**Abstract**

The capital structure decision is one of the significant decisions for the management, since it influences the debt equity mix of the company, which ultimately affects shareholders’ return and risk. Leverage plays an essential role in framing the capital structure. Machinery Sector is a capital intensive sector, where greater prominence has been given in framing the capital structure. In this backdrop, the study makes an attempt to identify and analyse the determinants of leverage of machinery sector. A sample of 58 firms, which have been listed at both BSE and NSE stock exchange by applying purposive sampling technique have been taken for the study. Year wise analysis, summary statistics and a panel data approach have been applied to analyse the data. The study reveals that the variables, namely, profitability, size, tangibility and liquidity are the key determinants of leverage of Indian Machinery Sector.