Notice for the PhD Viva-Voce Examination

Ms Tisa Maria Antony (Registration Number: 1980014), PhD Scholar at the School of Commerce, Finance and Accountancy, CHRIST (Deemed to be University), Bangalore will defend her PhD thesis at the public viva-voce examination on Tuesday, 18 March 2025 at 10.30 am in Room No. 044, Ground Floor, R & D Block, CHRIST (Deemed to be University), Bengaluru - 560029, Karnataka, India.

Title of the Thesis	:	**The Financial Risk of Indian Commercial Banks**
Discipline	:	**Commerce**
External Examiner - I	:	**Dr Santhosh Kumar P K** Associate Professor and Director Centre for Budget Studies Cochin University of Science and Technology Kochi - 682022 Kerala
External Examiner - II	:	**Dr Madhavi Lokhande** Professor and Dean Welingkar Institute of Management 102/103, Electronic City Phase 1 Hosur Road, Bengaluru - 560100 Karnataka
Supervisor	:	**Dr Sathish Kumar B** Associate Professor Department of Commerce School of Commerce, Finance and Accountancy CHRIST (Deemed to be University) Bengaluru – 562009 Karnataka

The members of the Research Advisory Committee of the Scholar, the faculty members of the Department and the School, interested experts and research scholars of all the branches of research are cordially invited to attend this open viva-voce examination.

Registrar (Academics)

Place: Bengaluru
Date: 06 March 2025

ABSTRACT

Risk management in banking has significantly advanced over the last decade, mainly due to regulations that have come in response to the global financial crisis and its aftermath. The significant risks that may affect a bank comprise credit, liquidity, operational and market risk. A bank's efficiency can only be understood when there is volatility and fluctuation in the market. Therefore, it becomes pertinent to determine the various determinants of financial risk in the Indian context. To date, the literature has not focused explicitly on the determinants of financial risk concerning Indian Banks. Further, the available evidence concerning the sources of the bank's financial risk is very sparse. Based on these limitations, the study tries to analyse the various determinants of financial risk in Indian banks.

Further, there is a need for an efficient model that can accurately predict the financial risk of Indian banks. Over time, highly complex AI frameworks have been developed, and now, any programming language can be used to write AI codes and develop intelligent models. For this, the research suggests a prediction model based on various ML algorithms. To achieve this, multiple algorithms are developed using popular ML models, such as linear regression, k-nearest neighbours, support vector regression, decision tree, random forest, extreme gradient boosting, and multi-layer perceptron, to identify the most appropriate model. The results of these models are compared to identify the best algorithms based on prediction scores to forecast the financial risk of Indian banks. The findings of this study are expected to benefit various stakeholders in formulating suitable policies, especially after the financial distress triggered by the Covid-19 pandemic and financial crisis.

Keywords: *Credit Risk, Liquidity Risk, Market Risk, Machine Learning*

Publications:
1. **Tisa Maria Antony**, Suresh G -Determinants of credit risk: Empirical evidence from Indian commercial banks, Banks and Bank Systems, 2023, doi:10.21511/bbs.18(2).2023.08
2. **Tisa Maria Antony** - Determinants of liquidity risk: Empirical evidence from Indian commercial banks, Banks and Bank Systems, 2023, doi:10.21511/bbs.18(3).2023.09
3. **Tisa Maria Antony**, Sathish Kumar B - Predicting of Credit Risk Using Machine Learning Algorithms, Lecture Notes in Networks and Systems, 2024, doi: 10.1007/978-981-99-8476-3_9