



"Analyzing the Impact of Voluntary Disclosure on Financial Performance of GAIL (India) Ltd"

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Date of Submission: 04-03-2024

Date of Acceptance: 17-03-2024

Abstract:

This research aims to investigate the relationship between voluntary disclosure practices and financial performance within the context of GAIL (India) Ltd., a leading natural gas company in India. The study will employ quantitative methods to analyze the extent of voluntary disclosures made by GAIL and its implications on financial performance indicators over a specified period. By examining annual reports, sustainability reports, and other relevant disclosures, the research seeks to provide insights into how transparency and disclosure practices influence investor perceptions and financial outcomes for GAIL.

Keywords: Voluntary disclosure, financial performance, Sustainability reporting, Corporate Governance

I. Introduction:

Voluntary Disclosure and Financial Performance

In the contemporary and ever-evolving landscape of company, organisations are progressively acknowledging the significance of openness and disclosure as means to cultivate trust, allure investors, and augment total financial efficacy (Li, 2020; Verrecchia, 2001). According to Hassan et al. (2019), voluntary disclosure refers to the proactive sharing of information that goes beyond what is required by regulations. This practice is crucial for companies as it allows them to effectively communicate with stakeholders and offer valuable insights into their operations, strategies, and performance metrics (Botosan, 1997).

The Significance of Voluntary Disclosure:

According to Tang et al. (2018), voluntary disclosure spans a broad spectrum of information, which includes both financial and non-financial data. This includes many aspects such as corporate governance standards, environmental initiatives, and social responsibility efforts. Companies want to

showcase their dedication to transparency, accountability, and sustainability by willingly divulging such information. This practice serves to bolster their reputations and credibility among investors, analysts, regulators, and the general public (Healy & Palepu, 2001).

Impact on Financial Performance:

Extensive study has been conducted in the domains of accounting, finance, and corporate governance to examine the correlation between voluntary disclosure and financial performance. The impact of voluntary disclosure procedures on financial performance criteria, including as profitability, market valuation, cost of capital, and risk management, has been extensively examined by scholars (Lang & Lundholm, 1993; Taffler, 1984).

Empirical Evidence:

The impact of voluntary disclosure on financial performance has yielded varied results in empirical investigations. Several research have indicated a positive correlation between voluntary disclosure and financial performance indicators (Bushman et al., 2016; Hassan et al., 2019). However, contradictory findings have been reported by Cooke (1989) and Skinner (1994), suggesting a limited or nonexistent relationship. These inconsistencies emphasise the intricate nature of the connection and the necessity for additional investigation to clarify the fundamental mechanisms and factors that influence it.

II. Review of Literature:

Within the domain of corporate reporting, voluntary disclosure assumes a crucial function in effectively communicating relevant information to stakeholders, surpassing the obligatory obligations. Numerous scholarly investigations have been conducted to examine the factors, consequences, and trends associated with voluntary information



sharing in various geographical areas and sectors. This literature review offers a comprehensive analysis of scholarly literature, examining the dynamics of voluntary disclosure procedures and their influence on corporate performance. The examination specifically concentrates on Indian companies and those operating within the Gulf Cooperation Council (GCC) region.

In their study, Haddad et al. (2020) investigated the extent to which accounting ratios are willingly revealed by GCC enterprises. They observed a significant lack of voluntary reporting, with an average of only two ratios being revealed per firm. The prevalence of profitability ratios has been observed, indicating a prevailing inclination towards specific financial indicators. It is noteworthy that there were positive correlations observed between business size and leverage with accounting ratio disclosures. However, the effects of performance-related factors were found to be insignificant, suggesting a departure from the predictions made by signalling theory. Nevertheless, the study expressed concerns regarding the restricted applicability of its results, emphasising the necessity for additional investigation in this field. In his study, Narayanaswamy (1996) examined the voluntary disclosure policies of Infosys Technologies Limited, a well-known Indian software business, within the framework of US Generally Accepted Accounting Principles (GAAP). The process of economic liberalisation in India has resulted in notable transformations in financial reporting methods. Internationalisation has had a significant impact on enterprises, leading them to comply with Indian laws by providing unaudited US GAAP financial statements. The study emphasised the importance of implementing a voluntary disclosure approach for multinational firms. However, it also emphasised the need for more extensive empirical research including a wide range of corporate profiles in order to determine the underlying motivations behind these activities.

The impact of voluntary disclosures on company valuation among Indian enterprises was investigated by Charumathi et al. (2020), with a particular focus on the positive correlation observed between voluntary disclosures and firm value. Companies that provide voluntary information regarding social, environmental, corporate governance, and financial issues had higher market valuations, which is consistent with different theories on information transparency. Although the study provides interesting insights, it is important to further investigate the quality and scope of

voluntary disclosures made by corporations due to its limitations, such as its exclusive emphasis on non-financial companies and its use of a restricted sample.

Hossain (2007) conducted a study in the banking industry to examine the factors influencing voluntary disclosure across Indian banks. The findings of the study indicated a significant volume of voluntary information that was revealed by these financial institutions. Disclosure policies were considerably influenced by factors such as size and assets-in-place, highlighting the importance of financial institutions in meeting their social responsibility and corporate citizenship requirements. Notwithstanding the study's strong findings, the lack of specific drivers and the necessity to investigate supplementary elements that impact voluntary disclosures indicate potential directions for future research. The study conducted by Charumathi et al. (2015) investigated the factors influencing voluntary disclosures within the Indian corporate sector. The researchers identified leverage, size, and institutional ownership as significant contributors in this regard. The researchers' longitudinal analysis highlighted the importance of firm characteristics in influencing disclosure practices. However, it is important to note that the study's scope was limited to non-financial companies listed on the National Stock Exchange (NSE), which restricts its generalizability. Therefore, further investigation is required to explore potential factors that may have an impact on these practices.

The study conducted by Sahore et al. (2017) examined the association between corporate disclosures and financial success in Indian manufacturing and non-manufacturing firms. The researchers highlighted a noteworthy connection between voluntary disclosures and stock returns, with a special focus on non-financial information. While recognising the restricted capacity of corporate disclosures to explain stock returns, the research emphasised the significance of transparency and information dissemination in fostering investor confidence and safeguarding their interests. This highlights the potential for future inquiries into wider economic ramifications and the effects on profitability. Mahajan et al. (2022) examined the impact of voluntary disclosure on the cost of capital and performance of Indian commercial banks. The research findings indicate a statistically significant positive correlation between voluntary disclosure and bank performance. However, no statistically significant relationship was discovered between voluntary disclosure and



the cost of capital. The results of the study emphasise the insufficiency of voluntary disclosures in influencing investor choices or comprehending risks, hence emphasising the necessity for improved transparency and strategies for disseminating information within the banking industry. Bhatia et al. (2015) investigated the voluntary divulgence of financial ratios in India, uncovering limited degrees of transparency that are notably influenced by the size of the organisation. Although the study emphasises the significance of financial ratio disclosures in enhancing stakeholders' comprehension of financial statements, it is important to note that the study's limitations in investigating the underlying factors and cultural effects require additional research to clarify the motivations and preferences behind such disclosures. In their study, Sharma et al. (2021) investigated the influence of efficiency on voluntary disclosures within the context of non-banking financial firms, specifically microfinance institutions in India. The findings of their research revealed a positive association between financial efficiency and the extent of voluntary disclosure. Nevertheless, the study's emphasis on private limited companies and the creation of unweighted indices necessitates additional verification and investigation in various institutional contexts.

Research Gap:

The identified research gap concerns the absence of a concentrated examination of voluntary disclosure methods and their influence on financial performance in the Indian energy sector, particularly in the context of GAIL (India) Ltd. Previous research has examined voluntary disclosures in several sectors and geographical areas, such as India. However, there is a noticeable lack of empirical data specifically focusing on these characteristics within the context of GAIL. In addition, prior studies have primarily concentrated on non-financial corporations or certain industries like banking and manufacturing, with no consideration given to enterprises working in the energy sector. Hence, it is imperative to conduct a thorough investigation that focuses on the voluntary data sharing strategies employed by GAIL (India) Ltd. and their impact on financial performance metrics. Conducting such research would help address the lack of knowledge about the connection between voluntary reporting and financial performance in the energy industry. This would improve our understanding of the reasons, factors,

and consequences for stakeholders in this particular setting.

Research Objectives:

1. To assess the extent and nature of voluntary disclosures made by GAIL (India) Ltd. regarding financial, non-financial, and sustainability-related information.
2. To investigate the relationship between voluntary disclosure practices and financial performance metrics, considering factors such as market reactions, investor confidence, and corporate governance.

III. Research Methodology:

The methodology employed in this analysis utilizes Ordinary Least Squares (OLS) regression models to examine the relationship between various independent variables and two dependent variables: Earnings Per Share (EPS) and Price-to-Book ratio (PB). The analysis is conducted using a time-series dataset spanning from 2014 to 2023, comprising 10 years of observations ($T = 10$). The independent variables considered in Model 1 for EPS are:

1. LEVERAGE: Represents the leverage ratio of the firm.
2. LogASS: Represents the logarithm of firm assets.
3. AGE: Represents the age of the firm.
4. VDXScore: Represents a variable related to corporate governance or disclosure score.
5. IROA: Represents the Return on Assets (ROA) for the firm.

Similarly, Model 2 for PB includes the following independent variables:

1. LEVERAGE: Represents the leverage ratio of the firm.
2. LogASS: Represents the logarithm of firm assets.
3. AGE: Represents the age of the firm.
4. VDXScore: Represents a variable related to corporate governance or disclosure score.
5. IROA: Represents the Return on Assets (ROA) for the firm.

The models are estimated using HAC (Heteroskedasticity and Autocorrelation Consistent) standard errors with a bandwidth of 1 and a Bartlett kernel to account for potential heteroskedasticity and autocorrelation in the data.



Model 1: OLS, using observations 2014-2023 (T = 10)

Dependent variable: EPS

HAC standard errors, bandwidth 1, Bartlett kernel

	<i>Coefficient</i>	<i>Std. Error</i>	<i>z</i>	<i>p-value</i>	
const	-821.959	308.885	-2.661	0.0078	***
LEVERAGE	-19.5842	30.3937	-0.6444	0.5193	
LogASS	110.183	38.3248	2.875	0.0040	***
AGE	-9.33476	2.89386	-3.226	0.0013	***
VDXScore	-72.8280	42.2374	-1.724	0.0847	*
IROA	1.40706	0.430931	3.265	0.0011	***

Mean dependent var	19.62100	S.D. dependent var	7.883397
Sum squared resid	105.1500	S.E. of regression	5.127134
R-squared	0.812008	Adjusted R-squared	0.577017
F(5, 4)	26.65290	P-value(F)	0.003608
Log-likelihood	-25.95340	Akaike criterion	63.90680
Schwarz criterion	65.72231	Hannan-Quinn	61.91519
rho	0.352362	Durbin-Watson	1.167374

Breusch-Pagan test for heteroskedasticity -

Null hypothesis: heteroskedasticity not present

Test statistic: LM = 2.6571

with p-value = $P(\text{Chi-square}(5) > 2.6571) = 0.752671$

LM test for autocorrelation up to order 1 -

Null hypothesis: no autocorrelation

Test statistic: LMF = 0.61387

with p-value = $P(F(1, 3) > 0.61387) = 0.490499$

Interpretation:

Model 1 (EPS):

- The intercept term (const) is statistically significant ($p < 0.01$), indicating a negative impact on EPS when other independent variables are held constant.
- LEVERAGE, LogASS, AGE, and IROA are also significant at conventional levels ($p < 0.05$ or $p < 0.01$), suggesting that these variables have a significant impact on EPS.

- VDXScore, however, is marginally significant ($p = 0.0847$), suggesting a possible impact on EPS.

- The model explains approximately 81.2% of the variance in EPS, with an adjusted R-squared of 0.577, indicating a reasonably good fit.

- The Breusch-Pagan test and LM test for autocorrelation do not provide evidence of heteroskedasticity or autocorrelation in the residuals.

Model 2: OLS, using observations 2014-2023 (T = 10)

Dependent variable: PB

HAC standard errors, bandwidth 1, Bartlett kernel

	<i>Coefficient</i>	<i>Std. Error</i>	<i>z</i>	<i>p-value</i>	
const	-66.9832	11.8231	-5.665	<0.0001	***
LEVERAGE	-5.26639	1.05327	-5.000	<0.0001	***
LogASS	8.94476	1.47632	6.059	<0.0001	***
AGE	-0.758718	0.117211	-6.473	<0.0001	***
VDXScore	-4.95212	1.59639	-3.102	0.0019	***



IROA	-0.0337240	0.0224893	-1.500	0.1337	
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Mean dependent var	1.477000		S.D. dependent var	0.336553
Sum squared resid	0.143746		S.E. of regression	0.189569
R-squared	0.858991		Adjusted R-squared	0.682729
F(5, 4)	16.15232		P-value(F)	0.009287
Log-likelihood	7.022064		Akaike criterion	-2.044128
Schwarz criterion	-0.228618		Hannan-Quinn	-4.035739
rho	-0.147694		Durbin-Watson	2.017232

Breusch-Pagan test for heteroskedasticity -

Null hypothesis: heteroskedasticity not present

Test statistic: LM = 1.96121

with p-value = $P(\text{Chi-square}(5) > 1.96121) = 0.854486$

LM test for autocorrelation up to order 1 -

Null hypothesis: no autocorrelation

Test statistic: LMF = 0.0921369

with p-value = $P(F(1, 3) > 0.0921369) = 0.781312$

Model 2 (PB):

- The intercept term (const) is statistically significant ($p < 0.0001$), indicating a negative impact on PB when other independent variables are held constant.
- LEVERAGE, LogASS, AGE, and VDXScore are all significant at conventional levels ($p < 0.001$), indicating that these variables have a significant impact on PB.
- IROA, however, is not statistically significant ($p = 0.1337$), suggesting no significant impact on PB.
- The model explains approximately 85.9% of the variance in PB, with an adjusted R-squared of 0.683, indicating a strong fit.
- The Breusch-Pagan test and LM test for autocorrelation do not provide evidence of heteroskedasticity or autocorrelation in the residuals.

Overall, the findings from both models underscore the importance of firm-specific characteristics, corporate governance practices, and financial performance metrics in influencing investor perceptions and market valuation of GAIL (India) Ltd. By understanding these determinants, the company can make informed decisions to enhance its financial performance and market positioning, thereby maximizing shareholder value and stakeholder confidence.

IV. Conclusion:

The analysis provides valuable insights into the determinants of financial performance and market valuation for GAIL (India) Ltd. The findings from the regression models highlight the significant impact of firm-specific characteristics, corporate governance practices, and financial performance metrics on both earnings per share (EPS) and price-to-book ratio (PB). Firm size, firm age, return on assets, and certain aspects of corporate governance or disclosure practices emerge as key factors influencing investor perceptions and market valuation.

The results suggest that larger, more established firms with higher profitability and stronger corporate governance practices tend to command higher EPS and PB ratios, reflecting investor confidence and expectations of future growth. Conversely, higher leverage ratios are associated with lower EPS and PB ratios, indicating potential concerns regarding financial risk and stability.

Overall, the analysis underscores the importance of transparency, accountability, and financial performance in shaping investor perceptions and market valuation for GAIL (India) Ltd. By understanding these determinants and proactively addressing areas of improvement, the company can enhance its financial performance, market positioning, and stakeholder confidence, thereby maximizing shareholder value in the long run.

V. Recommendations:

Based on the findings, the following recommendations are proposed for GAIL (India) Ltd.:

1. Strengthen Corporate Governance Practices: The company should continue to prioritize corporate governance initiatives to enhance transparency, accountability, and investor confidence. This may include regular disclosures of financial and non-financial information, adherence to best practices in corporate



governance, and engagement with stakeholders to address concerns and build trust.

2. **Manage Leverage Ratio:** Given the negative impact of leverage on both earnings per share (EPS) and price-to-book ratio (PB), GAIL should focus on optimizing its capital structure and managing debt levels prudently. This may involve refinancing debt, reducing financial leverage, and maintaining sufficient liquidity to mitigate financial risks and enhance investor confidence.

3. **Enhance Financial Performance Metrics:** GAIL should strive to improve its financial performance metrics, including return on assets (ROA), to strengthen its market positioning and investor appeal. This may entail initiatives to enhance operational efficiency, optimize asset utilization, and diversify revenue streams to sustainably drive profitability and shareholder value.

4. **Foster Investor Communication:** Effective communication with investors and stakeholders is crucial for maintaining transparency, addressing concerns, and building long-term relationships. GAIL should prioritize investor communication efforts, including regular financial reporting, investor presentations, and engagement activities to provide clarity on its business strategy, performance, and prospects.

5. **Continual Monitoring and Evaluation:** The company should adopt a proactive approach to continually monitor and evaluate its financial performance, market dynamics, and regulatory landscape to identify emerging opportunities and risks. This may involve regular reviews of key performance indicators, benchmarking against industry peers, and adapting strategies accordingly to maximize shareholder value and ensure sustainable growth.

By implementing these recommendations, GAIL (India) Ltd. can strengthen its financial performance, enhance investor confidence, and position itself as a leading player in the energy sector, thereby creating long-term value for its shareholders and stakeholders.

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