

# **“3<sup>rd</sup> International Conference on Economics and Allied Sciences, Innovation, Sustainability and Islamic Finance: Shaping Pakistan’s Green Economy”**

**(ISIF-2025)**

**11-12 November 2025**

**Economics and Management Sciences Department  
(EMD)**

**NED University of Engineering and Technology**

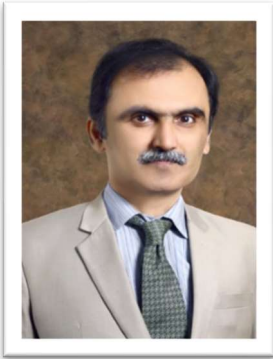


## Message from

**Prof. Dr. Muhammad Tufail**

**Vice-Chancellor**

**NED University of Engineering and Technology**



It is my privilege to get this opportunity to host scholars from around the world at one of the largest and most prestigious institutions of higher education in Pakistan. NED University of Engineering and Technology is Pakistan's flagship engineering institution with over a hundred years of remarkable history. The university is known for producing high-quality graduates to enable Pakistan's social and economic transformation. These are the results of sustained efforts the university has made over the years towards faculty

development and creativity, and innovation.

I congratulate the Department of Economics and Management Sciences for organizing the “3<sup>rd</sup> International Conference on Economics and Allied Sciences: Innovation, Sustainability and Islamic Finance, Shaping Pakistan's Green Economy”, which addresses the most pertinent issues of our time. Pakistan is facing fundamental sustainable development and environment related challenges. The theme of this conference indeed deserves praise and compliments. I extend my warm welcome to all the participants and sincerely hope that the conference will promote and provide input for policy and research on the sustainable development challenges facing the world, particularly Pakistan. I hope and expect that this conference will set the precedent for providing insights into the formulation of national and international policies and how the emerging nations and economies of the world can meet the challenges of attaining the United Nations' Sustainable Goals.

Further, I feel pleased to commend the efforts of the In-charge of the Department of Economics and Management Sciences, the Conference Secretary, and the entire team for their dynamic role in organizing this conference.

## Message from

**Prof. Dr. Noman Ahmed**

**Pro Vice-Chancellor**

**Dean Faculty of Architecture and Sciences**

**NED University of Engineering and Technology**



I take this opportunity to congratulate the Department of Economics and Management Sciences on the occasion of their “3rd International Conference on Economics and Allied Sciences, Innovation, Sustainability and Islamic Finance: Shaping Pakistan’s Green Economy”. Ever since its inception, the department has undertaken many useful co-curricular activities. The conduction of the series of seminars with learned guest speakers enlightened the audience and other attendees about the significance of prevailing issues.

Study trips to various institutions and the regular conduct of guest speaker sessions continue to add value to the teaching and learning process.

There are many important economic challenges and opportunities that the country is experiencing. This international conference is one such initiative by the department to bring together scholars from different sectors, both from within and outside Pakistan, to share their views on these issues. The conference will provide many opportunities for exploration for the faculty and staff of this department through research and outreach activities.

I wish the In-charge, faculty, students, and staff of the department all the success in their present and future endeavors.

**Message from**  
**Dr. Mirza Faizan Ahmed**  
**Conference Convener**  
**In-Charge Department of Economics and Management Sciences**



On behalf of the Department of Economics and Management Sciences (EMD) and the organizing committee of “3rd International Conference on Economics and Allied Sciences, Innovation, Sustainability and Islamic Finance: Shaping Pakistan’s Green Economy ISIF-2025,” I extend my warm welcome to all participants of ISIF-2025. The primary goal of the conference is to provide a strong platform for academicians, researchers, social scientists, industry

practitioners, and students to engage in an in-depth exchange and discussion of their ideas regarding the need for economic sustainability through technology.

ISIF-2025 will offer the flavor of keynote lectures by means of eminent speakers from the best universities with tons of research experiences who come from different parts of the world, and panel discussions by eminent scholars and industry experts across the country.

I would like to thank our eminent keynote speaker, Dr. Ishrat Hussain, and also extend my gratitude to our international presenters and to our distinguished panelists from various institutions and organizations. I would also like to extend my deep-hearted gratitude to our honorable chief guest.

I really appreciate the efforts of the conference secretary, Dr. Faheem Akhter, committee members, and my students for extending their valuable time in organizing the program, and all the authors, reviewers, and other contributors for their sparkling efforts and their belief in the excellence of ISIF-2025. A report on the conference presentations will be prepared and shared with concerned institutions, which would enhance awareness in the public and help in building a more realistic image of the subject based on objective analysis.

## **Message from**

**Dr. Faheem Akhter**  
**Conference Secretary ISIF-2025**  
**Assistant Professor**

**Department of Economics and Management Sciences**



I am immensely pleased to invite all the esteemed speakers, academicians, researchers, and students from all around the world to the “3rd International Conference on Economics and Allied Sciences, Innovation, Sustainability and Islamic Finance: Shaping Pakistan’s Green Economy ISIF-2025”. The two-day conference is dedicated to covering a wide range of themes related to economic sustainability, climate action and clean energy, Islamic finance and fintech,

Entrepreneurship, and Business Innovation. The sessions are designed to feature expert views from participants working in green financing. The academic sessions are valuable for researchers, faculty, and students, where the presentation of research work would be evaluated by subject experts.

ISIF-2025 is the result of the prodigious efforts and determination of conference committee members, faculty, staff, and students of the department. I would like to extend my special thanks to Dr. Mirza Faizan Ahmed, in charge EMD and Professor Dr. Noman Ahmed, Pro Vice Chancellor, and the Dean ASC for giving vision, motivation, and all-out support to convert the idea into reality.

## Our Honorable Guests



**H.E. Mohammad Saqib Sadaqt**  
Deputy High Commissioner of  
Bangladesh



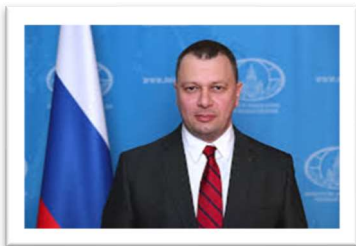
**H.E. Herman Herdynata**  
Head of Mission - Consulate  
General of Malaysia



**H.E. Ergül Kadak**  
Turkish Consulate General In  
Karachi



**H.E. Sanjeewa Pattiwila**  
Consul General of Sri Lanka  
in Karachi



**H.E. Andrey Viktorovich  
Fedorov**  
Russian Consul General in  
Karachi



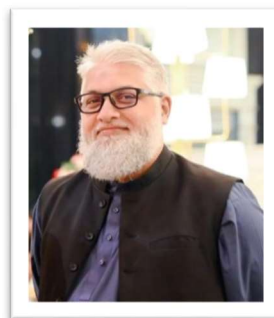
### **Dr. Ishrat Hussain**

Pakistani civil servant who served as the Governor of the State Bank of Pakistan, advisor to the Prime Minister on Institutional Reforms and Austerity, HEC National Distinguished Professor, Professor Emeritus, and Chairman of the Center for Excellence in Islamic Finance at the Institute of Business Administration. He has served in the World Bank. Dr. Ishrat Hussain is the author of more than 16 books, 21 book chapters, monographs, and more than 300 research publications.



### **Dr. Kaiser Bengali**

Dr. Kaiser Bengali is an economist with over 40 years of experience in teaching, research, and policy advice in Pakistan and abroad. His areas of research interest include issues in planning & development and macro-economic and fiscal policies. His areas of expertise and experience include political management of planning & development, management of institutions, personnel and finance. He was also the first head of the Benazir Income Support Programme. He has over 50 research publications in national and international journals and conferences, and he is the author/ editor of 8 books.



### **Mr. Khurram Shams Khan**

A seasoned development specialist has a multidisciplinary academic background in Economics and Water Resource Management from the US and UK. For over 15 years, he has been advising both public sector entities and renowned private sector interests on integrating environmental and social sustainability concerns in their projects and portfolios. His specific expertise lies in the application of environmental and social safeguard policies and procedures to projects financed by the ADB and WB. He currently

serves as a Senior Specialist within the Environmental and Social Risk Management Unit of the World Bank in the Middle East North Africa, Afghanistan and Pakistan region.

## **Our Distinguished Speakers**

### **Session - I**

#### **Emerging Paradigms in Islamic Finance and FinTech**

##### **Dr. Mufti Irshad Ahmad Aijaz**

A distinguished Shari'ah scholar and expert in Islamic finance, currently serving as Chairman of the Shari'ah Supervisory Board at BankIslami Pakistan and Chairman of the Shariah Advisory Committee of SECP. He is also Member, Governance & Ethics Board, AAOIFI (Bahrain), and part of the Government of Pakistan's Steering Committee overseeing the implementation of the Federal Shariat Court judgment on Riba. He has previously chaired the Shariah Advisory Committee of the State Bank of Pakistan (2018–2025) and served on the Shari'ah Boards of several local and international institutions. Dr. Irshad is Dean of Social Sciences at Al-Ghazali University and teaches Islamic finance at IBA Karachi, NIBAF (SBP), and Dar-ul-Uloom Karachi. He holds degrees in Islamic Studies, Fiqh, an MBA (Finance), and a PhD in Islamic Finance.

##### **Mufti Muhammad Naveed Alam**

Resident Shariah Board Member at Meezan Bank. Mr. Alam\* is a seasoned Islamic finance professional with deep expertise in Shariah advisory, audit, and product structuring. He holds Shahadat-ul-Alamiyah and Takhassus in Fiqh & Fatwa from Jamia Dar-ul-Uloom Karachi and an MS from IBA Karachi. He is also a Certified Shariah Advisor & Auditor (CSAA) from AAOIFI. He began his career at Meezan Bank in 2013 in the Shariah Compliance Unit and serves as a teacher/trainer at institutions like the Centre for Excellence in Islamic Finance (CEIF) at Institute of Business Administration Karachi.

##### **Mr. Muhammad Faisal Shaikh**

Head of Shariah Compliance & Advisory at Faysal Bank Limited, where he led the landmark conversion of the bank into a fully Islamic financial institution — recognized by IIRA as a first-of-its-scale globally. An IBA Karachi graduate with nearly 25 years in Islamic banking, he has previously contributed to Meezan Bank and BankIslami as part of their founding teams. He has been instrumental in developing key Islamic banking products and Sukuk structures,



including Pakistan's first sovereign international Sukuk and the Islamic Export Refinance Scheme.

### **Mr. Muhammad Imran Khalil**

Mr. Muhammad Imran Khalil is the CFO of Engro Fertilizers and brings over 25 years of diversified experience in finance, audit, operations, and digital transformation across leading organizations in Pakistan's corporate and financial sectors. He has held multiple senior leadership roles within the Engro Group, including Vice President Finance at Engro Corporation, Group Head SAP Transformation, CFO Engro Polymer & Chemicals, and Head of Internal Audit at Engro Foods. Mr. Khalil has also served as CFO and Company Secretary at UBL Fund Managers, and as CFO/COO at KASB Funds, where he led several strategic financial transformation initiatives. A Chartered Accountant by profession, he possesses extensive expertise in corporate governance, SAP-led digital transformation, mergers & acquisitions, & financial planning, combining strategic insight with operational excellence.

## **Session - II**

### **Dr. Raza Ali Khan**

An experienced professional and academic specializing in economics, management, and project evaluation. He has been actively engaged in research, teaching, and public discourse on Pakistan's energy landscape, sustainability, and social development challenges. He frequently presides over and contributes to academic conferences and panel discussions, offering insights on energy management, clean energy transitions, climate change, and policy innovation. Known for his articulate and engaging communication style. His communication style combines clarity, insight, and audience engagement, whether in teaching, delivering speeches, or crafting policy-related analyses. Raza also has extensive experience in policy research and consulting, focusing on economic evaluation, project analysis, and evidence-based policy design. His professional work emphasizes sustainability, green energy, and socioeconomic impact assessment, reflecting a commitment to advancing development-oriented research and informed decision-making in Pakistan.

### **Mr. Shehryar Omar, CEO, Petroleum Institute of Pakistan**

With extensive experience spanning over three decades, Mr shehryar has held leadership positions across the energy and financial sectors. Before joining PIP, he served as the CEO of Pakistan Mercantile Exchange (PMEX) and held senior management roles at Shell Pakistan, where he contributed to strategy, business development, and stakeholder engagement. Mr. Omar is widely recognized for his expertise in energy policy, petroleum economics, and market development, as well as his commitment to promoting sustainable energy solutions and industry collaboration. Under his leadership, PIP continues to play a key role in shaping Pakistan's energy dialogue and policy direction.

### **Mr. Shahid Hussain Shah, Indus Consortium**

He is a senior executive at Indus Consortium, a leading organization focused on energy, infrastructure, and sustainable development projects in Pakistan. He brings extensive experience in project management, energy sector strategy, and policy implementation, contributing significantly to initiatives that drive efficiency and sustainability in the country's energy landscape. Mr. Shah also has a distinguished career in journalism, serving as In-Charge District Reporting and Economic Reporter at The News International for over 21 years, covering trade, agriculture, stock markets, and climate issues. In 2006, he was selected as a Daniel Pearl Fellow at *The Wall Street Journal* in Washington DC, where he reported on economic issues affecting the US, Pakistan, and the Muslim world.

### **Mr. Shehzad Dhedhi, ESG Consultant**

Founder of CFO Club Pakistan, to the Advisory Board of Global Chamber® Pakistan. With extensive expertise in leadership advisory, corporate finance, and executive strategy, Shehzad brings valuable insight to strengthen cross-border collaboration and global business growth.

## **Session - III**

### **Mr. Azfar Ahsan, Former Minister for Investment**

A distinguished public policy advocate, business strategist, and global outreach expert. He has served as Pakistan's Minister for Investment and Chairman of the Board of Investment, leading initiatives in regulatory reform, investment facilitation, and international economic cooperation. He is the Founder of

Corporate Pakistan Group (CPG) and Nutshell Group, hosting hundreds of national and international conferences that bridge business, government, and civil society. Azfar also contributes to leading publications on Pakistan's economy, governance, and investment, and is recognized for his work in strategic growth, governance, and socio-economic development.

### **Ms. Maheen Salman, CEO Global Innovatrix (Pvt.) Ltd.**

A seasoned business leader with 24 years of management experience across multinational corporations and the Global Group of Companies in environmental services. She is the Founder and CEO of Global Innovatrix Pvt. Ltd., driving innovation in sustainability consulting, carbon trading, ESG reporting, and digital transformation. Ms. Salman also holds key leadership roles as Former Senior Vice President of KATI, Chairperson of the Incubation and Startups Committee at KATI, and Convener of FPCCI's Central Standing Committee on Higher Education, Science, and Technology. Passionate about bridging industry and academia, she has pioneered incubation centers, research labs, and startup showcases, and is currently pursuing her PhD at IoBM.

### **Mr. Zarak Khan, Deputy Director, Sustainable Finance Division, State Bank of Pakistan**

In his role, he plays a key part in advancing sustainable finance, green banking, ESG integration, and climate finance in the country. Mr. Khan has been instrumental in developing programs and regulatory guidance that help financial institutions adopt sustainable practices, strengthen Pakistan's ESG ecosystem, and contribute to long-term economic and environmental resilience.

## **ISIF-2025 Conference Committees**

### **Conference Convener**

Dr. Mirza Faizan Ahmed

### **Conference Secretary**

Dr. Faheem Akhter

### **Stage Coordination**

- Dr. Faheem Akhter
- Dr. Hina Moeen
- Ms. Jaweriya Naz

### **Reception and Registration**

- Dr. Shahid Iqbal
- Ms. Maham Fatima
- Ms. Zuaima Waseem

### **Review and Publication**

- Dr. Farhan Ahmed
- Dr. Shabbir Baqai

### **Financial Management**

- Dr. Shabbir Ahmed
- Mr. Adnan Khalil

### **Media and Marketing**

- Dr. Hina Mubeen
- Ms. Maham Fatima
- Ms. Syeda Zuimah Wasim
- Ms. Jaweriya Naz

### **IT Support**

- Mr. Ahmer Aleem
- Ms. Jaweria Naz

### **Logistics and Hospitality**

- Mr. Adnan Khalil
- Mr. Talha Ahmed

## **ISIF-2025 Parallel Sessions**

<b>Day – 1: Tuesday, 11<sup>th</sup> November 2025</b>	
<b>Time</b>	<b>Programme</b>
13:00 – 13:45	Registration and networking
13:45 – 14:00	Participants to be seated
14:00 – 15:00	<b>Inaugural Session</b>
14:00 – 14:10	Recitation from the Holy Quran & National Anthem
14:10 – 14:15	Welcome note by Prof. Dr. Noman Ahmed Pro-Vice Chancellor, NED University
14:15 – 14:25	Address by Guest of Honor H.E Muhammad Sakib Sadaqat, Bangladesh Deputy High Commission in Karachi
14:25 – 14:50	Speech by Keynote Speaker Dr. Ishrat Husain, Former Governor State Bank of Pakistan
14:50 – 15:00	Address by Prof. Dr. Muhammad Tufail Vice Chancellor, NED University
15:00 – 15:10	<b>Centre for Islamic Finance and FinTech (CIFFT)</b> Logo and website launching
15:10 – 16:30	<b>Session – I</b> <b>Emerging Paradigms in Islamic Finance and FinTech</b> Dr. Mufti Irshad Ahmad Aijaz, Chairman Shariah Advisory Board, BankIslami Pakistan Limited Mufti Muhammad Naveed Alam, Resident Shariah Board Member, Meezan Bank Mr. Muhammad Faisal Shaikh, Head Shariah Compliance & Advisory Mr. Muhammad Imran Khalil, CFO Engro Fertilizer Limited
16:30 – 17:00	<b>Hi Tea</b>

<b>Day – 2: Wednesday, 12<sup>th</sup> November 2025</b>	
<b>Time</b>	<b>Programme</b>
09:00 – 11:00	<b>Parallel Sessions on Conference Themes (Papers to be presented)</b>
11:30 – 13:00	<b>Session – II</b> <b>Transforming Pakistan’s Energy Landscape</b> Address by Guest of Honor H.E. Herman Hardynata Ahmad, Consul General of Malaysia in Karachi Prof. Dr. Raza Ali Khan, Ex-Chairman, Department of Economics and Management Sciences, NED University Mr. Shehryar Omar, CEO Petroleum Institute of Pakistan Mr. Shahid Hussain Shah, Indus Consortium Mr. Shehzad Dhedhi, ESG Consultant
13:00 – 14:00	<b>Lunch Break</b>
14:00 – 15:00	<b>Session – III</b> <b>Building a Sustainable Economic Future for Pakistan</b> Mr. Azfar Ahsan, Former Minister for Investment Ms. Maheen Salman, CEO Global Innovatrix Pvt. Ltd. Mr. Zarak Khan, Deputy Director, Sustainable Finance Division, State Bank of Pakistan
15:00 – 16:30	<b>Closing Session</b>
15:00 – 15:30	Speech by Keynote Speaker Dr. Kaiser Bengali, Economist
15:30 – 15:50	Address by Guest of Honor H.E. Andrey Viktorovich Fedorov, Consul General of Russia in Karachi
15:50 – 16:10	Speech by Mr. Khurram Shams, Senior Social Development Specialist, World Bank
16:10 – 16:20	Closing speech by Prof. Dr. Noman Ahmed Pro Vice Chancellor, NED University
16:20 – 16:30	Vote of thanks by Dr. Mirza Faizan Ahmed In charge, EMD
16:30 – 17:00	<b>Hi Tea</b>

## **ISIF-2025 Parallel Sessions**

<b>Parallel Session-1</b>		
<b>Economic Sustainability in Pakistan</b>		
<b>Session Chair: Dr. Ambreen Fatima</b>	<b>Subject Expert: Dr. Minhaj Ikram</b>	
<b>Moderator: Ms. Maham Fatima</b>	<b>Venue: EMD Room 1</b>	
<b>Title</b>	<b>Presenter</b>	<b>Time</b>
Impact Of Interest Rate, Corruption Perception Index, Incremental Capital-Output Ratio (ICOR), And Economic Growth on Foreign Direct Investment in Pakistan	Farhan Nasim	0900
Climate Change, Displacement, And the New Poor: Assessing the Impact of Environmental Shocks on Poverty and Inequality in Pakistan	Muhammad Zahir Hussain	0920
Exploring the Fiscal Determinants of Pakistan's Rising Public Debt: A Long- and Short-Run Analysis	Shabbir Ahmed	0940
Pakistan's Net-Zero Goal and Role of Energy Demand Forecasting for Sustainable Industrial Growth – A Review	Emaan Suhail	1000 virtual
Impact of Good Governance on Sustainable Economic Development: Pakistan's Case	Dr. Umme Ummara	1020 virtual

<b>Parallel Session-2</b>		
<b>Islamic Finance and Fintech</b>		
<b>Session Chair: Dr. Syeda Hoor-Ul-Ain</b>	<b>Subject Expert: Dr Syed Ammad Ali</b>	
<b>Moderator: Mr. Ahmar Aleem</b>	<b>Venue: EMD Room 3</b>	
<b>Title</b>	<b>Presenter</b>	<b>Time</b>
Leveraging Digital Finance for Women's Financial Literacy and Sustainable Development	Uzma Arshad	0900

Corporate Social Responsibility (CSR) and Environmental Sustainability: Contribution of Telecom Industry of Pakistan	Muhammad Hassan	0930
The Relationship between Green Hiring Process and Organizational Citizenship Behavior in the Banking Sector	Ayesha Ovais	1000
The Interaction of Fiscal and Monetary Policies with Digital Financial Inclusion. Evidence from Emerging Economies of Asia.	Shomaila Habib	1030 virtual

<b>Parallel Session-3</b>			
<b>Energy Sector/ Entrepreneurship and Business Innovation</b>			
<b>Session Chair: Dr. Ghazal Khawaja Hummayun Akhtar</b>		<b>Subject Expert: Dr. Manzoor H. Memon</b>	
<b>Moderator: Mr. Adnan Khalil</b>		<b>Venue: EMD Room 4</b>	
<b>Title</b>	<b>Presenter</b>	<b>Time</b>	
Building an Inclusive Entrepreneurial Ecosystem in Pakistan	Tahreem Siddiqui	0900	
Scaling Pakistan's Carbon Markets for Economic Resilience: Lessons from Regional Peers	Sadia Majeed	0930	
Renewable Energy for a Sustainable Society Aligns with UN SDG-7	Zainab Faheem	1000	
A Study on Digital Marketing Strategies of The Edutainment Sector: A Case Study of Giggle Town	Sarah Rashid Adnan Khalil, Raza Ali Khan	1030	



# **Impact Of Interest Rate, Corruption Perception Index, Incremental Capital-Output Ratio (ICOR), And Economic Growth on Foreign Direct Investment in Pakistan**

Farhan Nasim<sup>1</sup>

## **Abstract**

One key economic indicator that propels economic progress in underdeveloped nations is foreign direct investment, or FDI. Pakistan must determine the critical parameters that draw foreign direct investment (FDI) inflows as a developing country. It is anticipated that the interest rate policy will be a useful tool in this context. This study examined how the Corruption Perception Index (CPI), interest rates, Incremental Capital-Output Ratio (ICOR) and economic Growth affected foreign direct investment (FDI) in Pakistan between 1990 and 2022. Transparency International, UNCTAD, and World Bank papers provided the secondary data. This study found that FDI was significantly negatively impacted by CPI, but positively by interest rates and economic growth using series data and implemented the Autoregressive Distributed Lag (ARDL). The study concludes that in order to encourage foreign direct investment (FDI), Pakistan's government should maintain a strong domestic economy, as evidenced by its interest rate and economic development policies. Furthermore, by strengthening anti-corruption organizations, the government must strengthen the governance of foreign direct investment.

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# Climate Change, Displacement, And the New Poor: Assessing the Impact of Environmental Shocks on Poverty and Inequality in Pakistan

Muhammad Zahir Hussain<sup>2</sup>

## Abstract

Pakistan is at the crossroads of a climate and development crisis. Increasingly frequent and intense environmental shocks particularly floods and droughts have reshaped the country's socio-economic landscape by displacing millions and creating new categories of economically vulnerable groups. This research investigates the rise of the "new poor" in Pakistan: individuals and households previously above the poverty line who have fallen into poverty due to climate-induced disasters. Using a qualitative, descriptive approach grounded in environmental justice and disaster risk reduction frameworks, the study critically examines how these shocks interact with structural inequalities, institutional shortcomings, and policy gaps to deepen poverty and widen regional disparities. Drawing from national data, international reports, and peer-reviewed research, the paper identifies four key trends: the spatial concentration of climate risk in already impoverished districts; the erosion of livelihoods and household resilience post-disaster; the gendered and generational impacts of displacement; and the fragmentation of climate and poverty policy frameworks. It argues that Pakistan's current climate adaptation strategies are overly infrastructure-centric and insufficiently inclusive, often failing to address the needs of the displaced, the landless, informal workers, and women-headed households. In response, the paper advocates for a transformative approach to climate resilience—one that centers equity, inclusion, and economic justice within the green transition. This includes climate-smart social protection systems, pro-poor adaptation financing, and the integration of Islamic social finance instruments such as zakat, waqf, and takaful to mobilize ethical and community-based solutions for resilience and recovery. The study contributes to the emerging discourse on sustainable development by highlighting the critical intersection of poverty, climate displacement, and ethical economic reform. In doing so, it aligns with the vision of ISIF-2025 by proposing a green economy model for Pakistan that is not only environmentally sustainable but also socially equitable and grounded in local values and financing traditions.

**Keywords:** Climate displacement, poverty, environmental inequality, Pakistan, floods, droughts, disaster-induced poverty, climate adaptation

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# Exploring the Fiscal Determinants of Pakistan's Rising Public Debt: A Long- and Short-Run Analysis

Mirza Faizan Ahmed<sup>3</sup>

Shabbir Ahmed<sup>4</sup>

## Abstract

Pakistan's fiscal structure is highly centralized, with the federal government collecting about 90 percent of total tax revenues, while provincial governments raise only 10 percent. This imbalance between revenue generation and spending responsibilities has led to persistent fiscal deficits. According to the latest Economic Survey of Pakistan, total government expenditure is 19.5 percent of GDP, driven mainly by current spending (17.7 percent) and limited development expenditure (1.9 percent). Within current expenditures, interest payments and defense remain the largest components. In contrast, total revenues are only 12.6 percent of GDP, resulting in a fiscal deficit of 6.9 percent. To meet this gap, the government relies on domestic borrowing through Treasury Bills, Sukuk, and Pakistan Investment Bonds, as well as external financing from the IMF and other partners. Despite the Fiscal Responsibility and Debt Limitation (FRDL) Act of 2005, public debt has increased to 67.5 percent of GDP.

This paper aims to estimate the key factors influencing Pakistan's total public debt by analyzing the role of changes in foreign debt, government expenditures, revenues, and spikes in external borrowing from 1976 to 2023. Using cointegration estimation and an error correction model (ECM), the study identifies both long-run and short-run relationships among these fiscal variables. The results show that, in the long run, higher foreign debt increases domestic debt, while stronger government revenues help reduce it. The model explains about 58 percent of the variation in domestic debt. In the short run, increases in foreign debt and expenditures raise domestic debt, while higher revenues ease debt pressures. The error correction term ( $-0.798$ ) shows a quick adjustment to equilibrium, with about 80 percent of imbalance corrected each year. Overall, the findings highlight a close link between foreign and domestic borrowing in Pakistan's fiscal system. Strengthening revenue collection, reducing unproductive spending, and managing external financing more efficiently are essential to achieving fiscal stability and ensuring long-term debt sustainability.

**Keywords:** Fiscal federalism, public debt, fiscal deficit, Pakistan, fiscal sustainability

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# Pakistan's Net-Zero Goal and Role of Energy Demand Forecasting for Sustainable Industrial Growth – A Review

Emaan Suhail<sup>5</sup>  
Samra Israr  
Ali Subtain

## Abstract

This study presents a meta-analysis on energy demand and existing available resources for energy generation in Pakistan by analyzing the role of energy in industrial sector and its challenges in sustainable growth. Prior studies and research have assessed and forecasted the energy demand of Pakistan without keeping in view the challenges being faced in energy production with release of GHG emissions due to its consumption. The global industrial sector consumes about 38% of present global energy final energy use in 2021. Pakistan is ranked as the 4th most air-polluted country in the world with massive consumption of fossils. More than half of the energy supply is import-based in Pakistan as over 85% of energy supply is fossil fuel (Oil, Natural Gas, and Coal). While 70% of this energy is being consumed by industrial and transport sectors. Thus industrial sector is the highest energy consumer in Pakistan which is based on coal (99.9%), oil (7.46%), gas (37.63%), and electricity (23.3%) of the total consumption, but has been overwhelmed with environmental pollution initiated by fossil energy utilization. Extensive literature on national and international policies and current energy use by industrial sector of Pakistan has been conducted. Main focus of the study is to comply with the Paris Agreement goals, which emphasize the need to shift towards renewable energy to achieve Net-Zero GHG emissions. The current study recommends frameworks and tools for analyzing the energy demand and impact of GHG emissions in compliance with the sustainable development goals (SDGs) including SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).

**Keywords:** Climate Action, Energy Demand Forecasting, Fossil Energy, Greenhouse Gas Emissions (GHG), Industrial Growth, Net-Zero Emissions, Pakistan's Energy Generation, Paris Agreement, Sustainable Development

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# Leveraging Digital Finance for Women's Financial Literacy and Sustainable Development

Uzma Arshad<sup>6</sup>

Imtiaz Arif<sup>7</sup>

## Abstract

Financial literacy is a cornerstone of economic empowerment, particularly for women in developing countries who face social, cultural, and educational barriers to financial inclusion. This study investigates the role of digital financial tools (DFTs) and money management skills (MMS) in enhancing financial literacy among Pakistani women. Utilizing a sample of 337 women from urban centers—Karachi, Lahore, and Islamabad—the study examines five constructs: financial knowledge, financial attitudes, financial behavior, MMS, and DFT adoption. Data analysis through PLS-SEM reveals that while educated and professionally engaged women demonstrate stronger financial planning abilities, high proficiency in MMS and DFTs does not necessarily translate into higher financial literacy. However, these tools significantly contribute to improved lifestyle security and future preparedness. The study identifies major barriers such as fear of technology, lack of digital access, and cultural norms that hinder women's engagement with DFTs. Findings emphasize the need for tailored financial literacy programs that integrate digital education with behavioral support, targeting diverse female demographics. The study offers actionable insights for policymakers, financial institutions, and asset management firms seeking to design women-centric financial products and inclusive digital literacy strategies. Limitations include the geographic scope and sample size, focused only on urban areas, excluding rural and semi-urban populations. Future research should broaden the scope to include these demographics and conduct cross-country comparisons to explore regional differences. This study highlights the transformative potential of combining MMS and DFTs to empower women toward financial independence, informed decision-making, and long-term economic resilience.

**Keywords:** Financial Attitude (FA), Financial Behavior(FB), Financial Knowledge(FK), Money Management Skills (MMS), digital financial tools (DFT), Financial Literacy (FL)

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# **Corporate Social Responsibility (CSR) and Environmental Sustainability: Contribution of the Telecom Industry of Pakistan**

Sana Zafar<sup>8</sup>

Muhammad Hassan<sup>9</sup>

## **Abstract**

This qualitative research paper analyzes how corporate social responsibility (CSR) activities by the telecommunication industry have contributed to solving the environmental problems. As people have become increasingly anxious about pollution, energy use, and e-waste, telecom companies have launched a series of CSR-related initiatives, including tree plantation campaigns, the use of renewable energy, and electronic waste management campaigns. The information needed to complete this study will be collected using semi-structured interviews with managers and CSR representatives of prominent telecom companies with their headquarters in Karachi. The study investigates the significance of the efforts made in justifying the problems of the environment and the stakeholder's perception on their usefulness. The results are likely to bring to light the strengths, gaps and future opportunities of telecom companies in enhancing environmental sustainability with CSR. This study will shed some light on how the telecom industry can contribute to the development of sustainable business activities in an urban environment.

**Keywords:** Corporate Social Responsibility, Telecommunication Industry, Environmental Issues, Karachi, Sustainability, Qualitative Study

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# **The Relationship between Green Hiring Process and Organizational Citizenship Behavior in the Banking Sector**

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## **Abstract**

The objective of this research is to determine the effects of adopting eco-friendly hiring processes on Organizational Citizenship Behavior. The study was carried out on nine bank head offices situated in Karachi, Pakistan's financial capital. A questionnaire was used to collect data from a sample of 355 participants who were selected via the snowball sampling technique. The study had one dependent variable and four independent variables. The results of all the hypotheses confirmed that there is a positive correlation between Green Advertisement (GA), Green Screening/Shortlisting (GSL), Green Interviews (GI), Green Selection (GS), and Organizational Citizenship Behavior (GSB). This implies that incorporating eco-friendly practices in hiring procedures can help cultivate organizational citizenship behaviors in the workforce.

**Keywords:** Banking industry, Green Advertisement, Green Screening/Shortlisting, Green interviews, Organizational citizenship behavior and Green Selection.

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# **The Interaction of Fiscal and Monetary Policies with Digital Financial Inclusion. Evidence from Emerging Economies of Asia.**

Shomaila Habib<sup>11</sup>

Sadia Batool<sup>12</sup>

## **Abstract**

Access to financial services like banking, credit, insurance, and digital payment systems is vital for a government's ability to effectively execute its monetary and fiscal policies. This study examines how digital financial inclusion affects fiscal and monetary policy effectiveness in Asia's emerging economies. We constructed a digital financial inclusion index from panel data covering 2004 to 2023, incorporating indicators of access, usage, and availability to empirically evaluate relationships with government policies. The findings indicate a strong positive correlation between digital financial inclusion and fiscal policy factors, such as tax revenue and government spending. In terms of monetary policy, financial inclusion is positively related to interest rates and inversely related to inflation, highlighting its role in enhancing policy transmission and ensuring economic stability. Hence, promoting digital financial inclusion not only boosts the government's capacity to mobilize domestic resources and manage public expenditures but also enhances the effectiveness of monetary policy by influencing credit demand and stabilizing prices. These findings illustrate the importance for policymakers to actively integrate financial inclusion strategies within broader macroeconomic frameworks, thereby enabling them to influence their countries' economic futures.

**Keywords:** Digital financial inclusion, Fiscal policy, Monetary policy, Emerging Economies

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# Building an Inclusive Entrepreneurial Ecosystem in Pakistan

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## Abstract

Pakistan's entrepreneurial landscape is thriving, driven by innovation and a vibrant youth population. However, a significant portion of its potential remains untapped due to persistent gaps in inclusivity and sustainability. This paper explores the intricate connection between four critical pillars: the foundational ecosystem itself, the diverse range of financing options available, the rise of purpose-driven social and sustainable ventures, and the vital, yet often overlooked, contributions of women and youth. We contend that these elements are not isolated but rather deeply interconnected, and a robust future for Pakistani entrepreneurship hinges on their holistic integration. To address these complexities, our study will adopt a multi-faceted research design. We will combine a comprehensive quantitative survey to map the current state of the ecosystem, gathering data on the financing needs, growth trajectories, and operational challenges faced by a wide range of entrepreneurs, with a specific focus on women and youth. This will be enriched by a qualitative approach, including detailed case studies of successful social and sustainable enterprises and a series of in-depth interviews with key stakeholders across the private, public, and non-profit sectors. Our initial analysis reveals a notable disconnect between traditional financing models and the requirements of social ventures and entrepreneurs from marginalized groups. It highlights how existing biases and systemic barriers limit access to capital, networks, and mentorship for women and youth. Crucially, the research points to a fascinating duality: while these groups face immense hurdles, they are also at the forefront of creating innovative, purpose-driven solutions that directly address the nation's most pressing social and environmental problems. Ultimately, this paper is not just an academic exercise but a strategic roadmap. By providing a unified perspective that synthesizes these critical dimensions, our work offers actionable recommendations for policymakers, investors, and development organizations. Our findings will serve as a foundational guide for building a more equitable and resilient entrepreneurial ecosystem—one that not only drives economic prosperity but also empowers all segments of society to build a sustainable future for Pakistan.

**Keywords:** Entrepreneurship, Gender Inclusivity, Pakistan, Entrepreneurship and Sustainability, Women Entrepreneurship, Inclusive Financing.

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# Scaling Pakistan's Carbon Markets for Economic Resilience: Lessons from Regional Peers

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## Abstract

The 2024 Carbon Market Policy Guidelines, launched in November 2024 at COP29 (29th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC)), establish Pakistan's first national framework for structured carbon trading, building on limited credit activities since the Kyoto Protocol's ratification in 2005 (Ministry of Climate Change, 2024). This study analyses Pakistan's carbon market framework by comparing it with India's Carbon Credit Trading Scheme (CCTS) and China's National Emissions Trading System (ETS) to propose policy enhancements for economic and environmental outcomes. Using a qualitative content analysis approach, the study evaluates policy documents from Pakistan, India, and China, focusing on regulatory frameworks, monitoring and verification standards, sectoral coverage, and economic impacts such as job creation and GDP growth. While global carbon market studies are predominant, comparative analyses of South Asian and East Asian systems, particularly involving Pakistan's emerging market, remain limited. By addressing this gap, the study aims to suggest actionable policy recommendations to strengthen Pakistan's carbon markets. Beyond supporting NDCs, an effectively implemented carbon market can enhance Pakistan's economic stability by attracting international finance and fostering sustainable development. The broader objective is to contribute to global climate co-operation while promoting economic sustainability domestically.

**Keywords:** Carbon Markets, Pakistan's Carbon Market Policy 2024, Economic Sustainability, Climate Finance, Sustainable Development

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## Renewable Energy for a Sustainable Society Aligns with UN SDG-7

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Faheem Akhter<sup>17</sup>

### Abstract

In the context of accelerating global environmental change, the transition to renewable energy is widely viewed as a critical pathway toward achieving a sustainable society. This article examines how the adoption of renewable energy contributes to the environmental, economic, and social dimensions of sustainability. The problem statement identifies the dependence on fossil fuels, greenhouse gas emissions, energy security, and inequitable access as core challenges. The objectives are to investigate the role of renewable energy in promoting sustainability, to assess barriers and enablers, and to analyze empirical data from selected countries/regions. The methodology employs a mixed-methods approach, combining a literature review and secondary data analysis. Data collection draws on international databases and published reports; data analysis uses descriptive statistics and comparative assessment. The findings emphasize that renewable energy deployment is correlated with improved environmental outcomes, enhanced energy security, and socioeconomic benefits—yet significant technical, policy, and financial barriers remain. The article concludes with recommendations for policy, investment, and future research.

**Keywords:** Renewable Energy, Sustainable Society, Energy Transition, Sustainability, Energy Policy

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# **Impact of Good Governance on Sustainable Economic Development: Pakistan's Case.**

Umme Ummara<sup>18</sup>

Faheem Akhter<sup>19</sup>

## **Abstract**

The sustainable economy of any state directly and positively affects the governance. Pakistan in the last 70 years has seen many economic turfs and crust. Economist as well as those responsible for the governance do show their concerns about the uncertain and frequent fluctuation in Pakistan's economy. It's high time Pakistan should have a sustainable economy for economic and social development. Sustainable economic development is a key factor that uplifts the standard of living of the common man and also helps the state to exercise good governance effectively. The current research argues that some social and economic reforms are immediately required to have good governance in the country. Through analysis of the data endeavor would be to find the causes of economic instability and challenges for the government to impart good governance. Qualitative analysis would be carried out by collecting data available on official websites of the government institutions, international monetary agencies, interviews with the selected relevant personnel, and views of the common people who are sufferers due to the weak governance system in Pakistan. The bottom line is that sustainable economic development is the key to success in the field of good governance in the case of Pakistan.

**Keywords:** Sustainable economic development, good governance, social development, economic reforms.

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# **A Study on Digital Marketing Strategies of The Edutainment Sector: A Case Study of Giggle Town**

Sarah Rashid<sup>20</sup>

Adnan Khalil, Raza Ali Khan

## **Abstract**

With the growth of the edutainment industry, developing countries in Asia have seen a significant increase in this sector in recent years. Although Pakistan has been a latecomer to this emerging industry, it faces challenges in effective marketing strategies, limiting its appeal to potential customers. The concept of edutainment is still relatively unknown, making it crucial to raise awareness of its potential benefits. Pakistan requires more initiatives to build children's confidence, enhance communication skills, foster cognitive growth, and support overall mental development. This research focuses on Giggle Town, a newly established center in Karachi, Pakistan, and examines its digital marketing strategies to position itself favorably within the competitive entertainment industry. Giggle Town offers a unique learning environment that fosters children's curiosity, creativity, and exploration. However, the study reveals that the center's digital marketing efforts are disproportionately focused on entertainment, overlooking the critical educational components that make it unique. This study assesses the effectiveness of these existing digital marketing strategies and explores alternative approaches to enhance Giggle Town's market positioning and outreach. Through qualitative methods including interviews and observational data, we explored how parents and educators perceive these offerings. The center currently relies heavily on influencer marketing and referrals, lacking a comprehensive digital marketing strategy. The findings propose a comprehensive digital marketing strategy that equally emphasizes both educational and entertainment aspects, thus appealing to parents' desire for meaningful and engaging experiences for their children. This approach not only aims to boost Giggle Town's visibility but also sets a new standard for edutainment marketing.

**Keywords:** Edutainment, digital marketing strategies, Giggle Town Karachi, child development, influencer marketing, entertainment industry, Pakistan

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