RESEARCH REVIEW JOURNALS
Volume-03
Issue-11
November -2018

ISSN: 2455-3085 (Online)
RESEARCH REVIEW International Journal of Multidisciplinary
www.rrjournals.com [UGC Listed Journal]

Analysis of the Financial Performance of a Stock Broking Companies using Multiple Regression

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ARTICLE DETAILS

Article History
Published Online: 10 November 2018

Keywords
Stock Broking, Multiple Regression, Net profit, Financial Performance

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ABSTRACT

The equity brokerage industry in India is one of the oldest in the Asia region. India had an active stock market for about 150 years that played a significant role in developing risk market, promoting enterprise and supporting the growth of industry. The study Financial Performance of select stock broking firms in India cover for a period of ten years from 2005-2006 to 2014-2015 with the framework of judgement /purposive sampling technique. The Multiple Regression Analysis reveals that there is a positive association and a good fit of relationship with the net profit in all the companies' financial ratio except for a few stock broking companies. The demonetization and global volatilities will partly impact the broking volumes by the end of the year 2017.The equity market volumes growth rate for the year 2017 is of 12-15%.

1. Introduction

The roots of a stock market in India began in the 1860s during the American Civil War that led to a sudden surge in the demand for cotton from India resulting in setting up of a number of joint stock companies that issued securities to raise finance. This trend was akin to the rapid growth of securities markets in Europe and North America in the background of expansion of railroads and exploration of natural resources and land development. Bombay, at that time, was a major financial centre having housed 31 banks, 20 insurance companies and 62 joint stock companies. In the aftermath of the crash, banks, on whose building steps share brokers used to gather to seek stock tips and share news, disallowed them to gather there, thus forcing them to find a place of their own, which later turned into the Dalal Street. A group of about 300 brokers formed the stock exchange in July 1875, which led to the formation of a trust in 1887 known as the "Native Share and Stock Brokers Association". A unique feature of the stock market development in India was that it was entirely driven by local enterprise, unlike the banks which during the pre-independence period were owned and run by the British.

The BSE is the oldest stock broking of India. History of Indian stock trading starts with the 318 person taking membership in Stock Brokers Association and Native Share, which is known by name as Bombay Stock Exchange (BSE). In 1864, there were more than 1,000 brokers in Mumbai who traded in stocks, high premium was also a familiar concept during that time. In the year 1965, BSE got a permanent acknowledgment from Government of India .The National Stock Exchange arrives 2nd to the BSE in terms of status. NSE and BSE represent themselves as the synonyms of the Indian stock market. For preventing frauds, Government formed SEBI, through Act in 1992. The SEBI is statutory body which regulates and controls functioning of brokers, stock exchanges, portfolio manager investment advisors, sub-brokers, etc. SEBI obliged several tough measures to protect interest of investor. Now with inception of the online trade and every day settlements chances for fraud are nil.

2. Objectives of the study

- To analyze the financial performance of the select stock broking firms in India.

3. Hypotheses of the study

For the purpose of the analysis, the hypothesis framed was there is no positive association between Net profit ratio and selected independent variables of the select stock broking companies.

4. Methodology of the study

Exploratory research design was adopted for present study to analyze and interpret the available information. The study covers ten financial years from 2005-2006 to 2014-2015. The research concentrated on the financial service sectors. The firm level audited financial data is collected by using CMIE prowess database. A list of a total 182 Stock Broking Companies has been generated under the category of fee based financial services over the 10 year period between 2004 and 2015.It was found that out of 182 companies reported by prowess, only 28 companies were BSE listed. Further based on the availability of consistent data for 10 years during the study period from 2004 to 2015, the sample set was constituted. Finally, 22 companies form the sample set for the analysis .Further, the financial performance of the select stock broking companies is found through Multiple Regression analysis.

5. Strength of the relationship between selected independent variables and net profit ratio - multiple regression analysis

The regression is a statistical relationship between two or more variables. When there are two or more independent variables, the analysis that describes such a relationship is multiple regression. This analysis is adopted where there is one dependent variable that is presumed to be a function of two or more independent variables. The linear multiple

regression problem is to estimate coefficients β_1, β_2, ….., β_j and β_0 such that the expression,

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_j X_K$

provides a good estimate of an individual Y score based on the X scores,

where,

Y is Dependent Variable

X_1, X_2, X_3,…, X_k are the independent variables

and β_0, β_1, β_2,……., β_j are the parameters to be estimated.

6. Findings of the study

In order to predict the profitability position of the selected stock broking companies, multiple regression analysis has been employed and the results are discussed in the following table for the selected 22 stock broking companies. The multiple regression analysis shows that the net profit of the 4 company's viz., Jhaveri Credits and Capital, Nam Securities, Stampede Capital and Sugal & Damani Share Brokers do not influence the selected independent variables and therefore excluded for the analysis. Where else for the other companies the analysis is presented and discussed.

7. Multiple Regression: Individual Company Analysis

- **Aditya Birla Money**

  The co-efficient of multiple determination (R2) signifies that 98.9 per cent of variation in profitability has been explained by the independent variables. The regression coefficient values shows that fixed assets to long term fund, working capital turnover ratio, total assets turnover ratio and return on net worth has a positive influence on the profit, while Current Ratio, Fixed Assets to Net worth ratio, Debtors Turnover ratio and Operating Profit ratio has a negative influence on the profit. All the variables have no significant influence on the profit. The F value (11.249) reveals that the estimated regression equation is not statistically significant.

- **Arihant Capital Markets**

  The multiple linear regression co-efficient is found to be statistically fit as R2 is 0.997 for net profit ratio. The variables fixed assets to long term fund, working capital turnover ratio, operating profit ratio and return on net worth ratio have a positive association whereas the variables current ratio, fixed assets to net worth ratio, debtor's turnover ratio and total assets turnover ratio revealed a negative association with net profit ratio. It is found from the analysis that all the variables are not significant with the net profit ratio. The F value (43.055) reveals that the estimated regression equation is not statistically significant.

- **BN Rathi securities**

  The regression result indicates that the co-efficient of multiple determination (R2) signifies 98.3 per cent of variation in profitability. The regression coefficient value shows that fixed assets to long term fund, operating profit ratio and return on net worth have a positive influence on the profitability, while current ratio, fixed assets to net worth ratio, debtor's turnover ratio, working capital turnover ratio and total assets turnover ratio have a negative influence on the profitability. All the variables did not significantly influence the profitability. The F value (7.042) reveals that the estimated regression equation is not statistically significant.

- **CIL Securities**

  The regression result indicates that the co-efficient of multiple determination (R2) signifies 99.4 per cent of variation in profitability. The regression coefficient value show that current ratio, debtor's turnover ratio, total assets turnover ratio and operating profit ratio have a positive influence on the profitability, while fixed assets to long term fund, working capital turnover ratio and return on net worth have a negative influence on the profitability. All the variables did not significantly influence the profitability. The F value (46.556) reveals that the estimated regression equation is not statistically significant.

- **DB (international) stock brokers**

  The regression result indicates that the co-efficient of multiple determination (R2) signifies 97.8 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to long term fund, debtors turnover ratio, working capital turnover ratio and return on net worth have a positive influence on the profitability, while total assets turnover ratio and operating profit ratio have a negative influence on the profitability. All the variables failed to influence the profitability. The F value (12.897) reveals that the estimated regression equation is not statistically significant.

- **Emkay Global Financial services**

  The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.4 per cent of variation in profitability. The regression coefficient value shows that fixed assets to long term fund, debtors turnover ratio, operating profit ratio and return on net worth have a positive influence on the profitability, while current ratio, fixed assets to net worth ratio, working capital turnover ratio and total assets turnover ratio have a negative influence on the profitability. All the variables did not influence on the profitability. The F value (20.048) reveals that the estimated regression equation is not statistically significant.

- **Inani Securities**

  The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.9 per cent of variation in profitability. The regression coefficient value shows that fixed assets to long term fund, debtors turnover ratio, total assets turnover ratio and return on net worth have a positive influence on the

profitability, while current ratio, fixed assets to net worth ratio, working capital turnover ratio and operating profit ratio have a negative influence on the profitability. All the variables did not influence the profitability. The F value (93.938) reveals that the estimated regression equation is not statistically significant.

- **Inditrade Capital**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to long term fund, working capital turnover ratio, total assets turnover ratio and operating profit ratio have a positive influence on the profitability, while fixed assets to net worth ratio, debtors turnover ratio and return on net worth ratio have a negative influence on the profitability. All the variables did not influence the profitability. The F value (74.908) reveals that the estimated regression equation is not statistically significant.

- **Joindre capital**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 98.7 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to long term fund, working capital turnover ratio and return on net worth ratio have a positive influence on the profitability, while debtors' turnover ratio, total assets turnover ratio and operating profit ratio have a negative influence on the profitability. All the variables did not significantly influence the profitability. The F value (22.012) reveals that the estimated regression equation is not statistically significant.

- **KBS India**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.9 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to long term fund, working capital turnover ratio, total assets turnover ratio and return on net worth have a positive influence on the profitability, while fixed assets to net worth ratio, debtors turnover ratio and operating profit ratio have a negative influence on the profitability. All the variables did not significantly influence the profitability. The F value (94.050) reveals that the estimated regression equation is not statistically significant.

- **Khandwala Securities**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 98.1 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to net worth ratio, debtors turnover ratio, working capital turnover ratio, operating profit ratio and return on net worth have a positive influence on the profitability, while fixed assets to long term fund, total assets turnover ratio have a negative influence on the profitability. All the variables did not significantly influence the profitability. The F value (6.553) reveals that the estimated regression equation is not statistically significant.

- **Market Creators**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that the return on net worth ratio has a positive association whereas current ratio, fixed assets to net worth ratio, debtor's turnover ratio and working capital turnover ratio have influenced the profit significantly. The total assets turnover ratio and operating profit ratio have influenced the profit negatively. All the variables did not significantly influence the profitability except Return on worth. The F value (210.569) reveals that the estimated regression equation is statistically significant at 1% level.

- **Munoth Capital Markets**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that fixed assets to net worth ratio, operating profit ratio and return on net worth ratio have a positive and significant association, while fixed assets to long term fund, debtors turnover ratio and working capital turnover ratio have a negative significant association and the variables current ratio and total assets turnover ratio have a negative influence on the Net profit. The F value (1392.372) reveals that the estimated regression equation is statistically significant at 5% level.

- **NDA securities**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that working capital turnover ratio, total assets turnover ratio and return on net worth ratio have a positive significant association , while current ratio, fixed assets to net worth ratio, fixed assets to long term fund, debtors turnover ratio and operating profit ratio have a negative influence on the profitability. The F value (14314.634) reveals that the estimated regression equation is statistically significant at 1%.

- **RR financial consultants**

The regression results indicate that the co-efficient of multiple determination (R2) signifies 88.1 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to long term fund, operating profit ratio and return on net worth have a positive significant association, while debtors turnover ratio, working capital turnover ratio

and total assets turnover ratio have a negative influence on the profitability. All the variables have not influenced the profit significantly. The F value (2.112) reveals that the estimated regression equation is not statistically significant.

- **SKP securities**

  The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that operating profit ratio has a positive significant association, whereas current ratio, fixed assets to long term fund, debtors turnover ratio and total assets turnover ratio have a positive influence on the profitability. The fixed assets to net worth ratio, working capital turnover ratio and return on net worth ratio have a negative influence on the profitability. The F value (643.080) reveals that the estimated regression equation is statistically significant at 5%.

- **Swastika Investsmart**

  The regression results indicate that the co-efficient of multiple determination (R2) signifies 99.8 per cent of variation in profitability. The regression coefficient value shows that fixed assets to long term fund, debtors turnover ratio, operating profit ratio and return on net worth have a positive association , while current ratio, fixed assets to net worth ratio, working capital turnover ratio and total assets turnover ratio have a negative influence on the profitability. The F value (146.764) reveals that the estimated regression equation is statistically not significant.

- **Vertex Securities**

  The regression results indicate that the co-efficient of multiple determination (R2) signifies that 99.8 per cent of variation in profitability. The regression coefficient value shows that current ratio, fixed assets to net worth ratio, working capital turnover ratio and operating profit ratio have a positive association , while fixed assets to long term fund, debtors turnover ratio, total assets turnover ratio and return on net worth have a negative influence on the profitability. The F value (43.554) reveals that the estimated regression equation is statistically not significant.

8. Conclusion

There is a positive association and a good fit of relationship with the net profit in all the companies' financial ratio except for a few stock broking companies. The Multiple Regression Analysis reveals that the regression model for the selected variables have a significant relationship with the net profit ratio for the following companies CIL securities, Joindre Capital, Market Creators, Munoth Capital Markets, NDA Securities and SKP securities. On the other hand the regression model for the selected independent variables does not show a significant relationship with the net profit ratio, for the remaining companies.

ANNEXURE

TABLE NO. 1
MULTIPLE REGRESSION ANALYSIS

	'p' value						
Variables	**Aditya Birla Money**	**Arihant Capital Markets**	**BN Rathi Securities**	**Emkay Global Financial Services**	**Inani Securities**	**Inditrade Capital**	**Kbs India**
Current Ratio	0.885^{NS}	0.352^{NS}	0.712^{NS}	0.568^{NS}	0.589^{NS}	0.374^{NS}	0.951^{NS}
Fixed Assets to Net worth ratio	0.673^{NS}	0.255^{NS}	0.656^{NS}	0.493^{NS}	0.179^{NS}	0.552^{NS}	0.761^{NS}
Fixed Assets to Long term fund	0.598^{NS}	0.246^{NS}	0.617^{NS}	0.505^{NS}	0.208^{NS}	0.496^{NS}	0.754^{NS}
Debtors Turnover ratio	0.791^{NS}	0.569^{NS}	0.540^{NS}	0.323^{NS}	0.339^{NS}	0.737^{NS}	0.887^{NS}
Working Capital Turnover ratio	0.647^{NS}	0.231^{NS}	0.555^{NS}	0.305^{NS}	0.593^{NS}	0.308^{NS}	0.905^{NS}
Total Assets Turnover ratio	0.959^{NS}	0.249^{NS}	0.360^{NS}	0.763^{NS}	0.567^{NS}	0.892^{NS}	0.670^{NS}
Operating Profit ratio	0.874^{NS}	0.285^{NS}	0.985^{NS}	0.315^{NS}	0.517^{NS}	0.339^{NS}	0.092^{NS}
Return on net worth	0.465^{NS}	0.410^{NS}	0.236^{NS}	0.137^{NS}	0.093^{NS}	0.867^{NS}	0.078^{NS}
R Value	0.994	0.999	0.991	0.997	0.999	0.999	0.999
R^2 Value	0.989	0.997	0.983	0.994	0.999	0.998	0.999
F Value	11.249^{NS}	43.055^{NS}	7.042^{NS}	20.048^{NS}	93.938^{NS}	74.908^{NS}	94.050^{NS}

Note : NS - Not Significant **Source :** Prowess Data

TABLE NO. 2
MULTIPLE REGRESSION ANALYSIS

Variables	'p' value					
	Khandwala Securities	Munoth Capital Markets	NDA Securities	Skp Securities	Swastika Investsmart	Vertex Securities
Current Ratio	0.967^{NS}	0.187^{NS}	0.036**	0.119^{NS}	0.412^{NS}	0.308^{NS}
Fixed Assets to Net worth ratio	0.508^{NS}	0.032**	0.045**	0.079^{NS}	0.363^{NS}	0.448^{NS}
Fixed Assets to Long term fund	0.557^{NS}	0.035**	0.039**	0.082^{NS}	0.396^{NS}	0.484^{NS}
Debtors Turnover ratio	0.671^{NS}	0.041**	0.031**	0.093^{NS}	0.340^{NS}	0.904^{NS}
Working Capital Turnover ratio	0.559^{NS}	0.042**	0.035**	0.239^{NS}	0.732^{NS}	0.686^{NS}
Total Assets Turnover ratio	0.558^{NS}	0.191^{NS}	0.033**	0.143^{NS}	0.162^{NS}	0.415^{NS}
Operating Profit ratio	0.490^{NS}	0.025**	0.044**	0.050**	0.560^{NS}	0.181^{NS}
Return on Net worth	0.561^{NS}	0.020**	0.006*	0.138^{NS}	0.090^{NS}	0.704^{NS}
R Value	0.991	0.999	0.999	0.999	0.999	0.999
R^2 Value	0.981	0.998	0.998	0.998	0.998	0.998
F Value	6.553^{NS}	1392.372**	14314.634*	643.080**	146.764^{NS}	43.554^{NS}

Note : NS - Not Significant **Source :** Prowess Data

References

1. Chris Dubelaar et.al., "Performance measurement in the Australian On- line Securities Marketplace", International Journal of Bank Marketing, Vol. 21, Issue .6/7, pp.335 – 346 ,2003.
2. Chien- Ta Bruce Ho and K.B. Oh, "Measuring Online Stock Broking Performance", Industrial Management & Data Systems, Vol. 108 ,Issue. 7, pp.988 – 1004, 2008.
3. Freeman and Andrew, "Fixing what is Broking", Economist, Vol.341, Issue. 7989, p. S10, Oct 1996.
4. Guclu Okay and Ali Kose, "Financial Performance Analysis of Brokerage Firms Quoted on the Istanbul Stock Exchange using the TOPSIS Method of Analysis", International Journal of Business and Social Science, Vol. 6, Issue 8(1),pp.20-25, Aug 2015.
5. Human khan," Analysis of Liquidity ,Profitability and Working Capital Management –An Empirical study on BSE Listed Companies ", International Journal of Research in Commerce & Management ,Vol.3,Issue . 11, pp.7-10,Nov 2012.
6. www.icra.in/money
7. http://business.mapsofindia.com/india-company/top-10-brokerage-firms
8. http://www.sebi.gov.in/sebiweb/home/section/5/Intermediaries
9. Dr.V.Thilagavathi, & Dr.M.Lalitha,"Analysis of Profitability of The Select Private Sector Non Banking Finance Companies in India", Research Review International Journal of Multidisciplinary, Vol.3, Issue.8,pp. 387-386 ,Aug-2018.
10. Mrs.M.Prema, & Ms.S.Kowsalya "A Study on Working Capital Management of Indian Tobacco Company (ITC) Limited", Research Review International Journal of Multidisciplinary, Vol.3, Issue.9,pp. 176-178 ,Sep-2018.
11. Dr.V.Mohanraj & S.Sounthiri, "Determinants of Profitability of Selected Housing Finance Corporations in India", International Journal of Management IT& Engineering, Vol.6, Issue.7,pp.40-51, July-2016.
12. Dr. S. Kalaiselvi & Dr. C. Sangeetha,"Liquidity and Profitability analysis of the selected Stock Broking Companies "Research Review International Journal of Multidisciplinary, Vol.3, Issue.7,pp. 176-178 ,pp 226-229,July-2018.
13. Dr.S.Kalaiselvi, Dr.C.Sangeetha,"Ratio analysis of the selected stock broking companies",A sian Journal of Multidimensional Research ,Vol.7, Issue.7,pp. 176-178 ,pp195-199,July-2018.
14. Dr.C.Sangeetha," Financial Performance of the Aditya Birla Stock Broking Companies", Vol.3, Issue.9,Sep-2018.

