



## A Post Factor Analysis of Financial Ratios of Selected IPOs and its Impact on Grading: An Empirical Inquest

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### Abstract

*Many registered Credit Rating Agencies have endeavored to throw a glance into equity rating in the form of EPRA (earning prospects and risk analysis). In this paper, we have confined our study to assess the quality of grading of IPOs in the primary market. Rating Methodology of each rating agency appears to be different, though the basic stress parameters of all of them remain the same. All registered Rating agencies, including ICRA and CRISIL use financial ratios as one of the analytical tools for understanding the grading of IPO issues, thus, our paper has made an attempt to analyze the impact of financial ratios on Grading of initial equity issued by a company. The key objective of the paper is to identify some representative liquidity ratios and profitability ratios, which may capture the health of the IPO firms in terms of solvency and return earning capacity to provide a better guidance to the new investors and to investigate whether IPO grade can predict the health and performance of the issuer in terms of liquidity and profitability in post issue regime. We conducted our study on 35 graded IPO issues during the year 2011 to 2013. Fifteen profitability and liquidity ratios of the IPO companies are considered as independent variable. We applied Factor analysis of those independent variables to find out representative ratios affecting IPO grading. Moreover, Regression analysis has been used to identify the predictive ability of the representative financial ratios to explain IPO grading. We found that Factor score 1, i.e., Profitability candidate and Factor score 2 i.e., Liquidity candidate and variable L8 i.e., interest coverage ratio can significantly affect IPO grading. These Factor scores along with interest coverage ratio can explain the quality of grading to some significant extent.*

**Keywords:** *Multiple Regression analysis, Factor Analysis, IPO Grading, Financial Ratio.*

### Introduction

It is an unbiased and independent assessment process of quality of the credit instrument issued by a business unit to enable the investors to understand and evaluate the risk factors associated in it. Grading of the particular issue is the mirror of the fundamentals of the issuer company. As per SEBI (Securities and Exchange Board of India) notification (2007), a newly listed company issuing Initial Public Offer (IPO) must have a grading of its new equity shares by

any registered Credit Rating Agencies before it has been publicly issued. Thus, assigning of IPO grade to those new shares should provide expected high profile guidance to the new investors who have entered in the IPO based capital market.

#### *Impact of Financial ratio on grading methodology of IPOs:*

Ratio analysis is a very powerful analytical tool for measuring the performance of an organization. They are designed to paint the financial forecast of the business and help to define the strategic health which can be checked by financial ratios (Andy Neely). Shareholders/stakeholders, whether they are individual or institutional investors, are interested in many things, but from the economic perspective, they are interested in the growth, in the value of the shares they hold and the flow of dividends the company could be able to pay them. Financial health and performance of the entity can be efficiently captured by financial ratios. Thus, the stakeholders can have a meaningful insight into a company's financial performance by analyzing various related ratios of the entity. Although ratio analysis is categorized under six broad areas, two of them namely liquidity and profitability measure are considered in our paper to measure their impact on IPO Grading.

Having screened the literature available on credit rating, the rating methodology of each rating agency appears to be different, though the basic stress parameters of all of them remain the same. All registered Rating agencies, including ICRA and CRISIL focused on the financial ratios as an important analytical tool for understanding comparative fundamental qualities of the company in qualitative terms. Thus, financial ratios positively have an impact on Rating methodology of initial equity issued by a company. Providing an exhaustive list of factors that are influential in assigning the grades is a task too tedious and impractical, but an estimation of the underlying strength of the security requiring gradation is based on certain core pragmatic factors, which are identifiable. The factors identified by SEBI in this regard are the business prospects of the company, risks and prospects of new projects, the competitive position of the issuer in the market, corporate governance, the financial position of the business unit, and quality of management, compliance and litigation history. These factors are directly or indirectly related to IPO grading. Here while observing IPO grading we have taken into consideration the National Stock Exchange database in our research paper. Moreover, in this paper, we have considered some financial ratios as a measuring tool of liquidity and profitability of the company namely Asset turnover ratio, Working capital turnover ratio, Debtors turnover ratio, Stock turnover ratio, Debt equity ratio, Current ratio, Quick ratio, Interest coverage ratio, EPS, EBDIT, EAT, ROA, ROE, ROCE and Cash profit margin.

## **2. Review of Prior Studies**

During 1990 to 2000 many IPO in India have vanished deceiving several millions of public funds. Hence, India is a classical case where certification is very crucial to safeguard investor's wealth. The Government Joint Parliament committee reported in paragraph 11.42 dated 6<sup>th</sup> June 2002 that “ In the year immediately after globalization, 1.5 crores new investors, small investors as we call them, came into the market between 1992 and 1996 through IPOs. They were duped. At that time, four thousand odd companies raised Rs 86000crores in four years through initial public offerings. Most of these, 1.5 crores investors who came in for the first time in the IPO stock market were duped (Sucheta Dalal, statistician, Editor of Money Life, Mumbai)

Most of the IPO related researches explore the pricing mechanism of IPO issues. Scanty researchers have found the success of IPO grading. Few instances in the past literature can be

referred here. In this paper we have analyzed prior studies in two segments – Studies on IPO and Studies on financial ratios regarding the judgement on equity health.

### *Prior studies on IPO*

Deb & Marisetty (2010) in their paper studies the efficacy of IPO grading and they addressed the information asymmetry in the form of pricing of the IPO in grading mandatory regime. Andrew Clare, (2010) focuses on the improvement of the major documentation that investors are provided by the firm when they want to make an investment in an equity fund. Their empirical findings conclude that ranking of the investment funds should change frequently as the rigid ranking of the fund may undermine the value of the risk indicator as a decision tool. Viral.V. Acharya et.al. (2014) studies the impact of foreign institutional investors flows on stock returns in India. They concluded that stocks with high innovations are linked with coincident price increase and vice versa. They conclude that differential return on high and low innovation stock unassociated with firms is not dependent on the risk factor. Mila Getmansky et.al. (April 8, 2014) explores the role of short term and long-term traders in the liquidity provision of the stock market extracted from the NSE data sheet and they conclude that seventy five percent of the liquid fund are traded through them. Ekkehart Boehmer et. al. (April 4, 2014) highlights on the role of algorithmic trading in equities on the comovement of returns, liquidity of the National stock exchange of India and they find more intense competitions among algorithmic traders than non algorithmic traders. Amit Bubna (January 8, 2014) while studying on IPO mechanism in India, regards IPO as a barometer of the health of capital market which brings new investors to the firm for developing new ventures. He studies the influence of book building process to the bidding, under pricing and overpricing of IPO and they find that anchor investors influence on the short run IPO outcomes by their bidding effect. Anchor backed IPOs do not perform better over longer intervals and show lower volatility in return over one year after the IPO.

### *Prior studies on the impact of financial ratio on Grading*

Doron Nasim et.al. (2000) inculcates standard profitability analysis of the equity valuation and in their paper they describe the time series behavior of many ratios and find current ratios as the predictor of future ratios that drive equity pay offs. Stephen. H. Penman (October 2001), considers two leverages equations –one of the borrowing for financing activity and the other for operational activity and finds their effect on the rate of equity earnings. He concludes that balance sheet line items for operating liabilities are priced differently than those with financial liabilities.

Xiao-June Zhang (2006) in his paper develops a P/E model, identifies sustainable earnings, describes cross-sectional differences in P/E ratios, and concludes that stock returns are predictable through the P/E model that he developed in his paper. Ignacio Velez et .al. (2002) prepared a paper which serves as a teaching material for financial statement analysis and they make certain changes were made by them in the traditional way of measuring ratios capturing return on equities. David H. Bailey et.al. (2012) in their paper show that Probabilistic Sharpe ratio has a lot of implications on supernormal returns of the shareholders and they claim that Sharpe ratio efficient frontier optimizes a portfolio under supernormal leveraged return on equity.

### **3. Research Gap**

The market watchdog SEBI is the first regulator to introduce the concept of IPO grading. SEBI's decision to introduce mandatory IPO Grading in Indian stock market in 2007 was the outcome of constant pressure from certain investor groups. However, a group of issuer companies, market experts, fund managers, investment bankers, and even the SEBI board members then opposed it and as a result, SEBI had scrapped the idea of IPO Grading and made it optional since February 4, 2014. Grading is the reflector of "issue quality" of the company concerned and it is a key milestone in the financial life cycle of the company. The IPO grading can reflect whether the issuer has expected capability to repay the debt as per terms of issue and serves as a guide to the prospective investors about the credit quality of the rated new equity issued by those companies, which have no previous financial track record in the stock market. The investors can decide and choose potential IPO shares by placing reliance on IPO grading. Many stakeholders of IPO issues have questioned on SEBI's movement and still it has not yet been answered. It strongly and truly motivates us to deal with this controversial capital market issue in the area of the IPO.

No researches have been found on this issue whether IPO grading is capable to capture the return generating capacity and liquidity of the issuer companies or not. Many researchers have carried out their study on the factors affecting equity valuation, but none was found in the factor analysis on financial ratios in the IPO market separately and herein lies the research gap.

### **4. Research Objective:**

There are many liquidity ratios and profitability ratios, which indicate the health and performance of business firms operating in the stock market. It will not be possible for the investors keep a watch on all those ratios. Specifically, understanding the future health and performance of the IPO issue seems to be a major challenge for the new investors who invest their hard-earned money in equity stock on the IPO market. There may be some representative ratios, which can capture the future solvency and liquidity and profitability of the issuers of graded IPOs with the help of which they can decide whether he or she should hold or sell the shares in the IPO market. Moreover, the new investors are usually guided by Grading or rating assigned by registered credit rating agencies when they invest their retail or large fund in IPOs. Keeping in mind our research gap and all such risk prone factors of IPOs, we have designed our research objective specifically on the following issues:

- To identify some representative liquidity ratios and profitability ratios, which may capture the health of the IPO firms in terms of solvency and return earning capacity with a view of providing better guidance to the new investors for deciding over selling or holding their IPO stock in post issue period.
- To understand that if IPO grade can predict the health and performance of the issuer in terms of liquidity and profitability in the post issue regime.

In a nutshell, our paper has made an honest effort to judge the liquidity and profitability, performance of the IPOs through selected financial ratios and correlate the same with the grading quality of the IPO issues for the protection of investor's fund.

## 5. Research Model:

We have tried to fit a *Regression Model* to the data set and carry out the analysis to examine the impact of determinants affecting financial health and performance in terms of liquidity and profitability of the IPO issuers and at the same time computing the degree of associations among the determinants. Further *Factor analysis* is carried out to categorize the determinants into groups. Eventually the crucial factors among Liquidity ratios and Profitability ratios are traced out using the above methodology. Finally, we shall apply *Stepwise Regression Forward* as a final Model predictor.

We have collected key data of IPOs from the NSE website *www.nseindia.com* and PROWESS database. Major financial ratios of the IPO issuers are collected from Mintlife.com. In our analysis, initially 37 domestic companies are considered for the study from the year 2011 to 2013. out of which, 23 companies issued shares for the first time in the primary market in the year 2011. 9 companies made their issues in the year 2012 and rest 5 companies made the public issue in the year 2013. Surprisingly, in that grading mandatory regime 35 domestic companies are graded by different credit rating agencies like CRISIL, ICRA etc as per SEBI guidelines and notification. However, two (2) IPO issuers namely Credit Analysis and Research Ltd and Power Grid Corporation Ltd were not graded in the 2013, which are excluded from the analysis. Eight (8) selected liquidity ratio, namely Current ratio, Quick ratio, Interest Coverage ratio, Debt-Equity ratio, Working Capital turnover ratio, Debtors Turnover ratio and Stock Turnover ratio are considered to judge the liquidity and short-term solvency of the IPO issuers. Similarly, seven (7) selected profitability ratios namely EPS, EBDIT, EAT, Cash Profit Margin, ROA, ROE and ROCE are considered to assess the profit earning capacity of the IPO issuers. Therefore 15 financial ratios (8 for liquidity measure and 7 for profitability measure) of 23 IPOs are considered in the year 2011. During the next year, i.e. in 2012 with the inclusion of eight (8) other companies with graded IPOs, financial ratios of 31 IPOs are taken into study. In the year 2013, another 4 graded IPOs were made and as such in that year we consider cumulatively all those financial ratios of 35 graded IPO issues.

## 6. Background of Empirical Studies:

In this study, we want to examine the performance of IPO market where the each IPO issue is graded by rating agencies and to understand the quality of grading they have assigned to the particular IPO issues. Some strong statistical methods and techniques like Factor analysis, Multiple Regression Analysis, Stepwise regression, forward are applied to fit a model.

### *Factor Analysis*

The term Factor Analysis is first introduced by famous statistician Thurstone in the year 1931. Factor analysis is a widely accepted statistical method used for research analysis to reduce the number of variables and to identify a definite structure in the relationship of variables. It is used for examination of the correlations or covariance between the observed measures were highly correlated measures are likely to be influenced by the same factors and relatively uncorrelated measures are influenced by different factors. In statistical analysis, there are two type of factor analysis, namely *exploratory factor analysis* and *confirmatory factor analysis*, exploratory factor analysis (EFA) attempts to discover the nature of the constructs influencing a

set of responses. Confirmatory factor analysis (CFA) tests whether a specified set of constructs is influencing responses in a predicted way.

In our study Factor Analysis is applied on the various financial ratios of the IPO companies in post grading regime.

### *Multiple Regression Analysis*

Regression Analysis is a process of predicting the value of the dependent variable that depends on one or more independent variables. The combined influence of several independent variables upon one dependent variable is measured by multiple regression analysis using a linear model. Multiple Regression analysis helps in predicting how much proportion of the dependent variable can be explained by the independent variable based on linear combinations of interval or dummy independent variable. Multiple regressions can establish that a set of independent variables explains a proportion of the variance in a dependent variable at a significant level by testing the value of  $R^2$ . It can establish the relative predictive importance of the independent variables. Power terms can be added as independent variables to explore curvilinear effects. Cross-product terms can be added as independent variables to explore interaction effects.

We have done a multiple regression analysis to check how IPO Grading is explained by captured financial ratios (through factor Analysis) of the issuer companies after a post grading period keeping in mind that there are other qualitative factors affecting IPO Grading .

In general, multiple regression procedures will estimate a linear equation of the form:  
$$Y = a + b_1 * X_1 + b_2 * X_2 + \dots + b_n * X_n \quad (1)$$

In the above the regression coefficients (or B coefficients) represent the independent contributions of each independent variable to the prediction of the dependent variable. Here  $Y$  = IPO grading,  $X_1, X_2, X_3, X_4, \dots, X_n$  = Liquidity Ratios namely the asset turnover ratio, working capital turnover ratio, debtors turnover ratio, stock turnover ratio, debt- equity ratio, current ratio, quick ratio and interest coverage ratio and Profitability Ratios namely Earning Per Share, Earning before depreciation and tax, Earning after tax, Cash profit margin, Return on Assets, Return on equity, Return on capital employed respectively.

### *Multicollinearity*

In multiple regression analysis, the problem of multicollinearity may occur. The problem of multicollinearity arises out of the violation of the assumption of regression. However, the mere satisfaction of this assumption does not preclude the possibility of an approximate linear dependence among the explanatory variables and hence the problem of multicollinearity. In other words, generally we do not speak in terms of the presence of the absence of multicollinearity, but in terms of its degree. A review of the treatment of multicollinearity in the literature reveals that the hypothesis about the consequences of multicollinearity is that a high degree of multicollinearity leads to high standard errors of the estimates. What is implied here is that had the interdependence among the explanatory variables been low, the estimated coefficients would have been statistically more significant. Another consequence of multicollinearity as argued currently is that the inclusion of a strongly correlated variable will bring only a marginal increase in  $R^2$ . That is, if  $Y$  is regressed on  $X_2$  and if  $X_3$  is highly correlated with  $X_2$  then the inclusion of

$X_3$  as another explanatory variable in the equation will result in only a slight increase in if at all any. The above two consequences of multicollinearity are considered to be valid under all conditions. In fact, these consequences are the direct results of the major assumption that the estimated variance of the true error term is not being affected by the degree of multicollinearity. It is our contention that the estimated variance of the true error term need not be invariant to the degree of multicollinearity. It is argued here that a high degree of multicollinearity can result in a lower estimate of the variance of the true error term. In fact, under certain condition, a high degree of multicollinearity will always lead to a lower estimated value for the variance of the error term. Then it follows that firstly, a high degree of multicollinearity need not always result in high values of the standard errors of the estimates. Secondly, the inclusion of a highly correlated variable (correlated with the existing explanatory variables) can sometimes inflate the value of  $R^2$ . Thus, if data exhibit some degree of multicollinearity it need not always be reflected in the standard errors being large. In such a case we do not have any ‘built in safeguard’ against any rash interpretation of predicted value. Moreover, the high  $R^2$  or  $r^2$  and t values in the regression could have resulted from the high degree of multicollinearity.

## 7. Empirical Studies and Results:

### *Descriptions of Variables*

We have undertaken an empirical inquest as to responsiveness of IPO Grading on the health of the issuers in post issue regime. In our study, IPO Grading is taken as an independent variable (Y) and eight (8) various liquidity and seven (7) profitability ratios are taken as Dependent variables ( $X_1, X_2, X_3, \dots, X_n$ ) in the above regression equation. The notations used in the regression equation are mentioned below:

#### Measurement of Liquidity as different independent variables

<i>Symbols used</i>	<i>Financial ratios</i>
<i>L1</i>	<i>ASSET TURNOVER RATIO</i>
<i>L2</i>	<i>WORKING CAPITAL TURNOVER RATIO</i>
<i>L3</i>	<i>DEBTORS TURNOVER RATIO,</i>
<i>L4</i>	<i>STOCK TURNOVER RATIO</i>
<i>L5</i>	<i>DEBT –EQUITY RATIO</i>
<i>L6</i>	<i>CURRENT RATIO</i>
<i>L7</i>	<i>QUICK RATIO</i>
<i>L8</i>	<i>INTEREST COVERAGE RATIO</i>

#### Measurement of Profitability as different independent variables

<i>Symbols Iused</i>	<i>Financial ratios</i>
<i>P1</i>	<i>EARNING PER SHARE (EPS),</i>
<i>P2</i>	<i>EARNING BEFORE DEPRECIATION &amp; TAX (EBDIT)</i>
<i>P3</i>	<i>EARNING AFTER TAX (EAT)</i>
<i>P4</i>	<i>CASH PROFIT MARGIN</i>
<i>P5</i>	<i>RETURN ON ASSET (ROA)</i>

P6	RETURN ON EQUITY (ROE)
P7	RETURN ON CAPITAL EMPLOYED (ROCE)

*Grading on IPOs as the dependent variable:*

GRADE 1= POOR, GRADE 2= BELOW AVERAGE GRADE 3=AVERAGE  
 GRADE 4= ABOVE AVERAGE GRADE 5 = STRONG FUNDAMENTALS

*Interpretation of Empirical Studies and Results*

KMO and Bartlett’s Test: Appropriateness of sample adequacy can be evaluated by measurement of the useful statistics Kaiser-Meyer-Olkin (KMO). KMO measure is an index used to evaluate the sample adequacy of a factor analysis. High measure KMO, i.e. between 0.5 to 1.0 indicates the feasibility of factor analysis in terms of the sample. A high value (between 0.5 & 1.0) indicates that factor analysis is adequate in terms of the sample. In our present research value of the KMO measure of sample adequacy is 0.734 which signifies the purpose of adequacy.

The appropriate inter correlation in running factor analysis is checked by Bartlett’s test of sphericity. The greater the value of test statistic, factor analysis becomes more appropriate. The approximate chi-square value is 2129.943

With 105 degrees of freedom, which is significant at 0.05 levels. Thus considering all the above facts, we are eligible to use factor analysis to understand and identify the representative ratios that could capture the grading of IPO issues.

*Factor Analysis: 1*

Variable Entered: Here, in our study there are 15 independent variable mentioned in the description of variables above and one dependent variable, i.e. IPO grading. In the first stage, we run Factor Analysis 1 on those 15 independent variables.

We use principal component analysis to determine the principal factors.

Total Variance Explained: From the total variance explained table, it is evident that 15 independent variables taken for the study are reduced to 6 factor solutions that explain 75.594% variation in variables.

Communalities: After running factor analysis 1, we get 6 factors and from communalities we observe that out of 15 independent variables taken at the first time, variable L3 and P6 explained only 34.5% and 28.6% respectively whereas other variables explained significantly the dependent variable grading as shown the following table:

Table 1: Communalities of Factor 1

Factor	L3	L4	L6	L7	L8	P1	P2	P3	P4	P5	P6	P7	L1	L2	L5
Communalities	.345	.747	.883	.889	.806	.573	.903	.935	.926	.888	.286	.843	.757	.741	.819



Therefore, we exclude variables L3 and P6 in the next Factor analysis.

*Factor Analysis: 2*

Variable Entered: Again, we run factor analysis 2 of remaining 13 independent variables and we get 5 factors.

Total Variance Explained: From the total variance explained table, it is evident that 13 independent variables taken for the study are reduced to 5 factor solutions that explain 77.881% variation in variables.

Communalities: After running factor analysis 2, we get 5 factors and from communalities we observe that out of 13 independent variables taken at the second time, variable L8 is eliminated as it explained only 32% of the dependent variable as shown in below:

Table 2: Communalities of Factor 2

Factor	L4	L6	L7	L8	P1	P2	P3	P4	P5	P7	L1	L2	L5
Communalities	.739	.883	.889	.328	.548	.908	.933	.923	.893	.842	.748	.679	.794

Rotated Component Matrix: From the Rotated Component Matrix of factor analysis 2, we observe variable L5 and L2 became two single factors and thus we eliminate variable L2 and L5 as a part of the variable reduction procedure of factor analysis. Initially factor analysis 2 starts with 13 independent variables. However, due to the elimination of 3 factors, namely L2, L8 and L5, a number of independent variables come down to 10.

*Factor Analysis: 3*

Variable Entered: Again, we run factor analysis 3 of remaining 10 independent variables and we get 3 factors.

Total Variance Explained: From the total variance explained table, it is evident that 10 independent variables taken for the study are reduced to 3 factor solutions that explain 79.979% variation in variables.

Communalities: After running factor analysis 3, we get 3 factors and from the communalities we observe that all 10 independent variables taken at the third time show the following communalities as shown below,

Table 3: Communalities of Factor 3

Factor	L4	L6	L7	P1	P2	P3	P4	P5	P7	L1
Communalities	.692	.881	.886	.472	.863	.905	.889	.857	.811	.741

Rotated Component Matrix: From the Rotated Component Matrix of factor analysis 3, we get a three factor model where factor score1 (profitability candidate) contains 6 variables namely, P1 (factor loading 0.635), P2 (factor loading 0.916), P3 (factor loading 0.926), P4 (factor loading 0.935), P5 (factor loading 0.911) and P7 (factor loading 0.840). Similarly, factor score 2 (liquidity candidate) contains variable L6 (factor loading 0.938) and variable L7 (factor loading 0.939). Moreover factor score 3(other liquidity candidate) contains variable L1 (factor loading 0.855) variable L4 (factor loading 0.832).

Correlation Matrix: Now, we find the correlation matrix among Grading, Factor Score 1, Factor Score 2, Factor Score 3 and five excluded variables L2, L3, L8, L5 and P6. From the correlation matrix, we check whether the P value becomes less than 0.05 for the variable with grading and thereafter we get the following result:

Table 4: Correlation Matrix Significance level

Variables	Factor Score 1	Factor Score 2	Factor Score 3	L3	L8	L5	L2	P6
P Value	0.000	0.000	0.606	0.015	0.013	0.445	0.891	0.246

The above correlation matrix showed that grading has a high association with factor score 1, factor score 2, variable L3 and L8 as all P values in respect of them are less than 0.05. Therefore, we excluded the variable L2, L5, P6 and factor score 3 namely “*Other Liquidity Candidate*”.

Regression Analysis: In the next step we run a regression analysis by taking grading as dependent variables and factor score 1 namely “Profitability Candidate”, factor score 2 namely “Liquidity Candidate” and variable L8 namely “Interest Coverage Ratio” as independent variables to know how much proportion of the dependent variable is explained by above mentioned independent variables. From the regression analysis, it is observed that factor score 1, factor score 2 and variable L8 are important for predicting grading as their P values are less than 0.05. However, variable L3 appears insignificant for predicting grading as its P value is more than 0.05. The results of regression analysis in respect of P values are given below:

Table 5: Regression analysis Significance Level

Variables	Factor Score 1	Factor Score 2	L3	L8
P Value	0.001	0.000	0.110	0.015

After eliminating variable L3, again we run regression analysis by taking factor score 1 as “Profitability Candidate”, factor score 2 as “Liquidity Candidate” and variable L8 as “Interest Coverage Ratio” as independent variable which will enable us to understand the impact of those independent variables on the dependent variable grading in our study. We get the value of  $R^2 = 17.8\%$  and Adjusted  $R^2 = 16.5\%$ . All VIF values are less than 2 that implies the assumption of

regression is valid. The correlation between grading and independent variable, i.e. factor score 1, factor score 2, L8 are shown below:

Table 6: Standardized Coefficients

Variables	Factor Score 1	Factor Score 2	L8
Standardized Coefficients (Beta)	0.249	-0.290	0.167

## 8. Conclusion

In our research, we have undertaken an attempt to find out the relationship between Grading of IPOS and some other important financial ratios and got some interesting results related to this. Factor analysis is used by us to identify the representative accounting ratios in terms of liquidity and profitability which have a direct or indirect effect on grading taking other qualitative factors affecting grading as constant. Finally we have got some interesting result of our research. In our analysis, we found that some relationships of those factors with IPO grading. During the course of our study, we further found that Factor score1 i.e. “Profitability candidate” comprising of PI, P2, P3, P4, P5 and P7 and Factor score2 i.e. “Liquidity candidate” including L6 and L7 and Interest coverage ratio termed as L8 are significantly affecting IPO grading.

In the context of Indian IPO market the appreciation of Earning per Share as a representative profitability ratio and interest coverage ratio will act as a stimulant to foster growth and in this process it will mostly affect IPO grading. It is evident from the coefficient table that the rise in the Interest coverage and factor score 1 i.e. Profitability has a positive correlation with grading of IPOs but surprisingly factor score 2 i.e. Liquidity candidate is inversely proportionate to the dependent variable grading. It is an obvious question any investor will ask inquiring those ratios can affect IPO grading. Our investigation with this quest has revealed about how an an interesting result in this regard. Multiple regression analysis has explored that almost 18% of the dependent variable “IPO grading” can be explained by Factor score 1 namely “Profitability candidate”, Factor score 2 namely “Liquidity candidate” and the interest coverage ratio. Remaining percentage can be explained through other qualitative factors like the management quality, corporate governance, project risk, the economic condition of the country, sovereign risk, other environmental factors and either political turbulence etc. which significantly creates an impact on the IPO grading.

## 9. Plan for Future Studies

In the evaluation of financial health and performance, 39 accounting ratios may be considered. These are broadly classified in seven broad heads, namely Operational and financial ratios, Margin ratios, Performance ratio, Efficiency ratios, Valuation parameters, Growth ratios, and financial stability ratios. These seven broad categories basically interpreted by 39 ratios, namely Earning per share, CEPS, Dividend per share, Book NAV, Tax rate, Earning before depreciation and tax, Earning before tax, Pre tax margin, Profit after tax margin, Cash profit margin, Return on asset, Return on equity, Return on capital employed, Asset turnover ratio, Fixed asset turnover ratio, working capital turnover ratio, fixed asset to sales ratio, Debtors turnover ratio, Inventory turnover ratio, Creditors turnover ratio, Price earnings ratio, PCE ratio,

Market price/book value of shares ratio, EV to EBDIT ratio, EV to EBIT ratio, EV to capital employed ratios, EV to net sales ratio, Capital turnover ratio, Sales growth %,EBDIT growth%, EBIT growth %,PAT growth%, EPS growth %,Debt equity ratio, Current ratio, Quick ratio, Interest coverage ratio etc. In the present study, only 15 accounting ratios measuring liquidity and profitability of the firm are considered as independent variable and are analysed to see the effect of IPO grading and the remaining 22 accounting ratios are left out for consideration which can be considered in our future studies. Moreover, there are many qualitative factors affecting IPO grading like management quality, corporate governance, project risk, economic condition, sovereign risk, political turbulence and other environmental factors. Due to unavailability of database, it could not be possible for us to present the impact of these qualitative variables on IPO grading. We will try to present their impact on IPO grading in our next studies. It could not possible for us to consider Disclaimer given by the credit rating agencies and other probable hidden factors affecting grading due to the lack of database at present. Moreover the influence of SEBI at the time of IPO opening, IPO grading mechanism of the firms of Special Economic Zone may be taken into consideration in our future studies. Not only could this, in the present paper selected thirty –three IPO companies not be categorized sector wise. In our future study a scope still remains to present sector-based analysis of the IPO grading methodology to know whether it is time dependent or whether it is indeed sector dependent phenomenon.

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