International Journal of General Engineering and Technology (IJGET) ISSN (P): 2278–9928; ISSN (E): 2278–9936 Vol. 14, Issue 1, Jan – Jun 2025; 289–318 International Academy of Science,
Engineering and Technology
Connecting Researchers; Nurturing Innovations

© IASET

## THE ROLE OF PREDICTIVE ANALYTICS IN FINANCIAL PLANNING AND ANALYSIS (FP&A)

Karan Shah<sup>1</sup> & Dr Aditya Dayal Tyagi<sup>2</sup>

<sup>1</sup>Srinagar Colony, Parimalanagar Road, ECIL, HYD 500062 <sup>2</sup>Sharda University, Greater Noida, India

## **ABSTRACT**

Predictive analytics has emerged as a central tool in Financial Planning and Analysis (FP&A), enabling organizations to venture into data-driven decision-making, improve financial forecasting, and streamline budgeting processes. Despite its increasing use, there is still a significant research gap regarding how predictive analytics can best fill the gap between analyzing historical data and predicting future financial planning. This research explores the application of predictive analytics in FP&A to address challenges of forecast accuracy, utilization of resources, and risk management. With advanced machine learning algorithms and statistical techniques, predictive analytics provides a more dynamic platform for discovering financial patterns, identifying anomalies, and predicting future financial outcomes. The research will aim to investigate the effectiveness of predictive models in enhancing decision-making activities in FP&A teams in terms of deriving actionable insights from complex sets of data. The research will further aim to examine the implications of predictive analytics in identifying potential financial risks and opportunities, giving organizations the potential to react in advance as opposed to reacting in hindsight. Despite having high potential, the application of predictive analytics in FP&A is still an under-researched topic, particularly in relation to its real-time application and impact on organizational financial performance. This research intends to fill the gap by offering empirical evidence on the benefits of predictive analytics in the financial planning arena, offering best practice knowledge and key challenges for organizations looking to implement these technologies into their FP&A processes.

**KEYWORDS:** Predictive Analytics, Budgeting, Forecasting Accuracy, Machine Learning, Financial Planning and Analysis, Financial Decision-Making, Financial Performance, Risk Management, Predictive Models, Data-Driven Insights, FP&A Integration.

Article History

Received: 18 Apr 2025 | Revised: 20 Apr 2025 | Accepted: 24 Apr 2025

www.iaset.us editor@iaset.us