

Impact of Integrated Reporting on Share Prices of Selected Oil and Gas Companies of India

*¹Modi Vishakhaben and ²Dr. Chetana R. Marvadi

¹Research Scholar (Ph.D.), S. D. School of Commerce, Gujarat University, Ahmedabad, Gujarat

²Assistant Professor, S. D. School of Commerce, Gujarat University, Ahmedabad, Gujarat

ABSTRACT

Now-a-days the traditional methods of reporting and only historical financial information of the organization are not enough for the shareholders to know about the particular organization. There is also requirement for non-financial information in the company's annual report. The company has a perfect way to communicate with shareholders of all information which is Integrated Reporting. This study aims to examine the impact of integrated reporting on the share price of selected Oil and Gas companies of India. For this purpose data were collected through secondary sources i.e. annual reports and integrated reports for the period of 2012-13 to 2019-20. In this study, integrated disclosure index is calculated as per the components of the <IR> framework. It is found that total assets have more impact on the company while voluntary disclosure of the components of integrated reporting as per the <IR> Framework has a very low impact on the Share Price of the company. The overall results indicate that there is no connection between extent of integrated reporting and share price in oil and gas sector.

Keywords: *Integrated Reporting, Share Prices, Disclosure Index, Multiple Regression Analysis, <IR> framework*

Article Publication

Published Online: 15-May-2021

*Author's Correspondence

Modi Vishakhaben

 Research Scholar (Ph.D.), S. D. School of Commerce, Gujarat University, Ahmedabad, Gujarat.

 [modivishakha09\[at\]yahoo.com](mailto:modivishakha09[at]yahoo.com)

© 2021 The Authors. Published by *Research Review Journals*

This is an  open access article under the

CC BY-NC-ND license 
(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

1. Introduction

In the last two decades, the concept of sustainability reporting gained more fields in the company's annual reports and the same for the integrated reporting. Nowadays it is necessary to show both types of information i.e. financial and non-financial in annual reports of the company. The fundamental purpose of an integrated report is to explain providers of financial capital that how an organization creates value over time and the purpose of the <IR> Framework is to set Guiding Principle and Content elements which govern the overall content of the integrated report, and to explain the basic concepts that underpin them. Integrated reporting is a new trend born in the reporting field.

In 2011 a pilot program regarding the issue of an integrated reporting is launched by the International Integrated Reporting Council (IIRC). The first draft for consultation was presented in April 2013 by IIRC and after the different contributions in December, 2013 the final and the latest version of this document was presented. This document explained that what the structure of integrated reporting is. This framework gives an idea to the organization that how they disclose their information to the public domain.

So, this <IR> framework consists of some important components which are given below in the table-1

Table-1 Capitals, Other Aspects, Guiding Principle and Content Elements of <IR> Framework

Six Capitals	Other Aspects	Guiding Principles	Content Elements
Financial Capital	Financial Aspects	Strategic Focus and Future Orientation	Organizational Overview and External Environment
Manufactured Capital	Environment Aspects	Connectivity of Information	Governance
Intellectual Capital	Social Aspects	Stakeholder Relationship	Business Model
Human Capital	Governance Aspects	Materiality	Risks and Opportunities
Social and Relationship Capital		Conciseness	Strategy and Resource Allocation
Natural Capital		Reliability and Completeness	Performance
		Consistency and Comparability	Outlook
			Basis of preparation and presentation

Source: REPORTING, I. (2013). Consultation draft of the international < IR> framework.

2. Literature Review

Dragu and Tudor (2013) used a content analysis of 58 companies from the IIRC pilot program by using annual integrated reports for the period of 2010-2012. The aim of this study is to the implication of integrated reporting for international standards by investigating the emergent factors that determine the disclosure of integrated reports. In this paper statistical tests show both positive and negative correlations between IR and its determinants – Political, Economic, and Cultural. The findings of this study suggest that emergent factors i.e. political, economic, and cultural have a small influence of 8.1 percent on IR disclosure so, this paper brings new insights on the IIRC perspective for developing international standards on integrated reports.

Poignant and Stensio (2014) investigated what effect adoption of the <IR> framework has on the quality of environmental reporting. They took the sample of 102 companies. They used disclosure index, two sample independent t-test and descriptive statistics in the study. They used secondary data i.e. annual report of 2011 and 2013. This study concludes that there is no difference in the effect on the quality of environmental reporting with respect to legal origin or environmental sensitivity.

Lipunga (2015) has used content analysis to investigate the level of integrated reporting in developing countries focusing on 12 Malawian listed companies of 2013 by using an Integrated Reporting Index (IRI). It is based on score which range from 0 to 1 is the minimum and maximum respectively. This study revealed an average IRI of 0.43 and an IR gap of 0.57. The average IRI suggested achievement of some progress towards IR by the companies and on the other hand IR gap indicates the need for much more effort to be exerted in promoting IR among the listed companies in Malawi. It concludes that IR is being governed by a code of corporate governance that lacks of detailed guidelines concerning it.

Serafeim (2015) examined the relation between Integrated Reporting and composition of a firm's investor base. For this purpose they took 1114 unique US-listed firms. He collected data on typed of institutional investors from Thomson Reuters Institutional Holdings between 2002 and 2010. He found that firms that practice more IR have a more long time investor base and that this results is driven by having more dedicated and fewer transient investors.

Barin and Ansari (2016) used a content analysis of six petroleum companies of India. The main objective of this study is to examine the financial and non-financial disclosure in the annual integrated reports in compliance with IIR framework. They used correlation to test the relationship between the financial ratios and the degree of disclosure environmental social information of the six petroleum companies for that they analysed the data for the period of two years from 2013-14 to 2014-15. This study concludes that if a proper combination of voluntary disclosure and regulatory standard is achieved, IR can be the best way to communicate the overall financial and non-financial performance of the company as whole.

Josimovski (2017) examined a sample of 3011 European publically traded firms from 2012 to 2015. The main objective of this study is to get a more precise picture of the concept of integrated reporting by investigating potential implications for firms that have adopted this new concept. He took firm's financial data from the Orbis database, except for the industry sales growth which he took from the website of CSIMarke. The study concludes that firms that practice integrated reporting do not have better access to financial resources relative to firms that do not practice integrated reporting.

Zhou et. al. (2017) undertook empirical analysis of 443 listed companies on the JSE with fiscal years ending in 2009 to 2012. This study aims to provide empirical evidence to answer the questions "Does <IR> matter to the capital market"? They used annual fundamental data, market data, and exchange rate data obtained from global Compustat, and all the data are downloaded from

Wharton Research Data Services. This study concludes that <IR> is providing incrementally useful information over existing reporting mechanisms to the capital market.

Ekta Kumawat et. al. (2020) examined whether the Indian companies prepare Integrated Reports by the International Integrated Reporting framework and also examine the value-relevance of integrated reporting for the Share Prices of companies listed on Nifty 50 NSE India. They analyzed Annual/Integrated reports for the years 2016-17 & 2017-18 by using Pearson Correlation, Mann-Whitney U-Test, and linear regression associated with the Ohlson Model. They took 45 parameters under the main 8 content elements and calculate the disclosure index. This study concludes that adoption of Integrated Reporting Framework increases the level of disclosure in the annual report but their content elements as per Integrated Reporting have no value relevance for a company's Share Price.

Prashanta Athma and N.Rajyalaxmi conducted study to compare the Integrated Reporting practices of Metair Investments Ltd. a South African country with Kirloskar Brothers Ltd. an Indian company, and to analyze the Integrated Reporting practices of BSE 30 companies both item-wise and company wise. They used mean disclosure, standard deviation, and coefficient of variance to analyze various aspects of Integrated Reporting. They used secondary data i.e. annual report of 2004-05 to 2013-14. This study concludes that instead of preparing several reports the Indian companies can prepare only one report and save time and money and the stakeholders can get all the information in one report.

3. Research Methodology

Research Objectives:

- To measure the extent of disclosure of integrated reporting of selected companies.
- To evaluate the impact of the Disclosure Index of integrated reporting on the Share Price.

Sample Size:

To Study the disclosure Index of Integrated Reporting for Oil and Gas industries we have selected 5 Oil and Gas companies in India. The analysis of components of Integrated Reporting such as 6 Capitals, 4 other Aspects of <IR> and 45 parameters of main 8 Content Elements are used to calculate disclosure Index. The study is based on secondary data of 8 years from 2012-13 to 2019-20.

Selected companies are:

- Bharat Petroleum Corporation Ltd(BPCL)
- GAIL (INDIA) Ltd(GAIL)
- Hindustan Petroleum Corporation Ltd(HPCL)
- Indian Oil Corporation Ltd(IOC)
- Oil & Natural Gas Corporation Ltd(ONGC)

Statistical Tools and Techniques:

- Disclosure Index
- Descriptive Statistics
- Multiple Regression Analysis

4. Data Analysis and Interpretation

4.1 Disclosure Index:

For the calculation of the Disclosure index, we take the 6 capitals, 4 other aspects, and 45 sub-elements under eight main content elements of the <IR> Framework. The Maximum disclosure Score is 88 of total 55 items. Then the disclosure index is calculated as the ratio of the total number of items disclosed by the particular company divided by the maximum number of disclosure.

The following table-2 shows the disclosure index of selected companies.

Table-2 Disclosure Index

Name of Company					
YEAR	BPCL	GAIL	HPCL	IOC	ONGC
2012-13	0.636364	0.681818	0.556818	0.647727	0.693182
2013-14	0.647727	0.715909	0.602273	0.693182	0.704545
2014-15	0.659091	0.727273	0.625	0.704545	0.693182
2015-16	0.670455	0.829545	0.613636	0.715909	0.693182

2016-17	0.681818	0.829545	0.681818	0.704545	0.784091
2017-18	0.693182	0.829545	0.681818	1	0.772727
2018-19	0.681818	0.829545	0.727273	1	0.772727
2019-20	0.704545	0.829545	0.693182	1	0.772727
Average	0.671875	0.784091	0.647727	0.808239	0.735795

The above table-2 shows that almost all companies are disclosing more than 60% of items of integrated reporting. IOC and GAIL are disclosing highest items in their Annual Reports.

4.2 Descriptive Statistics:

Table-3 Descriptive Statistics

	Mean	Std. Deviation	C.V.
Share Price	351.0822	179.10920	0.5101631
Total Assets	145517.8614	92365.68440	0.6347378
Net Profit	8767.0273	7072.87333	0.8067584
Disclosure Index	.7295	.10142	0.1390267

In the above Table, the result of descriptive statistics of sample data of all five companies shows that mean disclosure is 0.7295 (72.95%) and standard deviation of disclosure is 0.10142 (10.14%). The value mean and standard deviation of other variables which are Share Price, total assets, and net profit are also high. The coefficient of variance determines the variability. Total assets and net profit have high variability while Share Price and disclosure index have medium and low variability respectively.

Table-4 Pearson Correlation

	Share Price	Total Assets	Net Value	Disclosure Index
Share Price	1.000 (.)			
Total Assets	-0.568* (0.000)	1.000 (.)		
Net Profit	-0.340* (0.016)	0.674* (0.000)	1.000 (.)	
Disclosure Index	-0.485* (0.001)	0.460* (0.001)	0.289* (0.035)	1.000 (.)

Dependent Variable: Share Price

*Significant at 0.05 level (1-tailed)

The above table indicates a significantly negative correlation between share price and disclosure index that is -0.485 but total assets show the significantly positive correlation with the disclosure index i.e. 0.460 and net profit shows a significantly positive low correlation that is 0.289. So, because of that, there is a negative impact of the disclosure index on share price. Disclosure index has a significantly positive low correlation with total assets and profit after tax but there is not a strong impact on total assets and profit after tax.

4.3 Multiple Regression Analysis:

The study uses the following Multiple Regression Analysis Model to identify effect of integrated reporting on Share price of selected companies.

$$SP_{it} = \alpha_0 + b_1 TA_{it} + b_2 PAT_{it} + b_3 DI_{it} + \epsilon_{it}$$

Where,

SP_{it} = Share Price

TA_{it} = Book value of Total Assets

PAT_{it} = Net profit after tax

DI_{it} = Disclosure index

ε = Error term

The following table shows the results of overall as well as company-wise multiple regression analysis:

Table-5 Result of Regression Analysis

Variables	Company-wise					
	OVERALL	BPCL	GAIL	HPCL	IOC	ONGC
Constant	836.526 (0.000)	-5055.64 (0.223)	350.309 (0.561)	-294.057 (0.848)	886.431 (0.006)	383.461 (0.287)
TA	-0.483* (0.016)	-1.558 (0.080)	-0.760 (0.539)	-1.344 (0.094)	-0.375 (0.426)	-0.930* (0.021)
PAT	0.067 (0.706)	0.177 (0.631)	-0.201 (0.799)	-0.300 (0.687)	0.323 (0.156)	0.368* (0.043)
Disclosure Index	-0.283 (0.062)	1.184 (0.174)	0.490 (0.579)	-0.961 (0.375)	-0.623 (0.222)	-0.002 (0.995)
R square	0.388	0.701	0.452	0.703	0.876	0.938
F Change	7.617	3.131	1.099	3.155	9.397	20.105
Significant F	0.000	0.150	0.446	0.148	0.028	0.007

*Significant at 0.05 level (1-tailed)

4.3.1 Overall Analysis:

The estimated Regression Model for overall analysis is as under:

$$SP_{it} = 836.526 - 0.483TA_{it} + 0.067PAT_{it} - 0.283DI_{it}$$

The above table shows the result of regression analysis. There is a negative impact of TA and Disclosure Index on share price but PAT has a positive impact on the Share Price of share. Total assets have the highest negative significant impact on share price. The value of R-square equals to 0.388 with a p value of 0.00, indicating that 38.8 percentage variation in Share Price (dependent variable) is explained significantly by all independent variables (Total assets, Net profit after tax, and Disclosure index) jointly and hence model is not powerful.

4.3.2 Company-Wise Analysis:

1. Bharat Petroleum Corporation Ltd:

The estimated Regression Model is as under:

$$SP_{it} = -5055.64 - 1.558TA_{it} + 0.177PAT_{it} + 1.184DI_{it}$$

There is a negative impact of total assets on Share Price but net profit after tax have a positive impact on Share Price. In this company disclosure index has the highest positive impact on share price. The value of R-square is 0.701 indicating that 70.1 percentage variations in Share Price is explained by all the independent variables jointly and therefore model is powerful for this company.

2. GAIL (INDIA) Ltd:

The estimated Regression Model is as under:

$$SP_{it} = 350.309 - 0.760TA_{it} - 0.201PAT_{it} + 0.490DI_{it}$$

There is a positive impact of Disclosure Index on Share Price. TA and PAT have a negative impact on Share Price. In this company total assets have the highest negative impact on share price. R-square value is equal to 0.452 which shows that 45.2 percentage variations in Share Price is explained by all the independent variables jointly and hence model is moderately powerful for this company.

3. Hindustan Petroleum Corporation Ltd:

The estimated Regression Model is as under:

$$SP_{it} = -294.057 - 1.344TA_{it} - 0.300PAT_{it} - 0.961DI_{it}$$

All the independent variables have a negative impact on the Share Price of this company but, the total assets indicate the highest negative impact on the Share Price of the company. The value of R-square is equal to 0.703 which shows that 70.3 percentage variations in Share Price is explained by all independent variables jointly which indicates that the model is powerful for this company.

4. Indian Oil Corporation Ltd:

The estimated Regression Model is as under:

$$SP_{it} = 886.431 - 0.375TA_{it} + 0.323PAT_{it} - 0.623DI_{it}$$

There is a negative impact of TA and Disclosure Index on Share Price while PAT has a positive impact on Share Price. Disclosure index has the highest negative impact on share price. The value of R-square is equal to 0.876 which is 87.6 percentage variations explained by all independent variables jointly that show the model is very strong for this company.

5. Oil & Natural Gas Corporation Ltd:

The estimated Regression Model is as under:

$$SP_{it} = 383.461 - 0.930TA_{it} + 0.368PAT_{it} - 0.002DI_{it}$$

TA has a significantly negative impact on share price of the company positive while PAT has significant positive impact on Share Price. Disclosure Index has a negative impact on Share Price of the company. The value of R-square equals 0.938 which shows 93.8 percentage variances explained by all independent variables jointly that indicates this model is most powerful for this company.

5. Major Findings

- From Regression analysis of industry as a whole, it is found that total assets have a significant negative impact on the share price. That indicates that if the company increases assets but does not utilise the assets efficiently then it will lead to decrease in the share price of the company.
- In the case of BPCL and GAIL, Disclosure index has the positive impact on share price which indicates that these two companies should try to disclose more information of integrated reporting as it may lead to increase in share price.
- In the case of HPCL, IOC and ONGC, Disclosure index has the negative impact on share price. It indicates that the investors hardly pay any attention to the extent of integrated reporting disclosure for their investment decisions in these companies.
- The result for GAIL, HPCL and ONGC indicates total assets of the company have the highest negative impact on the share price. That means if the company increases the assets but if fails to utilise the assets efficiently it will be beneficial to shareholders as it may not lead to increase the share price of the company.
- In the case of Oil & Natural Gas Corporation Ltd., net profit after tax has a significant positive impact on share price it means if there will be an increase in the net profit the share price will also increase.
- The overall results indicate that there is no connection between extent of integrated reporting and share price in oil and gas sector.

6. Conclusion

In India, it is not mandatory to disclose all information in accordance with the <IR> framework for the organization. From the year 2017-18 SEBI suggested that the top 500 listed companies adopt the integrated reporting voluntarily. This study covers the all aspects of integrated reporting in the form of disclosure index and evaluate whether this disclosure index have any impact on Share Price for selected Oil and Gas companies of India. It is found that total assets have more impact on the share price of selected companies while voluntary disclosure components of integrated reporting as per the <IR> Framework has a very low impact on the Share Price of the companies. It indicates that there are many other factors are responsible for share price fluctuations and thereby, shareholders value creation.

References

1. <http://www.theiirc.org>
2. Prashanta Athma and n. Rajyalaxmi, Integrated reporting in India: An analysis of selected companies, Indian journal of Accounting.
3. Dragu, I. M., & Tiron-Tudor, A. (2013). The integrated reporting initiative from an institutional perspective: emergent factors. *Procedia-Social and Behavioral Sciences*, 92, 275-279.

4. Andrea Poignant & Sofia Stensiö (2014), The effect of integrated reporting on corporate environmental disclosure, Stockholm School of Economics, Department of Accounting.
5. Serafeim, G. (2015). Integrated reporting and investor clientele. *Journal of Applied Corporate Finance*, 27(2), 34-51.
6. Arshi Barin & A.A.Ansari (2016), Integrated Reporting Practices In select Indian Petroleum companies- An Analysis, EPRA International Journal of Economic and Business Review Vol. - 4, Issue- 12.
7. Lipunga, A. M. (2015). Integrated reporting in developing countries: Evidence from Malawi. *Journal of Management Research*, 7(3), 130-156.
8. Marko Josimovski (2017), Integrated Reporting and Access to Finance: Evidence from European Publicly Traded Firms.
9. Zhou, S., Simnett, R., & Green, W. (2017). Does integrated reporting matter to the capital market?. *Abacus*, 53(1), 94-132.
10. Ekta Kumawat, Shilpa Lodha & G. Soral (2020), Value Relevance Of Integrated Reporting: A Study Of Nifty 50 Companies Of India, Indian Journal Of Accounting (IJA) Volume:52(1) June 2020,15.