

Shahid Akbar

Ph.D Econometrics

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RESEARCH AREAS:

My areas of interest are Econometrics, Economics & Statistics with expertise and research in,

- Panel Data Econometrics
- Time Series Econometrics
- Forecasting and Modelling Financial Time Series
- Treatment of Outliers in Financial Time Series Data
- Applied Economics
- Monte Carlo Simulation Methods
- Biostatistics

EDUCATION:

PhD Econometrics

January 2020

Thesis Title: A Comparative Analysis of Panel Unit Root Tests under a Single Framework

Supervisor: Dr. Abdul Rashid (Director General IIIIE, IIU Islamabad)

Institution: International Institute of Islamic Economics, International Islamic University Islamabad.

MS Econometrics

May 2013

Thesis Title: Comparative Analysis of Outlier Detection Techniques: A Case Study of KSE-100

Supervisor: Dr. Asad Zaman (Ex. Vice Chancellor, PIDE, Islamabad)

Institution: International Institute of Islamic Economics, International Islamic University Islamabad.

MSc Statistics

February 2007

Institution: Govt. Postgraduate College Nowshera, University of Peshawar.

BSc Computer Science

September 2004

Institution: Pakistan Degree College Nowshera, University of Peshawar.

SELECTED PORFESSIONAL EXPERIENCE:

Assistant Professor (Economics)

Jan 2024- to Date

Institution: Department of Economics, The University of Lahore.

Visiting Faculty as Assistant Professor (Economics)

Jan 2023- Jan 2024

Institution: Department of Economics, University of Swabi.

Assistant Professor/IPFP Fellow (Economics)

Nov 2021- Dec 2022

Institution: Department of Economics, University of Swabi.

Visiting Faculty as Assistant Professor (Statistics and Mathematics)

Feb 2021- 30 June 2021

Institution: School of Natural Sciences, NUST Islamabad.

Econometrician

July 2020- April 2021

Institution: United Nations Development Program (UNDP), Islamabad.

Visiting Faculty as Assistant Professor (Econometrics)

Feb 2020- August 2020

Institution: International Institute of Islamic Economics, International Islamic University Islamabad.

Visiting PhD Research Fellow**Institution:** Department of Economics, University of Vienna, Austria**Sep 2017- Feb 2018****Visiting Faculty (Econometrics, Statistics and Mathematics)****Institution:** International Institute of Islamic Economics, International Islamic University Islamabad.**July 2013- June 2018****Lecturer in Statistics****Institution:** Govt. Mullana Abdul Haq College, Nizampure, Nowshera Pakistan.**March 2008- Feb 2009****RESEARCH ACTIVITIES:****Research Papers (Published and Accepted):**

- Akbar, S., Idrees, M., & Ali, M. (2024). Fluctuations in electricity prices and the identification of bubbles in Italy during COVID-19. *Journal of Social Sciences and Economics*, 3(2), 241-249.
- Akbar, S., Iqbal, M., & Munir, F. (2024). A Structural Break Unit Root Test to Test Purchasing Power Parity Hypothesis: An Empirical Analysis of South Asian Economies. *Kashmir Economic Review*, 33(1), 14-23.
- Akbar, S., Munir, F., & Iqbal, M. (2024). Asymmetric Dynamics between Exchange Rates and Crude Oil Prices: A Cross-Country Assessment. *Pakistan Journal of Humanities and Social Sciences*, 12(4), 3141–3152. <https://doi.org/10.52131/pjhss.2024.v12i4.2566>
- Ali, M., Zahid, M., & Akbar, S. (2024). FDI and Industrialization: Evidence from Selected Asian Developed and Developing Countries. *Pakistan Journal of Humanities and Social Sciences*, 12(4), 3093–3101. <https://doi.org/10.52131/pjhss.2024.v12i4.2541>
- Abid, R., Akbar, S., & Kaleem, A. (2024). The Role of Outlier Treatment in Refining Volatility Forecasts and Strengthening Risk Management. *International Journal of Business Strategy and Analytics*, 01-15.
- Raza, A., Akbar, S., & Iqbal, M. (2024). Comparison and Empirical Evaluation of Classical Tests of Skewness versus Bootstrap Tests of Skewness. *CARC Research in Social Sciences*, 3(2). <https://doi.org/10.58329/criss.v3i2.130>.
- Sana, M., Khan, M.W., and Akbar, S. (2024). The Effect of Monetary Policy on Import, Export, and Foreign Direct Investment: An Empirical Investigation. *Bulletin of Business and Economics*, 13(1), 874-884. <https://doi.org/10.61506/01.00285>
- Akbar, S., Saba, T., Bahaj, S. A., Inshal, M., & Khan, A. R. (2023). Forecasting Volatility in Generalized Autoregressive Conditional Heteroscedastic (GARCH) Model with Outliers. *Journal of Advances in Information Technology*, 14(2), PP: 311-318.
- Khan, W. M. ., Sana, M. ., & Akbar, S. (2023). The Effect of Petroleum Prices on Basic Food and Energy Commodities: An investigation through Sequential ADF tests. *Bulletin of Business and Economics (BBE)*, 12(3), 912-921. <https://doi.org/10.61506/01.00296>
- Waheed, A., Akbar, S., Siddiq, S.A.B., & Raza, A. (2023). Testing And Identifying Multiple Bubbles In Pak RupeeChinese Yuan Exchange Rate. *Journal of Positive School Psychology*, Vol. 7(2), PP: 1937-1951.
- Shah, Abdul, Akbar, S., & Nawaz, H. (2023). Performance of Modality Tests on Existence of Bimodality. *Journal of Quantitative Methods*, 7(1), PP: 1-22.
- Bahadar, K., Ahmed, E., & Akbar, S. (2022). A Specialized Empirical Bayes Single Regression Coefficient Estimation Procedure for Panel Data Linear Regression Models. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 13(4), 1-12.
- Raza, A., Akbar, S., & Raza, Z. (2021). Does Greenfield Foreign Direct Investment Inflow Contribute in Socioeconomic Development? Empirical Evidence from Developing Countries. *Pakistan Journal of Humanities and Social Sciences*, 9(3), 469-481.
- Raza, A., Akbar, S., and Sadiqa, B.A. (2021) Relationship among Economic Growth, Health, Education, Economic Development and Greenfield Investment as Mode of FDI: Evidence from MENA Countries. *International Review of Social Sciences*, Vol. 9 (5), PP 271-280.
- Akbar, S., Akbar, S., Raza, A., & Rovidad, M. (2021). Investigation and Forecast of COVID-19 Wave-II: A Case Study of Pakistan. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 12(5), 1-8.

- Waheed, A., Rashid, A., & Akbar, S. (2021). Detecting the Best Performing Time-Variant Cointegration Test Using the Consumption Function. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 12(4), 1-5. <http://doi.org/10.14456/ITJEMAST.2021.80>.
- Rovidad, M., Raza, A., & Akbar, S. (2020). Effects of Microcredit on Crop Productivity in District Charsadda, Khyber Pakhtunkhwa, *International Review of Management and Business Research*, Vol 9, PP 130-137.
- Rashid, M., Akbar, S., Shakoor, U., & Akbar, S. (2020). Identifying Optimal ARIMA Type Forecasting Model for COVID-19 Datasets of Pakistan. *Journal of Business & Economics*, 12(2), 133-143.
- Hussan, M., & Akbar, S. (2019). A Monte Carlo Comparative Simulation Study for Identification of the Best Performing Panel Cointegration Tests. *European Online Journal of Natural and Social Sciences*, 8(2), pp:366-373.
- Ghafar Shah, A., Jabbar, A., & Akbar, S. (2019). Size of the Bimodality by using Trapezoidal Rule. *European Online Journal of Natural and Social Sciences: Proceedings*, 8(4 (s)), pp:155-161.
- Akbar, S., Raza, A., & Riaz, Y. (2019). A Monte Carlo Simulation Analysis of Panel Stationarity Tests under a Single Framework. *European Online Journal of Natural and Social Sciences: Proceedings*, 8(1 (s)), pp:34-41.

MPhil/PhD STUDENTS SUPERVISED:

- **Currently supervising Two PhD Students**

HEC APPROVED SUPERVISOR:

- Awarded as HEC Approved supervisor in the discipline of Social Sciences for the periods of three years.

RESEARCH PAPERS (UNDER REVIEW):

- A Comparative Study of Panel Unit Root Tests Having the Null Hypothesis of Unit Root under a Unified Framework, *Communications in Statistics - Simulation and Computation*.
- Monte Carlo Comparison of Cointegration Tests and Their Empirical Application, *Regional Statistics*.
- A Comparative Analysis of Simulated and Asymptotic Critical Values for Panel Unit Root Tests, *Symmetry*.
- Computational Ranking of Panel Stationarity Tests: A Comparative Analysis, *Computation*

BS RESEARCH PROJECT SUPERVISED:

- An Analysis Of Fluctuations In Monthly Prices In Essential Commodities In KP During Covid-19
- Educational Inequalities in KP: An Empirical Investigation
- A Comparison of Trade Balance Determinants between Pakistan and Bangladesh
- Investigating The Effect of the Energy Crisis on Manufacturing Exports for Pakistan using an ARDL Model Approach
- An Econometric Approach to Determine the Effect of Foreign Capital Inflow on Economic Growth: An Investigation for Pakistan
- Determinant of Recent Inflation in Pakistan and its Economic Growth: Econometric Analysis
- An Empirical Analysis of Determinants of Economic Growth for Pakistan: A General to Specific Methodology
- The impact of Monetary policy on Stock and Bond Prices
- Identifying Explosive behavior in Italian Electricity Prices
- Are there Bubbles in Gold Prices during COVID-19?
- Investigating the impact of terrorism on FDI, Trade and Remittances: A case Study of Pakistan

- Exploring the effect of production output, economic growth, and trade on electricity consumption
- Unemployment as a Measure of Economic Stability: A Gender Comparison

RESEARCH PROJECT (IN PROGRESS):

- Unveiling Asymmetry: Oil Price Shocks and their Varied Effects on Aggregate Demand for Goods and Services in Pakistan
- Corruption as a Moderator: Examining its Influence on the Oil Price-Economic Growth Nexus in an Oil Dependent Economy – Insights from Bootstrap ARDL with a Fourier Function
- Fiscal Deficit and its Socioeconomic Impact in Pakistan

RESEARCH PROJECT (BIOSTATISTICS) ASSISTED IN DATA ANALYSIS:

- Attitude of General Population towards COVID-19 Vaccination
- Knowledge, Attitude and Practices of Nurses Regarding Needle Stick Injuries in Tertiary Care Hospital

RESEARCH PAPER TOPICS (UNDER COMPLETION STAGE):

- Impact of COVID-19 on MSMEs and Informal Employment: A Case study of KP.
- A New Empirical Bayes Estimator for Standard Classical Panel Data Models.
- Identifying Best Performer Panel Unit Root Test using Rank Criterion.

SURVEY REPORTS COMPLETED:

- Business and Labor Survey-II: Impact of COVID19 on Micro, Small and Medium Business Sectors and Informal Labor *by UNDP, (2020).*
- Accelerated Implemented Program (AIP): To Initiate and Formulate Priority Project for Impactful Development of the Merged Areas *by UNDP (2020).*
- BIZ (Business) Survey, To Provide Quantitative Data that Allows An Assessment Of the Merged Areas' Business Environment on Firm Performance in an Internationally Comparable Manner *by UNDP (2020-21).*

CONFERENCE PAPERS:

- “Best Conventional Outlier Detection Technique and Forecasting Model for Financial Time Series Data: A Case Study of Dow and Jones Index”, at the International Research Conference Xplore 2025 - Chapter 6.
- “Public Debt Management in Pakistan: A Path from Vulnerability to Sustainability” at the International Research Conference Xplore 2025 - Chapter 6.
- “An Empirical Investigation of Knowledge Workers Productivity in Pakistan Software Industry” at the International Research Conference Xplore 2025 - Chapter 6.

PROFESSIONAL TRAINING RECEIVED:

- National Faculty Development Program (NFDP) 2021, *National Academy of Higher Education (NAHE) Higher Education Commission Pakistan.*
- Quantitative Methods for Social Sciences Teaching & Research (June 20 to 26, 2013), *IIIE, International Islamic University, Islamabad.*
- Quantitative Methods for Social Sciences (June 20 to 25, 2011) *IIIE, International Islamic University, Islamabad.*
- The Collaborative Institutional Training Initiative (CITI Program), Human Subjects Research (HSR), *UNDP Pakistan.*

CONFERENCE ATTENDED:

- Participated as an organizer in “National Conference on Sustainable Development Goals: Catalyst for Economic Transformation in Pakistan” organized by Department of Economics, The University of Lahore, 29th Feb and 1st March, 2024.
- Participated as a Presenter in the *International Research Conference Xplore 2025 - Chapter 6* on theme "Business in the Digital Era and Way Forward: Sustainability, Ethics, and Leadership," at Lahore Business School (LBS), The University of Lahore (UoL), Lahore, Pakistan, 21th April to 23rd April, 2025.

BOOKS CHAPTER REVIEWED:

- Reviewed book chapter entitled “Relative Efficiency of Linear Probability Model on Paired Multivariate Data”
- Reviewed book chapter entitled “Clustering of Countries Based on Fertilizer Consumption”

REVIEWER FOR JOURNALS:

- PLOS ONE
 - Journal of Statistics and Data Science Education
 - Journal of Quantitative Method
- APPLIED DATA ANALYSIS SKILLS:**
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- Statistical Packages
- Advance Excel, Tableau
- E-Views & Ox Matrices.
- SPSS, STATA, MATLAB, R, Python.
- Monte Carlo Simulations using Excel & MatLab.

REFERENCES:

1. Dr. Abdul Rashid
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Assistant Professor Econometrics,
PIDE Islamabad, Pakistan.
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University of Azad Jammu & Kashmir
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