Mansi Gupta

Research Scholar

Guru Gobind Singh Indraprastha University, India

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After completing my Bachelors from Jesus and Mary College, Delhi University, I did my Masters in Financial Markets from Guru Gobind Singh Indraprastha University, India. I am in the final year of my PhD in the field of 'Financial Well-being and Human Happiness". My field of interest is interdisciplinary including financial markets, green finance and investments, behavioral economics, sustainable and responsible business with the focus of emerging markets. After my PhD, I wish to settle down for a career in mainstream academics, which shall also contribute to the betterment of the people and the society on the whole.

Qualifications

- Matric: Modern School, Barakhamba Road, New Delhi (2008-09)
- Bachelor of Arts Programme in Mathematics with Business Data Processing: Jesus and Mary College, Delhi University, New Delhi (2009-12)
- Masters of Business Administration in Financial Markets: Guru Gobind Singh Indraprastha University, Dwarka, New Delhi (2012-14)
- UGC-NET Qualified
- PhD (Topic A Study of Relationship between Financial Well-being and Human Happiness in India): Guru Gobind Singh Indraprastha University, Dwarka, New Delhi (2018-currently)
 - Completed with Pre-PhD presentation, Viva-voice remains

Papers Published

- Bansal, S., Garg, I., Jain, M., Yadav, A. (2022). Improving the Performance/Competency of Small and Medium Enterprises through Intellectual Capital. Accepted at *Journal of Intellectual Capital (Impact Factor 7.198, ABDC Listed and Indexed in Scopus and WoS)*
- Sharma, G.D., Sarker, T., Talan, G., Rao A., Jain, M. (2021). Revisiting conventional and green finance spillover in post-COVID world: Evidence from robust econometric models. *Global Finance Journal (ABDC Listed and Indexed in Scopus)*
- Jain, M., Sharma, G. D., Goyal, M., Kaushal, R., & Sethi, M. (2021). Econometric analysis of COVID-19 cases, deaths, and meteorological factors in South Asia. *Environmental Science and Pollution Research*. (*Impact Factor* 4.223). doi:10.1007/s11356-021-12613-6
- Sharma, G.D., Tiwari, A.K., Talan, G., Jain, M. (2021). Revisiting the sustainable versus conventional investment dilemma in COVID-19 times. *Energy Policy (Impact Factor 6.142)*, 112467
- Sharma, G.D., Tiwari, A.K., Jain, M., Yadav, A., Srivastava, M. (2021). COVID-19 and Environmental Concerns: A Rapid Review. *Renewable and Sustainable Energy Reviews* (*Impact Factor 14.982*), 111239

- Sharma, Gagan Deep Shah, M.I., Shahzad, U., Jain, M. and Chopra, R. (2021), "Exploring the nexus between agriculture and greenhouse gas emissions in BIMSTEC region: The role of renewable energy and human capital as moderators", *Journal of Environmental Management* (*Impact Factor* 6.789), Vol. 297 No. 10, 113316.
- Sharma, G. D., Bansal, S., Yadav, A., Jain, M., & Garg, I. (2021). Meteorological factors, COVID-19 cases, and deaths in top 10 most affected countries: an econometric investigation. *Environmental Science and Pollution Research (Impact Factor – 4.223)*. doi:10.1007/s11356-021-12668-5
- Sharma, G. D., Talan, G., Bansal, S., & Jain, M. (2021). Is there a cost for sustainable investments: evidence from dynamic conditional correlation. *Journal of Sustainable Finance and Investment (Indexed in Scopus and WoS)*, 1–21. doi:10.1080/20430795.2021.1874215
- Sharma, G. D., Kumar, A., Jain, M., Yadav, A., & Erkut, B. (2021). Unconditional and conditional analysis between covid-19 cases, temperature, exchange rate and stock markets using wavelet coherence and wavelet partial coherence approaches. *Heliyon (Indexed in Scopus and WoS)*, e06181. doi:10.1016/j.heliyon.2021.e06181
- Sharma, G. D., Talan, G., & Jain, M. (2020). Policy response to the economic challenge from COVID-19 in India: A qualitative enquiry. *Journal of Public Affairs (ABDC Listed and Indexed in Scopus and WoS)*. doi:10.1002/pa.2206
- Sharma, G. D., Erkut, B., Jain, M., Kaya, T., Mahendru, M., Srivastava, M., ... Singh, S. (2020). Sailing through the COVID-19 Crisis by Using AI for Financial Market Predictions. *Mathematical Problems in Engineering (Impact Factor 1.305)*. doi:10.1155/2020/1479507
- Bansal, S., Jain, M., Garg, I., & Srivastava, M. (2020). Attaining circular economy through business sustainability approach: An integrative review and research agenda. *Journal of Public Affairs (ABDC Listed and Indexed in Scopus and WoS)*, 1–21. doi:10.1002/pa.2319
- Sharma, G. D., Rahman, M. M., Jain, M., & Chopra, R. (2020). Nexus between energy consumption, information and communications technology, and economic growth: An enquiry into emerging Asian countries. *Journal of Public Affairs (ABDC Listed and Indexed in Scopus and WoS)*. doi:10.1002/pa.2172
- Jain, M., Sharma, G. D., & Mahendru, M. (2019). Can I sustain my happiness? A review, critique and research agenda for economics of happiness. *Sustainability (Switzerland, Impact Factor 3.251)*, 11(22). doi:10.3390/su11226375
- Jain, M., Sharma, G. D., & Srivastava, M. (2019). Can sustainable investment yield better financial returns: A comparative study of ESG indices and MSCI indices. *Risks*, (ABDC Listed and Indexed in Scopus and WoS), 7(1), 18–20. doi:10.3390/risks7010015
- Sharma, G. D., Jain, M., Mahendru, M., Bansal, S., & Kumar, G. (2019). Emergence of Bitcoin as an Investment Alternative: A Systematic Review and Research Agenda. *International Journal of Business and Information (Indexed in Scopus and WoS)*, 14(1), 47–84. doi:10.6702/ijbi.201903
- Sharma, G. D., Srivastava, M., & Jain, M. (2017). Revisiting Macroeconomy–Stock Market Relationship During Times of Economic Crisis: A Study of Emerging Markets. *Asia-Pacific Journal of Management Research and Innovation (Indexed in Scopus and WoS)*, 13(1–2), 52–69. doi:10.1177/2319510x18767713

• Sharma, G. D., & Gupta, M. (2015). Does the pre-open auction market improve efficiency of price discovery in stock markets? Evidence from India. *Indian Journal of Finance (ABDC Listed and Indexed in Scopus)*, 9(11), 19–32. doi:10.17010/ijf/2015/v9i11/81127

Conference Proceedings

- Bansal, S., Jain, M., Garg, I., Singh, S. (2021). Does COVID-19 call for pressing the reset button for CSR? Reflections from the literature. In Corporate Social Responsibility Research Conference (CRRC) Scientific Committee
- Sharma, G., Jain, M., & Chopra, R. (2021). "Correlational Research of Google Trends Data and Indian Stock Market Returns: Evidence for Predictability using Cointeration and Qunatile Regression Approach". At the *International Conference on Sustainable Development: Challenges, Opportunities and the Future*", Rajagiri School of Enginnering and Technology, Kochi
- Sharma, G., Jain, M., & Chopra, R. (2020). The Dynamics of Energy Consumption, Economic Performance and Carbon Emissions: A Study of BIMSTEC Countries. In *British Academy of Management*. In the Cloud
- Sharma, G., Jain, M., & Chopra, R. (2020). Impact of Google Trends Data on Stock Prices and Volatility in India. In *British Academy of Management*. In the Cloud
- Jain, M., Sharma, G., & Chopra, R. (2020). 'Information and Communication Technology, Energy consumption and Economic Growth'. In *Indian Academy of Management*. IIM Tiruchirappalli
- Sharma, G., Talan, G., & Jain, M. (2019). 'Does Sustainability Come at a Cost? An Empirical Enquiry into Conditional Correlation and Volatility of Sustainable Indexes and Traditional Indexes'. In *Australia and New Zealand Academy of Management*, Conference, Australia
- Srivastava, M., Garg, I., & Jain, M. (2019). 'Attaining Sustainable Development through Circular Economy: A Systematic Review and Research Agenda'. In *International Conference on Knowledge and Policy for Sustainable Development: Global Lessons and Local Challenges*. GGSIPU. Delhi
- Sharma, G. & Jain, M. (2019) "Crowdfunding for Entrepreneurs: A Review, Critique and Research Agenda". In *British Academy of Management* (BAM) Conference, Birmingham, UK
- Sharma, G. & Jain, M. (2018) "Economics of Happiness A systematic review and research agenda". In *British Academy of Management* (BAM) Conference, Bristol, UK

Papers Presented

- Paper titled "Can sustainable investment yield better financial returns: A comparative study of ESG indices and MSCI indices" presented at *International Conference on Innovative Entrepreneurship in times of Digitization*, 2019, Chandigarh University, Chandigarh
- Jain, M, & Sharma, G., (2019). Can Economics Help Attain Happiness: An Extensive Review and Research Agenda. In *Doctoral Symposium* at *British Academy of Management*. Birmingham, UK
- Paper titled "Economics of Happiness A Systematic Literature Review and Research Agenda", at the *International Doctoral Consortium 2018* by Academy of Management, held at the Birla Institute of Management Technology, Delhi

Papers Communicated

- Paper titled "Is it all about Money Honey? Analyzing and Mapping Financial Well-Being Research and Identifying Future Research Agenda" is under review with Journal of Business Research
- Paper titled "Resolving energy poverty for social change: Research directions and agenda" is under review with Technological Forecasting & Social Change
- Paper titled "Bibliometric Analysis on Racism and Ethnicity Angles of Energy Use" is communicated to the Technological Forecasting & Social Change
- Paper titled "Transitioning green finance from theory to practice for renewable energy development" is communicated to the Renewable Energy
- Paper titled "Improving the Competence of Small Businesses through Intellectual Capital" is under review with Journal of Intellectual Capital
- Paper titled "Can Indigenous Organizations help attain Sustainable Development Goals: Directions from the Literature" is communicated to Journal of Cleaner Production
- Paper titled "The past, present, and future of Corporate Entrepreneurship research: A CTMO Approach" is under review with European Management Review
- Paper titled "Energy-Growth Nexus for 'Renewable Energy Country Attractiveness Index'
 Countries: Evidence from new econometric methods', is under review with Renewable Energy
- Paper titled "Can Google trends data help predict stock returns: Evidence from India" is under review with Financial Innovation

Workshops and Webinars

Organized & Co-ordinated

- Conducted a session as one of the key resource persons to a PhD workshop titled "Sustainable and Responsible Business SIG Wellbeing in Business Research and Methodologies in Practice", in collaboration with the **British Academy of Management**, UK
- Two International webinars in collaboration with the **Academy of Management**, US, discussing the global impact of Covid-19 pandemic outbreak on the economy, society and education sector
- Conducted session as a key resource person to a two-week international online workshop on 'Panel Data Analytics' organized by Sri Aurobindo College of Commerce and Management (SACCM), India
- Two days workshop on Academic Writing organized by Kurukshetra University
- Coordinator at the International Conference on Knowledge and Policy for Sustainable Development: Global Lessons and Local Challenges, organized by Directorate of International Affairs, Guru Gobind Singh Indraprastha University, New Delhi, India from 25th-27th September, 2019

Attended

- Attended 5 Days Online FDP on 'Data Analysis using SPSS' organized by the AICTE Training and Learning (ATAL) Academy
- Attended an e-workshop on Publishing in Academy of Management Discoveries organized by the BML Munjal University, India
- Attended 10 Day Ethnography workshop for research scholars, 11th-22nd May, 2019 at Dr B. R. Ambedkar University, Delhi
- Attended International Professional Development Workshop (IPDW) on "Alternative Paradigms in Economy: Coping Inequality, Promoting Social Change", organized by Guru Gobind Singh Indraprastha University from 23rd-24th September, 2019
- Completed Web of Science Basic and Advance Series Certification, and Research Academy Module Online
- Completed Certificate Course in Portfolio Management from YMCA, New Delhi

Academic Engagements

- Serve as a Reviewer for *Reviews*, Science Publishing Group, New York, USA
- Assistant Editor for the book titled "Contemporary issues in South Asia" by NOVA publishers
- Member of the Early Career Scholars Committee, Critical Management Studies (CMS) Division of the Academy of Management
- PhD Representative for Sustainable and Responsible Business track at British Academy of Management, UK
- Doctor/ Ph.D. membership of Institut De Diplomatie Publique, UK
- Reviewed for
 - ABDC listed and WoS indexed journals including Journal of Public Affairs, World Review
 of Entrepreneurship, Management and Sustainable Development (WREMSD), Frontiers
 Psychology, Cogent Economics and Finance, Cogent Business and Management, Journal of
 Asia Pacific Economy, Inderscience Publishers, and
 - International Conferences organized by Academy of Management, US and British Academy of Management, UK
- Have the experience of working with national and international teams (members from India, Germany, Cyprus and North America) on various research projects

International Project

- Selected for student mobility program to study at Cracow University of Economics (CUE), Cracow, Poland during the summer semester of the academic year 2020-21, under the bilateral agreement (Erasmus KA+107 program) signed between Cracow University of Economics and Guru Gobind Singh Indraprastha University
- As part of the Indo-German team working on the joint project titled "Plasticity Options for Financial Decision Making- Theory and Experimental Evidence" sponsored by German Academic Exchange Service (DAAD), the Federal Ministry of Education and Research

(BMBF) and the Excellence Initiative (Technische Universitat, Dresden) under the "great!ipid4all" program, I visited Technische Universitat, Dresden (Germany) for research stay from 8th November 2018 through 13th November 2018, and have also authored a paper titled – "Sailing through the COVID19 crisis by using AI for Financial Market Predictions" under the same project, which is published with Hindawi journal of Mathematical Problems in Engineering.

Teaching Experience

Organization: Guru Gobind Singh Indraprastha University

- Held lectures on 'Entrepreneurial Finance' for Post-Graduate Diploma in Entrepreneurship and Start-Ups, for July-December 2021 session
- Held lectures on Corporate Tax Planning for Masters of Business Administration, for July-December, 2019 session
- Held lectures on "Mendeley Reference Manager Software" and on "Writing Literature Reviews" as part of the Research Methodology Course to the second-year management students
 - Created and maintained a welcoming, friendly, engaging, and nurturing classroom environment where all students felt comfortable
 - Developed rigorous presentations and lectures and prepared students for quizzes and tests
 - Graded papers, lessons, tests, quizzes and other assignments relaying information to school board when necessary
 - Assisting with student recruitment, interviews, and academic counseling sessions
 - Encourage the development of innovative approaches to course design and delivery and ensured that teaching design and delivery comply with the quality and educational standards of the institute

Work Experience

Organization: Evalueserve.com Pvt. Ltd.

Designation: Business Analyst **Duration:** July, 2014 to October, 2015

Project Title: Evalueserve Stock Portfolio Analysis Team

- Reviewing the stock portfolios and the consolidated stock portfolios of the clients, taking into consideration their risk appetite and the returns
- Additionally, worked on ad-hoc projects that involved brief study of the company's financial statements
- Experience of dealing and interacting with clients
- Supervised and trained new employees by showing necessary procedures of the project
- Assisted manager in overall project operations
- Awarded for exceptional commitment towards work and team

Successfully completed Evalueserve's Certified Investment Banking Analyst (CIBA) Program

 Level 1

Summer Internship Project

Organization: SMC Global Securities Pvt. Ltd.

Designation: Research Trainee **Duration:** June, 2013 to August, 2013

Project Title: "Technical Analysis of Gold"

• The project involved conducting a Technical Analysis on the Closing Prices for Gold for the period of 7 months i.e., from 1st Jan'13 to 31st Jul'13. And to analyze the commodity with the help of various candlestick patterns and the line charts.

Technical Skills

- Work on Research Software's Mendeley and RevMan 5.0
- Work on Professional Financial Software Eviews7, Microfit, Minitab, SPSS, Stata and VOSviewer
- Worked on Professional Databases Factset, Bloomberg, World Bank, ScienceDirect and Web of Science

Core Competencies

- Paper and Book Publications
 Student Management
 Teaching and Research
- Module/ Course
 Design
 Conducting Training
 General Administration

Hobbies/Interests

Traveling
 Yoga
 Dancing - Diligent Follower of Michiren Buddhism

Watching movies

Place: New Delhi, India Name: Mansi Gupta



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Energy Policy

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Revisiting the sustainable versus conventional investment dilemma in COVID-19 times

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ARTICLE INFO

Keywords:
Wavelet coherence
Granger-causality
COVID-19
Sustainable investment
Sustainable indexes
Traditional indexes

ABSTRACT

Sustainable living has emerged as the need of the hour for mankind in present times. Practitioners, as well as scholarship in the area, are divided over the comparison of financial returns from sustainable indexes vis-à-vis conventional indexes, causing investors' dilemma. These questions loom larger during the times of global crises, such as COVID-19, which have brought sustainability concerns to the limelight. This dilemma of the investors leads us to approach the study on hand. We study the Thomson Reuters/S-Network global indexes (as a proxy for sustainability-based indexes), and their corresponding alternatives, using the daily closing prices from 1st January 2011 to 29th June 2020. We apply the time-frequency-based Granger-Causality test, and further attempt to understand the coherence between these indexes before and during the COVID-19 period by using the Wavelet Coherence and phase-difference mechanisms. Our results suggest short-run uni-directional causality from sustainable indexes to conventional indexes whereas bi-directional causality in medium and the long-runs. The coherence is particularly stronger at low frequencies, indicating the long-run coherence with sustainable indexes in the lead during COVID-19. The results and conclusions of the study have important implications for different audiences. The portfolio and fund managers can prefer to invest in such markets to avail of higher returns over a longer period.

1. Introduction

The United Nation's adoption of the Sustainable Development Agenda 2030 in September 2015 played a crucial role in broadening the sight of policymakers, practitioners, and researchers. Corporate sustainability concerns have also gained further prominence since then. Opoku and Boachie (2020) conclude that foreign direct investment in the absence of stringent environmental regulations can increase emissions and negatively impact the environment. Green et al. (2017) argues that the corporate sector should include the water, energy, environmental, and food security-related issues in their decision-making process. Stakeholders have started to evaluate companies not only based on growth efficiency but also on corporate sustainability. The consideration of sustainability-related factors by the investors, which began in 1990 with the launch of Morgan Stanley Capital International (MSCI) KLD 400 Social Index, continues to gain momentum in the wake of the Sustainable Development Agenda 2030. Theoretically, a new body of knowledge has emerged in the name of sustainable investing, which studies the investment preferences, trends, and biases towards sustainable indexes vis-à-vis conventional indexes. A recent study by Talan and Sharma (2019) reviews 213 papers and observes that the investment strategy focusing on Environment, Society, and Governance (ESG) approach is central to sustainable investments.

According to GSIA (2018), both actual and relative levels of sustainable investment have risen in almost all markets worldwide, including developing economies in Latin America and Africa. In addition, sustainable investment has witnessed a substantial increase of 34% since 2016 in developed regions like Europe, the US, Japan, Canada, Australia, and New Zealand. ESG integration remains the most common sustainable investment strategy in most of these regions (GSIA, 2018). The rise of sustainable investment paves the way for a shift towards renewable energy and curtailed overall energy consumption. Companies across the world primarily rely on fossil-fuel-based energy. Neufeld (2021) reveal that only 18% of the utility companies are aligned with the UN-SDG of Affordable and Clean Energy. Sustainable investment is instrumental in helping investors decarbonize their returns and invest in

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RESEARCH ARTICLE



Econometric analysis of COVID-19 cases, deaths, and meteorological factors in South Asia

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Abstract

The pandemic has affected almost 74 million people worldwide as of 17 December 2020. This is the first study that attempts to examine the nexus between the confirmed COVID-19 cases, deaths, meteorological factors, and the air pollutant namely PM2.5 in six South Asian countries, from 1 March 2020 to 30 June 2020, using the advanced econometric techniques that are robust to heterogeneity across nations. Our findings confirm (1) a strong cross-sectional dependence and significant correlation between COVID-19 cases, deaths, meteorological factors, and air pollutant; (2) long-term relationship between all the meteorological variables, air pollutant, and COVID-19 death cases; (3) temperature, air pressure, and humidity exhibit a significant impact on the COVID-19 confirmed cases, while COVID-19 confirmed cases and air pollutant PM2.5 have a statistically significant impact on the COVID-19 death cases. In this way, the conclusion that high temperature and high humidity increase the transmission of the COVID-19 infections can also be applied to the regions with greater transmission rates, where the minimum temperature is mostly over 21 °C and humidity ranges around 80% for months. From the findings, it is evident that majority of the meteorological factors and air pollutant PM2.5 exhibit significant negative and positive effects on the number of COVID-19 confirmed cases and death cases in the six countries under study. Air pollutant PM 2.5 provides more particle surface for the virus to stick and get transported longer distances. Hence, higher particulate pollution levels in the air increase COVID-19 transmission in these six South Asian countries. This information is vital for the government and public health authorities in formulating relevant policies. The study contributes both practically and theoretically to the concerned field of pandemic management.

Highlights

- To examine the nexus among the COVID-19 confirmed cases, deaths, meteorological factors, and the air pollutant namely PM2.5 in six South Asian countries, from 1 March 2020 to 30 June 2020, employing advanced econometric techniques
- Strong cross-sectional dependence and significant correlation among COVID-19 cases, deaths, meteorological factors, and the air pollutant
- Temperature air pressure and humidity exhibit a significant impact on the COVID-19 confirmed cases in the six countries
- COVID-19 confirmed cases and air pollutant PM2.5 have a statistically significant impact on the COVID-19 death cases
- Results assist government and public health authorities in formulating the policies for containing, mitigating, and surveillance of COVID-19 in different countries

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Revisting conventional and green finance spillover in post-COVID world: Evidence from robust econometric models

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Keywords: Wavelet coherence Granger-causality COVID-19 Green finance Sustainable indexes Traditional indexes

ABSTRACT

In 2020, ESG funds that invest in companies that score higher on environmental, social, and governance measures witnessed an increase in investment compared to 2019. Understanding the causal relationship and spillover between these two types of indexes may help investors determine if clean energy indexes follow the same trend as conventional indexes or the reverse. Additionally, investors would benefit from understanding this causation in both the pre- and post-Covid-19 eras. We conceive this study to plug this gap and advance the knowledge in this critical area. We study the causality and spillover between NASDAQ clean energy indexes, and their corresponding alternatives namely, NASDAQ Composite Index and NASDAQ Global Select Market Composite using the daily data and from 1 st January 2011 to 29 th June 2021. We apply the Granger-Causality test and the spillover models approach by Diebold and Yilmaz (2012) and Baruník and Křehlík (2018) to determine any medium-run, or long-run causality, and spillover between the indexes under reference, respectively. Our results suggest us to observe that both sustainable and green indexes exhibit bi-directional causality where both sets of indexes impact each other in the long-run. Additionally, after the emergence of the COVID-19 pandemic, the connectivity between the two sets of indices rose significantly. Our findings also suggest that the investors will not lose on risk-adjusted returns if they chose to go green. With the investors' ability to shift towards green investment without losing on financial returns, it shall become even easier for businesses to steer their operations.

1. Introduction

The 2015 Paris Agreement and goals 7 and 13 highlight the vital necessity of switching to clean energy to combat climate change. While substantial progress¹ has been achieved in this direction since then, major challenges remain concerning effective and innovative green finance tools and policies that can deal with the increasing need for green finance. In particular, the development of green finance is crucial to generate appropriate resources in the post-COVID world, as the pandemic has adversely impacted previously planned investments required to meet the Paris Agreement. While green finance instruments have been blossoming in recent years,

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¹ For instance, the G7 advanced economies committed themselves to phase out government subsidies for coal-fired electricity by the end of 2021 (Rooney, 2021).

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COVID-19 and environmental concerns: A rapid review

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ARTICLE INFO

Keywords: COVID-19 Rapid review Pandemic Environment Meteorological factors Air quality Air pollutants

ABSTRACT

COVID-19 has slowed global economic growth and consequently impacted the environment as well. Parallelly, the environment also influences the transmission of this novel coronavirus through various factors. Every nation deals with varied population density and size; air quality and pollutants; the nature of land and water, which significantly impact the transmission of coronavirus. The WHO (Ziaeepour et al., 2008) [1] has recommended rapid reviews to provide timely evidence to the policymakers to respond to the emergency. The present study follows a rapid review along with a brief bibliometric analysis of 328 research papers, which synthesizes the evidence regarding the environmental concerns of COVID-19. The novel contribution of this rapid review is threefold. One, we take stock of the diverse findings as regards the transmission of the novel coronavirus in different types of environments for providing conclusive directions to the ongoing debate regarding the transmission of the virus. Two, our findings provide topical insights as well as methodological guidance for future researchers in the field. Three, we inform the policymakers on the efficacy of environmental measures for controlling the spread of COVID-19.

1. Introduction

The novel coronavirus disease (also known as COVID-19), which emerged from Wuhan, China, in December 2019, has spread all over the world with over 112 million confirmed cases (as of 23rd February 2021) [2]. On the grounds of rising COVID-19 cases worldwide, the World Health Organization declared COVID-19 as a global health emergency on 30 January 2020 [3]. COVID-19 (SARS-CoV-2) is the third highly pathogenic human coronavirus that developed after the Severe Acute Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS). The rapid transmission of the virus is the biggest challenge of COVID-19. Governments worldwide are resorting to measures such as shutdowns, lockdowns, travel restrictions, maintaining social distancing, curbing social gatherings, etc., to control the spread of the virus. Reduction in the economic activities leading to slower global economic growth is the apparent result of these measures. The reduced economic activities lead to lower carbon emissions, improved air quality, low pollution levels, and enhanced ozone layer on the earth [4]. A growing body of evidence suggests that the atmosphere has an effect on the transmission of the novel coronavirus through inanimate surfaces,

owing to meteorological factors such as temperature, humidity, wind speed, and rainfall [5–7]. Emerging literature observes that the speed of transmission of the SARS-CoV-2 is different across the countries due to the variability in air quality and pollutants, the nature of land and water. In this way, a growing literature in the field studies the bi-directional relationship between COVID-19 transmission and environmental conditions.

Since the emergence and acceleration of COVID-19 have led to global pandemic situations, WHO [1] has recommended rapid reviews to provide timely evidence to the policymakers to respond to the emergency. Some rapid reviews have attempted to study the COVID-19 related research [8–11]. However, despite the availability of more than 120 empirical papers investigating the relationship between COVID-19 and the environment, no review on the environmental concerns of COVID-19 is available. Such a review is severely required since the findings of the COVID-19-environmental relationship are inconclusive and need to be synthesized. Such synthesis would not merely contribute theoretically towards the body of knowledge studying the pandemic transmission, but would also be immensely useful for the policymakers in controlling the spread of ongoing and future pandemics.

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Can Sustainable Investment Yield Better Financial Returns: A Comparative Study of ESG Indices and MSCI Indices

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Abstract: 'Sustainable investment'—includes a variety of asset classes selected while caring for the causes of environmental, social, and governance (ESG). It is an investment strategy that seeks to combine social and/ or environmental benefits with financial returns, thus linking investor's social, ethical, ecological and economic concerns Under certain conditions, these indices also help to attract foreign capital, seeking international participation in the local capital markets. The purpose of this paper is to study whether the sustainable investment alternatives offer better financial returns than the conventional indices from both developed and emerging markets. With an intent to maintain consistency, this paper comparatively analyzes the financial returns of the Thomson Reuters/S-Network global indices, namely the developed markets (excluding US) ESG index-TRESGDX, emerging markets ESG index - TRESGEX, US large-cap ESG index - TRESGUS, Europe ESG index -TRESGEU, and those of the usual markets, namely MSCI world index (MSCI W), MSCI All Country World Equity index (MSCI ACWI), MSCI USA index (MSCI USA), and MSCI Europe Australasia Far East index (MSCI EAFE), MSCI Emerging Markets index (MSCI EM) and MSCI Europe index (MSCI EU). The study also focuses on the inter-linkages between these indices. Daily closing prices of all the benchmark indices are taken for the five-year period of January 2013-December 2017. Line charts and unit-root tests are applied to check the stationary nature of the series; Granger's causality model, autoregressive conditional heteroskedasticity (ARCH)-GARCH type modelling is performed to find out the linkages between the markets under study followed by the Johansen's cointegration test and the Vector Error Correction Model to test the volatility spillover between the sustainable indices and the conventional indices. The study finds that the sustainable indices and the conventional indices are integrated and there is a flow of information between the two investment avenues. The results indicate that there is no significant difference in the performance between sustainable indices and the traditional conventional indices, being a good substitute to the latter. Hence, the financial/investment managers can obtain more insights regarding investment decisions, and the study further suggests that their portfolios should consider both the indices with the perspective of diversifying the risk and hedging, and reap benefits of the same. Additionally, corporate executives shall use it to benchmark their own performance against peers and track news as well.

Keywords: sustainability indices; socially responsible investment; index returns; financial markets; ARCH; Johansen's cointegration; VECM

JEL Classifications: G11; G15; G19; Q56; M14

1. Introduction