## A DISCRIMINANT FUNCTION ANALYSIS APPROACH TO STOCK SELECTION IN THE CAPITAL MARKET OF NIGERIA

Nwakuya Maureen.T. (PhD) & Ofokansi Arch-a-Michael
Department of Mathematics and Statistics
University of Port Harcourt, NIGERIA

## **ABSTRACT**

In this paper, an approach of selecting stocks in the capital market of Nigeria based on Discriminant Function Analysis is presented. Attempt was made to classify in two groups a sample of 20 companies similar in terms of business profile (manufacturing), that traded stocks on the Nigerian Stock Exchange during the period of January 2010 to December 2015 into high value and low value group (i.e. stocks that can generate more profit and less profit respectively). Initial grouping is made according to the Earnings per share ratio and splits the sample into '10' high value and '10' low value group. The analysis was performed on multivariate data of the companies and their six financial ratios. The findings of the study reveal that the Price per Earnings ratio and Closing price contributes the most to selecting stocks in the capital markets of Nigeria whereas Market capitalization contributes the least. Cross validation technique applied shows 85% prediction accuracy of generalizing the discriminant function model to predicting the group of new stocks of unknown membership. Thus, the Discriminant function derived in this paper can help potential investors in predicting group membership of newly listed company when selecting stocks that can generate more profit compared to others.

**Keywords:** Discriminate Functions, Financial Ratios, Cross Validation, Nigerian Stock Exchange.