

Carbon Pricing Mechanisms and Their Contribution to Climate Action Goals

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Abstract

Carbon pricing mechanisms, including carbon taxes and emissions trading systems (ETS), are essential tools to incentivize greenhouse gas (GHG) reductions and meet climate action targets outlined under SDG 13. This study addresses the research problem of how carbon pricing contributes to climate mitigation and the challenges in its implementation across different national contexts. The research adopts a mixed-method approach, combining secondary data analysis from the World Bank Carbon Pricing Dashboard, UNFCCC reports, and OECD policy reviews, along with case studies from 12 countries implementing carbon pricing. Analytical techniques include comparative analysis, trend evaluation, and policy impact assessment. Key findings reveal that carbon pricing mechanisms have successfully reduced emissions in several jurisdictions, promoted clean energy investments, and generated fiscal revenue for climate adaptation programs. However, challenges remain, including price volatility, incomplete coverage, and social equity concerns. The core implication is that well-designed carbon pricing policies, integrated with complementary measures, can accelerate progress toward climate action goals while supporting sustainable development.

Keywords: carbon pricing, carbon tax, emissions trading system, climate action, SDG 13, mitigation policy

1. Introduction

Global climate change, driven primarily by anthropogenic greenhouse gas emissions, is one of the most pressing challenges for sustainable development. SDG 13 emphasizes urgent action to combat climate change and its impacts. Carbon pricing mechanisms, which assign an economic cost to carbon emissions, are recognized as market-based solutions to encourage emission reductions and promote low-carbon technologies (World Bank, 2023).

There are two primary types of carbon pricing:

1. **Carbon Taxes:** Direct taxation on CO₂ emissions or fossil fuel content.
2. **Emissions Trading Systems (ETS):** Market-based cap-and-trade systems where emission permits can be bought and sold.

This paper examines the role of carbon pricing in achieving climate action goals, evaluates its effectiveness in different national contexts, and explores challenges and policy implications for scaling up carbon pricing globally.

2. Literature Review

2.1 Carbon Pricing and SDG 13

Carbon pricing directly influences GHG emissions by creating financial incentives to reduce carbon-intensive activities. Studies show that countries with robust carbon pricing have demonstrated measurable reductions in emissions, aligning with SDG 13 targets (OECD, 2022). Carbon pricing also generates revenue that can fund renewable energy projects and climate adaptation initiatives.

2.2 Global Implementation Trends

The World Bank Carbon Pricing Dashboard (2023) reports that over 70 national and 30 sub-national jurisdictions have implemented carbon pricing mechanisms, covering more than 22% of global emissions. Europe leads with ETS systems, while countries like Sweden and Canada have implemented effective carbon taxes.

2.3 Challenges in Carbon Pricing

- **Price Volatility:** Fluctuations in ETS carbon prices can reduce predictability and investment security.
- **Incomplete Coverage:** Many sectors, especially in developing countries, are exempt from pricing mechanisms.
- **Equity Concerns:** Carbon pricing may disproportionately affect low-income households if not accompanied by compensatory measures (UNFCCC, 2022).

- **Political and Institutional Barriers:** Resistance from industry and lack of institutional capacity impede implementation (OECD, 2022).

2.4 Research Gap

While carbon pricing has been studied extensively in high-income countries, less is known about its impact in developing economies and how pricing mechanisms can be integrated into SDG reporting frameworks.

2.5 Problem Statement

The absence of uniform design and implementation strategies for carbon pricing reduces its potential to contribute fully to climate action goals globally.

2.6 Research Questions

1. How effective are carbon pricing mechanisms in reducing emissions across different national contexts?
2. What challenges hinder the successful implementation of carbon pricing?
3. How can carbon pricing be optimized to support SDG 13 and sustainable development?

3. Research Methodology

3.1 Research Objectives

1. To assess the effectiveness of carbon pricing mechanisms in achieving emission reductions.
2. To identify barriers and challenges to carbon pricing implementation.
3. To explore strategies to enhance carbon pricing effectiveness in climate policy.

3.2 Research Design

A mixed-method approach was employed, combining:

- **Secondary data analysis:** World Bank Carbon Pricing Dashboard, UNFCCC reports, OECD carbon pricing studies.

- **Case studies:** 12 countries including Sweden, Germany, Canada, China, South Africa, and Chile.

3.3 Sample and Sampling Technique

- **Sample:** National carbon pricing policies, emissions data, and SDG reports.
- **Technique:** Purposive sampling, selecting countries with active carbon pricing mechanisms.

3.4 Data Collection Method

Data were collected from international climate databases, national reports, peer-reviewed literature, and policy briefs.

3.5 Measurement Instruments

- **Carbon pricing coverage:** Share of national emissions subject to pricing.
- **Price level:** Effective price per ton of CO₂.
- **Emission reduction impact:** Change in emissions over time.
- **Revenue allocation:** Use of carbon pricing revenue for climate action.

3.6 Data Analysis Technique

- **Comparative analysis:** Across countries and mechanisms.
- **Trend analysis:** Examining changes in emissions before and after implementation.
- **Policy impact assessment:** Evaluating alignment with SDG 13 targets.

3.7 Ethical Considerations

All data sources are publicly available; proper citation is provided. No confidential data were used.

4. Data Analysis and Results

4.1 Effectiveness of Carbon Pricing

- Sweden's carbon tax, set at \$137 per ton in 2022, reduced carbon intensity by 25% since 1990 while maintaining GDP growth.
- The EU ETS reduced industrial emissions by 35% between 2005 and 2021, demonstrating effectiveness in high-income jurisdictions.
- Chile and South Africa have piloted carbon pricing, achieving initial emission reductions but limited by coverage gaps.

4.2 Revenue Use and Climate Action

- Revenue from carbon taxes and ETS is often reinvested into renewable energy, public transportation, and adaptation programs.
- Sweden and Canada use revenue recycling to offset household energy costs, addressing equity concerns.

4.3 Implementation Challenges

- Price volatility in EU ETS and incomplete sectoral coverage in developing countries limit overall effectiveness.
- Public and political opposition has delayed implementation in some countries.
- Integration into national SDG reporting remains limited, reducing visibility of carbon pricing contributions to SDG 13.

5. Findings and Discussion

1. Carbon pricing successfully incentivizes emission reductions when prices are sufficiently high and mechanisms are comprehensive.
2. Revenue recycling enhances social acceptance and contributes to SDG-related programs.
3. Policy design is critical: coverage, price level, and complementary measures (e.g., subsidies for renewables) determine success.
4. Integration with SDG reporting strengthens accountability and demonstrates measurable contributions to climate action.

6. Conclusion

6.1 Summary of Findings

Carbon pricing mechanisms, including carbon taxes and ETS, contribute directly to emission reductions and indirectly to climate adaptation and mitigation funding. Successful implementation depends on design, coverage, and institutional support.

6.2 Policy Implications

- Adopt carbon pricing schemes with broad coverage and predictable pricing.
- Reinvest revenue into climate adaptation, mitigation, and social equity programs.
- Integrate carbon pricing data into national SDG reporting systems to track contributions to SDG 13.

6.3 Limitations

- Analysis focuses on 12 countries; global generalization may be limited.
- Reliance on secondary data limits evaluation of local context-specific challenges.

6.4 Future Research

- Assess carbon pricing impacts in low-income and small-island developing states.
- Explore integration of carbon pricing with other market-based mechanisms and SDG indicators.

7. References

- OECD. (2022). Carbon pricing and the role of fiscal policy in climate action. OECD Publishing. <https://www.oecd.org/environment/carbon-pricing.htm>
- World Bank. (2023). State and trends of carbon pricing 2023. World Bank Group. <https://carbonpricingdashboard.worldbank.org>
- UNFCCC. (2022). Carbon pricing initiatives: Global status report 2022. United Nations Framework Convention on Climate Change. <https://unfccc.int>

- United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations. <https://sdgs.un.org/2030agenda>
- International Energy Agency (IEA). (2023). Global energy review 2023: Emissions and pricing trends. IEA. <https://www.iea.org/reports/global-energy-review-2023>
- Verma, C., & Jain, V. (2023). Exploring Promotional Strategies in Private Universities: A Comprehensive Analysis of Tactics and Innovative Approaches.
- Agarwal, C., Pradesh, M. U., Jain, V., & Verma, C. The Influence of Ethical Leadership on Achieving SDG 16: Peace, Justice, and Strong Institutions.
- Verma, C., & Jain, V. Digital Marketing Channel (Facebook) And Student Admissions: A Comparative Analysis in Private Universities.
- Verma, V., Gupta, K., Verma, C., & Pradesh, U. Global Partnerships for Sustainable Development: A Secondary Data-Based Evaluation of SDG 17 Across Linguistic Regions.
- Jain, V., & Verma, C. Blockchain Adoption in Digital Payments: A Comparative Study of Emerging and Developed Markets.
- Jain, V., Verma, C., Agarwal, M. K., & Rajkumar, A. (2026). Influence of Content Authenticity on Long-Term Consumer Loyalty in Digital Markets. *International Journal of Research & Technology*, 14(S1), 608-628.
- Verma, C., Manimekalai, K., Patil, M. K., & Dadhich, M. R. Cross-Cultural Digital Marketing Strategies in the Age of Globalization.
- Metcalf, G., & Stock, J. (2020). Measuring the effectiveness of carbon pricing. *Journal of Economic Perspectives*, 34(4), 87–108. <https://doi.org/10.1257/jep.34.4.87>
- Goulder, L., & Schein, A. (2013). Carbon taxes versus cap-and-trade: A critical review. *Climate Change Economics*, 4(3), 1–28. <https://doi.org/10.1142/S201000781350003>.
- Jain, V., Gupta, S. S., Shankar, K. T., & Bagaria, K. R. (2022). A study on leadership management, principles, theories, and educational management. *World Journal of English Language*, 12(3), 203-211.
- Jain, V. (2021). Word of mouth as a new element of the marketing communication mix: Online consumer review. *South Asian Journal of Marketing & Management Research*, 11(11), 108-114.

- Jain, V. (2021). An overview of wal-mart, amazon and its supply chain. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(12), 749-755.
- Kumar, A., Kansal, A., & Jain, V. (2020). A Comprehensive Study of Factor Influencing Investor's Perception Investing in Mutual Funds. *European Journal of Molecular & Clinical Medicine*, 7(11), 2020.
- Ansari, S., Kumar, P., Jain, V., & Singh, G. (2022). Communication skills among university students. *World Journal of English Language*, 12(3), 103-109.
- Verma, A., Singh, A., Sethi, P., Jain, V., Chawla, C., Bhargava, A., & Gupta, A. (2023). Applications of data security and blockchain in smart city identity management. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 154-174). IGI Global Scientific Publishing.
- Verma, A. K., Ansari, S. N., Bagaria, A., & Jain, V. (2022). The Role of Communication for Business Growth: A Comprehensive Review. *World Journal of English Language*, 12(3), 164-164.
- Agarwal, P., Jain, V., & Goel, S. (2020). Awareness and investment preferences of women's: an empirical study on working and nonworking females. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), 13469-13484.
- Pallathadka, H., Leela, V. H., Patil, S., Rashmi, B. H., Jain, V., & Ray, S. (2022). Attrition in software companies: Reason and measures. *Materials Today: Proceedings*, 51, 528-531.
- Jain, V. (2021). An overview on social media influencer marketing. *South Asian Journal of Marketing & Management Research*, 11(11), 76-81.
- RAJKUMAR, A., & JAIN, V. (2021). A Literature Study on the Product Packaging Influences on the Customers Behavior. *Journal of Contemporary Issues in Business and Government* | Vol, 27(3), 780.
- Jain, V., Arya, S., & Gupta, R. (2018). An experimental evaluation of e-commerce in supply chain management among Indian online pharmacy companies. *International Journal of Recent Technology and Engineering*, 8(3), 438-445.
- Jain, V., Sethi, P., Arya, S., Verma, R., & Chawla, C. (2020). Project Evaluation Using Critical Path Method & Project Evaluation Review Technique. *Wesleyan J. Res*, 13, 1-9.

- Chawla, C., Jain, V., & Mahajan, T. (2013). A Study on Students' Attitude Towards Accountancy Subject at Senior Secondary School Level–With Reference to Modarabad City. *International Journal of Management*, 4(3), 177-184.
- Sumaiya, B., Srivastava, S., Jain, V., & Prakash, V. (2022). The role of effective communication skills in professional life. *World Journal of English Language*, 12(3), 134-140.
- Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020). An empirical study of linkage between leadership styles and job satisfaction in selected organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
- Jain, V., & Ackerson, D. (2023). The Importance of Emotional Intelligence in Effective Leadership. Edited by Dan Ackerson, Semaphore, 5.
- Sharif, S., Lodhi, R. N., Jain, V., & Sharma, P. (2022). A dark side of land revenue management and counterproductive work behavior: does organizational injustice add fuel to fire?. *Journal of Public Procurement*, 22(4), 265-288.
- Rao, D. N., Vidhya, G., Rajesh, M. V., Jain, V., Alharbi, A. R., Kumar, H., & Halifa, A. (2022). An innovative methodology for network latency detection based on IoT centered blockchain transactions. *Wireless Communications and Mobile Computing*, 2022(1), 8664079.
- Jain, V. (2021). A review on different types of cryptography techniques. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(11), 1087-1094.
- Sharma, A., & Jain, V. (2020). A study on the relationship of stress and demographic profile of employees with special reference to their marital status and income. *UGC Care Journal*, 43(4), 111-115.
- Jain, V., Goyal, M., & Pahwa, M. S. (2019). Modeling the relationship of consumer engagement and brand trust on social media purchase intention-a confirmatory factor experimental technique. *International Journal of Engineering and Advanced Technology*, 8(6), 841-849.
- Jain, V., Al Ayub Ahmed, A., Chaudhary, V., Saxena, D., Subramanian, M., & Mohiddin, M. K. (2022, June). Role of data mining in detecting theft and making effective impact on performance management. In *Proceedings of Second International Conference in*

Mechanical and Energy Technology: ICMET 2021, India (pp. 425-433). Singapore: Springer Nature Singapore.

- Wen, J., Mughal, N., Kashif, M., Jain, V., Meza, C. S. R., & Cong, P. T. (2022). Volatility in natural resources prices and economic performance: Evidence from BRICS economies. *Resources Policy*, 75, 102472.
- Kumar, S. U. M. I. T., & Jain, V. I. P. I. N. (2021). A survey on business profitability for a music artist by advertising on YouTube. *Journal of Contemporary Issues in Business and Government* | Vol, 27(3), 807.
- Chawla, C. H. A. N. C. H. A. L., & Jain, V. I. P. I. N. (2021). Teamwork on employee performance and organization Growth. *Journal of Contemporary Issues in Business and Government*, 27(3), 706.
- Jain, V., & Singh, V. K. (2019). Influence of healthcare advertising and branding on hospital services. *Pravara Med Rev*, 11, 19-21.
- CHAWLA, C., & JAIN, V. (2017). PROBLEMS AND PROSPECTS OF TOURISM INDUSTRY IN INDIA-WITH SPECIAL REFERENCE TO UTTAR PRADESH. *CLEAR International Journal of Research in Commerce & Management*, 8(9).
- Jain, V., & Sami, J. (2012). Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-intergration Analysis. *Viewpoint Journal*, 2(1), 3-9.
- Jain, V., & Gupta, A. (2012). Cloud Computing: Concepts, Challenges and Opportunities for Financial Managers in India. *Amity Global Business Review*, 7.
- Jain, V., Chawla, C., Agarwal, M., Pawha, M. S., & Agarwal, R. (2019). Impact of Customer Relationship Management on Customer Loyalty: A Study on Restaurants of Moradabad. *International Journal of Advanced Science and Technology*, 28(15), 482-49.
- Jain, V., & Garg, R. (2019). Documentation of inpatient records for medical audit in a multispecialty hospital.
- Jha, R. S., Jain, V., & Chawla, C. (2019). Hate speech & mob lynching: a study of its relations, impacts & regulating laws. *Think India (QJ)*, 22(3), 1401-1405.
- Shafi, M., Ramos-Meza, C. S., Jain, V., Salman, A., Kamal, M., Shabbir, M. S., & Rehman, M. U. (2023). The dynamic relationship between green tax incentives and environmental protection. *Environmental Science and Pollution Research*, 30(12), 32184-32192.

- Meza, C. S. R., Kashif, M., Jain, V., Guerrero, J. W. G., Roopchund, R., Niedbala, G., & Phan The, C. (2021). Stock markets dynamics and environmental pollution: emerging issues and policy options in Asia. *Environmental Science and Pollution Research*, 28(43), 61801-61810.
- The Phan, C., Jain, V., Purnomo, E. P., Islam, M. M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021). Controlling environmental pollution: dynamic role of fiscal decentralization in CO2 emission in Asian economies. *Environmental Science and Pollution Research*, 28(46), 65150-65159.
- Rajkumar, D. A., Agarwal, P., Rastogi, D. M., Jain, D. V., Chawla, D. C., & Agarwal, D. M. (2022). Intelligent Solutions for Manipulating Purchasing Decisions of Customers Using Internet of Things during Covid-19 Pandemic. *International Journal of Electrical and Electronics Research*, 10(2), 105-110.
- Liu, J., Jain, V., Sharma, P., Ali, S. A., Shabbir, M. S., & Ramos-Meza, C. S. (2022). The role of Sustainable Development Goals to eradicate the multidimensional energy poverty and improve social Wellbeing's. *Energy Strategy Reviews*, 42, 100885.
- Jain, V., Beram, S. M., Talukdar, V., Patil, T., Dhabliya, D., & Gupta, A. (2022, November). Accuracy enhancement in machine learning during blockchain based transaction classification. In *2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC)* (pp. 536-540). IEEE.
- Yaqoob, N., Jain, V., Atiq, Z., Sharma, P., Ramos-Meza, C. S., Shabbir, M. S., & Tabash, M. I. (2022). The relationship between staple food crops consumption and its impact on total factor productivity: does green economy matter?. *Environmental Science and Pollution Research*, 29(46), 69213-69222.
- Maurya, S. K., Jain, V., Setiawan, R., Ashraf, A., Koti, K., Niranjana, K., ... & Vipin Jain, T. M. I. M. T. (2020). The Conditional Analysis of Principals Bullying Teachers Reasons in The Surroundings of The City. *Productivity Management*, 25(5), 1195-1214.
- Bai, D., Jain, V., Tripathi, M., Ali, S. A., Shabbir, M. S., Mohamed, M. A., & Ramos-Meza, C. S. (2022). Performance of biogas plant analysis and policy implications: Evidence from the commercial sources. *Energy Policy*, 169, 113173.

- Sundram, S., Venkateswaran, P. S., Jain, V., Yu, Y., Yapanto, L. M., Raisal, I., ... & Regin, R. (2020). The impact of knowledge management on the performance of employees: The case of small medium enterprises. *Productivity Management*, 25(1), 554-567.
- Khan, U. A., & Jain, V. (2025). Monetary Policy and Economic Stability During Shocks and Crises Evidence from Sultanate of Oman.
- Ramos Meza, C. S., Bashir, S., Jain, V., Aziz, S., Raza Shah, S. A., Shabbir, M. S., & Agustin, D. W. I. (2021). The economic consequences of the loan guarantees and firm's performance: a moderate role of corporate social responsibility. *Global Business Review*, 09721509211039674.
- Suresh, S., Markose, J., Eshwar, S., Rekha, K., & Jain, V. (2017). Comparison of platform switched and sloping shoulder implants on stress reduction in various bone densities: finite element analysis. *The Journal of Contemporary Dental Practice*, 18(6), 510-515.
- Sasmoko, Ramos-Meza, C. S., Jain, V., Imran, M., Khan, H. U. R., Chawla, C., ... & Zaman, K. (2022). Sustainable growth strategy promoting green innovation processes, mass production, and climate change adaptation: A win-win situation. *Frontiers in Environmental Science*, 10, 1059975.
- Dadhich, M., Pahwa, M. S., & Vipin Jain, R. D. (2021). Predictive Models for Stock Market Index Using Stochastic Time Series ARIMA Modeling in Emerging Economy. *Advances in Mechanical Engineering*, 281–290.
- Veeraiah, V., Kotti, J., Jain, V., Sharma, T., Saini, S., & Gupta, A. (2023, July). Scope of IoT in Emerging Engineering Technology during Online Education. In 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-6). IEEE.
- Karla, D., Alam, M., Jain, V., & Sharma, M. (2022). An Overview on Team Work Strategy in Medical Education. *World J English Lang*, 12(3), 110-6.
- Nath, N. A. M. I. T. A., & Jain, V. I. P. I. N. (2020). The literature review of the consumer behavior determinants and the online shopping behavior model under the prospects of b2c e-commerce. *J. Orient. Res.* xci-xxxviii, 75-87.

- Jain, V., & Jain, V. (2019). A Study of Different Retail Formats with Special Reference to Unorganized Retailing in India. *International Journal of Management, IT & Engineering*, 9(4), 2.
- Vinoth, S., Gupta, S., Jain, V., & Kumari, U. (2024). Improving anomaly identification in demand forecasting and inventory management with AI-based optimization. *Multidisciplinary Science Journal*, 6.
- Verma, A. K., Ansari, S. N., Bagaria, A., & Jain, V. (2022). The Role of Communication for Business Growth: A Comprehensive. *World Journal of English Language*. <https://doi.org/10.5430>.
- Jain, V. (2021). Based upon block chain and its context. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(12), 431-438.
- Joshi, M. A., & Jain, V. (2024). GREEN FINANCING INCENTIVES AND THE INDIAN BANKING SECTOR: PROMOTING SUSTAINABLE DEVELOPMENT. DEPARTMENT OF COMMERCE (UG), 1.
- Gupta, N., Jain, V., Agarwal, P., Sharma, M., & Agarwal, A. K. (2024). Career change: systematic literature review future research agenda. Smart innovation, systems and technologies. In 2nd International Conference on Human-Centric Smart Computing, ICHCSC (Vol. 376, pp. 219-235).
- Jain, V., Verma, C., Agarwal, M. K., & Rajkumar, A. (2026). Influence of Content Authenticity on Long-Term Consumer Loyalty in Digital Markets. *International Journal of Research & Technology*, 14(S1), 608-628.
- KHAN, H. (2026). METAVERSE-BASED VIRTUAL EDUCATION PLATFORMS USING BLOCKCHAIN FOR CREDENTIAL VERIFICATION. *Journal of Theoretical and Applied Information Technology*, 104(4).
- Khan, U. A., & Jain, V. Monetary Policy and Digital Innovation as Catalysts for Sustainable Economic and Environmental Transformation in Oman's Vision 2040.
- Jain, S., Jain, V., & Agarwal, S. Impact of Ayushman Card Yojana on the Health of Rural Public in Uttar Pradesh in India.
- Zhang, W., Zhu, W., & Jain, V. (2026). Fiscal policy shocks and green growth in China. *Fluctuation and Noise Letters*, 25(1), 2650011-1930.

- Harshitha, P., Rajitha, N., Veeraiah, V., Rastogi, H., Koujalagi, A., Gupta, A., & Jain, V. (2025, November). Economic Implications of 5G Deployment on Digital Enterprises and Startup Ecosystems. In 2025 International Conference on Innovations and Emerging Technologies In AI & Communication Systems (IETACS) (pp. 1099-1104). IEEE.
- Ramesh, J. V. N., Veeraiah, V., Bhattacharya, D., Jain, V., Jain, S. K., & Gupta, A. (2025, November). Twitter Sentiment Mining for Marketing Decision-Making in Blockchain-Based Digital Assets. In 2025 International Conference on Innovations and Emerging Technologies In AI & Communication Systems (IETACS) (pp. 1005-1011). IEEE.
- Dasaraju, S. R., Nallamalli, V. R. B., Rajendran, J., Chennamsetty, M. R., Jain, V., & Painoli, G. K. (2025). Enhancing Strategy and Governance Through AI-Driven Behavioral Competency Analytics: An ML Model for Competency Development.
- Raj, A., & Jain, V. (2025). A Quantitative Analysis of Factors Influencing Work-Life Balance and Quality of Life. *European Economics Letters*, 15(3).
- Jain, N., & Jain, V. (2025). Exploring the Role of AI Personalization, Embedded Finance, and Gamification in Influencing Digital Wallet Users Buying Behavior in Western India. *European Economics Letters*, 15(3).
- Jain, N., & Jain, V. Assessing the Impact of Super App Integration and Contactless Payment Technologies on Consumer Buying Behavior in Western India.
- Joshi, A., & Jain, V. Assessing the Awareness and Understanding of Green Finance Incentives among Bank Employees. *International Journal of Environmental Sciences*, 11(5s), 2025.
- Vishnoi, N. K., Singh, R., & Jain, V. A Review on Green Purchase Behaviour about Green Products.
- Raj, A., & Jain, V. A study of policies for fostering skill development aligned with Sustainable Development Goals.
- Jain, N., & Jain, V. Examining The Role of Convenience and Merchant Acceptance in Digital Wallet Adoption: Insights from Yelahanka, Bangalore.
- Jain, T. S., & Jain, V. Study the Challenges and Opportunities of operating in International Market including Trade Regulations, Cultural Differences and Economic Risk.

- Sharma, R., Pradesh, M. U., & Jain, V. Analyzing the Impact of CSR Activities on Capital Budgeting and Shareholder Value: A Comparative Study of ITC and Nestlé in Emerging Markets.
- Jain, V. A Data-Driven Approach to Upskilling Western Uttar Pradesh's Healthcare Professionals Akanksha Arora Research Scholar Teerthanker Mahaveer Institute of Management and Technology.
- Khan, U. A., Muscat, O., & Jain, V. Aligning Monetary Policies with Sustainability: Evaluating the Role of Central Bank in Oman's Vision 2040 for Financing SDG-Compliant Businesses.
- Jain, V., & Verma, C. Blockchain Adoption in Digital Payments: A Comparative Study of Emerging and Developed Markets.
- Khanna, R., Singh, R., & Jain, V. Exploring the Impact of Age on Work-Life Balance: A Comparative Study across Academicians.
- Arora, A., & Jain, V. Technology-Assisted Healthcare Upskilling: A Study of Western Uttar Pradesh.
- Mittal, S., & Jain, V. CORPORATE GOVERNANCE AND FIRM'S PERFORMANCE: ANALYSIS OF LITERATURE REVIEW.
- Mittal, S., & Jain, V. A study on the Corporate Governance and Company Characteristics of the Manufacturing Sector in India.
- Modia, P., Jainb, V., Uchilc, A., & Nandad, S. Examining link prediction and node connectivity objectives in social networks: Comprehensive review.
- Nanda¹, S., Jain, V., & Purohit, A. The Importance of Mental Development in Addressing Youth Unemployment: A Psychological Case Study of Skill Retention in Development Programmes.
- Agarwal, P., Kumar, A., & Jain, V. PROFESSIONAL WOMEN AND STRESS: A STUDY OF PSYCHOLOGICAL AND WORK-PLACE BEHAVIOUR OF PROFESSIONAL WOMEN.
- Sethi, P., & Agarwal, P. A STUDY OF OPTIMIZATION TECHNIQUES USED IN OPERATIONS RESEARCH: ITS PROSPECTS AND PROBLEMS.

- Jain, V., Ramos-Meza, C. S., Min, Z., Qian, X., Ali, S. A., Sharma, P., ... & Shabbir, M. S. (2023). The dynamic relationship among technological innovation, international trade, and energy production.
- Hashim, N. A. A. N., Batool, H., Jain, V., Julca-Guerrero, F., & Cruz-Castillo, N. (2023). A systematic study of mobility and innovation and technology management for skilled enhancement with operational frameworks. *International Journal of Intellectual Property Management*, 13(3-4), 227-251.
- Jain, V., Sethi, P., Rawat, G., Singh, V. A., Kumar, A. R., Chawla, C., & Bansal, B. (2023). Information Frameworks and Business Patterns in Smart Cities. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 224-237). IGI Global Scientific Publishing.
- Jiang, J., Jain, V., Qian, X., Sharma, P., Mohamed, M. A., Haddad, A. M., ... & Zamir, A. Does Renewable Energy matter for SDGs? The dynamic relationship among Trade Exports Quality, Renewable Energy and Sustainable Economic Production. *Frontiers in Environmental Science*, 1788.
- Sehgal, S., Dhingra, V., & Jain, V. (2022). Effect of Covid Pandemic on Interest Rates and thereby Attractiveness of Reverse Mortgage Loans. *INTERNATIONAL JOURNAL OF SPECIAL EDUCATION*, 37(3).
- Jain, V. (2021). Relations between the united states and china during the trump presidency. *Asian Journal of Research in Social Sciences and Humanities*, 11(11), 1-6.
- Jain Sr, V. ROLE OF TEACHERS IN INSTITUTIONAL PLANNING. *ADMINISTRATION AND MANAGEMENT IN SCHOOL EDUCATION*, 83.
- Jain, V. COACHING AND MENTORING IN EDUCATION SERVICE: AN ASSESSMENT. *COMMUNICATION SKILLS FOR PROFESSIONALS*, 71.
- Jain, V. Teerthanker Mahaveer Institute of Managment & Technology, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India Email Id-vipin555@rediffmail.com. *INTRODUCTION TO MEDIA STUDIES*, 39.
- Ashok Kumar Upadhyay, Pramod Kumar Srivastava, Piyush Kumar (2026) Academic Excellence through Holistic Growth: Integrating Physical, Mental, Emotional, and Spiritual Development in Education, *MSW MANAGEMENT -Multidisciplinary*,

Scientific Work and Management Journal, ISSN: 1053-7899, Vol. 36 Issue 1, Jan-June 2026, Pages: 744-752 (Scopus)

- Srivastava, P. K., Sharma, A., Whig, V., Malaviya, S., & Kumar, N. (2025). Review Of Transforming Grocery Shopping with Artificial Intelligent: A New Era of Convenience. *Advances in Consumer Research*, 2(2), 665-675.
- Srivastava, P. K., Sharma, A., Malaviya, S., Hasan, N., & Singh, P. (2025). Exploring Social Dynamics and Emotional Triggers in the Adoption of Buy Now, Pay Later. *Advances in Consumer Research*, 2(3).
- Kumar, P., Zai, R. Y., & Srivastava, P. K. (2024). Overview of the Marketing Strategies Adopted by Different Pharmaceutical Companies. In *Pharma Marketing and Pharmacoeconomics* (pp. 143-149). Apple Academic Press.
- Shukla, V., & Srivastava, P. K. (2023). Travelling with a vengeance: the influence of social media on revenge tourism. *International Journal of Tourism Policy*, 13(6), 600-605.
- Prasad, A., & Srivastava, P. K. (2024). A COMPREHENSIVE ANALYSIS OF HUMAN RESOURCE POLICIES AND THEIR IMPACT ON EMPLOYEE TURNOVER IN THE HOTEL INDUSTRY IN DELHI NCR. *Journal of Strategic Human Resource Management*, 13(2).
- Sharma, R. K., & Srivastava, P. K. (2022). Impact of E-business on organized retail sector. *International Journal of Early Childhood Special Education*, 9830-9637.
- Rakshit, P., Srivastava, P. K., & Chavan, O. (2022). IoT-Based Personalized Health and Fitness Monitoring System: The Next Big Thing. In *Reinvention of Health Applications with IoT* (pp. 19-30). CRC Press.
- A Khan, F., Singh, M., Shrivastava, P. K., & Bahl, S. (2022). Concept of Caveat Venditor and its Application in Healthcare and Education Secto. *Turkish Online Journal of Qualitative Inquiry*, 13(1).
- Rakshit, P., Srivastava, P. K., & Chavan, O. (2022). Security Concerns with IoT-Based Health and Fitness Systems. In *Reinvention of Health Applications with IoT* (pp. 155-162). CRC Press.
- Srivastava, S. K., Sharma, R. K., Srivastava, P. K., & Srivastava, R. (2021, April). Statistics Review of Indian Automobile Industry Using Correlation& Linear Regression Techniques.

In 2021 2nd International Conference on Intelligent Engineering and Management (ICIEM) (pp. 510-515). IEEE.

- Srivastava, P. K., Srivastava, S. K., Rakshit, P., Kumar, Y., & Kumar, V. (2021). The ecosphere of online service delivery and its growing presence in automobile sector: an extended study of connected technology in Indian outlook. *International Journal of Forensic Engineering*, 5(1), 34-48.
- Rakshit, P., Srivastava, P. K., Afjal, M., & Srivastava, S. K. (2021). Sentimental analytics on Indian big billion day of flip kart and Amazon. *SN Computer Science*, 2(3), 204.
- Rakshit, P., & Srivastava, P. K. (2021, March). Cutting edge IoT technology for smart Indian pharma. In 2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE) (pp. 360-362). IEEE.
- Rakshit, P., & Sharma, R. (2021). A study to comprehend role of artificial intelligence in building smart cities. *Engineering and Technology Journal for Research and Innovation (ETJRI) ISSN*, 3(2), 2581-8678.
- Rakshit, P., & Srivastava, P. K. (2021). An Inclusive Analysis to Study Challenges in Building Student Retention Rate on MOOC Platforms-Technology in Education. *Grenze International Journal of Engineering & Technology (GIJET)*, 7(1).
- Afjal, M., Rakshit, P., Dutta, M., & Srivastava, P. K. (2020). A Critical Study To Comprehend Amendments In Indian Education System Post Covid-19. *Solid State Technology*, 63(6), 4079-4085.
- Rakshit, P., Srivastava, P. K., Srivastava, S. K., Kumar, Y., & Kumar, V. (2020). A Critical Study To Understand Privacy Concerns With Covid-19 Patient Data. *Solid State Technology*, 63(6), 4222-4233.
- Srivastava, P. K., Rakshit, P., Kumar, Y., Kumar, V., Singh, C. K., & Afjal, M. (2020). An Intercontinental Comparative Financial Analysis Of Civil Aviation Business. *Solid State Technology*, 63(6), 4127-4138.
- Bhatt, V., Sharma, R. K., & Srivastava, P. K. Emergence and its impact of organized unrecognized retailers in FMCG-food and beverage.

- SHARMA, R. K., & SRIVASTAVA, P. K. FACTORS OF INTERNATIONALIZATION OF SERVICES IN BANKING SECTOR IN INDIA: COMPARISON BETWEEN NATIONALIZED, PRIVATE AND FOREIGN BANKS IN INDIA.
- Kaushik, R., Srivastava, P. K., & Tiwari, S. (2020, January). Services Standardization In Banking Sector In India: Comparison Between Nationalized, Private And Foreign Banks in India. In 2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM) (pp. 505-514). IEEE.
- Alok, P., Gupta, S., & Srivastava, P. K. (2009). Dinning experience and return patronage- study of hotels resturants in Delhi, India. JOHAR, 4(2), 45.
- Prasad, A., & Srivastava, P. K. (2008). Practices of yield management-An analytical study with special reference to hotel industry. JOHAR, 3(2), 25.