

# **Empowering the Modern Workplace through Strategic Business Analytics Collaboration**

A Joint Research Initiative between Christ University Lavasa Pune Campus and Anderson University

## **Introduction**

This proposal sets the stage for a pioneering six-month collaborative research program between Christ University Lavasa Pune Campus and Anderson University. It seeks to explore the multifaceted application of Business Analytics in the workplace, aiming to harness data-driven insights to enhance strategic decision-making, operational efficiency, customer satisfaction, risk management, talent optimization, and financial performance.

## **Research Objectives**

- To investigate the role of Business Analytics in shaping strategic planning and competitive advantage.
- To identify opportunities for improving operational efficiency and reducing costs through analytics.
- To explore the use of analytics in understanding and enhancing customer experiences.
- To evaluate the application of predictive analytics in managing risks and uncertainties.
- To assess the impact of analytics on human resources management and employee productivity.
- To develop advanced financial analytics models for better financial forecasting, budgeting, and fraud detection.

## **Research Methodology and Structure**

### **Month 1-2: Comprehensive Review and Framework Development**

- Conduct a broad literature review across the key domains of Business Analytics application in the workplace.
- Develop a conceptual framework that integrates Business Analytics with strategic, operational, customer, risk, HR, and

financial functions.

#### Month 3-4: Data Collection and Initial Analysis

- Collaborate with industry partners to collect relevant data across the identified domains.
- Perform initial analysis to validate the framework and identify preliminary insights.

#### Month 5-6: Advanced Analysis and Solution Development

- Apply advanced analytical techniques to deeply analyze data, focusing on actionable insights and innovative solutions.
- Develop practical guidelines, strategies, and models based on the findings for implementation in the workplace.

#### Expected Outcomes

- A comprehensive set of research publications that contribute to the academic and practical understanding of Business Analytics in the workplace.
- Actionable strategies and models that organizations can adopt to leverage Business Analytics across various business functions.
- A collaborative platform for ongoing exchange between academia and industry, fostering innovation in the application of Business Analytics.

#### Collaboration Model

- **Interdisciplinary Teams:** Formation of research teams that bring together faculty expertise in Business Analytics with industry practitioners across different business functions.
- **Engagement of Students:** Involvement of students in the research process, offering them a valuable opportunity to apply theoretical knowledge in real-world contexts.

Dr Anshul Saxena (Linked Profile - [Here](#))

- Has established and coordinating two research center – Centre for Emerging Business Technologies (CEBT) and Center for Climate Action (CCA) at Christ (Deemed to be University), Lavasa, Pune Campus.
- Centre for Emerging Business Technologies (CEBT) focuses on emerging business technologies, which could be well-suited

for devising digital solutions for industries.

- Center for Climate Action (CCA) concentrates on climate action, potentially relevant for hydrogen, carbon credits, and digital water solutions, given the global climate challenges.
- Has played a key role in signing MOUs with IBM, IMD( [Link](#)) and CDAC and performing collaborative research with companies like IBM, Microsoft, SLB and Bajaj in building digital solutions for climate and Industry 4.0 using Blockchain and IoT solutions.
- Currently working as consultant with two Quantum Computing startups (Stafford Computing and Artificial Brain) on developing sustainable solution on energy and space.
- Applied for two project grants related to sustainable energy and environment solutions in collaboration with individuals from IMD and CDAC.
- Has been granted an international patent on Innovation and filed 3 patents related to application of time series in IOT devices.
- Under aegis of CEBT India's 1st IEEE International conference on "Trends in Quantum Computing and Emerging Business Technologies" for which I have also acted as Convener and Secretary has happened and three patent and one International Patent has been filed.
- Under CCA, India's first conclave on formulating the framework on climate and technology has happened on 5th & 6th October 2023 and an Automatic Weather Station (AWS) has been setup. An MOU has been signed with Indian Metrological Department (IMD) regarding the same.
- Lead author of Financial Modelling using Quantum Computing (Packt Publications) ([Link](#)) and "HR Analytics: Quantifying the intangible ([Link](#)).
- Author of an auto storytelling and data preprocessing python library Cognito([Link](#)).
- Completed Harvard online certification on sustainable strategy development.

### **Confrence Publications (IEEE)**

- Saxena, V. Vijay Bhagat and A. Tamang, "Stock Market Trend Analysis on Indian Financial News Headlines with Natural Language Processing," 2021 Asian Conference on Innovation

- in Technology (ASIANCON), PUNE, India, 2021, pp. 1-5, doi: [10.1109/ASIANCON51346.2021.9544965](https://doi.org/10.1109/ASIANCON51346.2021.9544965).
- Saxena, V. V. Bhagat and B. Robins, "Insurance Data Analysis with COGNITO: An Auto Analysing and Storytelling Python Library," 2021 International Conference on Intelligent Technologies (CONIT), Hubli, India, 2021, pp. 1-6, doi: [10.1109/ASIANCON51346.2021.9544965](https://doi.org/10.1109/ASIANCON51346.2021.9544965).
  - V. Bhagat, M. Sharma and A. Saxena, "Modelling the nexus of macro-economic variables with WTI Crude Oil Price: A Machine Learning Approach," 2022 IEEE Region 10 Symposium (TENSYP), Mumbai, India, 2022, pp. 1-6, doi: [10.1109/TENSYP54529.2022.9864544](https://doi.org/10.1109/TENSYP54529.2022.9864544).
  - S. Gupta, J. Mahajan and A. Saxena, "Measuring Consumer Perception for P2P Platform: NLP Approach," 2022 2nd International Conference on Intelligent Technologies (CONIT), Hubli, India, 2022, pp. 1-5, doi: [10.1109/CONIT55038.2022.9848083](https://doi.org/10.1109/CONIT55038.2022.9848083).
  - Saxena, V. Bhagat and J. Mahajan, "Reading behind the tweets: A sentiment Clustering Approach," 2022 International Conference on Advanced Computing Technologies and Applications (ICACTA), Coimbatore, India, 2022, pp. 1-6, doi: [10.1109/ICACTA54488.2022.9753107](https://doi.org/10.1109/ICACTA54488.2022.9753107).
  - D. Jas, A. C. Antony, A. Saxena, M. Sharma and S. Gupta, "Hybrid AI Talent Acquisition Model: An Opinion Mining and Topic based approach," 2022 2nd International Conference on Intelligent Technologies (CONIT), Hubli, India, 2022, pp. 1-5, doi: [10.1109/CONIT55038.2022.9847968](https://doi.org/10.1109/CONIT55038.2022.9847968) .

## Book Chapter

- Saxena, A., Banik, A., Saswat, C., Joan Jose, M., Bhagat, V. (2021). Classification of Financial News Articles Using Machine Learning Algorithms. In: Jat, D.S., Shukla, S., Unal, A., Mishra, D.K. (eds) Data Science and Security. Lecture Notes in Networks and Systems, vol 132. Springer, Singapore. ([https://doi.org/10.1007/978-981-15-5309-7\\_20](https://doi.org/10.1007/978-981-15-5309-7_20)).
- Charting Industry 4.0 Routes Incubation Centers:A Study on Atal Incubation Centre,Kshitiz Choudhary, Jayant Mahajan, Jossy P. George and Anshul Saxena,CRC Press(Taylor and Francis Group),2022([Link](#)).

## **International Journal**

- Object Based Storage Accompanying File System For Improved Data Persistent And Processing Capabilities in International Journal of Scientific & Technology Research, Feb 2020, Vol 11([Link](#)).
- Predicting bitcoin price using lstm And Compare its predictability with arima model in International Journal of Pure and Applied Mathematics(ISSN:1314-3395),Volume 119,No. 17,Oct 2018([Link](#)).
- Predicting the gender and ethnicity using the first name and last name using machine learning in International Journal of Pure and Applied Mathematics(ISSN:1314-3395),Volume 119,No. 17,Oct 2018 ([Link](#)).
- Technology Vertical Lead Generation in International Journal of Pure and Applied Mathematics(ISSN:1314-3395),Volume 119,No. 17,Oct 2018 ([Link](#)).
- Analysis & Prediction On Traffic Volume in Coimbatore Bypass Road Using Python & Tableau in International Journal of Pure and Applied Mathematics(ISSN:1314-3395),Volume 119,No. 17,Oct 2018([Link](#))

Warm Regards

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