Deri Siswara

Lecturer | Researcher

Contact

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Education

09/2021 - 08/2024

M.Sc. in Statistics and Data Science

IPB University

Thesis: Stock Market Early Warning using Deep Learning

09/2016 - 08/2020

B.Econ. in Islamic Economics

IPB University

Thesis: Stock Market Integration using ARDL Approach

Summary

Lecturer and researcher in economics and data science. Trained in economics with heavy use of various types of econometric and statistical models for policy-oriented research. Have a long exposure with Stata, R, and Python for data analytics, econometrics, and machine learning. Good familiarity with various data & docs processing tools (Microsoft Office, Google Docs, Markdown, and Quarto).

Work Experience

Data Research Analyst — **Feb 2026 - Present**
Bank Indonesia (Central Bank of Indonesia)

Conducted regional economic analysis and policy research to support Bank Indonesia's decision-making on subnational economic issues.

Adjunct Lecturer — **Feb 2025 - Present**
Perbanas Institute
Data Science Program, Faculty of Information Technology

Teaching Machine Learning and Probability & Statistics courses. Created hands-on lab sessions using Python, R, and Quarto.

Researcher & Lecturer (Short-term Contracts) — **2020 - 2025**
IPB University, KPPU, Kemendag, Kementan, Bank Indonesia, and others

Conducted policy-oriented research and teaching across multiple institutions covering agricultural economics, regional development, international trade, and competition policy.

Selected Projects

Utilization Study of Trade Agreement Impact on Trade in Services — **Aug 2025 - Dec 2025**
ITAPS - Ministry of Trade
Researcher

Conducted counterfactual analysis using synthetic control method to evaluate the impact of IA-CEPA on Indonesia's trade in services.

Economic and Social Impact Analysis of East Kalimantan Railway Development — **Aug 2025 - Nov 2025**
ITAPS - Bank Indonesia, East Kalimantan Regional
Researcher

Applied Working-Leser model, time series regression, and SWOT analysis to assess market potential and expert judgments for railway development.

Dashboard Development for Psychology Test Data — **Sep 2025 - Oct 2025**
Telkom University
Data Analyst

Designed and developed interactive dashboards using R and Quarto to analyze psychology test results for 24000+ students.

Non-Cash Social Assistance Monitoring Survey   `May 2025 - Oct 2025`
Bank Indonesia
Researcher

Developed questionnaire and technical guidelines for nationwide survey implementation across 34 provinces or 46 BI Regional. Used Quarto and GitHub for web-based technical guidelines and R for data analysis.

Implementation Study of Food Safety in APEC Regions   `May 2025 - Jul 2025`
APEC Project: SCSC_102_2024T
Consultant/Data Analyst

Analyzed survey data from 8 APEC economies on food safety management systems. Delivered data-driven recommendations at stakeholder workshop in Bali.

Outlier Detection Study in Banking Report Data   `Jun 2024 - Mar 2025`
Bank Indonesia
Consultant/Data Analyst

Researched and implemented 7+ statistical methodologies for outlier detection in banking report data, processing datasets of 100K+ records.

Socio-Economic Impact Analysis of Subsidized Fuel Restrictions   `Feb 2024 - Aug 2024`
PT Pertamina (Persero)
Consultant/Data Analyst

Conducted impact assessment of subsidized fuel policy changes using microsimulation with SUSENAS survey data.

Food Price Analysis   `May 2023 - Nov 2023`
KPPU (Indonesian Competition Commission)
Researcher

Analyzed price transmission mechanisms for 10 strategic food commodities using Nonlinear Autoregressive Distributed Lag (NARDL) models.

Publications

Journal Articles
-Siswara, D., Soleh, A. M., & Wigena, A. H. (2024). Classification Modeling with RNN-based, Random Forest, and XGBoost for Imbalanced Data: A Case of Early Crash Detection in ASEAN-5 Stock Markets. *Scientific Journal of Informatics*, 11(3), 569–582. `https://doi.org/10.15294/sji.v11i3.4067`
-Siswara, D., Effendi, J., & Muthoharroh, M. (2021). The Integration of Islamic Stock Markets of OIC Countries in China Stock Market Crisis and US-China Trade War. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, 13(1), 1–16. `https://doi.org/10.15408/aiq.v13i1.20820`
-Siswara, D., Siahaan, D. R. N., Fitrianto, A., Sartono, B., & Oktarina, S. D. (2022). Regional Tourism Development in Nusa Tenggara Barat: Maximizing Local Economic Development. *EcceS (Economics, Social, and Development Studies)*, 9(2), 107–127. `https://doi.org/10.24252/ecc.v9i2.32194`

Books
-Firdaus, M., Irawan, T., Ahmad, F. S., Siregar, H., Siswara, D., & Jakariya, R. (2024). *Aplikasi Model Ekonometrika dengan RStudio Edisi Kedua*. IPB Press.
-Firdaus, M., Afendi, F., Siswara, D., & Pratiwi, N. B. I. (2024). *Metode Kuantitatif dengan RStudio*. IPB Press.
-Firdaus, M., Irawan, T., Ahmad, F. S., Siregar, H., Siswara, D., & Jakariya, R. (2020). *Aplikasi Model Ekonometrika dengan RStudio (Model Time-Series, Panel, Spatial)*. IPB Press.