

## DAFTAR PUSTAKA

- Adu, W. K., Appiahene, P., & Afrifa, S. (2023). VAR, ARIMAX and ARIMA models for nowcasting unemployment rate in Ghana using Google trends. *Journal of Electrical Systems and Information Technology*, 10(1). <https://doi.org/10.1186/s43067-023-00078-1>
- Akbar, I. A., & Kurniawan, R. (2021). Pemodelan Nowcasting Tingkat Pengangguran Terbuka Menggunakan Data Google Trends dengan Metode Antlion Optimization-Support Vector Regression. *Seminar Nasional Official Statistics*, 2020(1). <https://doi.org/10.34123/semnasoffstat.v2020i1.504>
- Aprilia, C., & Anas, Y. (2024). Characteristics Of Youth Unemployment: Before And During The Covid-19 Pandemic In Indonesia. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis*, 12(2), 1917–1930. <https://doi.org/10.37676/ekombis.v12i>
- Askitas, N., & Zimmermann, K. F. (2009). Google Econometrics and Unemployment Forecasting. *German Council for Social and Economic Data*, 1–18. <http://ssrn.com/abstract=1480251>
- Assauri, S. (1984). *Teknik dan Metode Peramalan dalam Ekonomi dan Dunia Usaha*. UI.
- Autor, D. (2000). Wiring the labor market. *J Econ Perspective*, 15(1), 25–40.
- Baker, S. R., & Fradkin, A. (2017). *The Impact of Unemployment Insurance on Job Search: Evidence from Google Search Data*.
- Bandura, A. (1997). Self-efficacy The Exercise of Control. *W.H. Freeman and Company*.
- Barreira, N., Godinho, P., & Melo, P. (2013). Nowcasting unemployment rate and new car sales in south-western Europe with Google Trends. *Economic Research and Electronic Networking*, 14(3), 129–165.

- Bhavsar, H., & Panchal, M. H. (2012). A Review on Support Vector Machine for Data Classification. *International Journal of Advanced Research in Computer Engineering & Technology*, 1(10).
- Boedijoewono, N. (2001). *Pengantar Statistik Ekonomi dan Bisnis* (Keempat). Unit Penerbit dan Percetakan AMP YKPN.
- Borjas, G. J. (2013). *Labor Economics* (6th ed.). McGraw-Hill. .
- Box, G., & Jenkins, G. (1976). *Time Series Analysis: Forecasting and Control* (1st ed.). Holden Day.
- Brujin, N. de, Wijnhoven, F., & Effing, R. (2023). Exploring new procedures to deal with time-varying relationships in forecasting: A study in the context of forecasting youth unemployment with Google searches. *MSc Business Administration*, 1–70.
- Carrière-Swallow, Y., & Labbé, F. (2013). Nowcasting with Google trends in an emerging market. *Journal of Forecasting*, 32(4), 289–298. <https://doi.org/10.1002/for.1252>
- Cebrián, E., & Domenech, J. (2023). Is Google Trends a quality data source? *Applied Economics Letters*, 30(6), 811–815. <https://doi.org/10.1080/13504851.2021.2023088>
- Chen, J., Mi, H., Fu, J., Zheng, H., Zhao, H., Yuan, R., Guo, H., Zhu, K., Zhang, Y., Lyu, H., Zhang, Y., & She, N. (2022). Construction and validation of a COVID-pandemic trend forecast model based on Google Trends data for smell and taste loss. *Front Public Health*. <https://covid19.who>.
- Choi, H., & Varian, H. (2009a). *Predicting Initial Claims for Unemployment Benefits*. <http://www.dol.gov/opa/media/press/eta/ui/current.htm>
- Choi, H., & Varian, H. (2009b). *Predicting the Present with Google Trends*. <http://CRAN.R-project.org>

- Cryer, J. D., & Chan, K. S. (2008). *Time Series Analysis with Applications in R* (2nd ed.). Springer.
- D'Amuri, F. (2009). Predicting unemployment in short samples with internet job search query data. *MPRA Paper* .
- D'Amuri, F., & Marcucci, J. (2017). The predictive power of Google searches in forecasting US unemployment. *International Journal of Forecasting*, 33(4), 801–816.
- Dilmaghani, M. (2019). Workopolis or The Pirate Bay: what does Google Trends say about the unemployment rate? *Journal of Economic Studies*, 46(2), 422–445. <https://doi.org/10.1108/JES-11-2017-0346>
- Dvouletý, O., Lukeš, M., & Vancea, M. (2020). Individual-level and family background determinants of young adults' unemployment in Europe. *Empirica*, 47(2), 389–409. <https://doi.org/10.1007/s10663-018-9430-x>
- Emerson, R. (2015). Causation and Pearson's Correlation Coefficient. *Journal of Visual Impairment & Blindness*, 109, 242–244.
- Escobar, C. A., & Morales-Menendez, R. (2024). Machine learning theory. In *Machine Learning in Manufacturing*. <https://doi.org/10.1016/b978-0-323-99029-5.00002-9>
- Fajar, M., Prasetyo, Nonalisa, & Wahyudi. (2020). Forecasting Unemployment Rate in the Time of COVID-19 Pandemic Using Google Trends Data (Case of Indonesia). *International Journal of Scientific Research in Multidisciplinary Studies* , 6(11), 29–33. <https://www.researchgate.net/publication/346525612>
- Fajar, M., Rizky Prasetyo, O., Fajar, M., Prasetyo, O. R., & Nonalisa, S. (2020). Forecasting Unemployment Rate in the Time of COVID-19 Pandemic Using Google Trends Data (Case of Indonesia). *International Journal of Scientific Research in Multidisciplinary Studies*, 6(11).
- Fantazzini, D., & Toktamysova, Z. (2015). Forecasting German car sales using Google data and multivariate models. *International Journal of*

*Production Economics*, 170, 97–135.  
<https://doi.org/10.1016/j.ijpe.2015.09.010>

Ferrara, L., & Simoni, A. (2019). When are Google data useful to nowcast GDP? An approach via pre-selection and shrinkage 1. *Journal of Business Economic Statistics*, 41(4), 1188–1202. <https://www>.

Fikri, K. (2020). *Analisis Korelasi antara Google Trends dengan Pengawasan Penyakit di Indonesia*. Universitas Islam Indonesia .

Firdaus, M. (2018). *Aplikasi Ekonometrika Untuk Data Panel dan Time Series*. IPB Press.

Fondeur, Y., & Karamé, F. (2013). Can Google data help predict French youth unemployment? *Economic Modelling*, 30(1), 117–125.  
<https://doi.org/10.1016/j.econmod.2012.07.017>

Ginsberg, J., Mohebbi, M. H., Patel, R. S., Brammer, L., Smolinski, M. S., & Brilliant, L. (2009). Detecting influenza epidemics using search engine query data. *Nature*, 457(7232), 1012–1014.  
<https://doi.org/10.1038/nature07634>

González-Fernández, M., & González-Velasco, C. (2018). Can Google econometrics predict unemployment? Evidence from Spain. *Economics Letters*, 170, 42–45. <https://doi.org/10.1016/j.econlet.2018.05.031>

Google. (2017). *Google Trends Help*. Google Inc.

Google. (2023, January). *FAQ about Google Trends data*. Google Inc.

Grybauskas, A., Pilinkienė, V., Lukauskas, M., Stundžienė, A., & Bruneckienė, J. (2023). Nowcasting Unemployment Using Neural Networks and Multi-Dimensional Google Trends Data. *Economies*, 11(5). <https://doi.org/10.3390/economies11050130>

Hairani, Tika; Gunawan, D., & Hizriadi, A. (2018). Deteksi Botnet Menggunakan Algoritma K-Nearest Neighbor. In *Universitas Sumatera Utara*.

- Hill, H. (2016). The Indonesian Economy in Crisis: Causes, Consequences and Lessons. In *The Indonesian Economy in Crisis: Causes, Consequences and Lessons*. <https://doi.org/10.1007/978-1-137-05629-0>
- Husnayain, A., Fuad, A., & Lazuardi, L. (2019). Correlation between Google Trends on dengue fever and national surveillance report in Indonesia. *Global Health Action*, 12(1). <https://doi.org/10.1080/16549716.2018.1552652>
- Jun, S. P., Yoo, H. S., & Choi, S. (2018). Ten years of research change using Google Trends: From the perspective of big data utilizations and applications. *Technological Forecasting and Social Change*, 130, 69–87. <https://doi.org/10.1016/j.techfore.2017.11.009>
- Jung, J. U., & Hwang, J. (2019). Application of Google Search Queries for Predicting the Unemployment Rate for Koreans in Their 30s and 40s. *Journal of Digital Convergence*, 17(9), 135–145. <https://doi.org/10.14400/JDC.2019.17.9.135>
- Karim, A. A., Pardede, E., & Mann, S. (2023). A Model Selection Approach for Time Series Forecasting: Incorporating Google Trends Data in Australian Macro Indicators. *Entropy*, 25(8). <https://doi.org/10.3390/e25081144>
- Kaufman, B. E., & Hotchkiss, J. L. (1999). *The Economics Of Labor Market* . The Dryden Press.
- Kementerian Kominfo. (2020, October 4). *Masuki Era Revolusi Industri 4.0, Indonesia Perlu Manfaatkan Teknologi Digital* . Berita Kominfo .
- Kristoufek, L. (2013). Can Google trends search queries contribute to risk diversification? *Scientific Reports*, 3. <https://doi.org/10.1038/srep02713>
- Laelia, S. M., & Priyarsono, D. S. (2023). Studi Penggunaan Data Google Trends: Kasus Peramalan Tingkat Pengangguran Usia Muda. *Bina Ekonomi*, 27(2), 100–123.

- Lemke, C., & Gabrys, B. (2008). Do we need Experts for Time Series Forecasting? *ESANN Proceedings*, 253–258.
- Makridakis, S., Wheelwright, S. C., & Hyndman, R. J. (1998). *Forecasting Methods and Applications* (3rd ed.). Wiley.
- Mankiw. (2014). *Pengantar Ekonomi Mikro*. Salemba Empat.
- Mankiw. (2018). *Principles of Economics* (8th ed.). Cengage Learning.
- Mankiw, G. (2007). *Makroekonomi* (Keenam). Erlangga.
- Martanto, B., Tan, S., & Syurya Hidayat, ; M. (2021). Analisis tingkat inflasi di Indonesia Tahun 1998-2020 (pendekatan error correction model). In *Jurnal Paradigma Ekonomika* (Vol. 16, Issue 3).
- Maryati, S. (2015). Dinamika Pengangguran Terdidik: Tantangan Menuju Bonus Demografi. *Journal of Economic and Economic Education*, 3(2), 124–136.
- Mavragani, A., & Gkillas, K. (2020). COVID-19 predictability in the United States using Google Trends time series. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-77275-9>
- McDougall, B. (2001). *Cyber-recruitment: the rise of the E-labour market and its implications for the Federal Public Service*.
- McLaren, N., & Shanbhogue, R. (2011). The potential benefits and problems of internet search data. *Bank of England Quarterly Bulletin*, 51(2), 134–140., 51(2), 134–140. <http://ssrn.com/abstract=1865276> Electronic copy available at: <https://ssrn.com/abstract=1865276>
- Michael Ettredge, B., Gerdes, J., & Karuga, G. (2005). Macroeconomic Statistics. *Communications of The ACM*, 48(11). [www.doleta.gov](http://www.doleta.gov)
- Naccarato, A., Falorsi, S., Loriga, S., & Pierini, A. (2018a). Combining official and Google Trends data to forecast the Italian youth unemployment rate.

*Technological Forecasting and Social Change*, 130, 114–122.  
<https://doi.org/10.1016/j.techfore.2017.11.022>

Naccarato, A., Falorsi, S., Loriga, S., & Pierini, A. (2018b). Combining official and Google Trends data to forecast the Italian youth unemployment rate. *Technological Forecasting and Social Change*, 130, 114–122. <https://doi.org/10.1016/j.techfore.2017.11.022>

Nagao, S., Takeda, F., & Tanaka, R. (2019). Nowcasting of the U.S. unemployment rate using Google Trends. *Finance Research Letters*, 30, 103–109. <https://doi.org/10.1016/j.frl.2019.04.005>

Nooraeni, R., Yudho, N. P., & Purba, N. S. (2020). Using Google Trend Data as an Initial Signal Indonesia Unemployment Rate. *Proceedings of 62th ISI World Statistics Congress 2019, Kuala Lumpur*, 266–274. <https://www.researchgate.net/publication/335320380>

Önder, I. (2017). Forecasting tourism demand with Google trends: Accuracy comparison of countries versus cities. *International Journal of Tourism Research*, 19(6), 648–660. <https://doi.org/10.1002/jtr.2137>

Park, S., Lee, J., & Song, W. (2016). Short-term forecasting of Japanese tourist inflow to South Korea using Google trends data. *OJournal of Travel & Camp*, 34(3), 357–368.

Pavlicek, J., & Kristoufek, L. (2015). Nowcasting unemployment rates with Google searches: evidence from the Visegrad Group countries. *Plos One*, 10(5).

Perdana, R. (2020). *Catatan Peneliti Tentang Metode Kuantitatif*. Artikel Dosen.

Rahardja, P., & Mandala, M. (2008). *Pengantar Ekonomi (Mikroekonomi dan Makroekonomi)*. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

Rahmayani, L. (2013). *Model ARIMAX dan SARIMAX untuk Meramalkan Data Curah Hujan*. Universitas Islam Negeri Sunan Gunung Djati.

- Ricky, & Rizki, Z. (2021). Pengaruh Pertumbuhan Ekonomi Terhadap Pengangguran Di Provinsi Aceh. *Jurnal Ilmiah Mahasiswa Ekonomi Pembangunan (JIM EKP)*, 6(1), 1–13.
- Scharkow, M., & Vogelgesang, J. (2011). Measuring the public agenda using search engine queries. *International Journal of Public Opinion Research*, 23(1), 104–113. <https://doi.org/10.1093/ijpor/edq048>
- Simanjuntak, P. J. (1998). *Pengantar Ekonomi Sumber Daya Manusia* (Kedua). Lembaga Penerbit Fakultas Ekonomi UI.
- Simanjuntak, P. J. (2003). *Produktivitas Kerja Pengertian dan Ruang Lingkupnya*. Prisma.
- Simionescu, M., & Cifuentes-Faura, J. (2021). Can unemployment forecasts based on Google Trends help government design better policies? An investigation based on Spain and Portugal. *Journal of Policy Modeling*, 44(1), 1–21. <https://doi.org/10.1016/j.jpolmod.2021.09.011>
- Simionescu, M., & Cifuentes-Faura, J. (2022). Forecasting National and Regional Youth Unemployment in Spain Using Google Trends. *Social Indicators Research*, 164(3), 1187–1216. <https://doi.org/10.1007/s11205-022-02984-9>
- Smith, P. (2016). Google’s MIDAS Touch: Predicting UK Unemployment with Internet Search Data. *Journal of Forecasting*, 35(3), 263–284. <https://doi.org/10.1002/for.2391>
- Smola, A. J., & Schölkopf, B. (2004). A tutorial on support vector regression. In *Statistics and Computing* (Vol. 14, Issue 3). <https://doi.org/10.1023/B:STCO.0000035301.49549.88>
- StatCounter. (2017). *Search engine market share worldwide*.
- Stephens-Davidowitz, S., & Varian, H. (2014). A Hands-on Guide to Google Data. *Google*. <http://cran.r-project.org/web/packages/bsts/>



- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta, CV.
- Sujarweni, V. W. (2014). *Metode Penelitian: Lengkap, Praktis, dan Mudah Dipahami*. Yogyakarta: Pustaka Baru Press.
- Sukirno, S. (1994). *Pengantar Ekonomi Makro*. PT. Raja Grasindo Persada.
- Sukirno, S. (2008). *Mikroekonomi: Teori Pengantar*. PT. Raja Grafindo Persada.
- Sullivan, D. (2016). *Google Now Handles at Least 2 Trillion Searches per Year*. Srach Engine Lane.
- Varian, H. R. (2014). Big data: New tricks for econometrics. *Journal of Economic Perspectives*, 28(2), 3–28. <https://doi.org/10.1257/jep.28.2.3>
- Vicente, M. R., López-Menéndez, A. J., & Pérez, R. (2015). Forecasting unemployment with internet search data: Does it help to improve predictions when job destruction is skyrocketing? *Technological Forecasting and Social Change*, 92, 132–139. <https://doi.org/10.1016/j.techfore.2014.12.005>
- Vosen, S., & Schmidt, T. (2011). Forecasting private consumption: Survey-based indicators vs. Google trends. *Journal of Forecasting*, 30(6), 565–578. <https://doi.org/10.1002/for.1213>
- Wang, X., Hyndman, R. J., Li, F., & Kang, Y. (2023, October 1). Forecast combinations: An over 50-year review. *International Journal of Forecasting*, 39(4), 1518–1547. <https://doi.org/10.1016/j.ijforecast.2022.11.005>
- We Are Social, & Hootsuite. (2019, November 20). *Indonesian Digital Report 2019*. We Are Social & Hootsuite.
- Widyarsi, L., & Usman, H. (2021). Penggunaan Data Google Trends untuk Peramalan Tingkat Pengangguran Terbuka di Tingkat Nasional dan

Regional di Provinsi Jawa Barat. *Seminar Nasional Official Statistics, 2021(1)*. <https://doi.org/10.34123/semnasoffstat.v2021i1.842>

Wijnhoven, F., Bruijin, N. De, & Effing, R. (2023). Google Trends Forecasting: Model re-specification of time series for enhancing forecasts of youth unemployment. *Research Square*.

Windasari, W. (2022). Eksplorasi Indeks Google Trends pada Pemodelan Data Time Series. *Jurnal Riset Dan Aplikasi Matematika, 06(02)*, 204–215.

Woo, J., & Owen, A. L. (2019). Forecasting private consumption with Google Trends data. *Journal of Forecasting, 38(2)*, 81–91. <https://doi.org/10.1002/for.2559>

Yusuf Kamal, F., Indryan Sari, M., Fan Ghul Udzan Utami, M., & Kartiasih, F. (2024). *Equilibrium: Jurnal Penelitian Pendidikan dan Ekonomi* **PENGGUNAAN REMOTE SENSING DAN GOOGLE TRENDS UNTUK ESTIMASI PRODUK DOMESTIK BRUTO INDONESIA. 21, 2**. <https://journal.uniku.ac.id/index.php/Equilibrium>

Zhu, J. J. H., Wu, L., Wang, X., & Qin, J. (2012). Assessing Public Opinion Trends based on User Search Queries: Validity, Reliability, and Practicality. *The Annual Conference of the World Association for Public Opinion Research*. <https://www.researchgate.net/publication/265946891>