bangladesh's PCI-weighted exports remain low in low-complexity products. Complementary evidence from PCA shows that Bangladesh's export basket is essentially one-dimensional- dominated by textiles, whereas Vietnam's export basket is featured by multiple principal components spanning both agriculture and electronics goods. Cluster analysis further corroborates this divide, confirming Bangladesh's entrapment within a low-complexity cluster, while Vietnam progressively transitions into higher-complexity clusters.

At a more disaggregated level, however, a different scenario emerges when craft products are taken into consideration. Contrary to aggregate complexity trajectories, Bangladesh consistently retains a higher RCA for specific handicraft products at the HS6 level. For instance, woven and plaited textile handicrafts

remain competitive for Bangladesh, whereas in comparable categories, Vietnam's RCA has remained modest or even declined. This finding suggests that aggregate measures of economic complexity may obscure important dimensions of cultural embeddedness and artisanal capabilities that underpin the resilience of export in such niche sectors. Although these products, according to PCI, are often characterised as medium-to-low complex products, they exhibit remarkably low volatility and high stability in Bangladesh's export basket.

Conclusion and Policy Recommendations

The findings of this study point to an important conundrum within the economic complexity framework. While aggregate indicators highlight Vietnam's successful transition into higher-complexity trajectories, they understate Bangladesh's sustained competitive strengths in artisanal and craft-based exports. This divergence highlights the need to complement aggregate complexity metrics with disaggregated, sector-specific analyses that capture the persistence of culturally embedded capabilities—an aspect particularly salient for economies with a longstanding tradition in craft-based production.

At the policy frontier, the results imply that formulating industrial and export-diversification policies based on aggregate complexity rankings risks overlooking sectors in which a country already holds a resilient and stable comparative advantage. We recommend that, rather than treating crafts as a residual sector, Bangladesh's industrial and export policy should focus more on providing targeted support, such as certification, design upgrading, and market access for stable and high-RCA handicraft niches.

References

- Ricardo, D., (1817). *On the Principles of Political Economy and Taxation*. London: John Murray.
- Balassa, B., (1965). Trade liberalisation and "revealed" comparative advantage. *The Manchester School*, 33(2), pp.99–123.
- Hidalgo, C. and Hausmann, R., (2009). The building blocks of economic complexity. *Proceedings of the National Academy of Sciences*, 106(26), pp.10570–10575.

How Do Demand-Side Factors Affect Unemployment Dynamics in Sri Lanka? Evidence from Overall and Youth Unemployment

Chesika Mahesh

Keywords: *Demand Side Factors, Unemployment, Youth Employment, Sri Lanka*

Introduction

Unemployment remains a major labour-market challenge because of persistent unemployment. It reflects the underutilization of human resources and can constrain income generation and economic participation. The problem is particularly concerning among young people, as the transition from education to employment is highly dependent on prevailing labour-market conditions. This concern is pronounced in Sri Lanka, where youth unemployment remains substantially higher than overall employment unemployment. According to the Department of Census and Statistics, the overall unemployment rate was 3.8% in the fourth quarter of 2025, compared with 18.7% among individuals aged 15-24 (Department of Senses and Statistics, 2026). This substantial disparity raises an important question as to whether the factors influencing unemployment in the broader labour market affect young workers in a similar manner.

From an economic perspective, unemployment can be analysed through both supply-side and demand-side mechanisms. While the supply-side perspective emphasises workers' skills, education and employability, the demand-side perspective focuses on the availability of employment opportunities and firms' demand for labour. In this study, demand-side factors refer to measurable macroeconomic variables representing external demand, domestic consumption demand and investment related channels that may influence labour demand.

Labour-market integration is shaped not only by jobseekers' characteristics but also by employer requirements and demand-side factors (Frøyland, Andreassen and Innvæer, 2019). Changes in economic activity and aggregate demand can influence firms' production decisions and, consequently, their demand for labour. Empirical evidence further indicates that demand-side factors are relevant to youth unemployment; although their effects are not necessarily uniform (Das and M.R., 2026). Therefore, the demand-side perspective provides an important framework

for examining whether changes in economic conditions translate into greater employment opportunities and lower unemployment in Sri Lanka.

This perspective becomes particularly relevant when examining youth unemployment. Young workers generally have limited work experience and weaker attachment to established employment relationships, which may increase their sensitivity to changes in labour demand. Consistent with this argument, An et al. (2022) found that unemployment responses to economic fluctuations differ across worker groups, with youth unemployment exhibiting greater cyclical sensitivity than unemployment among older workers. Thus, changes in aggregate economic conditions may generate heterogeneous unemployment outcomes, making a separate examination of youth unemployment necessary. Furthermore, empirical evidence indicates that the relationship between demand-side factors and unemployment is context specific. However, existing evidence does not explicitly examine a common set of demand-side and investment-related factors while simultaneously comparing overall and youth unemployment within the same Sri Lankan framework. This represents an important empirical gap.

Objectives

The main objective of this study is to examine the effects of demand-side factors on overall and youth unemployment in Sri Lanka over the period 1991 to 2025. The specific objectives are: (1) To examine the short-run and long-run relationships of demand-side factors on overall and youth unemployment in Sri Lanka using the ARDL approach and (2) To assess whether the short-run and long-run effects of demand-side factors differ between overall and youth unemployment in Sri Lanka.

Methodology

This study adopts a quantitative research approach using annual time-series data for Sri Lanka from 1991 to 2025, obtained from the World Bank's World Development Indicators (WDI). Two separate econometric models are estimated using the same set of explanatory variables enabling a comparison of the responses of overall and youth unemployment to demand-side factors.

The first model considers overall unemployment as the dependent variable, measured as % of total labour force. The second model considers youth

unemployment measured as total % of labour force ages 15 to 24. Youth unemployment is measured for individuals aged 15-24 years using the World Bank youth unemployment indicator. The indicator represents the share of the labour force aged 15-24 who are without work, available for work and actively seeking employment. Therefore, the measure does not represent all individuals aged 15-24. Young people who are outside the labour force, including students who are not seeking or available for employment, are not included in the unemployment measure. Accordingly, the second model examines unemployment among young labour-force participants aged 15-24. The models are specified as:

$$O_UNEMP = f(EXPO, GFCF, LCON, FDI) \quad (1)$$

$$Y_UNEMP = f(EXPO, GFCF, LCON, FDI) \quad (2)$$

where O_UNEMP_t denotes overall unemployment, Y_UNEMP_t denotes youth unemployment rate among the labour force aged 15-24, $EXPO_t$ represents exports of goods and services (% of GDP), $GFCF_t$ represents gross fixed capital formation (% of GDP), $LCON_t$ represents the natural logarithms final consumption expenditure and FDI_t represents foreign direct investment net inflows (% of GDP). Final consumption expenditure is measured in current local currency units (LCU) and transformed into its natural logarithm to reduce scale related variation and provide a more appropriate functional form for the estimation. The study employs the ARDL bounds testing approach, which is suitable for the relatively small sample and variables integrated at $I(0)$ and $I(1)$, not $I(2)$.

Results and Discussion

Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests confirmed that most variables are integrated of order one, $I(1)$, except FDI , which is stationary at level $I(0)$. This combination of $I(0)$ and $I(1)$ variables justifies the use of the ARDL bounds testing approach for cointegration analysis. Further, The Akaike Information Criterion (AIC) suggested to use, ARDL (1, 0, 4, 2, 1) was for Model 1, while ARDL (1, 2, 4, 0, 4) for Model 2, as both recorded the minimum AIC values among the estimated specifications.

Table 1 presents the results of ARDL Bounds test. The F-Bounds Test evaluates the existence of a long-run relationship between the variables in the model. This outcome confirms the presence of a long-term equilibrium relationship among the variables.

Table 1: Results of ARDL Bounds Test

Model -I	F-Bounds Test		Null Hypothesis: No levels relationship		
	Test Statistic	Value	Signif.	I(0)	I(1)
	F-statistic	3.784537	10%	2.2	3.09
	k	4	5%	2.56	3.49
Model -II					
	F-statistic	5.083522	10%	2.2	3.09
	k	4	5%	2.56	3.49

Table 2 below shows the results of Long-run Relationship between the Variables.

Table 2: Results of Long-run Test

Variable	Model -I			Model -II		
	Coeff.	t-Stat	Prob.	Coeff	t-Stat	Prob.
EXPO_I	-0.07166	-0.77793	0.4467	-0.07096	-0.35158	0.7300
FDI	-4.85835	-3.07389	0.0065	-16.2424	-4.31637	0.0006
LCON01_1	-2.49755	-3.80200	0.0013	-6.83639	-4.75081	0.0003
GFCF_1	-0.04608	-0.54131	0.5949	0.62943	3.21827	0.0057
C	88.4061	3.84798	0.0012	224.229	4.65498	0.0003

The long-run results indicate that foreign direct investment and final consumption expenditure are negatively and statistically significantly associated with both overall and youth unemployment. In contrast, exports of goods and services do not show a statistically significant long-run relationship with either unemployment measure. The most notable difference between two models concerns gross fixed capital formation. GFCF is statistically insignificant in the overall unemployment model but has a positive and statistically significant association with youth unemployment. The difference indicates that the relationship between investment activity and unemployment is not uniform across labour-market groups and highlights the importance of examining youth unemployment separately from overall unemployment. Below Table 3 show the Short-run Relationship of Variables.

Table 3: Short-run Test Results

Variable	Model - I		Model - II	
	Coefficient	p-value	Coefficient	p-value
D(FDI)	-0.028836	0.8577	-0.591989	0.3947
D(FDI(-1))	1.331224	0.0003	6.572097	0.0002
D(FDI(-2))	1.097264	0.0001	4.784317	0.0002
D(FDI(-3))	0.636481	0.0053	2.989202	0.0020
D(LCON01_1)	-2.893743	0.0031		
D(LCON01_1(-1))	-1.838859	0.0646		
D(GFCF_I)	-0.191559	0.0002	-0.288254	0.0966
ECT (-1)	-0.366505	0.0000	-0.608512	0.0000
R-squared	0.707611		0.735964	
Adjusted R-squared	0.618623		0.603946	
Durbin-Watson stat	2.399048		2.539894	

The short-run results also show differences across the two models. In both models, the current-period change in FDI is statistically insignificant, while lagged changes in FDI are positive and statistically significant; indicating that short-run association between FDI and unemployment differs across time lags from the long-run relationships. In Model 1, changes in final consumption expenditure and gross fixed capital formation are negatively and significantly associated with overall unemployment in the current period. In Model 2, the coefficient on the current change in GFCF is negative but not statistically significant at the 5% level. These findings indicate that the short-run relationships are not uniform across overall and youth unemployment.

Moreover, the results indicate a satisfactory model fit for both models, with the explanatory variables accounting for a substantial proportion of variations in unemployment. The negative and statistically significant ECT coefficients confirm adjustment towards long-run equilibrium, with approximately 36.7% of disequilibrium corrected annually in Model 1 and 60.9% in Model 2. Below Table 4 presents the diagnostic test results

Table 4: Diagnostic Test Results

Type of Test	Model -I		Model -II	
	F-statistic	Prob.	F-statistic	Prob.
Normality Test – Jarque - Bera	6.054398	0.6484	1.175186	0.5556
Breusch-Godfrey Serial Correlation LM Test	0.822362	0.4571	3.119005	0.0992
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.548043	0.8548	0.845881	0.6250
Ramsey Reset Test	0.459686	0.6516	0.945240	0.3474

The diagnostic tests indicate that both models satisfy the major econometric assumptions. Overall, the results support the reliability and adequacy of both ARDL models. The CUSUM test of this study indicates that the estimated parameters remain stable over the study period and provides evidence of the absence of significant parameter instability.

Conclusion and Policy Recommendations

The long-run results show that FDI and final consumption expenditure are negatively and statistically significantly associated with both overall and youth unemployment, while exports do not have a statistically significant relationship with either unemployment measure. Based on the findings, policies should focus not only on increasing aggregate demand and investment but also improving their employment-generating capacity. Sri Lanka should prioritize FDI projects that establish stronger linkages with domestic firms create employment opportunities and support skill development among young labour-force participants. Investment policies should also give greater attention to the composition and employment-generating potential of investment projects. Rather than promoting investment based only on its volume, priority can be given to projects that strengthen domestic value chains, develop workforce skills and generate sustainable employment opportunities. In the export sector, Sri Lanka should promote higher-value manufacturing and services, strengthen export-oriented SMEs and facilitate the integration of domestic firms into global supply chains. Overall, demand-side policies should be closely linked with productive investment, private-sector development, skills formation and domestic value-chain integration to support sustainable employment creation.

References

- An, Z., Bluedorn, J.C. and Ciminelli, G. (2022). Okun's Law, development, and demographics: Differences in the cyclical sensitivities of unemployment across economy and worker groups, *Applied Economics*, 54(36), pp. 4227-4239.
- Das, A.E. and M.R., A. (2026). Demand-side drivers of youth unemployment in India: Evidence from an ARDL-ECM analysis, *Asian Journal of Economic Modelling*, 14(2), pp. 138-155.
- Das, R.C. and Ray, K. (2019). Long run relationships and short run dynamics among unemployment and demand components: A study on Sri Lanka, India and Bangladesh, *Regional Science Inquiry*, 11(1), pp. 107-120.
- Frøyland, K., Andreassen, T.A. and Innvær, S. (2019). Contrasting Supply-side, Demand-side and Combined Approaches to Labour Market Integration, *Journal of Social Policy*, 48(2), pp. 311–328.
- Rasara, A.A.B. (2025). Macroeconomic determinants of youth unemployment in Sri Lanka: An ARDL approach (1990-2021), *Sri Lankan Journal of Business Economics*, 14(2), pp. 95-113.

Evaluating Youth Perceptions of Anti-Corruption Reforms and Institutional Strengthening under Sri Lanka's NPP Government: A Case Study of University of Peradeniya

M.E.F. Shihara and B. Muneera

*Department of Political Science, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Anti-Corruption; Youth perception; NPP Government; Institutional Strengthening; Political Institution*

Introduction

Corruption, Political patronage, and weak accountability have been major problems that have slowed sustainable development and weakened institutions in Sri Lanka. This became very clear during the 2022 economic crisis. In response to strong public demands for systemic reform, the election of the National People's Power (NPP) Government in 2024 brought renewed attention to anti-corruption and institutional reform. While good governance and anti-corruption were also key elements of the Yahapalana government's agenda, the NPP government has placed particular emphasis on strengthening anti-corruption institutions, improving transparency, and reducing political influence over public institutions. This anti-corruption effort is supported by important legal and policy measures, including the Anti-Corruption Act No. 9 of 2023, which expanded the powers of the Commission to Investigate Allegations of Bribery or Corruption (CIABOC), and the National Anti-Corruption Action Plan (NACP) 2025–2029, which aims to improve transparency across government institutions (UNDP, 2025).

As Jehan Perera (2024) argues, the legitimacy of democratic governance depends greatly on the government's ability to turn its commitments into long-term structural reforms rather than short term political achievements. This is especially important in Sri Lanka, where the 2022 economic crisis revealed serious weaknesses in governance, accountability, and institutional oversight (IMF, 2023). The IMF Governance Diagnostic also states that long term reform requires stronger accountability institutions, greater transparency, and effective ways to hold public officials and institutions accountable (IMF, 2023). In this context, youth are an important stakeholder group because they actively participated in

demands for accountability and governance reform during the crisis. UNDP (2024) also highlights the important role of young people in promoting integrity, fighting corruption, and participating in political decision making. Since young people's attitudes and perceptions can affect the long-term sustainability and public trust in state institutions, this study examines the views of Sri Lankan youth to understand the relationship between ongoing anti-corruption efforts and the wider goal of strengthening institutions.

Objectives

The objectives of this study are to assess the level of perceptions among youth regarding the anti-corruption reforms implemented Under the NPP government, evaluate the perceived impacts of these reforms on economic stabilization and recovery, analyze the extent to which recent anti-corruption measures have influenced youth trust in public institutions, and Examine how Faculty of Arts undergraduates perceive the effectiveness and sincerity of the government's anti-corruption and institutional strengthening efforts.

Methodology

This study employed a mixed methods research design to comprehensively examine the perceptions of Faculty of Arts undergraduates regarding the NPP government's anti-corruption reforms, combining broad statistical trends with deep contextual insights. The quantitative phase utilized stratified random sampling to select 100 students from the official registry, ensuring proportional representation across gender, ethnicity (Sinhalese, Tamil, Muslim), religion, and geographical location (urban/rural) to analyze general awareness and institutional trust via descriptive statistics and cross-tabulation in Excel. Concurrently, the qualitative phase leveraged purposive sampling to conduct 10 in-depth interviews with key student leaders (union representatives and society heads) and 5 diverse focus group discussions (7–10 participants each). The qualitative data was audio recorded, transcribed, and subjected to thematic analysis using a comparison matrix to identify recurring themes and evaluate how intersecting demographic variables such as regional background, gender, and minority status influenced students' assessments of the government's sincerity and reform efficacy.

Results and Discussion

Findings show that while most students understand and support the broader idea of “system change,” their knowledge of the specific provisions of the Anti-Corruption Act remains limited. Awareness of flagship initiatives such as the “Clean Sri Lanka” campaign is widespread, but male students and those from the majority community reported greater familiarity with the legal details than female students and religious minority groups.

Anti-corruption enforcement is strongly viewed as the primary pillar validating the government's economic legitimacy. Students expressed impatience for direct financial relief rather than a focus on IMF targets and debt restructuring alone. Intersectional analysis revealed divergence along ethnic lines. The finding indicated that the majority of respondents perceived anti-corruption measures and macroeconomic stability, while minority considered such indicators to be largely unrelated to their personal economic circumstances.

The implementation of the Anti-Corruption Act has had a mixed, conditional influence on institutional trust. High profile investigations and the operationalization of CIABOC's oversight mechanisms have driven a gradual recovery in baseline confidence, but qualitative data reveal continuing skepticism about whether these commissions operate with genuine autonomy or are being used to consolidate political control. Female undergraduates in particular placed greater emphasis on institutional transparency and regulatory safeguards, arguing that public confidence will remain incomplete unless corporate and everyday administrative corruption is also addressed.

Overall, Faculty of Arts undergraduates distinguish sharply between visible anti-corruption campaigns and durable legal change, viewing the former as insufficient proof of reform. Notably, the government's accountability agenda appears to have partly displaced traditional ethnic and religious politics on campus, creating a more unifying platform across student backgrounds. Meanwhile, students remain concerned that the focus on anti-corruption is overshadowing urgent issues such as graduate unemployment and welfare cuts.

Conclusion and Policy Recommendations

The findings show that most students support the NPP government's anti-corruption reforms and view reducing corruption as central to Sri Lanka's economic recovery. However, awareness of the specific provisions of the Anti-Corruption Act remains limited, and trust in public institutions, while gradually improving, is cautious and conditional. Students consider transparency, accountability, and independent implementation essential, and stress that anti-corruption measures alone cannot resolve broader problems such as unemployment, the cost of living, and welfare support.

The Study recommends several measures to sustain and strengthen the progress achieved thus far. Such as, government should invest in targeted civic education to close the awareness gap regarding the Anti-Corruption Act, with particularly among female students and religious minority groups. At the same time, the government should safeguard the operational independence of CIABOC and related oversight bodies from political influence, thereby addressing youth concerns about the centralization of authority. Furthermore, anti-corruption enforcement should be accompanied by visible, near-term welfare measures so that reform is not perceived as detached from citizens' daily economic pressures. In addition, the government should create structured channels for youth and student movement participation in monitoring reform implementation, building on the unifying platform these reforms have created on campus. Ultimately, without such measures, the credibility of the anti-corruption agenda among the generation most invested in Sri Lanka's democratic future risks remaining provisional rather than assured.

References

- CIABOC (Commission to Investigate Allegations of Bribery or Corruption), (2025). National Anti-Corruption Action Plan 2025–2029. Colombo: CIABOC.
- International Monetary Fund, (2024). Sri Lanka: Selected issues. IMF Country Report No. 24/162. Washington, DC: USA.
- International Monetary Fund. (2023). Sri Lanka: Technical assistance report: Governance diagnostic assessment (IMF Staff Country Reports, 2023/2024).
- Perera, J., (2024). Strengthening the anti-corruption mandate. National Peace Council of Sri Lanka. Available at: [link](#) [Accessed 15 August 2026].

Sri Lanka, (2023). Anti-Corruption Act, No. 9 of 2023. Colombo: Department of Government Printing.

United Nations Development Program. (2024). Government of Japan to promoting economic governance through anti-corruption policy support in Sri Lanka

Venugopal, R., (2025). Conspiracies, ideology and myth: The Sri Lankan Aragalaya as a generic moment, *Political Theology*, 26(1), pp.65–83.

A Critical Analysis of the Motherhood Penalty in Sri Lanka

R. Fernando and D.N.B. Gunewardena

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Motherhood penalty; Labour Force Participation; Labour Market; Gender Inequality*

Introduction

Motherhood is widely recognised as a significant determinant of women's labour market outcomes. The *motherhood penalty* refers to systematic labour market disadvantages experienced by women after childbirth relative to childless women and men. These disadvantages may arise through caregiving responsibilities, employer discrimination and structural barriers. Understanding the motherhood penalty is particularly important in Sri Lanka, where labour force participation remains relatively low despite improvements in educational attainment.

Existing literature has predominantly examined the motherhood penalty through wage differentials, while comparatively less attention has been given to labour force participation, particularly in Sri Lanka. This study addresses this gap by examining the relationship between parenthood and labour force participation by sex and marital status, alongside wage outcomes among employed individuals, using microdata from the Sri Lanka Labour Force Survey (LFS) 2018.

Objectives

The main objective of this study is to examine whether motherhood affects women's labour force participation, and whether this effect differs between women and men. Also, this study aims to (1) Assess how marital status and child age shape labour force participation among parents and (2) Analyse whether motherhood is associated with wage differences among employed women in Sri Lanka, considering the role of labour force selection.

Methodology

A quantitative cross sectional research design using secondary data from the 2018 LFS (25 percent public – use sample, n = 20,142) was selected as a stable pre –

Covid reference period. Two empirical models are employed: a probit regression to examine labour force participation and an ordinary least squares (OLS) regression for log monthly wages among urban employees. Motherhood is proxied via the own – children method, identifying co – resident children of the household head or spouse across three age groups: 0 – 5, 6 – 11, and 12 – 17 years. This approach cannot perfectly attribute children to a specific parent in complex or extended households and is noted as a limitation of the motherhood measure.

The probit model is estimated separately by sex and marital status, controlling for education and potential experience (with its square term). Probit coefficients are not directly interpretable; thus, results are reported as average marginal effects (AMEs) computed for each individual at their observed covariate values and then averaged across the sample and expressed in percentage points.

As wages are observed only for those who are employed, the probit results are treated as evidence on selection into the wage sample, and wage estimates are interpreted as conditional on employment rather than representative of women’s earnings potential. No formal corrections were applied, and this is noted as a limitation. The wage model is further restricted to urban employees, where wage reporting is more reliable than in rural or informal work, thus findings apply only to this subgroup. It controls for education, potential experience, potential experience squared, marital status, gender, and gender – child age interaction terms included to assess differential wage associations by sex. Standard diagnostic tests were conducted.

Results and Discussion

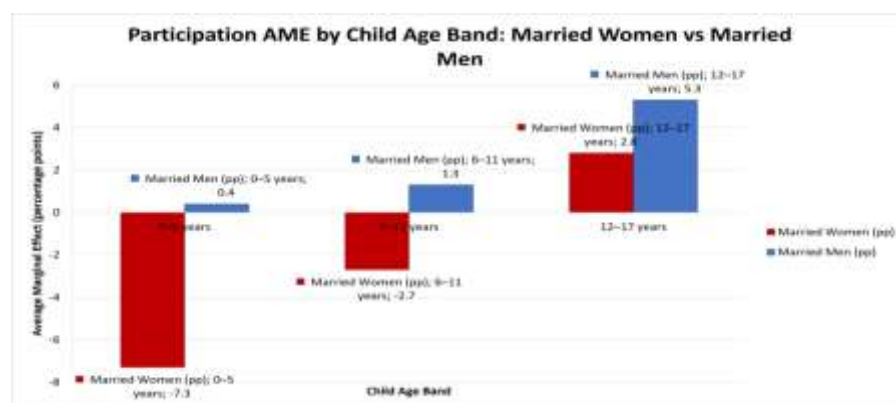


Figure 1: Labour Force Participation among Married Women and Men

Married women with a child under six, are 7.3 percentage points less likely to participate in the labour force, a 21.5 percent decline from their 34 percent baseline rate. Conversely, married men with children aged 12 – 17 are 5.3 percentage points more likely to participate. This asymmetry suggests that participation costs associated with young children fall disproportionately on women, while men's participation increases as children grow older.

Table 1: Average Marginal Effects on Labour Force Participation, by Child Age Band

Child age band	Married women (pp)	SE (pp)	Married men (pp)	SE (pp)
0 – 5 years	-7.3***	2.00	0.4	1.89
6 – 11 years	-2.7	1.72	1.3	1.55
12 – 17 years	2.8*	1.62	5.3***	1.34

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Table 2: Selected OLS Regression Coefficients

Variable	Coefficient	P - value
Education (years)	0.1049***	0.000
Experience	0.0308***	0.000
Experience ²	-0.0005***	0.000
Female	-0.1484*	0.082
Married	0.1552**	0.036
Female x Married	-0.0531	0.624

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively. (n=787, R² = 0.317)

Among employed women, no statistically significant motherhood wage penalty is observed. Marriage is associated with wage premiums of approximately 15.5 percent for men and 10.2 percent for women, though this estimate is conditional on urban formal employment rather than representative of women overall. Together, the participation and wage results suggest that motherhood - related labour market effects in Sri Lanka operate primarily through exit or non – entry into the labour force, rather than through wage discrimination among those who remain employed.

Conclusion and Policy Recommendations

This study finds an asymmetric relationship between parenthood and labour market outcomes in Sri Lanka. While a participation penalty is observed among married women with young children, no statistically significant motherhood wage penalty is found among employed women. The findings suggest that motherhood - related labour market effects may operate primarily through labour force participation, highlighting the importance of considering labour market attachment alongside wages.

Expanding access to affordable, quality childcare during the pre - school years, alongside flexible working arrangements and adequate parental leave, could support mothers' labour market participation. Policies promoting more equitable sharing of childcare responsibilities may further address gendered participation effects.

References

- Agüero, J., Marks, M. and Raykar, N. (2020). *Economic development and the motherhood wage penalty*. University of Connecticut, Department of Economics Working Paper Series.
- Bahar, E., Bradshaw, N., Deutscher, N. and Montaigne, M. (2023). *Children and the gender earnings gap: evidence for Australia*. Australian Treasury Working Paper.
- Budig, M.J. and England, P. (2001). The wage penalty for motherhood. *American Sociological Review*, 66(2), pp.204–225.
- Paweenawat, S.W. and Liao, L. (2019). *Parenthood penalty and gender wage gap: recent evidence from Thailand*. PIER Discussion Papers.

The Impact of Entrepreneurial Traits on MSME Performance: An Empirical Study Based on Kandy District, Sri Lanka

H.M.W.G.P.T. Wedagedara and A.V.K. Madhavia

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Entrepreneurial Traits; MSME; Risk Bearing; Innovativeness; Business Growth*

Introduction

Entrepreneurship is considered one of the main factors of production, alongside land, labour and capital. Entrepreneurship drives macroeconomic advancement by encouraging innovation, expanding employment opportunities, and fostering sustainable market growth. Cantillon (1755) defined the entrepreneur as an "Arbitrageur" who buys factor services at certain prices with a view to selling them at uncertain prices in the future. Schumpeter (1912) characterized the entrepreneur as an innovator whose innovation constitutes a creative response to circumstances, whereas Knight (1921) and Tuttle (1927) defined the entrepreneur as a decision-maker who assumes responsibility under conditions of uncertainty. Entrepreneurs possess a range of skills, characteristics, and social attributes that enable them to start and develop a business venture. Their personality traits have been widely studied as determinants of business success and examined through economic, psychological, sociological, and behavioral perspectives. Among these, economic theories of entrepreneurship hold the most importance.

MSMEs serve as a fundamental pillar of economic stability, particularly in emerging economies, driving macroeconomic development, employment expansion and poverty alleviation. According to the Department of Census and Statistics, Sri Lanka had approximately 1.1 million MSMEs by 2024, accounting for over 90% of all businesses and contributing approximately 52% to GDP and 45% to national income. However, the growth and sustainability of the MSME sector remain hindered by various challenges.

In Sri Lanka, many micro and small enterprises fail to progress beyond the initial stage of business development and remain stagnant for extended periods. Only

around 50% of SMEs in Sri Lanka continue to operate beyond their first five years (CBSL, 2023). Many researchers have examined the characteristics of entrepreneurs and their impact on business growth, but only a few have focused on traits derived from economic theories. In addition, this study focuses on business growth using both income growth and employment growth, providing a broader assessment of MSME performance. Hence, the ongoing academic debate and the inconsistent evidence surrounding this topic serve as key motivations for conducting this research.

Objectives

The primary objective of this research is to assess the relationship between entrepreneurial traits and MSME growth. The secondary objective of this study is to identify the most influential entrepreneurial trait affecting MSME growth.

Methodology

This research study aims to examine the impact of five entrepreneurial traits on the growth of business enterprises. These traits include Risk-Bearing, Innovativeness, Arbitration, Coordination, and Gap-Filling Ability. A multiple linear regression model is used to analyze the relationship between entrepreneurial traits and business growth. The general model is specified as follows.

$$BG_i = \beta_0 + \beta_1 RISK_i + \beta_2 INN_i + \beta_3 ARB_i + \beta_4 COR_i + \beta_5 GAPFIL_i + u_i$$

In this model, BG denotes the growth of MSMEs, measured by two indicators, income growth and employment growth. The mean of these two indicators is computed to derive a composite growth measure. Data were collected from 2022 to 2024. The remaining variables in the model represent entrepreneurial traits, namely Risk-Bearing, Innovativeness, Arbitration, Coordination, and Gap-Filling Ability. These independent variables were measured using a structured questionnaire, with responses recorded on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Three questions were asked to measure each variable, and the responses were averaged to produce a final score for each trait.

This study includes both registered and unregistered businesses. The target population comprises owners and managers of MSMEs operating in the Kandy District, Sri Lanka. A nonprobability convenience sampling method was used to select entrepreneurs. Accordingly, a total of 80 Micro, Small, and Medium-Scale

Enterprises (MSMEs) from the Kandy District were included in the sample. The study has used the classification provided in the National Policy Framework for SME Development (2017) and the Central Bank of Sri Lanka's usage under Basel III standards for MSME classification. These definitions are based on the number of employees and the annual turnover.

Table 1: MSME Classification

Size/Sector		Micro	Small	Medium
Manufacturing Sector	Number of Employees	1–10	11–50	51–300
	Annual Turnover	Up to LKR 15 million	LKR 16 250 million	LKR 251 750 million
Service Sector	Number of Employees	1–10	11–50	51–200
	Annual Turnover	Up to LKR 15 million	LKR 16 250 million	LKR 251 750 million

Source: National Policy Framework for SME Development, 2017

Data were collected using a self-structured questionnaire comprising both open-ended and closed-ended questions, which was distributed to entrepreneurs both in person and online.

Results and Discussion

Among the independent variables, Risk-Bearing and Innovativeness showed a statistically significant influence on business growth. Risk-Bearing recorded a coefficient of 0.3759 ($p = 0.0000$), indicating that a one-unit increase in risk-bearing capacity is associated with a 37% increase in business growth. Similarly, Innovativeness recorded a coefficient of 0.3035 ($p = 0.0000$), indicating that a one-unit increase in innovativeness is associated with a 30% increase in business growth. These results statistically confirm that Risk-Bearing capacity is the most influential characteristic driving MSME growth, thereby fulfilling the secondary objective. However, Arbitration, Coordination and Gap-Filling Ability did not demonstrate a statistically significant effect on MSME growth.

Table 2: Results of the Regression Model

Variable	Coefficient	t value	p value	H ₀ : Accept/Reject
Risk Bearing	0.3759	6.89	0.000	Accept
Innovativeness	0.3035	4.64	0.000	Accept
Arbitration	0.1466	0.92	0.358	Reject
Coordination	0.0277	0.56	0.577	Reject
Gap Filling	-0.0068	-0.55	0.581	Reject

The model yielded an R-squared value of 0.7608, indicating that approximately 76.08% of the variation in business growth is explained by the five entrepreneurial characteristics. The F-statistic of 47.07 ($p = 0.0000$) confirms that the overall model is statistically significant, demonstrating that the selected entrepreneurial traits collectively have a significant effect on MSME growth and thereby fulfilling the primary objective.

Table 3: Overall Significance of the Model

R Squared	0.7608
Adjusted R Squared	0.7446
Significance	0.0000
F Value	47.07
VIF	1.86
White's Test	0.2755

Conclusion and Policy Recommendations

In conclusion, Risk-Bearing and Innovativeness emerged as the strongest predictors of MSME growth, indicating that entrepreneurs with high innovativeness and strong risk-bearing capacity are more likely to achieve business success. Arbitration, Coordination, and Gap-Filling Ability did not have a statistically significant effect, suggesting that these characteristics function as operational capabilities necessary for day-to-day stability rather than for accelerated growth.

Based on these findings, policy and institutional support for MSMEs should prioritize strengthening entrepreneurs' risk-bearing capacity and innovativeness. Expanding financial infrastructure, through low-interest loans, credit guarantee schemes, and flexible collateral requirements, would enable entrepreneurs to

pursue growth opportunities while managing associated risks. Similarly, entrepreneurial training programs should place greater emphasis on developing innovative capabilities. While Coordination and Arbitration remain essential for sustaining day-to-day business stability, targeted efforts to strengthen Risk-Bearing and Innovativeness are likely to yield the greatest returns in accelerating MSME growth in the Kandy District. Future research could expand the geographical scope to include multiple districts or provinces across Sri Lanka.

References

- Ruta Aidis (2000). *Entrepreneurship and Economic Transition*. [online] SSRN Electronic Journal.
- Alam, M.S. and Mohiuddin, G. (2021). Chronological Development of Entrepreneurship Concept - A Critical Evaluation. [online] *American Journal of Economics*.
- Christos Kalantaridis (2004). *Understanding the entrepreneur: An institutionalist Perspective*. [online] doi:10.13140/2.1.1785.2167.

A Comparative Study of Human Capital, Labor Market Segmentation and Labor-Leisure Theories: Which Theory Best Explains Digital Freelancing in Sri Lanka?

C.S.I. Nethmini and Kalpa Rajapaksha

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Online Freelancing; Gig Economy; Human Capital; Labour Market; Labour-Leisure*

Introduction

The 21st-century labour market has transformed with the rise of the gig economy, characterized by short-term, flexible work facilitated by digital platforms (Javokhir et al., 2025). Online freelancing has emerged as a significant phenomenon, enabling individuals to offer services on global platforms that connect buyers and sellers without traditional office-based employment (Senanayake et al., 2017). Sri Lanka has actively participated in this shift, with an estimated 17,000–20,000 worker engaged in web-based platforms by 2017, contributing to foreign exchange earnings and providing alternative employment, particularly for youth (Galpaya & Senanayake, 2018).

Despite this growth, confusion remains about what explains a freelancer's success. Is it skills and education or market structures that trap workers in low-paying segments or economic necessity driving individuals to sacrifice leisure for income? This study addresses these questions by systematically testing three major frameworks: Human Capital Theory (Becker, 1964), Labour Market Segmentation Theory (Doeringer & Piore, 1971), and Labour-Leisure Theory (Becker, 1965) within the Sri Lankan context.

Objectives

The main objective of this study is to evaluate which theory; Human Capital, Labour Market Segmentation, or Labour-Leisure is the most accurate in explaining the dynamics of digital freelancing in Sri Lanka. Sub-objectives are (1) to evaluate the economic return on skills within the digital freelance market by analyzing

whether education, technical skills, and English proficiency translate into higher earnings; (2) to investigate structural barriers related to wages in the labor market; and (3) to explore the motivation behind freelance participation, prioritizing work-life flexibility and income maximization.

Methodology

This study adopted a quantitative, cross-sectional research design using a survey-based approach. The target population comprised individual online freelancers residing in Sri Lanka operating on global platforms such as Upwork, Freelancer.com, Guru.com, Fiverr, etc. Snowball sampling was employed. Initial "seeds" were identified from diverse job categories including Web Design, Software Development, Graphic Design, Content Writing, Video Editing, Translation, and Digital Marketing, etc. Geographical coverage spanned multiple districts across Sri Lanka to capture both urban and rural dynamics.

Data were collected through a structured, self-administered online questionnaire distributed via Google Forms, consisting of Likert scales and closed-ended questions. The final sample consisted of 50 respondents. The demographic profile revealed that 56% were aged 21–25, 36% were 26–30, 82% were male, and 78% held a Bachelor's degree. Job categories were classified into high-skill (primary segment) and low-skill (secondary segment) groups based on Schmidt's (2017) Digital Labour Markets classification and Doeringer and Piore's (1971) Labour Market Segmentation Theory.

The analysis employed three statistical tests corresponding to each theoretical framework. Human Capital Theory was tested using Spearman's rank correlation to examine relationships between education, technical skills, English proficiency, and monthly earnings. Labour Market Segmentation Theory was tested using independent samples t-tests to compare earnings and perceived mobility difficulty between primary and secondary segments. Labour-Leisure Theory was tested using t-test to examine relationships between financial necessity and hours worked per week. All analyses were performed using Stata software.

Results and Discussion

Testing Human Capital Theory: Human Capital Theory was partially supported. Spearman correlation analysis revealed that technical skills showed a statistically

significant moderate positive correlation with monthly earnings ($\rho = 0.362$, $p = 0.010$). Freelancers who rated their technical skills higher earned significantly more than those with lower self-rated skills. However, contrary to the theory's predictions, formal education level ($\rho = -0.170$, $p = 0.237$) and English proficiency ($\rho = 0.024$, $p = 0.869$) showed no significant association with earnings. This suggests that applied practical skills, rather than formal credentials, determine financial success in Sri Lanka's digital freelance market.

Table 1: Results of Correlation Analysis (Human Capital Theory)

Variable	Spearman's Rho (ρ)	P-value
Technical Skills	0.362	0.010
Education Level	-0.170	0.237
English Proficiency	0.024	0.869

Testing Labour Market Segmentation Theory: Labour Market Segmentation Theory was not supported. An independent samples t-test revealed no significant difference in perceived mobility difficulty between secondary segment ($M = 3.375$) and primary segment ($M = 3.024$) freelancers, $t(12.97) = 1.14$, $p = 0.276$. Both groups reported moderate difficulty switching to higher-paying categories.

Table 2: Results of Labour Market Segmentation Theory Analysis

Group	N	Mean Mobility Difficulty (1-5)	Std. Dev.
Low-Skill	8	3.375	1.744
High-Skill	42	3.024	1.047

Testing Labour-Leisure Theory: Labour-Leisure Theory was supported. Spearman correlation revealed a statistically significant positive relationship between financial necessity and hours worked per week ($\rho = 0.286$, $p = 0.044$). High-necessity freelancers worked approximately 7.74 more hours per week than low-necessity freelancers (26.07 vs 18.33 hours). The one-tailed t-test p-value (0.0275) was significant, confirming that economic pressure drives freelancers to trade leisure time for income.

Table 3: Results of Labour-Leisure Theory Analysis

Necessity Group	N	Mean Hours/Week	Std. Dev.
Low Financial Necessity	30	18.33	12.95
High Financial Necessity	20	26.07	13.73

Correlation (Necessity → Hours)

- Spearman's rho = 0.286
- p = 0.044

Conclusion and Policy Recommendations

Human Capital Theory, specifically its emphasis on technical skills, offers the strongest explanation, as technical skills significantly predicted earnings while formal education and English proficiency did not. Labour-Leisure Theory provides a complementary explanation, with financial necessity correlating with hours worked, suggesting that Sri Lankans face economic hardship through the ongoing crisis, inflation, and youth unemployment, trading leisure for additional income. Labour Market Segmentation Theory was not supported, as no significant mobility barriers existed between skill groups. The demographic profile reveals a young, well-educated workforce (92% aged 21–30, 78% with bachelor's degrees) where formal education does not predict earnings. Practical technical skills, rather than paper qualifications or structural divisions, drive success in Sri Lanka's freelance market.

This study suggest the following recommendations for the policymakers: (1) Invest in technical training – ICTA and SLASSCOM should prioritize practical skills programs over formal degrees, focusing on platform-specific competencies; (2) Promote skills-based credentials – Encourage certification, portfolio development, and reputation systems that signal capabilities to global clients; (3) Consider income support – With 40% of freelancers reporting high financial necessity, implement targeted support for those facing economic hardship, particularly during crises; (4) Remove general barriers – Improve payment systems, broadband, and financial inclusion to facilitate smoother participation in global freelance markets and (5) Enhance job security – Develop frameworks for social protection, income stability, and labour rights for freelancers lacking employer-provided benefits.

References

- Becker, G.S. (1964). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. New York: National Bureau of Economic Research.
- Becker, G.S. (1965). A theory of the allocation of time, *The Economic Journal*, 75(299), pp. 493-517.
- Doeringer, P.B. and Piore, M.J. (1971). *Internal Labor Markets and Manpower Analysis*. Lexington, MA: D.C. Heath and Company.
- Galpaya, H. and Senanayake, L. (2018). Online freelancing: Potential for digital gig work in India, Sri Lanka and Myanmar', *22nd Biennial Conference of the International Telecommunications Society (ITS)*.
- Javokhir, M., Tursunboyev, S., Abdurakhimova, Z., Usmanova, N. and Karimova, D. (2025) 'The rise of gig economies: How freelancing is reshaping labor markets', *Asian Journal of Economics Business and Accounting*, 25(5), pp. 503-518.

Drivers of E-commerce Adoption among MSMEs: Evidence from the Apparel Sector in Sri Lanka

A. Walpolapitiya

University of Kelaniya, Sri Lanka

Keywords: *E-commerce; MSMEs; Apparel Sector*

Introduction

Despite the benefits of e-commerce adoption, its level of adoption varies across countries. In developed nations, MSMEs generally have greater access to advanced digital technologies and higher levels of digital adoption especially through mobile commerce, digital payments, online presence etc. MSMEs in less developed nations continue to struggle with issues such as inadequate infrastructure, high expenses on information technology, cyber security dangers, insufficient digital literacy (Nuserov, 2026). Sri Lanka adopted the Internet relatively early in the region. However, e-commerce adoption among MSMEs remains low (Nawarathna & Bandara, 2020). Despite approximately 11 million internet users, only 43% engage in online shopping indicating relatively low digital adoption (Commonwealth Secretariat, 2020). To explain such variation, studies have looked at different technological, organizational, and environmental factors driving e-commerce adoption across contexts.

In the context of apparel sector of Sri Lanka, it is largely dominated by large scale manufacturers. However, apparel MSMEs are also involved in the apparel value chain, mainly as subcontractors and suppliers of trims and accessories (Ministry of Industry, 2023). However, accelerating adoption of Ecommerce among apparel MSMEs is vital as digital and mobile commerce also enable small garment firms to enhance operational efficiency, build brand visibility, and satisfy changing consumer demand (Conlon & Gallery, 2023). At the same time failure to adopt digital technologies can limit the ability of MSMEs to remain competitive.

The existing studies examining e-commerce adoption among MSMEs sector is limited, especially in the apparel sector; even in Sri Lanka also, limited attention has been given to this area. Therefore, this study addresses this gap.

Objective

The study investigates the determinants of e-commerce adoption and their relative influence among apparel MSMEs in Sri Lanka.

Methodology

The research study was carried out to meet the above objective with the help of apparel MSMEs in a selected area in Sri Lanka. This study is grounded in the Technology-Organization-Environment (TOE) framework (Tornatzky & Fleischer, 1990). This explains adoption through technological, organizational, and environmental dimensions. Variables were selected based on their established relevance in prior e-commerce adoption literature and their relevance to the current context of apparel MSMEs in Sri Lanka.

A deductive and quantitative methodological approach was adopted. Yatinuwara Divisional Secretariat Division of Pilimathalawa, Central Province, Sri Lanka was chosen to conduct the study due to its high concentration of apparel MSMEs. The sampling frame/population was the list of 254 obtained from registered apparel MSMEs from the Yatinuwara Divisional Secretariat. 158 respondents were selected using simple random sampling. Sample size determined by Krejcie and Morgan's (1970) formula and this ensured equal selection probability across the 254 registered apparel MSMEs listed in the Divisional Secretariat's official registry.

Reliability and factor analyses were conducted in order to assess the measurement items. Multiple regression analyses were used to examine the relationships and effects of the selected factors on e-commerce adoption along with Durbin-Watson and Breusch-Pagan tests to check for autocorrelation and heteroscedasticity respectively. Multiple regression model is given below:

$$ECA = \beta_0 + \beta_1 PB + \beta_2 DL + \beta_3 CP + \beta_4 TR + \varepsilon$$

where, ECA = e-commerce adoption; PB = perceived benefits; DL = digital literacy; CP = competitive pressure; TR = trust; β_0 is constant; $\beta_1, \beta_2, \beta_3$, and β_4 are regression coefficients; and ε is the white noise error term. The collected data were analyzed using SPSS software.

Results and Discussion

The sample was predominantly represented by female respondents and micro enterprises. Therefore, micro businesses form the largest group. And other demographic characteristics are present in the Table 1.

Table1: Demographic Information Classification of Respondents

Variable	Categories
Gender	Male (51); Female (106); Other (1)
Age	<20 (0); 20–34 (27); 35–44 (38); 45–54 (52); 55+ (41)
MSME Size	Micro (108); Small (36); Medium (14)
Education	O/L (32); A/L (54); Degree (18); Other/Vocational (54)

Source: Survey data, 2026

Before examining the factors influencing e-commerce adoption, the suitability of the measurement items was assessed. All constructs demonstrated satisfactory sampling adequacy ($KMO > 0.80$), while the factor loadings exceeded the recommended level. The Cronbach's alpha value was found to be greater than 0.8. This means the measurement scales are reliable.

Table 2: Results of Factor Analysis

Variable	No. of Items	KMO	Total Variance (%)	Factor Loading Range	Cronbach's Alpha
Perceived Benefit	5	0.870	71.752	0.810–0.865	0.901
Digital Literacy	5	0.888	71.011	0.821–0.866	0.898
Competitive Pressure	5	0.889	72.039	0.830–0.881	0.902
Trust	5	0.896	73.756	0.817–0.889	0.911
E-commerce Adoption	5	0.894	73.296	0.838–0.862	0.908

Model diagnostics confirmed no heteroscedasticity and autocorrelation, satisfying the OLS error assumptions (Table 3).

Table 3: Results of Diagnostics Test

Test	Statistic	p-value
Breusch-Pagan (heteroscedasticity)	$\chi^2 (1) = 0.84$	0.359
Durbin-Watson (autocorrelation)	1.941	—

Multiple regression analysis was then conducted (Table 4). 55.2% of the variation in e-commerce adoption is explained. All four predictors had a positive and

significant effect ($p < 0.05$). The estimated regression equation was ($Y = -0.190 + 0.277PB + 0.365DL + 0.178CP + 0.222TR$). Digital literacy showed the strongest effect, followed by perceived benefit, trust, and competitive pressure.

Table 4: Results of Multiple Linear Regression Model

Variable	B	t	P	Tolerance	VIF
Constant	-0.190	-0.813	0.418	—	—
Perceived Benefit	0.277	3.667	0.001	0.601	1.663
Digital Literacy	0.365	5.282	0.001	0.696	1.436
Competitive Pressure	0.178	2.685	0.008	0.689	1.452
Trust	0.222	2.449	0.015	0.583	1.714

E-commerce adoption was found to be more strongly associated with the digital capabilities of business owners when compared to competitive factors, as shown by the stronger effect of digital literacy. This finding is related to the structure of the apparel MSME sector, where many firms operate as subcontractors to larger manufacturers rather than competing directly for consumers (Ministry of Industry, 2023). Therefore, the relatively lower influence of competitive pressure could be related to limited competition in online markets. Perceived benefits and trust also influence e-commerce adoption, with perceived benefits having a stronger influence than trust. This suggests that, once MSMEs have the necessary digital skills, understanding the benefits of e-commerce could be more important for encouraging adoption than concerns about online security. Within the TOE framework, this indicates that internal organizational factors, particularly digital literacy, appear to have a greater influence on adoption than environmental factors such as competitive pressure and trust. These findings highlight the importance of improving digital skills and awareness of the benefits of e-commerce among apparel MSMEs.

Conclusion and Policy Recommendations

The study provides sector-specific insights into e-commerce adoption among apparel MSMEs in Sri Lanka. Digital literacy was identified as the most important factor, followed by perceived benefits, trust on using technology and competitive pressure. This indicates that e-commerce adoption depends not only on technological skills but also on how MSMEs perceive the benefits of e-commerce. At the same time, competitive pressure and trust also emerged as important factors

and this highlights the role of environmental and external business conditions in adoption decisions. These findings can support policymakers and industry stakeholders in order to develop targeted awareness programs that highlight the practical benefits of e-commerce, such as improved efficiency, wider market access, and increased sales; at the same time, strengthening digital skills also critical to promote the digital transformation and competitiveness of apparel MSMEs in Sri Lanka.

References

- Commonwealth Secretariat, (2020). *E-commerce readiness assessment report: Sri Lanka*. London: Commonwealth Secretariat.
- Asian Development Bank (2021) *Asia Small and Medium-Sized Enterprise Monitor 2021: Volume I—Country and Regional Reviews*. Manila: Asian Development Bank.
- Ministry of Industry. (2023). Textile industry. Government of Sri Lanka.
- Nuserov, B. (2026). E-commerce adoption in traditional stores. *Innovation Science and Technology*, 2(4).

The Impact of Foreign Debt on Foreign Exchange Reserves: Empirical Evidence from Sri Lanka

U. Kirishaliny

*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Foreign Debt; Exchange Rate; ARDL Bounds Test; Foreign Exchange Reserves*

Introduction

Foreign exchange reserves are the foreign currency assets held and managed by a country's central bank. They cushion the economy against external shocks, support import payments and debt servicing, and stabilise the domestic currency; in Sri Lanka, reserve management is the sole legal responsibility of the Central Bank of Sri Lanka. Sri Lanka's external debt has risen persistently, from US\$26.3 million in 1950 to US\$18,662.1 million in 2009 and US\$54,806.8 million in 2025. Reserves, by contrast, have been unstable: a peak of US\$8,208.4 million in 2014, then US\$3,139.2 million in 2021 after the Easter Sunday attacks, COVID-19 and mounting debt obligations, before recovering to US\$6,838.1 million in 2025. This mismatch culminated in the 2022 crisis, when external debt repayments were suspended.

Kebede et al. (2023), Senibi et al. (2016) and Manuel et al. (2023) find a positive relationship between foreign debt and reserves, whereas Zehri (2020) finds the opposite. Sri Lankan studies have examined public debt and aid (Maitra, 2019), debt and political stability (Saliya, 2023) and debt sustainability (Sumanaratne, 2022), but none directly and quantitatively estimates how foreign debt affects reserves.

Objective

This study aims to investigate the impact of foreign debt on foreign exchange reserves in Sri Lanka.

Methodology

This study uses annual data for Sri Lanka for 1977-2025. Foreign Exchange Reserves (FER) is the dependent variable; the explanatory variables are Foreign Debt (FD), Exchange Rate (ER), Net Foreign Direct Investment (NFDI), Remittances (REM), Net Exports (NX), the Federal Funds Rate (FFR) and the Debt Service Ratio (DSR, as a percentage of import income). FER, FD, ER and DSR are from the Annual Reports of the Central Bank of Sri Lanka, NFDI, NX and REM from the World Development Indicators, and FFR from US monetary data. FER, FD and ER are in natural logarithms for elasticity interpretation; NFDI and NX, which contain negative and near-zero values, stay in US dollars; REM, FFR and DSR are ratios or percentages. The empirical model is specified as:

$$\ln FER_t = \alpha_0 + \alpha_1 \ln FD_t + \alpha_2 \ln ER_t + \alpha_3 NFDI_t + \alpha_4 REM_t + \alpha_5 NX_t + \alpha_6 FFR_t + \alpha_7 DSR_t + u_t$$

The analysis has five stages. First, the ADF and Phillips-Perron (PP) tests confirm that no series is integrated of order two or higher. Second, the lag length is chosen by the Akaike Information Criterion (AIC). Third, the ARDL Bounds test of Pesaran et al. (2001) conducted to investigate the cointegrating relationship among the variables; if cointegration holds, the long-run coefficients are estimated using the same model. Fourth, Error Correction version of ARDL model is employed to evaluate the short run dynamic relationship as well as long run adjustment of the Model. Fifth, diagnostic tests such as serial correlation, normality, heteroskedasticity and functional form, and the CUSUM test are used to check robustness of the model. Finally, a pairwise Granger causality test establishes the direction of causality between reserves and each explanatory variable. Estimation uses EViews 10, with Excel 2013 for data compilation and charts.

Results and Discussion

The ADF and PP unit root tests show that REM is stationary at level, $I(0)$, while all other variables (LNFER, LNFD, LNER, NFDI, NX, FFR and DSR) are stationary at first difference, $I(1)$, confirming that the ARDL approach is appropriate for this mix of integration orders. Based on the AIC, ARDL (1, 0, 2, 0, 1, 1, 0, 0) was selected as the best-fitting model from the top 20 candidate models.

The ARDL Bounds test yields an F-statistic of 6.111, above the 5% upper bound critical value of 3.21, confirming a long-run cointegrating relationship. Diagnostic

tests show no serial correlation, heteroskedasticity and specification error, normally distributed residuals and stable parameters (Table 1).

Table 1: Results of Diagnostic Test

Test	Statistic	Conclusion
ARDL Bounds F-statistic	6.111	Upper bound $I(1) = 3.21$ (5%)
Serial Correlation (BG LM)	$p = 0.544$	No serial correlation
Normality (Jarque–Bera)	$p = 0.994$	Residuals normal
Heteroskedasticity (BPG)	$p = 0.945$	Homoscedastic
Omitted Variables (Ramsey RESET)	$p = 0.291$	No specification error

The long-run results (Table 2) show that foreign debt has a significantly positive impact on foreign exchange reserves: a 1% increase in FD raises FER by about 1.56%. In contrast, the exchange rate and the debt service ratio have significantly negative effects: a 1% depreciation of the rupee reduces FER by about 1.25%, and a one-percentage-point rise in the debt service ratio by about 10.05%. Net exports show a weak negative effect (10% level), while NFDI, remittances and the federal funds rate are insignificant.

Table 2: Long run Results (Dependent Variable: FER)

LNFD	LNER	NFDI	REM	NX	FFR	DSR
1.5553*	-1.2512**	0.0004	0.1734	-0.0001***	-0.0181	-0.1005*
(0.0042)	(0.0404)	(0.1001)	(0.1350)	(0.0550)	(0.6726)	(0.0000)

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

There is a positive relationship between FD and FER which vindicate that borrowing is a capital-account inflow that adds to reserve assets unless it spent on imports. Sri Lanka’s reserves have been largely “borrowed reserves”, built through external borrowing rather than current-account surpluses, as net exports were negative in almost every year (CBSL, 2025; IMF, 2025). The result agrees with Kebede et al. (2023), Senibi et al. (2016) and Manuel et al. (2023), while Zehri (2020) shows that the sign depends on how borrowed funds are used. It is a liquidity effect, not a stronger external position: under the debt-overhang hypothesis (Krugman, 1988), debt adds to reserves when disbursed but creates a later claim on them.

Table 2 reveals that there exists a negative correlation between DSR and FER, this is because of repayments are made in foreign currency out of reserves, against small and volatile export income. The debt service ratio rose to 29.7% in 2019 and 35.2% in 2020, and reserves fell from US\$7.6 billion in 2019 to US\$1.9 billion in 2022, when servicing of most external debt was suspended. The servicing burden, more than the debt stock, is therefore the binding constraint, consistent with Sumanaratne (2022) and Saliya (2023).

The negative elasticity coefficient of exchange rate reflects a two-way link between ER and FER, which implies that there is a too much of demand pressure which pushes the central bank to sell dollars to ease the demand pressure, drawing down reserves, and depreciation raises the rupee cost of foreign-currency debt. Because imports are dominated by low-elasticity fuel, food and medicine, depreciation brings little trade gain. In 2022 the rate moved from Rs 198.9 to Rs 324.6 per US dollar (about 63%) while reserves fell from US\$3.1 billion to US\$1.9 billion, supporting the bidirectional Granger causality reported below.

The weak negative effect of net export on FER is economically negligible, due to artefact of import compression in crisis years (net exports improved from –US\$8.1 billion in 2021 to –US\$5.2 billion in 2022 while reserves collapsed). Net FDI (small and negative from 2019 to 2025) and remittances (largely consumed and often sent informally in 2021–22) show no reliable effect, and the federal funds rate matters little because much of Sri Lanka’s debt is concessional or bilateral.

Table 3: Results of Short run Relationship (Dependent Variable: FER)

Regressor	Coefficient	Prob.
D(LNER)	-2.9907*	0.0000
D(LNER(-1))	0.9651*	0.0012
D(REM)	-0.0157	0.7019
D(NX)	0.0001*	0.0000
CointEq(-1)	-0.5300*	0.0000
R-squared	0.6773	

Note: *p*-values are given in parentheses. ***, ** and * represent variables are statistically significant at 1%, 5% and 10% respectively.

Negative and significant coefficient (-0.530) of error correction term reveals that approximately 53% of disequilibrium in reserves is corrected in each period one period after the exogenous shocks. Speed of adjustment coefficient size is typical

of actively managed reserves: when import cover falls, the authorities respond with import restrictions, swap arrangements, IMF-supported financing and, in 2022, a suspension of debt service. The contemporaneous exchange rate has a significant negative effect on FER while its lag is significantly positive in the short run. Also we found a positive relationship between ER and FER in the long run. This sign reversal between the contemporaneous (-2.99) and lagged ($+0.97$) ER coefficients is consistent with a J-curve type adjustment. That is depreciation of ER first triggers dollar sales, leads and lags in payments and a higher rupee cost of debt service (Girton and Roper, 1977), then is partly reversed as imports compress, although the combined effect (about -2.03) stays negative.

Moreover, net exports have a positive effect on FER whereas remittances don't have statistically significant impact on FER in the short run. The very low and positive net export effect reflects the direct link between trade flows and foreign exchange receipts. The pairwise Granger causality test reveals a significant bidirectional relationship between the exchange rate and foreign exchange reserves at the 5% level while no other regressors show a statistically significant causality towards reserves.

Conclusion and Policy Recommendations

This study investigated the impact of foreign debt on foreign exchange reserves in Sri Lanka using annual data for 1977-2025. The bounds test confirms cointegration: foreign debt significantly increases reserves in the long run, while exchange rate depreciation and a higher debt service ratio significantly reduce them; net exports show a weaker negative effect, and net FDI, remittances and the federal funds rate are insignificant. In the short run, reserves adjust toward equilibrium at about 53% per year.

Because borrowing is a liability that must be repaid, the rise in reserves it brings does not by itself reflect a healthy external position. The study therefore recommends prudent debt management and restructuring (diversifying lenders, extending maturities, negotiating concessional terms), channelling borrowed funds into export-oriented sectors such as tea, apparel and tourism rather than consumption, and maintaining exchange rate and monetary stability and transparent debt-management institutions to build an adequate and sustainable level of reserves.

References

- Kebede, S., Zerihun, G., Berhanu, K. and Abebe, T. (2023). The role of foreign public debt on foreign exchange reserve in SSA countries: Does governance really matters? *Cogent Economics & Finance*, 11(2), 2223810.
- Krugman, P. (1988). Financing vs. forgiving a debt overhang, *Journal of Development Economics*, 29(3), pp. 253-268.
- Maitra, B. (2019). Macroeconomic impact of public debt and foreign aid in Sri Lanka, *Journal of Policy Modeling*, 41(2), pp. 372-394.
- Manuel, V., Mbazima-Lando, D. and Naimhwaka, E. (2023). Effects of government expenditure on foreign exchange reserves: Evidence for Namibia, *International Journal of Economics and Financial Issues*, 13(1), pp. 172-183.

Impact of Income Inequality on Economic Growth in Sri Lanka

K. Shalini and S.Vijayakumar

*Department of Economics, Faculty of Arts,
University of Jaffna, Sri Lanka*

Keywords: *Economic Growth; Gross Capital Formation; Income Inequality; Inflation; Unemployment*

Introduction

Income inequality has become one of the most discussed socio-economic issues in both developed and developing countries because of its implications for economic performance, social welfare and sustainable development. Income inequality refers to the unequal distribution of income among individuals within an economy. Moreover, some degree of income inequality may provide incentives for innovation, investment, and productivity, while excessive inequality can restrict economic opportunities, reduce social mobility, and weaken long term economic growth. The benefits of economic growth are not always distributed equally across society. Consequently, increasing attention has been given to understanding whether economic growth contributes to a more equitable distribution of income or whether rising income inequality constrains the pace and sustainability of economic growth. Income inequality can affect economic growth through several channels, including access to education, human capital development, productivity, consumption and investment. While moderate inequality may provide incentives for saving, investment and entrepreneurship, excessive inequality can restrict economic opportunities for lower-income groups and adversely affect long-term growth.

Sri Lanka has historically achieved relatively favourable social development outcomes despite being a lower-middle-income country. Nevertheless, income inequality remains a persistent policy challenge. Although, successive governments have implemented various poverty alleviation programmes, disparities in income distribution continue to exist across regions. At the sectoral level, the Gini coefficients were 0.49, 0.44 and 0.36 for the urban, rural and for the estate sector respectively. At the provincial level, Sabaragamuwa Province recorded the lowest household income Gini coefficient (0.39), while Badulla recorded the highest (0.53). Mannar recorded a Gini coefficient of 0.34, indicating

substantial regional disparities in household income distribution across Sri Lanka (DCS, 2021). These figures suggest that income inequality varies across sectors and regions in Sri Lanka.

Dharmadasa (2023) identified that, a 1% increase in per capita GDP was associated with a 0.0035% increase in income inequality, supporting the Kuznets hypothesis that economic growth may widen income disparities during the early stages of development. Similarly, Kariyapperuma (2020) found that the benefits of economic growth may be evenly distributed across income groups. Moreover, Majeed (2016) concluded that although income inequality may be associated with economic growth in the short run, such growth may not be sustainable unless the benefits of economic expansion are distributed more equitably across society.

The empirical literature provides mixed evidence on the relationship between income inequality and economic growth. In the Sri Lankan context, previous studies have mainly examined the effect of economic growth on income inequality. However, relatively limited attention has been given to income inequality as an explanatory factor of economic growth.

Objectives

The main objective of this study is to examine the impact of income inequality on economic growth in Sri Lanka. Specifically, the study seeks to answer the following research question: What are the long-run and short-run effects of income inequality on economic growth in Sri Lanka?

Methodology

This study followed a quantitative research approach using time-series data for the period from 1985 to 2019. The relevant secondary data were obtained from World Bank. Real GDP was used as a proxy for economic growth and represents the dependent variable. The Gini coefficient was used as the main independent variable. Gross capital formation, population growth, unemployment and inflation were included as control variables based on their relevance to economic growth. All variables included in the model were transformed into natural logarithmic form. GDP was measured in constant 2015 US dollars, while GCF, PG, UNE and INF were obtained in their original percentage units and subsequently transformed into natural logarithms.

$$\text{LnGDP}_t = \alpha_0 + \alpha_1 \text{LnGINI}_t + \alpha_2 \text{LnGCF}_t + \alpha_3 \text{LnPG}_t + \alpha_4 \text{LnUNE}_t + \alpha_5 \text{LnINF}_t + u_t$$

where, GDP= GDP (constant 2015 US\$), GINI= Gini Co-Efficient, GCF= Gross capital formation (% of GDP), PG= Population growth (annual %), UNE= Unemployment, total (% of total labor force), INF= Inflation rate. Finally, u_t is the random error term.

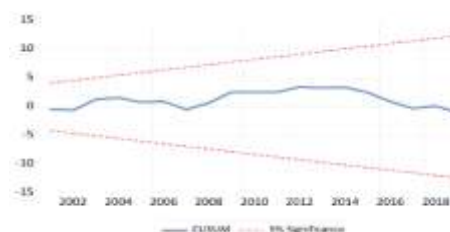
Results and Discussion

The result of Augmented Dickey Fuller (ADF) of unit root test confirmed that LnPG and LnINF are integrated in order 0 [I (0)], whereas, LnGDP, LnGINI, LnGCF and LnUEM are integrated in order 1 [I (1)]. According to the result of VAR lag order selection, two optimum lag lengths have been used based on Akaike information criterion (AIC) to the analysis.

Table: 1 Diagnostic Test

Diagnostic Test	Value
BG serial correlation LM test	0.3059
BPG test	0.6604
RAMSEY RESET test	0.2457
Jarque-Bera (J-B) test	0.7583

Figure 1: CUZUM Test



According to Table 1, there are no serial correlation, omitted variables, heteroscedasticity and error term is normally distributed. The CUSUM test result (Figure 1) has proven that all estimated coefficients are stable in the error correction model.

Table 2: Results of ARDL Bound Test

Test Statistics	Value	Significance Level	Critical values	
			I (0)	I (1)
F- Statistics	8.413	1%	3.930	5.230
		5%	3.120	4.250
		10%	2.750	3.790

According to the table 3, the calculated F-Stat value (8.413) is higher than the upper bound I(1). It confirms that, there is co-integrating relationship among variables.

Table 3: ARDL Long run Coefficient (ECM Estimation)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LnGINI(-1)	-0.009858	0.002415	-4.081039	0.0006
LnGCF(-1)	-0.020024	0.008325	-2.406000	0.0220
LnPG	0.008254	0.003253	2.537160	
LnUNE(-1)	-0.005204	0.003035	-1.714591	
LnINF	-0.001207	0.000483	-2.500858	
C	6.362916	3.262912	1.950073	
@TREND	0.014409	0.005879	2.450749	
R-squared	0.904700			
F-statistic	13.87459			

In accordance with the analysis, LnGINI (-1) has statistically negative significant impact on LnGDP in long run. 1% increase in LnGINI decreases LnGDP by 0.0098% in long run (Dharmadasa, 2023 and Balcilar et al, 2021 and Mdingi and Ho (2023). LnGCF(-1) has significant and negative impact on LnGDP. It is the fact that, 1% increase in LnGCF decreases LnGDP by 0.02% in long run (Shahid, 2014 and Warner, 2014 and Jolo & Koc (2023).

Furthermore, one percentage increase in LnPG increases LnGDP by 0.0082% in long run (Kumarasinghe and Wickramasinghe, 2018). A one percentage increase in LnINF decreases LnGDP by 0.0012% in long run (Madurapperuma, 2016). The empirical results of this study show that LnUNE does not have a statistically significant impact on economic growth in Sri Lanka. Stojkoski and Kjosovski (2015) found no robust evidence of a causal relationship between unemployment and economic growth in North Macedonia, suggesting that structural factors and labor market rigidities may weaken the unemployment-growth nexus.

Table 4: ARDL Short run Coefficient Estimation (ECM Estimation)

Selected model: ARDL (1,2,2,0,2,0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (Ln GINI)	-0.022706	0.004653	-4.879801	0.0001
D (Ln GINI(-1))	0.024966	0.005375	4.645105	0.0001
D (Ln GCF)	0.005699	0.000815	6.988598	0.0000
D (Ln GCF(-1))	0.002807	0.000922	3.044399	0.0056
D (Ln UNE)	-0.013551	0.002682	-5.052339	0.0000
D (Ln UNE(-1))	0.006113	0.002904	2.104885	0.0460

C	6.362916	0.791656	8.037479	0.0000
@TREND	0.014409	0.001805	7.980671	0.0000
CointEq	-0.250467	0.031366	-7.985310	0.0000
R-squared	0.904700	F-statistic		28.47942
Adjusted R-squared	0.872933	Prob(F-statistic)		0.000000

According to the Table 4, LnGINI and LnUNE have a negative impact on LnGDP, while LnGINI (-1), LnGCF, LnGCF(-1) and LnUNE(-1) have positive and statistically significant impacts on LnGDP in the short run. Accordingly, the short-run disequilibrium in GDP caused by external shocks is adjusted towards equilibrium by 25.05% each year.

Conclusion and Policy Recommendations

This study examined the relationship between income inequality and economic growth in Sri Lanka using the ARDL approach. The findings provide empirical evidence on this relationship while considering important macroeconomic variables. The findings suggest that reducing income inequality, promoting productive investment, and maintaining macroeconomic stability may contribute to inclusive and sustainable economic outcomes. However, these findings indicate an association between the variables and should not be interpreted as evidence of causality. The study also highlights the relevance of inclusive growth to SDG 1, SDG 8, and SDG 10 and provides a basis for future research and policy discussions.

References

- Chandrasiri, R.R.H., & Shantha, A.A. (2021). Income Disparity among Urban and Rural Community in Sri Lanka. *Wayamba Journal of Management*, 12 (1).
- Department of Census and Statistics. (2021). Household Income and Expenditure Survey 2019: Final report. *Ministry of Finance, Sri Lanka*.
- Dharmadasa, C. (2023). Macroeconomic determinants of income inequality in Sri Lanka. *International Journal of Management Thinking*, 1(1).
- Kariyapperuma, K. A. N. I. (2020). Impact of economic growth on income inequality: A case study of Sri Lanka. *Peradeniya International Economics Research Symposium 2020 Proceedings, Department of Economics and Statistics, University of Peradeniya, Sri Lanka*. Vol.-VIII.
- Majeed, M. T. (2016). Economic growth and income inequality nexus: An empirical analysis for Pakistan. *Kashmir Economic Review*, 25(1), 1–12.

An Index-Based Framework for Measuring Macroeconomic Resilience and Identifying Shocks and Crisis Periods: Evidence from Sri Lanka

**W. A. K. Gayashan^{1*}, A. K. G. Dayarathna¹, U. R. D. Pamoda¹,
T. J. N. Perera¹ and S. J. S. De Mel^{1,2}**

¹*Department of Mathematics and Statistics Faculty of Humanities and Sciences
SLIIT, Malabe*

²*Department of Economics and Statistics, Faculty of Arts,
University of Peradeniya, Sri Lanka*

Keywords: *Macroeconomic Resilience Index; Modified Hamilton Filter; Macroeconomic Resilience; Principal Component Analysis*

Introduction

Macroeconomic resilience has been more crucial as economies confront periodic shocks from financial crises, pandemics, geopolitical tensions, commodity price variations and climate-related disasters. These shocks may threaten economic stability and growth, underscoring the necessity of evaluating an economy's resilience to adverse occurrences (Anagnostou & Galatis, 2026). Developing countries such as Sri Lanka have repeatedly experienced economic shocks and crises, yet there is no proper system to identify them in advance (Briguglio et al., 2005). Constructing an MRI provides a comprehensive measure of a country's economic resilience, while the use of the Modified Hamilton Filter enables the identification of periods which resilience weakens significantly. Therefore, combining these methods helps in evaluating the timing of periods of economic stress as well as the development of macroeconomic resilience.

A review of previous studies confirms that there have been limited studies for Sri Lanka that simultaneously constructs a macroeconomic resilience index and identifies shocks and crises using the Modified Hamilton Filter. To address these gaps, this study constructs a macroeconomic resilience index using Principal Component Analysis (PCA) and simultaneously applies the Modified Hamilton Filter to identify shocks and crises periods in Sri Lanka over 1980–2024.

Objectives

One objective was to develop a Macroeconomic Resilience Index for Sri Lanka using Principal Component Analysis to measure the economy's capacity to endure shocks and crises over the period 1980-2024. Another objective was to identify crisis, non-crisis regimes and shock episodes in Sri Lanka's macroeconomic trajectory using a Modified Hamilton filter analysis based on the constructed resilience index. The last objective was to validate the identified shock and crisis periods and the constructed Macroeconomic Resilience Index by comparing them with historically documented macroeconomic events in Sri Lanka.

Methodology

This study utilizes secondary data to examine Sri Lanka's macroeconomic resilience, collecting on annual data from 1980-2024 from the Central Bank of Sri Lanka (CBSL), the World Bank, and the Sri Lanka Tourism Development Authority (SLTDA). The study selected thirteen macroeconomic indicators representing the external, fiscal, monetary and financial, and real economy sectors to capture the multidimensional nature of macroeconomic resilience.

The Macroeconomic Resilience Index (MRI) was constructed using Principal Component Analysis (PCA) after standardizing selected 13 macroeconomic indicators. Prior to performing PCA, the data's adequacy is determined using the Kaiser–Meyer–Olkin (KMO) statistic. After that the correlation matrix is used to study the association between variables. Then PCA is applied to standardized data to extract principal components, and Components with eigenvalues greater than one were retained. The MRI was calculated as a weighted average of the retained principal components, and the weight assigned to each principal component is based on its share of total explained variance (OECD, 2008; Ahamed et al., 2025):

$$MRI_t = \sum_{j=1}^m w_j PC_{jt}$$

where w_j represents the normalized weight of the j^{th} principal component and PC_{jt} denotes its score at time t .

The Modified Hamilton Filter was applied to the MRI series to find the presence of macroeconomic crises and shocks over the study period 1980-2024. A three-year rolling reference window and a dynamic threshold based on the 20th percentile of the rolling sample were used to detect significant declines in resilience. Years

falling below the threshold (0.5) were classified as crisis or shock periods and subsequently validated using historical economic events (Hamilton, 1989).

Results and Discussion

The Principal Component Analysis (PCA) confirmed the suitability of the selected 13 macroeconomic indicators for constructing the Macroeconomic Resilience Index (MRI). The Kaiser–Meyer–Olkin (KMO) measure of 0.661 and the statistically significant Bartlett's Test of Sphericity ($\chi^2 = 585.741$, $p < 0.001$) showing that the dataset was appropriate for dimensionality reduction. Four principal components with eigenvalues > 1 were retained, accounting for 82.7% of the total variance. The first principal component accounted for 43.2% of this variance and it's primarily associated with Gross Fixed Capital Formation, Unemployment Rate, Tourist Arrivals, Tax Revenue, and Gross Official Reserves. These components represented the key dimensions of Sri Lanka's macroeconomic resilience, namely real economy and structural capacity, fiscal and financial conditions, external vulnerability and price stability, and fiscal maneuverability with investment confidence. The retained components were weighted according to their explained variance and aggregated to construct the composite MRI, following the OECD framework for the construction of composite indicators.

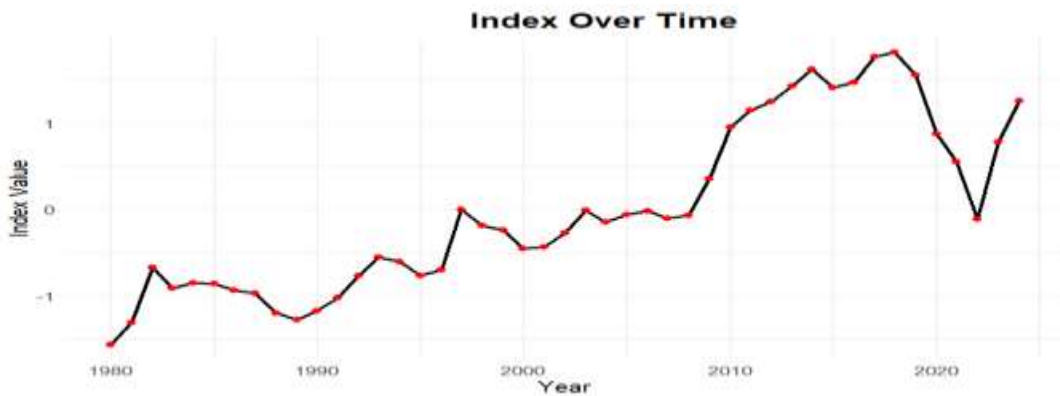


Figure 1: Trend of MRI

The MRI showed significant variation during 1980–2024, reflecting changes in Sri Lanka's macroeconomic resilience. The index remained mostly negative throughout the 1980s and 1990s, indicating continuing macroeconomic vulnerability. Resilience improved steadily from the early 2000s, before deteriorating sharply during 2019–2022 due to successive economic shocks.

Although the index recovered by 2024, it remained below its pre-crisis level, indicating that full macroeconomic resilience had not yet been achieved.

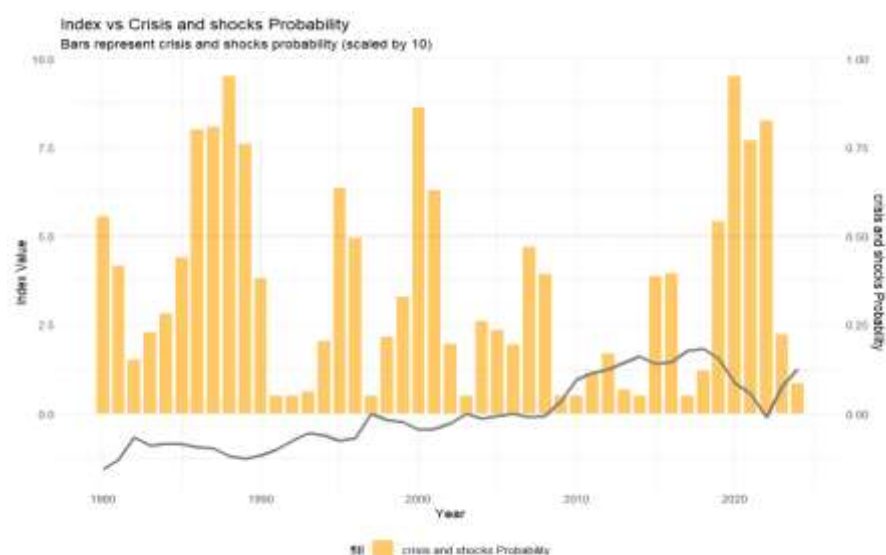


Figure 2: Trend of Index

The Modified Hamilton Filter successfully identified major periods of macroeconomic shocks and crises by detecting significant declines in the MRI relative to its recent historical trend. Using an adaptive rolling-window framework, the model identified 12 shock or crisis years, representing 27.3% of the study period. The detected episodes included periods of severe macroeconomic stress during the 1980s, the recession around 2000–2001, and the sequence of disruptions between 2019 and 2022. The adaptive filtering framework employed in this study builds upon the Hamilton filtering methodology originally proposed by Hamilton (1989). The results obtained from the Modified Hamilton Filter, when compared with historical evidence, provide empirical support for the credibility and validity of the Macroeconomic Resilience Index (MRI).

Conclusion and Policy Recommendations

This study constructed an integrated framework to assess macroeconomic resilience and to identify economic shocks and crises in Sri Lanka for the period 1980–2024. The framework offers a systematic approach to evaluate resilience and detect major macroeconomic shocks and crises by employing Principal Component Analysis (PCA), a Macroeconomic Resilience Index (MRI) and a Modified

Hamilton Filter. The MRI findings suggest that Sri Lanka experienced long-term economic vulnerability in the 1980s and early 1990s and improved gradually after 2000 with the maximum resilience in 2018 and a sharply decline during the COVID-19 pandemic and the subsequent economic crisis. Resilience recovered by 2024 but remained below pre-pandemic levels. By using the Resilience Index, the Modified Hamilton Filter was able of detecting major historical crisis periods, including 2001 recession, the Easter Sunday attacks, the COVID-19 pandemic and the 2022 sovereign debt crisis, indicating its capacity to identify significant deteriorations in macroeconomic conditions. The results suggest that the recommended framework is a feasible and robust tool for monitoring macroeconomic resilience and supporting evidence-based economic policy.

Policymakers are encouraged to employ the Macroeconomic Resilience Index (MRI) as a framework to assess the overall economic situation and track emerging trends that may offer precursors of future economic stress. Special attention should be given to Gross Fixed Capital Formation, Unemployment Rate, Tourist Arrivals, Tax Revenue and Gross Official Reserves as changes in these indicators may give important signals for timely policy intervention.

References

- Anagnostou, A., and Galatis, N. M. (2026). Economic resilience to inflationary and geopolitical shocks in the euro area: A comparative macroeconomic analysis. *Economies*, 14(7), 284.
- Briguglio, L., Cordina, G., Farrugia, N., & Vella, S. (2005). Conceptualising and measuring economic resilience. In *ANU Press eBooks*.
- Hamilton, J. FD. (1989). A New Approach to the Economic Analysis of Nonstationary Time Series and the Business. *Econometrica*, 57(2), pp.357-384.
- OECD. (2008). Handbook on Constructing Composite Indicators: Methodology and User Guide. In *OECD eBooks*.

Social and Economic Causes and Consequences of Unemployment among Educated Upcountry Youth: A Sociological Study of Sri Lanka's Plantation Communities

R. Surendran

Department of Sociology, Faculty of arts, University of Peradeniya

Keywords: *Unemployment; Education; Youth; Plantation Community*

Introduction

Youth unemployment is a major social and economic problem in Sri Lanka. Despite educational achievements, many young people struggle to obtain suitable employment due to limited job opportunities, skills mismatches, language barriers, and economic challenges (Department of Census and Statistics, 2018; Central Bank of Sri Lanka, 2023).

The problem is particularly severe among educated Upcountry youth in the Kandy, Matale, and Nuwara Eliya districts. Historically marginalized plantation communities continue to experience poverty, educational inequalities, inadequate infrastructure, and limited access to employment networks (Aboubucker, 2019). Consequently, educational qualifications do not always translate into suitable employment opportunities (Gardiyawasam et al., 2021). This study defines educated Upcountry youth as individuals aged 22–35 who have completed at least G.C.E. Ordinary Level, Advanced Level, a diploma, or a degree.

Despite existing research on youth unemployment, limited attention has been given to the experiences of educated Upcountry youth. Therefore, this study examines the social and economic causes and consequences of unemployment among 64 unemployed educated Upcountry youth selected through purposive sampling across the three districts.

The study adopts a sociological perspective, drawing on conflict theory, social capital theory, human capital theory, and intersectionality to understand how ethnicity, language, gender, class, and geographical location shape employment opportunities. Using a mixed-methods approach, the research seeks to contribute to sociological knowledge and support evidence-based policies addressing structural barriers to employment. Although the study's limited sample and geographical

coverage restrict generalizability, it provides valuable insights into an under-researched and marginalized population.

Objectives

The general objective of this study is to examine the social and economic causes and consequences of unemployment among educated Upcountry youth in the Kandy, Matale, and Nuwara Eliya districts from a sociological perspective. Specifically, the study aims to identify the social and economic factors contributing to unemployment among educated Upcountry youth, examine the economic consequences of unemployment for young people and their families, and explore its social and psychological effects on their lives. Furthermore, the study seeks to identify the specific challenges faced by educated Upcountry youth in accessing and securing employment opportunities and to propose appropriate recommendations to reduce unemployment and improve employment opportunities for this group.

Methodology

This study employed a mixed-methods research design to examine the causes and consequences of unemployment among educated Upcountry youth in the Kandy, Matale, and Nuwara Eliya districts of Sri Lanka. The study focused on unemployed or underemployed youth aged 22–35 who had completed G.C.E. O/L, G.C.E. A/L, a diploma, or a degree. A purposive sample of 64 respondents was selected, ensuring diversity in gender, educational qualifications, and duration of unemployment. Quantitative data were collected through structured questionnaires administered to all respondents, while qualitative data were gathered through semi-structured interviews with 20 participants. Secondary data were obtained from academic publications, government reports, and relevant institutional sources. Quantitative data were analysed using descriptive statistics, cross-tabulations, chi-square tests, and correlation analysis, while qualitative data were examined using thematic analysis. Ethical principles, including informed consent, confidentiality, anonymity, and the right to withdraw, were maintained throughout the study. Key limitations included the small sample size, purposive sampling, self-reported data, and the geographical focus on three districts.

Results and Discussion

This section presents the findings of the study based on data collected from 64 unemployed educated Upcountry youth in the Kandy, Matale, and Nuwara Eliya districts. The findings are presented using five charts (bar and pie charts) prepared using Microsoft Excel/SPSS-style formatting. Each chart is followed by a description and interpretation of the data.

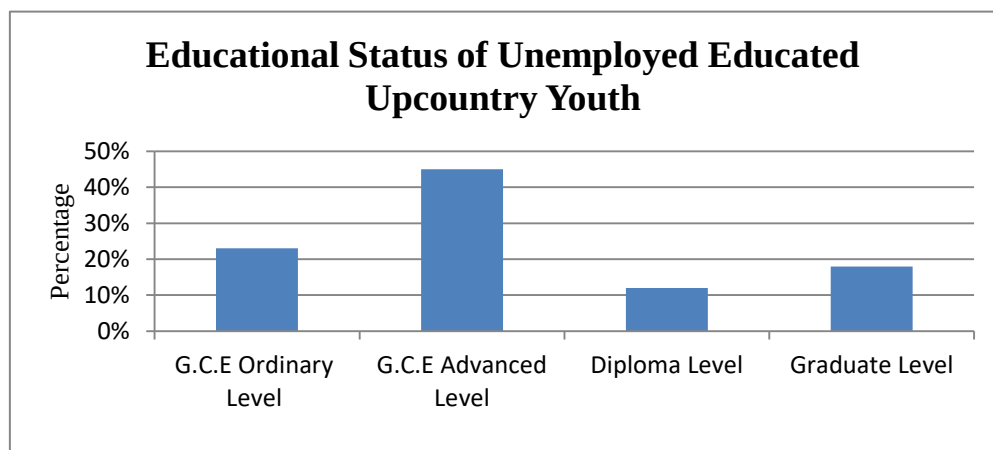


Fig 1: Educational Status of Unemployed Educated Upcountry Youth (n = 64)

Fig 1 illustrates the educational status of the 64 unemployed educated Upcountry youth surveyed. The largest segment of the sample (45%) had completed G.C.E. Advanced Level, indicating that nearly half of the unemployed educated youth possessed qualifications just below the tertiary level. This was followed by 24% who had completed G.C.E. Ordinary Level, 17% who were graduates, and 14% who held diploma-level qualifications. The data reveal that unemployment is not confined to any single educational category but affects youth across all levels of educational attainment. Notably, the combined 31% of diploma- and graduate-level holders indicate that unemployment is increasingly becoming a concern among educated youth who expect employment opportunities according to their qualifications but encounter difficulties due to limited vacancies and competitive labour market conditions.

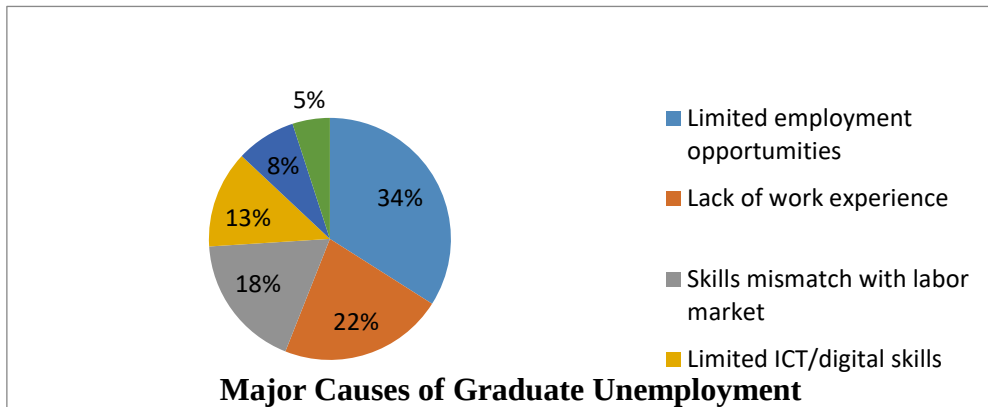


Fig 2: Major Causes of Unemployment among Educated Youth (n = 64)

Fig 2 presents the major causes of unemployment among educated youth as perceived by the respondents. The most significant cause identified was limited employment opportunities (34%), indicating that structural factors beyond individual control are the primary driver of unemployment. This is followed by lack of work experience (22%) and skills mismatch with the labour market (18%), together accounting for 40% of the causes. Limited ICT and digital skills (13%) and language barriers (8%) were also identified as contributing factors, while other factors accounted for 5%. The findings clearly demonstrate that the three leading causes limited opportunities, lack of experience, and skills mismatch account for 74% of unemployment causes, pointing to systemic failures rather than personal shortcomings. This supports the argument that unemployment among educated Upcountry youth is structurally determined and requires structural interventions rather than merely individual-level solutions

Fig 3 below illustrates the social and psychological effects of unemployment as reported by the respondents. The most commonly reported effect was financial hardship (30%), reflecting the immediate economic consequences of being without income. This was followed by stress and anxiety (25%), low self-confidence (20%), dependence on family (15%), and reduced social participation (10%). Together, the psychological effects stress, anxiety, and low self-confidence account for 45% of the reported effects, highlighting the profound mental health toll of unemployment. The findings also reveal that unemployment affects not only individuals but also their families, as 15% reported dependence on family members for financial support. The reduction in social participation (10%) indicates that unemployed graduates tend to withdraw from social activities, potentially leading to isolation and further deterioration of mental well-being. These findings

underscore the need for counselling and psychosocial support services for unemployed graduates alongside employment generation programmes.

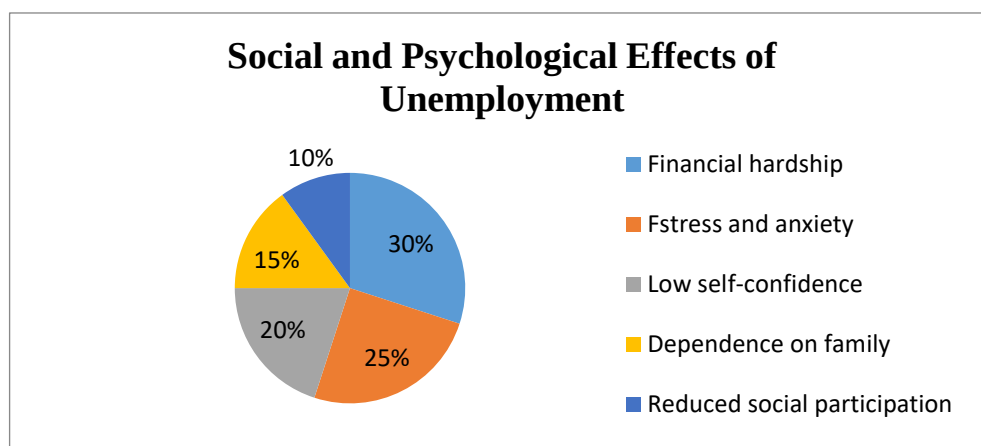


Fig 3: Social and Psychological Effects of Unemployment (n = 64)

This study examined unemployment among 64 educated Upcountry youth in Kandy, Matale, and Nuwara Eliya. Findings show that 45% had Advanced Level qualifications and 32% held diplomas or degrees, indicating unemployment affects educated youth. The main causes were limited employment opportunities (34%), lack of work experience (22%), skills mismatch (18%), limited ICT skills (13%), and language barriers (8%). The majority (56%) preferred government jobs, while only 16% preferred self-employment. Unemployment duration was long: 82% were unemployed for over one year, and 35% for over three years. Social and psychological effects were severe: financial hardship (30%), stress and anxiety (25%), low self-confidence (20%), dependence on family (15%), and reduced social participation (10%). Qualitative findings revealed that plantation background, historical inequalities, geographic isolation, and limited networks continue to shape employment outcomes.

Conclusion and Policy Recommendations

Unemployment among educated Upcountry youth is examined as a structural problem associated with historical marginalization, geographic isolation, and systemic inequality, rather than simply as individual failure. Educational attainment alone does not guarantee employment. Addressing this issue requires both supply-side interventions (vocational skills, digital literacy, language training,

career guidance) and demand-side measures (local job creation, private sector incentives, special employment programmes). Psychosocial support is also essential. Without such actions, the cycle of educated unemployment, poverty, and marginalization will persist, undermining social mobility and national integration.

Based on the findings, the study recommends developing an integrated and inclusive youth employment framework in Upcountry districts, focusing on improving access to employment information, Tamil-medium vocational and digital skills training, career guidance, entrepreneurship opportunities, and psychosocial support. It further emphasizes the need for targeted employment policies, improved infrastructure, stronger public-private partnerships, and continuous monitoring to address structural barriers and promote equitable employment opportunities for Upcountry youth.

References

- Aboubucker, I. (2019). Youth unemployment in Sri Lanka: Causes and consequences. ResearchGate.
- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Central Bank of Sri Lanka. (2023). Annual report 2023. Central Bank of Sri Lanka.
- Dayaratna-Banda, O. G., and Dharmadasa, P. (2017). An economic analysis of employability and unemployment of humanities and social sciences graduates in Sri Lanka. SAGE Open. Advance online publication.
- Deltota Divisional Secretariat. (2023). Unpublished administrative data on unemployed graduates. Deltota, Kandy District.
- Department of Census and Statistics. (2018). Labour force survey annual report 2018. Department of Census and Statistics, Sri Lanka.

ACKNOWLEDGEMENTS

Sponsors of the Symposium



Transilvania
University
of Brasov



PGIHS
University of Peradeniya



THE WORLD BANK



GOLDEN
agro ventures

ISSN 2386-1568



9 772386 156008