

# Determinants of Human Resource Disclosure Index (HRDI) of Indian Companies

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## Abstract

The purpose of the present research study is to know the Human Resource (HR) disclosure practices in selected Indian listed companies and effect of company characteristics on Human Resource Disclosure Index (HRDI) of selected Indian listed companies. The present research includes the companies listed on NSE-200 Index. This study uses the content analysis of annual reports from 2012-2013 to 2017-2018. The effect of various company characteristics on HRDI have been studied using descriptive statistics, correlation and OLS regression model. Kruskal-Wallis test is used to study the effect of industry type on HRDI. And to compare the HRDI of public and private sector companies, Mann-Whitney U testis applied. The findings of the study show that, net sales, market capitalisation, ownership concentration, profit after tax and total number of pages of an annual report significantly influence the HRDI of selected Indian listed companies.

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## I. Introduction

GLOBALIZATION HAS TRANSFORMED the business environment and capital markets. The resultant opening up of the economy has created huge amount of opportunities for investors. Corporate disclosure is an indispensable tool for various stakeholders for taking various financial decisions. The voluntary disclosure of information by company reduces the information asymmetry between management and shareholders. Through disclosure, management provides signal to shareholders that they adopt best practices in the interest of the shareholders (Thompson and Randall,

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2000 and Scott, 2000). Disclosure acts as medium between management and stakeholders. The process of communication of information to various stakeholders is known as disclosure.

The cut throat competition shifted the economy from tangible economy to intangible economy. Intangible economy comprises the skills and expertise available in the organisations and human resources are the major source of intangible skills over the physical resources (James, Powell and Scinllo, 1976 and Bhargva, 1991). The investment in human resources in the form of recruitment, selection, training etc. differentiates the human resources of one organisation to the other organisation and reporting of information regarding human resources in annual reports of companies is crucial for the success of the organisations. In service sector, human resource is the key element for the success of an organisation.

The present era is the era of globalisation, most of the companies operate in more than one nation. Expansion of business across domestic boundaries is essential not only for growth but also for survival. Thus, need of additional capital is imperative. And foreign investors would be a better source for such capital. So, to attract foreign investors, more voluntary disclosure is required as it implies of greater transparency in accounting of companies. Hence, companies need to disclose more voluntary information for gaining trust. Many organisations face the accounting irregularity in the past few years. So, the authenticity of the annual reports is highly doubtful for investors. The annual reports of the companies are the main source to determine the transparency of the organisations. Hence, the companies have great motivation to disclose more voluntary information in their annual reports.

In a company, ownership and management are treated as two separate entities. Managers are appointed by shareholders to manage day-to-day affairs of the companies as shareholders are immense in numbers and they are widely scattered (Verma and Kirti, 2019). So, it is not possible for them to manage daily affairs of the companies which gives rise to the problem of information asymmetry. Information asymmetry means that the stakeholders of a company does not have same amount of information. Managers have greater amount of information in this line than other stakeholders. To reduce the information asymmetry, role of voluntary disclosure comes into light. In the light of above the voluntary disclosure practice is becoming growing research area in the field of accounting. A few no. of studies related to voluntary disclosure have been conducted in developed as well as developing countries. With this background, present study is conducted to know the determinants of HRDI of Indian listed companies.

The paper is organised into five sections. Sections I focuses on literature review and hypotheses development followed by the objectives of the study in Section II. Research design and methodology are presented in Section III. Section IV explains results and discussion of the study. Finally, Section V concludes the paper.

## II. Review of Literature and Hypotheses Development

This section presents the review of literature that examine the effect of various company characteristics on voluntary disclosure practices.

*Age of a Company:* Older firms disclose more information as compared to younger firms. There might be several reasons for this behaviour like older firms have more knowledge regarding disclosure standards and the older firms are not easily challenged by competitors because market is already aware all the facts related to older firms due to long establishment. It is evident from the research studies conducted earlier that a positive relationship exists between age of a company and levels of voluntary disclosure (Hossain and Hammami, 2009) while the other study (Bhayani, 2012) depicted no significant relationship with HRDI. For the current study, the research would like to set fourth hypothesis as:

Hypotheses H01: *Age of a company has positive effect on HRDI.*

*Company Size:* A large company discloses more information voluntarily than a small company. There are several reasons behind this outcome such as: large companies are more experienced in disclosing information, they have many resources for gathering, investigating and presenting information to stakeholders, for attracting the talented professionals in their managerial team and to improving decision-making skills. A positive relationship between company size and HRDI can be expected (Singhvi and Desai, 1971; Cooke, 1989; Hossain, Tan and Adams, 1994; Haniffa and Cooke, 2002; Das Dhar and Gandhi, 2008 and Verma and Kirti, 2019) also concluded a positive relationship between company size and voluntary disclosures. In the light of the above background, the first hypothesis can be written as:

Hypotheses H02: *Size of a company has positive effect on HRDI.*

*Profitability:* Profitability of a company has effect on the amount of information disclosed by the companies. Agency theory recommends that managers of profitable companies disclose more information voluntarily to justify their position and remuneration. And to reduce the risk of undervaluation of shares in a market. It is also evident from the studies (Singhvi and Desai, 1971; Raffournier, 1995; Wallace and Naser, 1994; 1995; Haniffa and Cooke, 2002; Hossain, 2008 and Verma and Kirti, 2019) that a significant positive relationship exists between profitability and HRDI while (Glaum and Street, 2003) found no significant relationship between both the variables. On the basis of the above background, the sixth hypothesis can be written as:

Hypotheses H03: *Profitability of a company has positive effect on HRDI.*

*Liquidity:* Liquidity refers to the ability of a company to meet their short-term obligations. A company with more liquid assets has more prominent motivating forces to reveal more information in their annual reports. The one reason is that to show their superior performance companies disclosing greater amount of information for the stakeholders. But the relationship

between liquidity and HRDI is puzzling. Because according to agency theory, firm which have low liquidity also discloses more information to reduce the conflict between shareholders and debt holders. Cooke (1989) found significant relationship between liquidity and HRDI while the other study (Malone, Fries and Jones, 1993 and Verma and Kirti, 2019) depicted no significant relationship with HRDI. In the light of above findings, the following hypothesis is proposed that:

**Hypotheses H04:** *Companies with higher liquidity may disclose more HR information than those with lower liquidity.*

**Leverage:** Leverage means firm uses debt in their capital structure to acquire assets (Garg and Singh, 2017). Generally, it is said that levered firm discloses more information in their annual reports to reduce their monitoring cost and information asymmetry of debt holders. This increases the confidence of the debt holders for a company. Some previous literature found positive relationship between leverage and HRDI (Jensen and Meckling, 1976; and Aksu and Kosedag, 2005) while the other studies (Oliveira, Rodrigues and Craig, 2006; Ragini, 2012 and Verma and Kirti, 2019) found no significant relationship between both the variables. Hence, the following hypothesis can be framed as:

**Hypotheses H05:** *Leverage of a company has positive effect on HRDI.*

**Ownership Concentration:** Ownership concentration means majority of the shares of the company is held in the hands of few dominant investors. When the ownership is concentrated (widely held), less information is disclosed by the companies because of dominant investors get information through private meetings. In case of a widely held company, there are more chances of conflicts between management and shareholders. Because the shareholders are large in number and the annual report is the only source to get all type of information related to company. So, through voluntary disclosures company provides the signal to the shareholders that they work in their best interest. Literature gives mixed outcomes in this regard. Majority of the studies like: (Hossain, Perera and Rahman, 1995 and Barako, Hancode and Izan, 2006 and Verma and Kirti, 2019) found negative relationship between both the variables. On the other hand, Haniffa and Cooke (2002) found positive relationship between ownership concentration of a company and disclosure level. Thus, next hypothesis is stated as:

**Hypotheses H06:** *Ownership concentration of a company has negative effect on HRDI.*

**Total Number of Pages of an Annual Report:** Annual report gives information to shareholders and other interested parties about the financial performance and other activities of a company. Pages of an annual report show to what extent information is disclosed by the companies. As, the number of pages is increased, the information disclosed by companies also increase. So, the pages of an annual report are affecting the voluntary disclosure level of companies. The study of (Verma and Kirti, 2019) depicted positive and significant relationship with HRDI. Thus, the tenth hypothesis is written as:

Hypotheses H07 : *Pages of an annual report has positive effect on HRDI.*

*Listing Abroad:* Companies listed in foreign exchanges disclose more information as compared to companies whose operations are restricted in domestic country to reduce investor's uncertainty. The present research study has chosen two groups i.e. Europe and America. Within Europe group, London and Luxemburg Stock Exchange were chosen. In America category, NYSE and NASDAQ were chosen (Kaur, Raman and Singhania, 2016). These Stock Exchanges are chosen because most of the securities of the successful companies are listed on these Stock Exchanges to get global recognition. The study of (Verma and Kirti, 2019) depicted positive relationship with HRDI. Hence, the eighth hypothesis can be proposed that:

Hypotheses H08 : *Listing abroad has positive effect on HRDI of a company.*

*Type of Auditor:* Audit firms are divided into two groups. One is large group (Big 4) and another is small group. Large audit firms have the power to persuade their client for more disclosure of information to increase their reputation (Singhvi and Desai, 1971; Malone, Fries and Jones, 1993 and Giner, 1997). Whereas, small audit firms do not possess power to persuade the client for disclosure of information in addition to mandatory information. The existing literature (Raffournier, 1995; Oliveira, Rodrigues and Craig, 2006; Wang, Sewon and Claiborne, 2008 and Fernando and Ariovaldo, 2010) did not find any significant relationship between both the variables. However, from the above discussion a positive effect of type of auditor is felt. Hence, ninth hypothesis has been set as:

Hypotheses H09 : *Type of auditor has positive effect on HRDI.*

*Industry Type:* Industry type has also influence on the level of voluntary disclosures of a firm. Companies with more and better quality of HR expected to disclose greater amount of HR information because this key resource is key to success of the company. So, in this way service sector discloses more HR information due to their key resource i.e. HR. According to signalling theory, if the HR is the key resource of an organisation than they tend to disclose greater amount of HR information to enhance the awareness of the stakeholders. Some studies (Brennan and Hourigan, 1998; Ashbaugh Johnstone and Warfield, 1999; Ismail, 2002; Oyelere, Lasward and Fisher, 2003, Ezat and El-Masry, 2008 and Aly, Simaon and Hussainey, 2009) found significant relationship between industry type and HRDI while the other studies (Larran and Giner, 2002; Debreceeny and Rahman, 2005 and Trabelsi and Labelle, 2006) found insignificant relationship with HRDI. Thus, it is proposed that:

Hypotheses H<sup>10</sup>: *HR disclosure is varied across various industrial sectors.*

*Public versus Private Sector:* Public sector company means which offers their shares to the public. And private company is prohibited to offer their shares to public. The shares of a private company are privately held by few people. Due to less in number of shareholders of a private company they easily assess all the information of company at any time. But the shareholders



of a public company are huge in number and they are widely scattered all around the world. They are in touch with the company like private company. Thus, there is a gap to what extent the information is disclosed by public and private sector companies. So, for reducing this information asymmetry between management and shareholders of a company public sector companies disclose greater amount of information than private sector companies. Hence, in the light of the above, the eleventh hypothesis is written as:

Hypotheses H11: *Public companies disclose more HR information than private companies.*

**Table I**  
**Category of Variable, Independent Variable and their Proxy**

Category of Variable	Independent Variable	Proxy
Structural	Company Size	Net Fixed Assets (NFA)
		Net Sales (NS)
		Market Capitalisation (MC)
		Promoter's Holding (PH)
		Debt-equity Ratio (DER)
Performance	Ownership Concentration Leverage Age of a Company Type of Auditor	Incorporation Year (Age)
		Big 4 - 1 Other - 0 (TOA)
		Profit After Tax (PAT)
		Return on Total Assets (ROTA)
		Return on Equity (ROE)
Market	Liquidity	Earnings Per Share (EPS)
		Quick Ratio (QR)
		Current Ratio (CR)
Other	Listing Abroad Industry Type	Listing Status of a Company (LS)
		Industry Type
Other	Total Number of Pages of an Annual Report Public versus Private Sector	Pages of an Annual Report (PAR)
		Public - 1
		Private - 0

Source: Self Formulated from Literature Review

### III. Objectives of the Study

The objectives of the present study have been taken as:

- i. To know the extent of the human resource disclosure practices in selected Indian listed companies;
- ii. To examine the effect of company characteristics on human resource disclosure practices in selected Indian listed companies;
- iii. To compare HRDI across selected industrial sector; and
- iv. To compare human resource disclosure practices across public and private sectors in selected Indian listed companies.

### IV. Research Design and Methodology

The present research has taken the companies listed on NSE-200 Index. Out of these companies, 126 companies have been chosen for final analysis. The study utilizes the time span of six years ranging from 2012-2013 to 2017-2018. The data of independent variables have been taken from PROWESS database. Those companies which follows accounting year, belonging to banking and financial sector, whose annual reports are not available and for which data is not available on PROWESS database are excluded from the study.

#### 4.1 Human Resource Disclosure Index

To measure the level of voluntary disclosure by selected Indian listed companies, Human Resource Disclosure Index (HRDI) is constructed. It comprises 92 items and these are classifying into nine components. Content analysis approach has been used to measure the level of voluntary disclosure by selected Indian listed companies. In this approach, a firm scored 1 if the item is disclosed by the company and 0 for non-disclosure of an item. The data of dependent variable (HRDI) has taken from annual reports of the respective companies using content analysis approach.

$$\text{HRDI} = \frac{\text{Total score of individual company}}{\text{Maximum possible score obtainable}} \times 100$$

#### 4.2 Model Development

For testing the hypotheses, OLS multiple regression model is used. The estimated regression model used in the present study is given below:

$$\begin{aligned} \text{HRDI} = & \beta_0 + \beta_1 \text{Age}_1 + \beta_2 \text{NFA}_2 + \beta_3 \text{NS}_3 + \beta_4 \text{MC}_4 + \beta_5 \text{PAT}_5 \\ & + \beta_6 \text{EPS}_6 + \beta_7 \text{ROTA}_7 + \beta_8 \text{ROE}_8 + \beta_9 \text{CR}_9 + \beta_{10} \text{QR}_{10} \\ & + \beta_{11} \text{DER}_{11} + \beta_{12} \text{PH}_{12} + \beta_{13} \text{PAR}_{13} + \beta_{14} \text{LS}_{14} + \beta_{15} \text{TOA}_{15} + \epsilon \end{aligned}$$

where, HRDI Human Resource Disclosure Index.

Age <sub>1</sub>	Age of a Company
NFA <sub>2</sub>	Net Fixed Assets
NS <sub>3</sub>	Net Sales
MC <sub>4</sub>	Market Capitalisation
PAT <sub>5</sub>	Profit after Tax
EPS <sub>6</sub>	Earnings Per Share
ROTA <sub>7</sub>	Return on Total Assets
ROE <sub>8</sub>	Return on Equity
CR <sub>9</sub>	Current Ratio
QR <sub>10</sub>	Quick Ratio
DER <sub>11</sub>	Debt-Equity Ratio
PH <sub>12</sub>	Promoter's Holding
PAR <sub>13</sub>	Pages of an Annual Report
LS <sub>14</sub>	Listing Status of a Company
TOA <sub>15</sub>	Type of Auditor
€	Error term

Descriptive statistics has been used to know the HR disclosure level of selected Indian listed companies. For testing the relationship between dependent (HRDI) and independent variables (company characteristics, industry type and public versus private sector) correlation analysis has been carried out. After that, OLS regression model has been used to check the influence of independent variables (company characteristics) on dependent variable (HRDI) of selected Indian listed companies. To check

the association between industry type and HRDI, Kruskal-Wallis test is used and to compare the HRDI between public and private sector, Mann-Whitney U test is used.

## V. Results and Discussion

This section is dedicated to analysis the data, the results have been drawn and presented into following sections. Section 5.1 highlighted to what extent the HR information is disclosed by selected Indian listed companies. Section 5.2 investigates the effect between HRDI and company characteristics. Section 5.3 analyses the effect of company characteristics on HRDI followed by Section 5.4 which is dedicated to compare HRDI across various industrial type. The last section (Section 5.5) compares HRDI between public and private sector.

### 5.1 Descriptive Statistics

This section covers descriptive statistics to depict the summarize view of dependent (HRDI) and independent variables (company characteristics). For this purpose, mean, minimum, maximum and standard deviation have been computed.

**Table II**  
**Descriptive Statistics of HRDI and Company Characteristics**

Variable	N	Mean	Minimum	Maximum	Std. Deviation
HRDI (DV)	756	43.71	13.04	69.57	9.540
Age of a Company (IV)	756	41.15	6.00	121.00	24.720
Net Fixed Assets (IV)	756	10378.75	23.00	200964.00	23484.910
Net Sales (IV)	756	22389.20	12.00	478456.00	54062.610
Market Capitalisation (IV)	756	43355.05	459.00	559160.00	69766.720
Profit after Tax (IV)	756	1930.12	-11906.00	33612.00	4222.489
EPS (IV)	756	29.80	-357.00	3127.00	120.878
Return on Total Assets (IV)	756	8.50	-78.00	38.00	9.180
Return on Equity (IV)	756	15.36	-418.00	117.00	26.320
Current Ratio (IV)	756	1.61	0.00	13.00	1.420
Quick Ratio (IV)	756	1.13	0.00	12.00	1.360
Debt-Equity Ratio (IV)	756	0.67	0.00	120.00	4.500
Promoter's Holding (IV)	756	55.26	0.00	90.00	16.940
Pages of an Annual Report (IV)	756	213.62	27.00	596.00	81.140
Listing Status of a Company (IV)	756	0.21	0.00	1.00	0.410
Type of Auditor (IV)	756	0.31	0.00	1.00	0.460

**Note:** DV = Dependent Variable and IV = Independent Variable; N = 126 x 6 = 756

*Source:* Annual reports of sample companies from FY 2012-2013 to 2017-2018.

Table II depicts the descriptive statistics of dependent (HRDI) and independent variables (age of a company, net fixed assets, net sales, market capitalisation, profit after tax, EPS, return on total assets, return on equity, current ratio, quick ratio, debt-equity ratio, promoter's holding, pages of an annual report, listing status of a company and type of auditor). The mean value of HRDI is 43.71. The range of HRDI lies between 13.04 (minimum) and 69.57 (maximum) values. The standard deviation of HRDI is 9.54. It depicted the variation in the HR disclosure score of selected Indian listed companies.

So, it can be concluded that companies moderately disclose HR information in their annual reports. Because, the concept of HR disclosure is not much developed in developing country like India and lots of effort are still required in this regard.



Table III indicates the year-wise HR disclosure score of companies. From the Table III, it is noticed that no company scored 100 per cent in relations of HRDI score. The maximum information of HR is disclosed by Wipro Ltd. (327) followed by Mindtree Ltd. (325), Jubilant Life Sciences Ltd. (324) and Reliance Industries Ltd. (322). The lowest HR information is disclosed by Rajesh Exports Ltd. (101) and Balkrishna Industries Ltd. (131). (See Table III)

**Table III**  
**Company-wise HR Disclosure Score of Indian Listed Companies**

S. No.	Company Name	Total Score
1.	A I A Engineering Ltd.	216
2.	Adani Ports and Special Economic Zone Ltd.	246
3.	Adani Power Ltd.	258
4.	Aditya Birla Fashion and Retail Ltd.	280
5.	Ajanta Pharma Ltd.	183
6.	Alkem Laboratories Ltd.	223
7.	Amara Raja Batteries Ltd.	207
8.	Apollo Hospitals Enterprise Ltd.	201
9.	Apollo Tyres Ltd.	274
10.	Arvind Ltd.	204
11.	Ashok Leyland Ltd.	204
12.	Asian Paints Ltd.	280
13.	Aurobindo Pharma Ltd.	267
14.	Bajaj Auto Ltd.	212
15.	Balkrishna Industries Ltd.	131
16.	Berger Paints India Ltd.	152
17.	BEL	252
18.	Bharat Forge Ltd.	276
19.	BHEL	266
20.	BPCL	269
21.	Bharti Airtel Ltd.	288
22.	Bharti Infratel Ltd.	284
23.	Biocon Ltd.	247
24.	Britannia Industries Ltd.	239
25.	Cadila Healthcare Ltd.	247
26.	Century Textiles and Inds. Ltd.	145
27.	Cipla Ltd.	265
28.	Colgate-Palmolive (India) Ltd.	220
29.	CONCOR	283
30.	Coromandel International Ltd.	190
31.	Cummins India Ltd.	302
32.	D L F Ltd.	222
33.	Dabur India Ltd.	331
34.	Dish T V India Ltd.	247
35.	Divi'S Laboratories Ltd.	268
36.	Dr. Reddy'S Laboratories Ltd.	237
37.	Emami Ltd.	255
38.	EIL	281
39.	Exide Industries Ltd.	202
40.	Future Consumer Ltd.	281
41.	GAIL	265
42.	Glenmark Pharmaceuticals Ltd.	253
43.	Godrej Consumer Products Ltd.	240
44.	Godrej Industries Ltd.	207
45.	Gujarat State Petronet Ltd.	180
46.	Havells India Ltd.	275
47.	Hero Motocorp Ltd.	275

(Contd...)

Table III (Continued)

48.	Hindalco Industries Ltd.	183
49.	HPCL	298
50.	Hindustan Unilever Ltd.	304
51.	Hindustan Zinc Ltd.	276
52.	I R B Infrastructure Developers Ltd.	225
53.	I T C Ltd.	286
54.	Vodafone Idea Limited	265
55.	Indian Hotels Co. Ltd.	183
56.	IOCL	301
57.	Indraprastha Gas Ltd.	215
58.	Info Edge (India) Ltd.	242
59.	Infosys Ltd.	270
60.	J S W Energy Ltd.	173
61.	J S W Steel Ltd.	232
62.	Jindal Steel and Power Ltd.	267
63.	Jubilant Foodworks Ltd.	227
64.	Jubilant Life Sciences Ltd.	324
65.	Larsen and Toubro Ltd.	301
66.	Lupin Ltd.	246
67.	Mahindra and Mahindra Ltd.	287
68.	MRPL	180
69.	Marico Ltd.	266
70.	Maruti Suzuki India Ltd.	240
71.	Mindtree Ltd.	325
72.	Motherson Sumi Systems Ltd.	253
73.	N B C C (India) Ltd.	253
74.	NHPC Ltd.	287
75.	NMDC	274
76.	NTPC	295
77.	Natco Pharma Ltd.	192
78.	NALCO	198
79.	Oberoi Realty Ltd.	171
80.	ONGC	274
81.	OIL	233
82.	Oracle Financial Services Software Ltd.	174
83.	P C Jeweller Ltd.	138
84.	P I Industries Ltd.	236
85.	Page Industries Ltd.	271
86.	Petronet L N G Ltd.	240
87.	Pidilite Industries Ltd.	188
88.	Piramal Enterprises Ltd.	264
89.	PGCIL	229
90.	Prestige Estates Projects Ltd.	232
91.	Rajesh Exports Ltd.	101
92.	Ramco Cements Ltd.	159
93.	Reliance Industries Ltd.	322
94.	Reliance Infrastructure Ltd.	235
95.	Reliance Power Ltd.	159
96.	S R F Ltd.	202
97.	SAIL	244
98.	Sterlite Technologies Ltd.	194
99.	Sun Pharma Advanced Research Co. Ltd.	217
100.	Sun Pharmaceutical Inds. Ltd.	264
101.	Sun T V Network Ltd.	179
102.	Suzlon Energy Ltd.	165
103.	T V S Motor Co. Ltd.	242
104.	Tata Chemicals Ltd.	280
105.	Tata Communications Ltd.	252
106.	Tata Consultancy Services Ltd.	293

(Contd...)

**Table III (Continued)**

107	Tata Global Beverages Ltd.	243
108	Tata Motors Ltd.	307
109	Tata Power Co. Ltd.	262
110	Tata Steel Ltd.	273
111	Tech Mahindra Ltd.	279
112	Titan Company Ltd.	307
113	Torrent Pharmaceuticals Ltd.	172
114	Torrent Power Ltd.	199
115	Tv18 Broadcast Ltd.	218
116	U P L Ltd.	255
117	Ultratech Cement Ltd.	269
118	United Breweries Ltd.	197
119	United Spirits Ltd.	295
120	V-Guard Industries Ltd.	228
121	Vakrangee Ltd.	222
122	Vedanta Ltd.	313
123	Voltas Ltd.	212
124	Wipro Ltd.	327
125	Wockhardt Ltd.	214
126	Zee Entertainment Enterprises Ltd.	255

Source: Annual reports of sample companies from FY 2012-2013 to 2017-2018.

Table IV depicts the component-wise HR disclosure percentage of companies. The highest amount of information disclosed by human resource policy and vision component (74.77 per cent). It means companies given more consideration regarding HR policy and vision and this is the basic information, any organisation does not lose their competitive position by disclosing of this type of information. The lowest amount of information disclosed by Importance of Human Resource to the Organization component (4.18). It indicates that organisations do not consider that HR is the important resource for their success they do not want to disclose the information related to HR in their annual reports due to fear of poaching.

**Table IV**  
**Component-wise HR Disclosure Percentage**

S. No.	Components of Human Resource Disclosure Index	Disclosure % age
1.	Information about Human Resource Policy and Vision	74.77
2.	General Information about Human Resource	39.21
3.	Financial Information relating to Human Resource	52.13
4.	Information relating to Importance of Human Resource to the Organization	4.18
5.	Information about Human Resource Development	59.74
6.	Information about Employee's Health and Safety	51.39
7.	Information about Human Resource Relationship and Culture	59.43
8.	Information about Different Benefits/ Assistance given to Employees	16.64
9.	Information about Employee's Engagement and Empowerment	40.61

Source: Annual reports of sample companies from F.Y. 2012-2013 to 2017-2018.

Out of nine components, only five components (Human Resource Policy and Vision, Financial Information relating to Human Resource, Human Resource Development, Employee's Health and Safety and Human Resource Relationship and Culture) disclosed more than 50 per cent HR information. Less than 41 per cent HR information is disclosed by four components

**Table V**  
**Correlation Matrix for HRDI and Company Characteristics**

Variable	HRDI	Age	NFA	NS	MC	PAT	EPS	ROTA	ROE	CR	QR	DER	PH	PAR	LS	TOA
HRDI	1.000															
Age	0.087*	1.000														
NFA	0.268**	0.011	1.000													
NS	0.264**	0.120**	0.610**	1.000												
MC	0.404**	0.084*	0.484**	0.452**	1.000											
PAT	0.321**	0.065	0.606**	0.589**	0.836**	1.000										
EPS	-0.010	-0.039	-0.014	0.032	0.057	0.079*	1.000									
ROTA	0.087*	0.045	-0.165**	-0.050	0.240**	0.222**	0.154**	1.000								
ROE	0.063	0.100**	-0.080*	0.005	0.120**	0.154**	0.098**	0.735**	1.000							
CR	0.033	-0.076*	-0.155**	-0.074*	0.107**	0.141**	0.034	0.402**	0.129**	1.000						
QR	0.040	-0.102**	-0.170**	-0.102**	0.130**	0.158**	0.045	0.383**	0.118**	0.899**	1.000					
DER	-0.086*	-0.039	0.014	-0.004	-0.048	-0.098**	-0.034	-0.252**	-0.641**	-0.070	-0.066	1.000				
PH	-0.163**	-0.296**	0.019	-0.035	-0.117**	-0.046	-0.046	-0.030	0.025	0.004	0.042	-0.070	1.000			
PAR	0.604**	0.184**	0.398**	0.253**	0.382**	0.352**	-0.072*	-0.050	-0.051	-0.061	-0.052	-0.012	-0.177**	1.000		
LS	0.072*	0.308**	0.125**	0.108**	0.199**	0.137**	-0.024	-0.195**	-0.141**	-0.100**	-0.125**	0.096**	-0.415**	0.163**	1.000	
TOA	0.088*	0.090*	0.002	-0.004	0.132**	0.043	0.058	-0.037	-0.045	-0.051	-0.022	-0.018	-0.254**	0.067	0.083*	1.000

**Note:** \* Correlation is significant at the 0.05 level (2-tailed) and \*\* Correlation is significant at the 0.01 level (2-tailed). HRDI - Human Resource Disclosure Index, Age - Age of a Company, NFA - Net Fixed assets, NS - Net sales, MC - Market Capitalisation, PAT - Profit after Tax, EPS Earnings Per Share, ROTA - Return on Total Assets, ROE - Return on Equity, CR - Current Ratio, QR - Quick Ratio, DER - Debt-Equity Ratio, PH - Promoter's Holding, PAR - Pages of an Annual Report, LS - Listing Status of a Company and TOA - Type of Auditor.

Source: Annual reports of sample companies from FY 2012-2013 to 2017-2018.

(General Information about Human Resource, Importance of Human Resource to the Organization, Different Benefits/ Assistance given to Employees and Employee's Engagement and Empowerment). There are various reasons for this lower disclosure of HR information by the companies such as less importance given to key resource i.e. HR by an organisation, fear of losing of key information related to their HR, more cost for disclosure of the data and fear of poaching.

### 5.2 Statistical Analysis (Relationship between HRDI and Company Characteristics)

Table V depicts the correlation matrix of dependent and independent variables. HRDI have positive correlation with age (0.087), return on total assets (0.087), listing status of a company (0.072) and auditor (0.088) at 5 per cent level of significance. The positive relationship indicates that when the age and return on total assets of a company is increase the HRDI of a company is also increases. The companies listed on foreign countries have providing more HR disclosure in comparison to companies which are domestically listed. And those companies which are audited by Big 4 have more HR disclosure in comparison to local firms. Net fixed assets (0.268), net sales (0.264), market capitalisation (0.404), profit after tax (0.321) and pages of an annual report (0.604) are positively correlated with HRDI at 1 per cent level of significance. It means HR disclosure is increases with increases of amount of these variables. HRDI is negatively correlated with debt-equity ratio(-0.086) at 5 per cent level of significance and with promoter's holding (-0.163) at 1 per cent level of significance. The negative relationship shows that when the debt-equity ratio and promoter's holding in equity share capital is increases the HR disclosure will also increase. HRDI is not significantly correlated with earnings per share, return on equity, current ratio and quick ratio.

### 5.3 Effect of Company Characteristics on HRDI.

**Table VI**  
**Multicollinearity Statistics of Independent Variables**

Variable	Collinearity Statistics	
	Tolerance	VIF
(Constant)	—	—
Age of a Company (Age)	0.809	1.237
Net Fixed Assets (NFA)	0.426	2.346
Net Sales (NS)	0.522	1.915
Market Capitalisation (MC)	0.263	3.809
Profit after Tax (PAT)	0.204	4.911
Earnings Per Share (EPS)	0.952	1.050
Return on Total Assets (ROTA)	0.238	4.210
Return on Equity (ROE)	0.200	5.007
Current Ratio (CR)	0.180	5.557
Quick Ratio (QR)	0.180	5.568
Debt-Equity Ratio (DER)	0.447	2.236
Promoter's Holding (PH)	0.714	1.401
Pages of an Annual Report (PAR)	0.737	1.357
Listing Status of a Company (LS)	0.692	1.445
Type of Auditor (TOA)	0.890	1.124

**Note:** VIF Variance Inflation Factor.

**Source:** Annual reports of sample companies from FY 2012-2013 to 2017-2018.



Table VI depicts the multicollinearity statistics between independent variables. Multicollinearity is the situation where two or more than two independent variables are highly correlated and it damages the results of the regression model. For testing the problem of multicollinearity between independent variables, the Variance Inflation Factor (VIF) statistics has used. All the values of the VIF statistics are less than the benchmark of 10 (Wooldridge, 2010; Hill, Griffiths and Lim, 2011 and Field, 2013) and tolerance values are more than 0.10. So, it shows that the problem of multicollinearity between independent variables is absent.

Table VII depicts the results of OLS regression model. The value of adjusted R<sup>2</sup> is 42 per cent. It means selected independent variables explained 42 per cent variations in the HRDI. The model is correctly fitted because the value of the significance model is 0.000. The results of the regression model are given below:

**Table VII**  
**Results of OLS Regression Model**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	$\beta$	Std. Error	$\beta$		
(Constant)	-31.350	1.653	—	18.961	0.000
Age of a Company (Age)	-0.019	0.012	-0.049	-1.605	0.109
Net Fixed Assets (NFA)	-0.000	0.000	-0.037	-0.883	0.377
Net Sales (NS)	0.000	0.000	0.148	3.871	0.000
Market Capitalisation (MC)	0.000	0.000	0.304	5.621	0.000
Profit after Tax (PAT)	0.000	0.000	-0.206	-3.351	0.001
Earnings Per Share (EPS)	0.000	0.002	0.005	0.161	0.872
Return on Total Assets (ROTA)	0.052	0.059	0.050	0.873	0.383
Return on Equity (ROE)	-0.003	0.022	-0.008	-0.135	0.892
Current Ratio (CR)	0.059	0.438	0.009	0.134	0.893
Quick Ratio (QR)	0.209	0.459	0.030	0.455	0.649
Debt-Equity Ratio (DER)	-0.160	0.088	-0.076	-1.825	0.068
Promoter's Holding (PH)	-0.042	0.018	-0.074	-2.262	0.024
Pages of an Annual Report (PAR)	0.064	0.004	0.545	16.888	0.000
Listing Status of a Company (LS)	-1.333	0.783	-0.057	-1.702	0.089
Type of Auditor (TOA)	0.252	0.604	0.012	0.417	0.677
Dependent Variable: Human resource Disclosure Index					
Explanation of the Model		Significance of the Model			
R Square		0.432	F	37.454	
Adjusted R Square (R <sup>2</sup> )		0.420	Sig.	0.000	

Source: Annual reports of sample companies from FY 2012-2013 to 2017-2018.

*Age of a Company:* Age of a company is measured through incorporation year. Age has negative effect on HRDI but this effect is not significant (p-value = 0.109 as the value is more than 5 per cent level of significance). The negative effect between age and disclosure level shows that HR disclosure decreases with increase in the age of a company. And insignificance effect shows that the HR disclosure made by companies do not get affected by the age of the companies. Thus, the Hypothesis (H01) is rejected. The results are consistent with the findings of (Garg, 1992; Alsaeed, 2006; Kaur, Raman and Singhania, 2016 and Garg and Kumar, 2018).

*Company Size:* The various proxies are used for measuring the size of a company i.e. net fixed assets, net sales and market capitalisation. Net sales and market capitalisation have positive effect on HRDI and this effect is significant (p-value = 0.000 and 0.000 respectively as the value is less than 5 per cent level of significance). Conversely, net fixed assets has negative effect on HRDI but this effect is not significant (p-value = 0.377 as the value is more than 5 per cent level of significance). Hence, the Hypothesis (H02) is partly accepted. The result is in line with the study of (Verma and Kirti, 2019).

*Profitability:* Profitability is measured through profit after tax, EPS, return on total assets and return on equity. Profit after tax has positive effect on HRDI and this effect is significant (p-value = 0.001 as the value is less than 5 per cent level of significance). EPS and return on total assets have positive effect on HRDI but this effect is not significant (p-value = 0.872 and 0.383 respectively as the value is more than 5 per cent level of significance). Return on equity has negative effect on HRDI but this effect is not significant (p-value = 0.892 as the value is more than 5 per cent level of significance). Hence, the Hypothesis (H03) is partly accepted. The result is in line with the study of (Verma and Kirti, 2019).

*Liquidity:* Liquidity is measured through current and quick ratio. Both the ratios have positive effect on HRDI but this effect is not significant (p-value = 0.893 and 0.649 respectively as the values are more than 5 per cent level of significance). Thus, the Hypothesis (H04) is rejected. The result is consistent with the findings of (Verma and Kirti, 2019), that study measured the liquidity position of a company with current ratio.

*Leverage:* Leverage is measured through debt-equity ratio. Debt-equity ratio has negative effect on HRDI but this effect is not significant (p-value = 0.068 as the value is more than 5 per cent level of significance) It can be concluded that leverage is not used by the companies for creating positive impression in the mind of debt holders about their financial structure. Hence, the Hypothesis (H05) is rejected. The result is consistent with the studies of (Shehata, Daharoy and Ismail, 2014; Kaur. Raman and Singhania, 2016 and Verma and Kirti, 2019).

*Ownership Concentration:* Ownership concentration is measured through promoter's holding. Promoter's Holding has negative effect on HRDI and this effect is significant (p-value = 0.024 as the value is less than 5 per cent level of significance). The result shows that when the ownership is concentrated, less information is disclosed by the companies because dominant investors get information through private meetings. Thus, the Hypothesis(H06) is accepted. The result is contradicted with the findings of (Kaur, Raman and Singhania, 2016 and Verma and Kirti, 2019).

*Total Number of Pages of an Annual Report:* It is measured through pages of an annual report. It has positive effect on HRDI and this effect is significant (p-value = 0.000 as the value is less than 5 per cent level of significance). Thus, the Hypothesis (H07) is accepted. It means the HR information disclosed by companies is increased with increased number of pages of an annual report. The result is contracted with the study of (Verma and Kirti, 2019).

*Listing Abroad:* Listing abroad of a company is measured through listing status of a company. Listing status of a company has negative effect on HRDI but this effect is not significant ( $p$ -value = 0.089 as the value is more than 5 per cent level of significance). It means companies do not use listing status as a tool to attract the investors. Thus, the Hypothesis (H08) is rejected. The result is in line with the study of (Verma and Kirti, 2019). And contracted with the study of (Kaur, Raman and Singhania, 2016).

*Type of Auditor:* Type of auditor is measured through whether the companies audited by Big 4 or not. It has positive effect on HRDI but this effect is not significant ( $p$ -value = 0.677 as the value is more than 5 per cent level of significance). The reason behind this outcome lies in the likelihood that the job of auditor is restricted to the data disclosed by clients. Generally, an auditor does not compel the clients to disclose the information in excess of accounting standards. Hence, the Hypothesis (H09) is rejected. The result is consistent with the studies of (Alsaeed, 2006; Jindal and Kumar, 2012 and Kaur, Raman and Singhania, 2016). But, the result is contradicted with (Shehata, Dahawy and Ismail, 2014), those companies which are audited by Big 4 disclose the more voluntary information than the local firms.

It nutshell, it can be concluded that net sales, market capitalisation, profit after tax and pages of an annual report have positive effect on HRDI and this effect is significant. Promoter's holding has negative effect on HRDI and this effect is also significant. However, age of a company, net fixed assets, earnings per share, return on total assets, return on equity, current ratio, quick ratio, debt-equity ratio, listing status of a company and type of auditor do not have effect on HRDI.

#### 5.4 HR information across various Industrial Sectors

The Table VIII depicts the industry-wise classification and descriptive statistics of selected sample companies. The sample constitutes the maximum number of companies from Pharmaceuticals Sector (17) followed by Automotive Sector (11), Oil and Gas Sector (11) and lastly, by Engineering Sector (10). The sample constitutes the minimum number of companies belongs to The sample constitutes the minimum number of companies belongs to Tobacco Sector (1) followed by Cement/ Construction sector (2), Conglomerates sector (2), Media sector (4) and Retail/Real Estate Sector (4). The highest mean score comes from Tobacco Sector (51.81 per cent). Tobacco Sector discloses highest amount of HR information voluntary (as mean score is 51.81) as compared to other sectors which is followed by Technology Sector (48.91) and Cons Non-Durable Sector (47.18). The minimum value is 13.04 which is from Services Sector and maximum from Technology Sector is 69.57. The large variations in HR disclosure score is shown by Services Sector which have highest standard deviation is 12.08.

**Table VIII**  
**Industry-wise Voluntary HR Disclosure Index**

S. No.	Industry Sector	N	% age	Mean	Minimum	Maximum	Std. Deviation
1.	Automotive	11	8.73	44.52	27.17	59.78	7.55
2.	Cement/Construction	2	1.59	38.77	21.74	54.35	11.28
3.	Chemicals	7	5.56	40.92	22.83	59.78	9.79
4.	Conglomerates	2	1.59	32.34	19.57	44.57	8.71
5.	Cons Non-Durable	7	5.56	47.18	31.52	67.39	8.84
6.	Engineering	10	7.94	45.83	25.00	59.78	8.89
7.	Food and Beverage	5	3.97	45.47	28.26	58.70	7.49
8.	Manufacturing	5	3.97	43.66	28.26	54.35	8.01
9.	Media	4	3.17	40.72	28.26	47.83	6.63
10.	Metals and Mining	9	7.14	45.49	27.17	60.87	8.07
11.	Oil and Gas	11	8.73	45.73	23.91	63.04	9.40
12.	Pharmaceuticals	17	13.49	43.51	25.00	67.39	8.14
13.	Retail/Real Estate	4	3.17	40.99	25.00	54.35	8.31
14.	Services	5	3.97	32.83	13.04	57.61	12.08
15.	Technology	7	5.56	48.91	27.17	69.57	10.71
16.	Telecom	5	3.97	46.49	28.26	57.61	7.58
17.	Tobacco	1	0.79	51.81	44.57	55.43	4.54
18.	Utilities	9	7.14	42.21	21.74	57.61	9.35
19.	Miscellaneous	5	3.97	41.12	17.39	60.87	11.92

**Note:** N Number of sample companies.

**Source:** Annual reports of sample companies from F.Y. 2012-2013 to 2017-2018.

Table IX depicts the Kruskal-Wallis test for industry type and HRDI. To test the significant difference between industry types and HRDI, Kruskal-Wallis test is used. The result shows that industry type significantly ( $p$ -value = 0.000 as the value is less than 1 per cent level of significance) association with the HRDI of companies. It can be concluded that, the HR disclosure is varied across various industrial sectors. Thus, the Hypothesis (H10) is accepted. The result is consistent with the findings of (Garg and Verma, 2010).

**Table IX**  
**Kruskal-Wallis Test for Industry Type and HRDI**

Chi-Square	86.712
Df	18.000
Sig.	0.000

**Source:** Annual reports of sample companies from FY 2012-2013 to 2017-2018.

### 5.5 Comparison of HR Disclosure Practices across Public and Private Sectors

The Table X depicts the result of Mann-Whitney U test. To compare the HR disclosure score of companies between public and private sector, Mann-Whitney U test is used. The result shows that there is a significant difference between public and private sector regarding HR disclosure score as the value of Z (-3.463 at 0.001 significance level) is less than accepted range (0.05 per cent) of significance level. Thus, Hypothesis (H11) is rejected. Table X also shows that public sector companies discloses more HR information in comparison to private sector companies. The reason behind

this is that there is huge no. of shareholders of public sector company and they are widely scattered. So, their information needs are fulfilled through disclosing voluntary information in annual reports.

**Table X**  
**Mann-Whitney-U Test for HRDI across Public and Private Sector Companies**

HRDI	Sector		Mann-Whitney		Test Statistics Sig. (2-tailed)
	Public	Private	U Test	Z	
	431.13 (69842.50)	364.15 (216303.5)	39588.500	-3.463	0.001

**Note:** Mean of ranks presented in parentheses.

**Source:** Annual reports of sample companies from FY 2012-2013 to 2017-2018.

## VI. Conclusion of the Study

The results of the study showed that selected Indian listed companies disclose moderate level of HR information. The reasons for disclosing moderate level of HR information are explained by no. of earlier studies: companies pay little attention on voluntary disclosure of information, lack of time and resources, no clear cut guidelines for reporting of HR information, lack of support from senior management and uncertainty regarding type of HR information reported (Foong, Yorston and Gratton, 2003; Verma and Dewe, 2008; Jindal and Kumar, 2012; Kansal and Joshi 2015 and Kaur, Raman and Singhania, 2016)

Further, analysis revealed that company characteristics influence the HRDI of a company. Net sales, market capitalisation, profit after tax and pages of an annual report have positive effect on HRDI and this effect is significant (Verma and Kirti, 2019). It means that increase in net sales, market capitalisation, profit after tax and no. of pages of an annual report also leads to increase in HRDI. Promoter's holding has negative effect on HRDI and this effect is also significant (Kaur, Raman and Singhania, 2016 and Verma and Kirti, 2019). The negative effect depicts that when promoter's holding in equity share capital of a company increases, the HRDI of a company decreases. This shows the inverse effect between both the variables. The significant effect between the variables implies that these variables come out as the main variables to explain the voluntary disclosure level of the firm. However, age of a company, net fixed assets, earnings per share, return on total assets, return on equity, current ratio, quick ratio, debt-equity ratio, listing status of a company and type of auditor do not have effect on HRDI (Garg, 1992 and Verma and Kirti, 2019). Additionally, industry type has significant influence on the HRDI of selected Indian listed companies. And public sector company discloses more HR information in comparison to private sector company. So, this study provides the empirical evidence in relation to effect of company characteristics on voluntary disclosure of HR information.

There are various managerial and limitations of the study such as when the company discloses more information related to their key resource i.e.



human resource, it creates certainty for their stakeholders. If the information is hidden by the company, the stakeholders would never come to know about the real risk of the company. The future and growth prospects of the company depends on how the investors invest in particular company. It is also very difficult for the investors to evaluate all the key information related to the company. To what extent, the information is disclosed by a company shows the broader aspects of the managers. The HRDI constructed in present study can be used as a yardstick by Indian firms to enhance their HR disclosure in future. The HR disclosure also helps regulatory bodies to set minimum standard for disclosure of HR information in annual reports of the listed companies for proper valuation of financial position of a company. More voluntary disclosure of HR information also uplifts the social image of the companies which makes the companies popular amongst stakeholders (shareholders, investors, employees, creditors etc.). Investors would ready to invest more and talented employees would like to be part of the companies.

The emerging market has increasing growth rate. Hence, the markets are in the need of additional capital. The foremost condition for raising the capital from local and foreign investors is the company should be transparent and show to the investors their valuable HR. Hence, through this present study Indian listed companies should be motivated to disclose more and more HR information in their annual reports. The present study has used only one medium of HR disclosure i.e. annual reports. The other medium such as press releases, websites and media reports could also be used. The present study used unweighted index indicated presence or absence of a particular item. Further study, would use weighted index for scoring of an item. The sample size of present study has been taken as six years. Further study could enhance the sample size to improve the efficiency of the model.

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