

Internet-based Voluntary Disclosure in Indian Corporate Sector



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Abstract

Purpose

The present paper examines the voluntary disclosures of financial and non-financial information on internet by Indian corporate sector.

Design/ Methodology/ Approach

A sample of top 200 companies, which constitute S&P BSE Dollex 200 Index, has been taken for the study. The sample comprises 18 diverse industry sectors. To measure the types and extent of internet-based voluntary financial and non-financial disclosures by the sample companies a worksheet referred as *Internet-based Voluntary Disclosure Index* (IVDI) has been prepared.

Findings

The results are confirmed by hypothesis testing, where (H_1) is accepted. It can be concluded that type of industry sector has a significant association with IVDI score of a company.

Practical Implications

The scope of this study is limited to a single country; it would be interesting to replicate this study to a group of emerging countries which have many similarities to the Indian environment.

Originality/ Value

Unlike the prior studies conducted in emerging countries, the study contributes not only to the present state of IVDI by the listed companies in India but also the connectivity problem between the dream and reality of the digital India concept. The study also finds that the companies' IVDI practices are not influenced by "Digital India" concept.

Keywords: Corporate Internet Reporting (CIR), Internet-based Voluntary Disclosure Index (IVDI), Voluntary Financial Disclosure Index (VFDI), Voluntary Non-Financial Disclosure Index (VNFDI).

Introduction

Corporate reporting is the process of communicating information relating to resources and performance of a company. It covers both financial reporting and non-financial reporting. The financial reporting includes some statutory reports like profit and loss account, balance sheet, cash flow statement, statement of changes in financial position, director's report, auditor's report and interim reports. In addition to this, there are some non-statutory financial reports also, which includes value added statement, summarized financial statement, current cost account, human resources accounting, social accounting, financial highlights, segment reporting, financial ratios, economic value added, price level accounting, etc. Non-financial reporting has its own value to evaluate a firm's performance in the present dynamic and competitive environment. This non-financial information includes information on corporate governance, corporate social responsibility, corporate history, environmental reporting and sustainable development reporting (Garg and Divya 2009).

Traditionally, companies use print-media such as hard copy annual reports, stand-alone corporate social reports, stand-alone environmental reports, news media, advertisements and brochures to communicate corporate information to their stakeholders (Dutta and Bose 2007).

In present times, the increased economic, market and regulatory pressures are forcing companies to accumulate and publish information regarding financial performance, social and environmental issues, corporate governance, and marketing as well as other information with more frequency, detail and a variety of formats. It has rather become mandatory with every organization to disclose information on website with the implementation of Right to Information Act, 2005. However, the information disclosed on the website is yet to be standardized in format and

content and different companies are adopting different practices in this regard (Shukla and Gekara 2010).

In recent years there has been an extensive growth in the use of the internet in the business reporting. Majority of the companies have set up their own websites to publish information. This type of disclosure is voluntary and unregulated by professional bodies and institutions in many countries particularly in developing countries. In most cases the information disclosed on the website has already appeared in printed forms.

Corporate Internet Reporting (CIR) is a new approach in emerging economy for outside decision-makers to access relevant accounting information. Corporate internet reporting of accounting information has emerged as a popular practice with companies at international and national levels. The technology of internet provides an efficient, quick and cost effective platform for communicating all this information with its distinctive and attractive features. The key object of corporate reporting is to provide all useful and extend accountability to numerous stakeholders. To meet the information needs of users, companies in the developed countries started to disclose financial and non-financial information on the internet. Being the fastest mode of communication, the internet has the widest reach in the present world of globalised economies.

The present paper examines the disclosures of financial and non-financial information on websites of Indian companies and identifies that the disclosures vary from industry to industry. The various sub-sections hereinafter included in the paper relate to literature review, objectives, methodology, analysis and results and conclusions.

Review of Literature

The prime source of the studies reviewed here includes various websites and selected referred international and national journals. There are many studies conducted abroad, but very little work has been done on this subject in India.

Oyelere et al. (2003) concluded that company size, industrial sector and liquidity had significant positive association and a spread of shareholding had a negative significant association with IFR practice. Silva and Alves (2004) concluded that the existence of significant association between the firm value and the voluntary disclosure of financial information. The results revealed that this association could vary according to the industry sector of the company or also its size. Smith and Pierce (2005) concluded that the governance framework surrounding IFR had received insufficient managerial attention. Debreceny et al. (2007) concluded that the key, non-financial statistics, projected information, information on intangible assets, social and environmental information, were associated with future revenue, future earnings and contemporaneous stock return. Our results document that Canadian firms provide useful information on their corporate website and suggest that the corporate website is a voluntary disclosure medium. Pervan (2008) concluded that the conducted research for the sampled largest Croatian companies indicates that

the level of voluntary Internet reporting slightly increased during the period 2005-2007. Measured by the IFR Score the level of Internet disclosure in 2005 was 6.85, in 2006 7.31 and in 2007 9.44. The increase of the IFR Score by 2.59 points is tested by Friedman test and the established hypothesis on the increase of Internet reporting can be accepted. Alanezi (2009) concluded that 56 per cent (100 of the 179 Kuwaiti companies studied) present their financial reports on their Web sites. The study's results also indicate that financial reporting on the Internet is significantly influenced by the auditor type, company size and industry type. There are significant differences in the level of engagement in Internet financial reporting between different industries. Joshi and Gao (2009) concluded that companies with a strong equity base and in a good financial condition had a propensity to voluntarily disclose more environmental information. Garg and Gakhar (2010) concluded that industry sector, size of the company, association with business house positively affect the extent of information disclosure on websites. But variables like age of the company, profitability, liquidity, leverage and ownership spread do not affect web reporting by companies. Rahman (2010) concluded that the degree of information disclosed in website had significant positive impact on abnormal return. The t-test used to test any significant difference between IFR companies and non-IFR companies showed insignificant result. Finally, the hierarchical regression test used to examine the impact of moderating variable, corporate governance, on IFR companies' stock prices also showed insignificant result. Boubaker et al. (2011) concluded that internet corporate reporting increases with firm size, audit firm size and ownership dispersion. The results also showed that voluntary disclosures were more suited for the internet than mandatory disclosures. Bozcuk et al. (2011) concluded that the percentage of firms providing financial disclosures on the internet doubled from the year 2003 to the year 2010. Gakhar (2011) concluded that there was a positive association between industry sector to which a company belongs to and its internet reporting practices. Henchiri (2011) concluded that two thirds of the firms listed in the Casablanca and Tunis stock exchanges had websites. Web site quality is also linked to firm size. Nurunnabi and Hossain (2012) concluded that the voluntary disclosure of IFR by the listed companies of Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) in Bangladesh depend on some firm characteristics where the big audit firms and non-family ownership variables were significant in explanatorily variable to the levels of voluntary disclosure. On the other hand, age, size, profitability, industry and audit committee variables were found not significant. Oyelere and Kuruppu (2012) concluded that 87 per cent of UAE-listed companies were found to operate websites; only 88 of these companies (about 67 per cent) use their websites to communicate financial information. Puspitaningrum and Atmini (2012) concluded that among corporate governance mechanisms, only audit committee meeting frequencies influence voluntary

disclosure of IFR. Basuony and Mohamed (2014) concluded that firm size was the major influencing factor that impacts internet financial reporting. Bowrin (2015) examined the comprehensiveness and determinants of internet reporting by 65 publicly listed Caribbean companies (Barbados, Eastern Caribbean, Jamaica and Trinidad & Tobago). It was found that Caribbean companies, on average, satisfied only 63.1 per cent of the items included in the index. Company size and industry affiliation were positively related to the comprehensiveness of CIR.

The literature reviewed here highlights the need to examine Internet-based voluntary disclosure in the corporate sector in India. The present paper makes a modest attempt to fill up this gap.

Research Objectives and Hypothesis

Internet-based corporate reporting is a voluntary practice adopted by companies. Political cost theory suggests that industry membership may affect the political vulnerability of firms. Firms in industries that are more politically vulnerable may use voluntary disclosure to minimize political costs, such as regulation, breakup of the entity/ industry etc. The main objective of the present study is to examine the voluntary disclosures of financial and non-financial information on websites of Indian companies. To

achieve this objective, the focus is on determining the internet-based voluntary disclosure index and its relationship with industry.

A positive association between industrial sector and internet reporting was established by Brennan and Hourigan (2000); Hassan et al. (2000) and Oyelere et al. (2003); Alanezi (2009); Garg and Gakhar (2010); Gakhar (2011) and Bowrin (2015). Keeping in view the findings of literature reviewed, the following hypothesis is formulated and tested:

$H_1 =$ There is positive association between industry type and Internet-based Voluntary Disclosure Index of a company.

Research Methodology

For the purpose of this study, a sample of top 200 companies, which constitute BSE Dollex 200 Index as on March 31, 2016 has been taken. The rationale behind selecting BSE Dollex 200 Index is that these 200 companies account for a sizeable share of market capitalization in Indian security market and reflect the performance of almost the entire corporate sector in the country. The industry wise distribution of sample companies has been shown in Table-1 below:

Table 1: Industry-wise Distribution of Sample Companies

Sr. No.	Industry Sector	Number of Companies	Percentage
1	Automotive	14	7
2	Banking/Finance	38	19
3	Cement/Construction	8	4
4	Chemicals	9	4.5
5	Conglomerates	4	2
6	Cons Non-Durable	10	5
7	Engineering	14	7
8	Food & Beverage	6	3
9	Manufacturing	8	4
10	Media	4	2
11	Metals & Mining	10	5
12	Miscellaneous	7	3.5
13	Oil & Gas	10	5
14	Pharmaceuticals	22	11
15	Services	10	5
16	Technology	11	5.5
17	Telecom	5	2.5
18	Utilities	10	5
Total		200	100

Table 1 reflects that the maximum number of 38 companies comes from Banking/Finance sector and the minimum number of 4 companies each comes from Conglomerates and Media sector. The sample represents 18 industry sectors from Indian corporate sector.

To measure the type and extent of internet-based voluntary disclosure by the sample companies, a worksheet referred to as Internet-based Voluntary Disclosure Index (IVDI) has been prepared. The information has been collected under the following ten major headings:

1. Voluntary Financial Disclosure Index (VFDI);
2. General Information (GI);
3. Corporate Social Responsibility Information (CSRI);
4. Corporate Governance Information (CGI);
5. Human Resource Information (HRI);
6. Marketing Information (MI);
7. Investor Related Information (IRI);
8. Right To Information (RTI);
9. Technological Aspects and User Support (TAUS) and
10. Environmental Information (EI).

Headings from ii) to x) constitutes Voluntary Non-Financial Disclosure Index (VNFDI). Definitions applied in the checklist model are based on an extensive literature review on internet-based disclosure studies. A pilot survey was conducted on some websites of Indian companies and contents of Internet-based Voluntary Disclosure Index (IVDI) were revised accordingly.

The data for computing the Internet-based Voluntary Disclosure Index has been taken from the websites of the sample companies. The maximum score of IVDI as per the worksheet developed comes to 167. The maximum possible scores for each of the sub-categories are given in Table 2.

Table 2: Maximum Possible Score of Disclosure Index

Sr. No.	Categories in Disclosure Index	Maximum Possible Score
	(Dependent Variable)	
i.	Voluntary Financial Disclosure Index (VFDI)	23
ii.	General Information (GI)	22
iii.	Corporate Social Responsibility Information (CSRI)	12
iv.	Corporate Governance Information (CGI)	15
v.	Human Resource Information (HRI)	12
vi.	Marketing Information (MI)	9
vii.	Investor Related Information (IRI)	20
viii.	Right To Information (RTI)	8
ix.	Technological Aspects and User Support (TAUS)	35
x.	Environmental Information (EI)	11
xi.	Voluntary Non-Financial Disclosure Index (VNFDI)	144
	<i>(It is a sub total of GI + CSRI + CGI + HRI + MI + IRI + RTI + TAUS + EI)</i>	
xii.	Internet-based Voluntary Disclosure Index (IVDI)	167
	<i>(It is sub total of VFDI + VNFDI)</i>	

Various descriptive statistics have been computed and analyzed to explain the extent and type of IVDI. To examine the relationship between IVDI and industry groups, variance analysis has been carried out in the study.

Empirical Results and Analysis

Internet-based voluntary disclosure index is a composition of voluntary financial disclosure Index and voluntary non-financial disclosure Index. Voluntary non-financial disclosure includes General Information (GI), Corporate Social Responsibility

Information (CSRI), Corporate Governance Information (CGI), Human Resource Information (HRI), Marketing Information (MI), Investor Related Information (IRI), Right To Information (RTI), Technological Aspects and User Support (TAUS) and Environmental Information (EI). Table 3 shows the mean, median, variance, standard deviation, minimum, maximum, range, interquartile range, skewness and kurtosis values of all these variables, hereinafter called the dependent variables in this study.

Table 3: Descriptive Statistics of Dependent Variable

Dependent Variable	Statistic	Sector		All Companies
		Private	Public	
Internet-Based Voluntary Disclosure Index (IVDI)	Mean	100.46	123.50	103.92
	Median	101.00	124.50	103.00
	Variance	84.94	88.26	153.02
	Std. Deviation	9.22	9.39	12.37
	Minimum	73.00	104.00	73.00
	Maximum	122.00	137.00	137.00
	Range	49.00	33.00	64.00
	Interquartile Range	12.00	16.50	14.75
	Skewness	-0.40	-0.42	0.42
	Kurtosis	0.13	-0.78	0.40
Voluntary Financial Disclosure Index (VFDI)	Mean	20.27	20.27	20.27
	Median	21.00	21.00	21.00
	Variance	2.35	2.20	2.32
	Std. Deviation	1.53	1.48	1.52
	Minimum	15.00	17.00	15.00
	Maximum	22.00	22.00	22.00
	Range	7.00	5.00	7.00
	Interquartile Range	1.00	2.00	1.00
	Skewness	-1.11	-0.70	-1.05

	Kurtosis	0.79	-0.64	0.59
Voluntary Non-Financial Disclosure Index (VNFDI)	Mean	80.19	103.23	83.65
	Median	81.00	103.00	83.00
	Variance	75.17	76.94	143.10
	Std. Deviation	8.67	8.77	11.96
	Minimum	55.00	86.00	55.00
	Maximum	100.00	115.00	115.00
	Range	45.00	29.00	60.00
	Interquartile Range	12.00	14.50	13.00
	Skewness	-0.42	-0.41	0.49
	Kurtosis	0.23	-0.86	0.47
General Information (GI)	Mean	12.41	15.20	12.83
	Median	12.00	15.00	13.00
	Variance	5.05	2.65	5.67
	Std. Deviation	2.25	1.63	2.38
	Minimum	7.00	10.00	7.00
	Maximum	18.00	18.00	18.00
	Range	11.00	8.00	11.00
	Interquartile Range	3.00	1.25	3.75
	Skewness	-0.03	-0.96	-0.11
	Kurtosis	-0.08	2.79	-0.34
Corporate Social Responsibility (CSR)	Mean	6.77	8.53	7.04
	Median	7.00	8.50	7.00
	Variance	4.38	6.05	5.00
	Std. Deviation	2.09	2.46	2.24
	Minimum	1.00	4.00	1.00
	Maximum	12.00	12.00	12.00
	Range	11.00	8.00	11.00
	Interquartile Range	3.00	5.00	2.00
	Skewness	-0.06	-0.15	0.07
	Kurtosis	-0.28	-1.23	-0.34
Corporate Governance Information (CGI)	Mean	11.67	13.10	11.89
	Median	12.00	13.00	12.00
	Variance	1.74	1.33	1.93
	Std. Deviation	1.32	1.16	1.39
	Minimum	6.00	11.00	6.00
	Maximum	15.00	15.00	15.00
	Range	9.00	4.00	9.00
	Interquartile Range	1.00	2.00	2.00
	Skewness	-0.41	0.08	-0.28
	Kurtosis	1.35	-0.78	1.00
Human Resource Information (HRI)	Mean	7.97	9.97	8.27
	Median	8.00	11.00	9.00
	Variance	4.69	4.10	5.09
	Std. Deviation	2.17	2.03	2.26
	Minimum	1.00	4.00	1.00
	Maximum	11.00	12.00	12.00
	Range	10.00	8.00	11.00
	Interquartile Range	3.00	2.25	3.00
	Skewness	-0.85	-1.42	-0.76
	Kurtosis	0.54	1.36	0.36

Remarking An Analisation

Marketing Information (MI)	Mean	4.48	6.73	4.82
	Median	4.00	7.00	4.00
	Variance	1.83	1.86	2.47
	Std. Deviation	1.35	1.36	1.57
	Minimum	1.00	4.00	1.00
	Maximum	8.00	9.00	9.00
	Range	7.00	5.00	8.00
	Interquartile Range	1.00	2.00	2.00
	Skewness	0.67	-0.88	0.54
	Kurtosis	0.52	0.11	-0.34
Investor Relations Information (IRI)	Mean	15.92	16.63	16.03
	Median	16.00	17.00	16.00
	Variance	2.80	4.52	3.10
	Std. Deviation	1.67	2.13	1.76
	Minimum	7.00	10.00	7.00
	Maximum	19.00	19.00	19.00
	Range	12.00	9.00	12.00
	Interquartile Range	2.00	2.25	2.00
	Skewness	-1.41	-1.38	-1.27
	Kurtosis	6.41	1.97	4.80
Right-To-Information (RTI)	Mean	0.00	7.33	1.10
	Median	0.00	8.00	0.00
	Variance	0.00	4.09	7.49
	Std. Deviation	0.00	2.02	2.74
	Minimum	0.00	0.00	0.00
	Maximum	0.00	8.00	8.00
	Range	0.00	8.00	8.00
	Interquartile Range	0.00	0.00	0.00
	Skewness	0.00	-3.49	2.10
	Kurtosis	0.00	11.33	2.45
Technological Aspects and User Support (TAUS)	Mean	14.60	17.70	15.07
	Median	14.00	18.50	15.00
	Variance	11.07	12.15	12.40
	Std. Deviation	3.33	3.49	3.52
	Minimum	7.00	10.00	7.00
	Maximum	23.00	26.00	26.00
	Range	16.00	16.00	19.00
	Interquartile Range	5.00	5.00	4.75
	Skewness	0.08	-0.18	0.11
	Kurtosis	-0.29	0.16	-0.25
Environmental Information (EI)	Mean	6.36	8.03	6.62
	Median	7.00	10.00	7.00
	Variance	6.97	11.14	7.90
	Std. Deviation	2.64	3.34	2.81
	Minimum	0.00	0.00	0.00
	Maximum	11.00	11.00	11.00
	Range	11.00	11.00	11.00
	Interquartile Range	5.00	4.50	4.00
	Skewness	-0.29	-1.17	-0.34
	Kurtosis	-0.54	0.46	-0.58

Remarking An Analisation

The overall average of IVDI score is 103.92. The maximum value of IVDI is 137, whereas the minimum value is 73. The variances in the degree of disclosure of IVDI score in case of public sector companies are higher as compared to private sector companies. The mean value of public sector companies 123.50 is better as compared to private sector companies 100.46 for IVDI. The standard deviation is higher for public sector companies 9.39 as compared to for private sector companies 9.22. A very high degree of variations in the type of internet-based disclosures can be noticed from the table. No company could get the hundred per cent score of 167. The mean value of VFDI for public sector companies 20.27 is equal as compared to private sector companies 20.27. The table shows that fluctuations in the VFDI score are higher in private sector companies. The analysis highlights that there is no consistency in disclosure of financial information made by public and private sector companies. The overall mean value for VNFDI is 83.65. The mean value of VNFDI for public sector companies 103.23 is higher as compared to private sector companies 80.19. For GI, the mean value is 12.83. Public sector companies have better disclosure of GI on the websites as compared to private sector companies. For CSR a company can get a maximum score of 12. The average value of CSR in case of public sector companies is 8.53 and for private sector companies are 6.77. For CGI, the mean value is 11.89. Public sector companies have better disclosure of CGI on the websites as compared to private sector companies. The overall maximum score of CGI is very good as it is hundred percent of the maximum possible disclosure. For HRI, the mean value is 8.27. Public sector companies have better disclosure of HRI on the websites as compared to private sector

companies. The average value of MI for public sector companies is 6.73 and for private sector companies are 4.48. Public sector companies have better disclosure of MI on the websites as compared to private sector companies. IRI is getting an average score of 16.03. Public sector companies have better disclosure of IRI on the websites as compared to private sector companies. The skewness (1.27) is negative. The mean value of RTI for public sector companies is 7.33 and for private sector companies is 0 as no private sector company is disclosing information under RTI on their website. The average value for all companies for TAUS is 15.07 and a high degree of variation in technological soundness of websites of different companies has been found in the study. The kurtosis (0.25) is negative. The average value of EI for public sector companies is 8.03 and for private sector companies are 6.36. Public sector companies have better disclosure of EI on the websites as compared to private sector companies.

Industry-wise Classification of Internet-based Voluntary Disclosure Index

Table 4 shows Internet-based Voluntary Disclosure Index classification as per industry sectors of sample companies. Average Internet-based Voluntary Disclosure Index of Oil & Gas sector 122 is the highest; Metals & Mining sector 115.40 is second, Utilities sector 113.30 IVDI score is at the third place. Banking/Finance sector has mean IVDI score of 107; Engineering 105.14; chemicals 103.11; cement/construction 102.88; services 102.20 also have good average IVDI scores. The standard deviation is the highest in case of utilities sector 15.88 and is the lowest for food & beverage sector 4.89, which has a minimum score of 91 and maximum score of 104. The value of C.V also confirms high variations in media sector.

Table 4: Industry-wise Internet-based Voluntary Disclosure Index

Sr. No.	Industry Name	IVDI				
		Mean	Std. Dev.	Minimum	Maximum	C.V.
1	Automotive	101.57	10.17	83.00	117.00	0.10
2	Banking/Finance	107.00	11.61	86.00	129.00	0.11
3	Cement/Construction	102.88	9.69	86.00	115.00	0.09
4	Chemicals	103.11	7.27	87.00	111.00	0.07
5	Conglomerates	94.25	11.35	78.00	103.00	0.12
6	Cons Non-Durable	97.20	7.86	86.00	108.00	0.08
7	Engineering	105.14	14.32	75.00	133.00	0.14
8	Food & Beverage	99.33	4.89	91.00	104.00	0.05
9	Manufacturing	99.50	13.64	87.00	130.00	0.14
10	Media	89.25	14.45	74.00	106.00	0.16
11	Metals & Mining	115.40	9.24	102.00	129.00	0.08
12	Miscellaneous	99.86	9.23	88.00	111.00	0.09
13	Oil & Gas	122.00	11.79	104.00	136.00	0.10
14	Pharmaceuticals	96.91	8.62	73.00	109.00	0.09
15	Services	102.20	10.59	90.00	124.00	0.10
16	Technology	101.64	6.20	89.00	109.00	0.06
17	Telecom	99.20	8.98	88.00	109.00	0.09
18	Utilities	113.30	15.88	92.00	137.00	0.14

Industry-wise Classification of Voluntary Financial Disclosure Index

Table 5 shows Voluntary Financial Disclosure Index classification as per industry sectors of sample companies. Average Voluntary Financial

Disclosure Index of utilities sector 21 is the highest, miscellaneous sector 20.57 is second, technology sector 20.55 VFDI score is at the third place. Automotive and metals & mining sectors has mean VFDI score of 20.50, Engineering 20.36,

pharmaceuticals sector 20.32, banking/finance sector 20.29 also has good average VFDI scores. The standard deviation is the highest in case of chemicals sector 2.17 and is the lowest for conglomerates sector

0.96, which has a minimum score of 19 and maximum score of 21. The value of C.V also confirms high variations in chemicals sector.

Table 5: Industry-wise Voluntary Financial Disclosure Index

Sr. No.	Industry Name	VFDI				
		Mean	Std. Dev.	Minimum	Maximum	C.V.
1	Automotive	20.50	1.02	18.00	22.00	0.05
2	Banking/Finance	20.29	1.61	16.00	22.00	0.08
3	Cement/Construction	19.75	1.75	17.00	22.00	0.09
4	Chemicals	20.22	2.17	15.00	22.00	0.11
5	Conglomerates	20.25	0.96	19.00	21.00	0.05
6	Cons Non-Durable	20.10	1.37	17.00	22.00	0.07
7	Engineering	20.36	1.74	16.00	22.00	0.09
8	Food & Beverage	19.83	1.33	18.00	21.00	0.07
9	Manufacturing	20.13	1.55	17.00	22.00	0.08
10	Media	20.25	1.71	18.00	22.00	0.08
11	Metals & Mining	20.50	1.43	18.00	22.00	0.07
12	Miscellaneous	20.57	1.13	19.00	22.00	0.06
13	Oil & Gas	20.00	1.76	17.00	22.00	0.09
14	Pharmaceuticals	20.32	1.55	17.00	22.00	0.08
15	Services	19.90	1.79	17.00	22.00	0.09
16	Technology	20.55	1.51	17.00	22.00	0.07
17	Telecom	19.40	1.82	17.00	21.00	0.09
18	Utilities	21.00	1.15	19.00	22.00	0.05

Industry-wise Classification of Voluntary Non-Financial Disclosure Index

Table 6 shows Voluntary Non-Financial Disclosure Index classification as per industry sectors of sample companies. Average Voluntary Non-Financial Disclosure Index of oil & gas sector 102 is the highest, metals & mining sector 94.90 is second, utilities sector 92.30 VNFDI score is at the third place. Banking/Finance sector has mean VNFDI score of

86.71, Engineering 84.79, cement/construction sector 83.13 and chemicals sector 82.89 also has good average VNFDI scores. The standard deviation is the highest in case of utilities sector 15.46 and is the lowest for chemicals sector 5.56, which has a minimum score of 72 and maximum score of 89. The value of C.V also confirms high variations in media sector.

Table 6: Industry-wise Voluntary Non-Financial Disclosure Index

Sr. No.	Industry Name	VNFDI				
		Mean	Std. Dev.	Minimum	Maximum	C.V.
1	Automotive	81.07	9.84	63.00	96.00	0.12
2	Banking/Finance	86.71	11.26	65.00	109.00	0.13
3	Cement/Construction	83.13	9.26	67.00	95.00	0.11
4	Chemicals	82.89	5.56	72.00	89.00	0.07
5	Conglomerates	74.00	10.68	59.00	83.00	0.14
6	Cons Non-Durable	77.10	7.55	66.00	89.00	0.10
7	Engineering	84.79	13.89	55.00	112.00	0.16
8	Food & Beverage	79.50	5.24	70.00	84.00	0.07
9	Manufacturing	79.38	13.47	66.00	110.00	0.17
10	Media	69.00	13.22	56.00	84.00	0.19
11	Metals & Mining	94.90	9.68	81.00	111.00	0.10
12	Miscellaneous	79.29	9.09	69.00	92.00	0.11
13	Oil & Gas	102.00	11.18	86.00	115.00	0.11
14	Pharmaceuticals	76.59	7.89	55.00	88.00	0.10
15	Services	82.30	9.15	72.00	102.00	0.11
16	Technology	81.09	5.65	70.00	88.00	0.07
17	Telecom	79.80	7.60	70.00	89.00	0.10
18	Utilities	92.30	15.46	70.00	115.00	0.17

Hypothesis Testing

To statistically examine the relationship between industry sector and internet-based voluntary disclosure i.e., the following hypothesis has been formulated and tested:

H₁

There is positive association between industry type and Internet-based Voluntary Disclosure Index of a company.

Table 7: ANOVA on Internet-based Voluntary Disclosure Index and Industry Sector

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9304.094	17	547.300	4.710	0.001
Within Groups	21147.461	182	116.195		
Total	30451.555	199			

ANOVA results show that there is significant relationship between type of industry sector and the amount of information disclosed on companies' website (Table 7). The results are highly significant at 1 per cent level of significance. So, the hypothesis is accepted and it can be concluded that type of industry sector has a positive association with IVDI score of a company.

Conclusion

It is highlighted from the above analysis that mean value of overall IVDI is 103.92, which is 62.23 percent of the voluntary disclosure score calculated as per IVDI worksheet. The variances in the degree of voluntary disclosure in case of public sector companies are higher as compared to private sector companies. There is no difference between VFDI of public sector companies and private sector companies. Public sector companies have better disclosure of VNFDI on the websites as compared to private sector companies.

On comparing internet disclosures of different Industry sectors it is revealed that average IVDI of Oil & Gas sector 122 is the highest, Metals & Mining sector 115.40 is second, Utilities sector 113.30 IVDI score is at the third place. Utilities sector, miscellaneous sector and technology sector also gets a higher rank in disclosing VFDI. Oil & gas sector, metals & mining sector and utilities sector also gets a higher rank in disclosing VNFDI. This shows that companies which belong to oil & gas, metals & mining, utilities, miscellaneous and technology sector are outperforming other companies in terms of voluntary disclosure of information on websites for stakeholders.

The results are also confirmed by hypothesis testing, where (H₁) is accepted. It can be concluded that type of industry sector has a significant association with IVDI score of a company. This shows that industry sector, to which a company belongs to, leaves an impact on the internet-based voluntary disclosure practices of those companies. This is an important result which proves that industry standards and level of competition determines the reporting practices followed by companies belonging to that industrial sector.

In this competitive scenario all companies would like to meet industry standards. The higher the intensity of competition in any industry more would be disclosure made by companies to get competitive edge. This shows that internet-based reporting or corporate internet reporting is a tool used by companies for differentiation and attracting stakeholders. It has been found that many companies use websites for image management.

This subject of study is emerging and new in Indian context. The extent of Internet-based voluntary disclosure has been studied for BSE Dollex 200 companies in the present study. So, a lot of scope exists for further research. The same Internet-based voluntary Disclosure Index can be evaluated for a large sample in Indian context. A comparative study of companies of developed countries and Indian companies can be done. Study of internet-based reporting can also be carried out for sector specific companies like banking/finance sector, chemicals sector etc to check the level of voluntary disclosure and suggest improvements in the disclosure practices.

References

1. Alanezi, F. S. (2009). *Factors Influencing Kuwaiti Companies Internet Financial Reporting*. *Journal of Economic and Administrative Sciences*, 25(2), 1-23.
2. Basuony, M. A., and Mohamed, E. K. (2014). *Determinants of internet financial disclosure in GCC countries*. *Asian Journal of Finance & Accounting*, 6(1), 70-89.
3. Basuony, M., and Mohamed, E. (2014). *Board composition, Ownership Concentration, and Voluntary Internet Disclosure by MSM-Listed Companies*. *Corporate Board: Roles, Duties and Composition*, 10(1), 60-70.
4. Boubaker, S., Lakhel, F., and Nekhili, M. (2011). *The determinants of web-based corporate reporting in France*. *Managerial Auditing Journal*, 27(2), 126-155.
5. Bowrin, A. R. (2015). *Comprehensiveness of internet reporting by Caribbean companies*. *Journal of Accounting in Emerging Economies*, 5(1), 2-34.
6. Bozcuk, A., Arzova, B. S., and Aslan, S. (2011). *Internet Financial Reporting: The Case of Turkey*. Available at SSRN 1490523.
7. Dutta, P., and Bose, S. (2007). *Web-based corporate reporting in Bangladesh: an exploratory study*. *The cost and management*, 35(6), 29-45.
8. Gakhar, D. V. (2011). *Electronic Business Reporting: A Study of Indian Corporate Sector*. Available at SSRN 2160605.
9. Garg, M. C. and Divya (2009). *Accounting Standard Disclosure Compliance in Online Reporting by Indian Companies*. *Asia Pacific Business Review*, V (2), 93-99.
10. Garg, M. C., and Gakhar, D. V. (2010). *Web-Based Corporate Reporting Practices in India*. *The IUP Journal of Accounting Research & Audit Practices*, 9(3), 7-19.

Remarking An Analisation

11. Henchiri, J. E. (2011). Voluntary web-based disclosures by Moroccan and Tunisian companies. *EuroMed Journal of Business*, 6(2), 155-173.
12. Lal Joshi, P., and Gao, S. S. (2009). Multinational corporations' corporate social and environmental disclosures (CSED) on websites. *International journal of commerce and management*, 19(1), 27-44.
13. Mendes-Da-Silva, W., and de Lira Alves, L. A. (2004). The voluntary disclosure of financial information on the internet and the firm value effect in companies across Latin America. In *Universidad Navarra Barcelona, 13th International Symposium on Ethics, Business and Society*.
14. Nurunnabi, M., and Alam Hossain, M. (2012). The voluntary disclosure of internet financial reporting (IFR) in an emerging economy: a case of digital Bangladesh. *Journal of Asia Business Studies*, 6(1), 17-42.
15. Oyelere, P., Laswad, F., and Fisher, R. (2003). Determinants of internet financial reporting by New Zealand companies. *Journal of International Financial Management & Accounting*, 14(1), 26-63.
16. Oyelere, P., and Kuruppu, N. (2012). Voluntary internet financial reporting practices of listed companies in the United Arab Emirates. *Journal of Applied Accounting Research*, 13(3), 298-315.
17. Pervan, I. (2008). Trends of Voluntary Internet Reporting in Croatia: Analysis for the Period 2005-2007. *Interdisciplinary Management Research*, 5, 617-625.
18. Puspitaningrum, D., and Atmini, S. (2012). Corporate governance mechanism and the level of internet financial reporting: Evidence from Indonesian companies. *Procedia Economics and Finance*, 2, 157-166.
19. Rahman, Z. D. (2010). The Impact of Internet Financial Reporting on Stock Prices Moderated by Corporate Governance: Evidence from Indonesia Capital Market. Available at SSRN 1576327.
20. Shukla, A., and Gekara, M. G. (2010). Corporate reporting in modern era: A comparative study of Indian and Chinese companies. *Global Journal of International Business Research*, 3(3), 42-56.
21. Smith, B., and Pierce, A. (2005). An investigation of the integrity of Internet financial reporting. *The International Journal of Digital Accounting Research*, 5(9), 47-78.
22. Trabelsi, S., Debreceny, R., and Lymer, A. (2014). An empirical examination of corporate websites as a voluntary disclosure medium. *International Journal of Applied Decision Sciences*, 7(1), 1-32.