INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

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RELATIONSHIP OF ENVIRONMENTAL DISCLOSURES AND OTHER INDEPENDENT VARIABLES IN THE DIFFERENT TYPE OF INDUSTRIES - A CASE STUDY OF INDIAN BSE-200 COMPANIES

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ABSTRACT

Environment has become one of the hottest issues in the world. The main cause of pollution is the industrial growth. In order to know that how much each industry is contributing to control the pollution, this study has been conducted. In this study the analysis is done to know the level of environmental disclosures in the annual reports of the companies of various industries(BSE 200).Also it has been found the behaviour of other dependent variables like age of the companies, its share capital, net fixed assets and net profit and their relationship with the environmental disclosures in different type of industries.

INTRODUCTION

Environment has become one of the hottest issues in the world. All the political parties, NGO's, environmentalists and even the common people are thinking about the cleaner environment. Like all other countries in the world, India is also facing the polluted environment. The presence of Uranium and heavy metals in the natural water resources of Punjab has just shaken up the society. The various manufacturing and other business related industries are throwing their wasted polluted water into the natural resources of water used for human consumption and irrigation purposes. Similar is the condition in all other states of India.

In order to know the behaviour of different industries with the environmental issues this study has been conducted. In this paper the level of environmental disclosures by the different industries are studied vis a vis the relationship of net fixed assets, net profits, age of the companies within that particular industry and its share capital with the environmental disclosures have also been analysed.

This study has been divided into four sections. The first section gives the brief account of introduction, the next section highlights the research methodology, the third section presents the analysis of data and the final section presents the concluding remarks.

RESEARCH METHODOLOGY

The annual reports ninety- two companies of the year 2005-6 are collected by various means. All these companies are from BSE-200. A work sheet is prepared by consulting with environmentalists and chartered accountants covering all the possible elements of environmental accounting and reporting that can be disclosed by the companies. The annual reports are scanned thoroughly to find out the extent of environmental disclosures by each and every company.

The objectives of this paper are, first to study the level of environmental disclosures in the different types of industries and second is to find the relationship between independent variables (characteristics) like age, net sales, net fixed assets and net profit with the environmental disclosures within that industry.

The sample of the companies is divided according their type of industries. The relationship is found as according to the above said objectives. The industries having lesser number of companies are grouped together to find out the relationship.

SCORING OF ITEMS

The score 3 is given if the information provided is in monetary terms, the score 2 is assigned if the information given is in quantitative terms and the score 1 is assigned if the item is disclosed only in descriptive terms. The score zero is assigned if the concerned item is not disclosed in any of the said forms.

STATISTICAL TOOLS

The tables are constructed to study the primary changes in the related variables. To examine the effects and relationships of different factors on the total scores of environment, different regression forms are test fitted for all, viz.

a. Linear : $Y = a + bX_i + v_i$

b. Exponential: $Y = a.b^{X_i} e^{v_i}$

c. Power : $Y = a.X_i^{b}.e^{vi}$

where, Y is a dependent variable, the total scores

and X_i are the independent variables

where X_1 =Age of the companies

X_2 =Net Sales

X_3 =Net Fixed Assets

X_4 =Net Profit

and v_i is random term normally distributed with zero mean and constant variance.

The t-value of the estimates is worked out to test the statistical significance of these estimates at (n-k-1) degrees of freedom. The t-value of the regression coefficients (b_i) are computed out as under:

t(n-k-1)= b_i /S.E.(b_i)

Where S.E. is the standard error of the coefficients of (b_i)

The coefficients of determination (R^2) is worked out to estimate the extent of total variation in the total score (Environmental) as explained by the explanatory variables included in the model. Statistical significance of (R^2), which shows the goodness of fit of the function is tested by working out (F-ratio) as follows

$$F = \frac{R^2}{(1-R^2)} * \frac{(n-K)}{(K-1)}$$

Where, (R^2) is the value of the multiple correlation coefficient, (k) is the number of parameters and (n) is the number of observations. The significance of F-value is tested at one and five percent levels at (n-1) and (n-k) degrees of freedom on numerator and denominator scales respectively.

TEST FOR AUTO CORRELATION

To study the problem of auto correlation, the Durbin-Waston test is used. To test the null hypothesis of auto correlation, the Durbin Waston is used as follows

$$d^* = \frac{\sum_{t=2}^{n} (e_t - e_{t-1})^2}{\sum_{t=1}^{n} e_t^2}, r_{ij,} R_y$$

Where e_t = least square residual at 't' year

e_{t-1} =least square residual lagged by one year

t = time subscript

n= number of observations

The empirical (d^*) is compared with the theoretical values of d (at n degrees of freedom and k number of parameters estimated) that is, the values of d which defines the critical region of the test. Finally, the null hypothesis is accepted that there is no problem of auto correlation in the function.

TEST FOR MULTICOLLINEARITY

Klein Test is tried to test the magnitude of multi co linearity. All the possible simple correlation coefficients r_{ij}, and the multiple correlation coefficients, R_y are compared. Since all $r_{ij} < R_y$, then it is ensured that there is no linear relationship between any independent variables are observed.

ANALYSIS OF THE DATA

This section of the study analyses the relationship of independent variables and the total environmental score in different types of industries. All the companies in the sample are divided according to their industry. The study covers a total of 19 industries. Due to lesser number of

companies in some industries, a combined table of those industries was produced. The multiple regressions are applied between the selected independent variable and total environmental score within different types of industries. In all, 11 tables have been prepared to present the data pertaining to different industries. These tables indicate the behaviour of independent variable with the dependent variable.

The Telecom and Information Technology (IT) Industry

Table 1 highlights the relationship of selected independent variables with the total environmental score in the Telecom industry and Information Technology industry collectively. In the linear function, the selected variables explain 95 per cent of the variations in the dependent variable. The coefficients of age of the company and net profit are negatively related with the total score; and the t-values of all the four selected independent variables turn out to be highly significant. In the exponential function, the selected independent variables explain 22 per cent of the variations in the dependent variable; and the coefficients of net sales and net fixed assets show a positive relationship with the dependent variable. The t-value of the variable net fixed assets turns out to be highly significant. In the case of power function, the coefficients of all the variables except net profit show a positive relationship with the dependent variable and the t - values of age the company and net sales turn out to be highly significant. The F-values of linear and power functions turn out to be highly significant.

Table 1

Factors Affecting Environmental Disclosures of Company Characteristics in the Telecom and Information Technology (IT) Industry

	Linear	**Exponential**	**Power**
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	11.50(4.83)***	2.93 (0.49)*	1.28 (3.06)***
X1(Age of the company)	-7.85 (6.01)***	-0.197 (0.059)*	0.176 (3.71)***
X2 (Net Profit)	0.501 (7.72)***	0.0053 (0.358)*	0.997 (2.95)***
X3 (Net Sales)	0.15 (6.52)***	0.172 (3.58)***	1.365 (0.29)*
X4 (Net Fixed Assets)	-0.201(6.663)***	-0.907 (1.18)*	-0.187 (0.18)*
R^2	0.950	0.229	0.660
Adjusted R^2	0.900	0.540	0.400
F-value	19.240	2.300	5.360
Significance	H.S.	N.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)

Note: The figures given in parentheses indicate the t-values.

THE DIVERSIFIED INDUSTRY

Table 2 shows the relationship of dependent and independent variables in the companies belonging to diversified industry.

Table 2

Factors Affecting Environmental Disclosures of Company Characteristics in the Diversified Industry

	Linear	**Exponential**	**Power**
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	19.26(2.69)*	5.46 (6.62)***	7.66 (5.62)***
X1(Age of the company)	-0.154 (1.193)*	0.34 (1.34)*	0.28 (3.34)***
X2 (Net Profit)	-0.134 (4.027)***	-0.231 (2.528)**	-0.026 (3.51)***
X3 (Net Sales)	-0.152 (5.79)***	-0.181 (5.54)***	0.189 (3.89)***
X4 (Net Fixed Assets)	0.0912 (8.23)***	0.221 (16.52)***	0.001 (0.77)*
R^2	0.961	0.990	0.660
Adjusted R^2	0.920	0.990	0.640

F-value	25.000	381.690	38.110
Significance	H.S.	H.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

The values of R^2 in the linear, exponential and power functions reflect that the selected independent variables explain 96 per cent, 99 per cent and 66 per cent of the variations respectively in the total environmental score. The coefficients of all the independent variables except net profit show a negative relationship with the dependent variable; and the t-values of all the variables except age of the company turn out to be highly significant. In the case of exponential function, the coefficients of age of the company and net profit show a positive relationship; and the t-values of net fixed assets and net profit turn out to be highly significant and of the net sales turns out to be significant. The coefficients of all the variables except net sales show a positive relationship; and the t-values of all the variables except net profit turn out to be highly significant. The F-values of all the functions turn out to be highly significant.

THE METAL, MINING & CHEMICAL AND PETRO-CHEMICAL INDUSTRIES

Table 3 shows the relationship of environmental disclosure with the selected independent variables in Metal, Mining & Chemical and the Petro-Chemical industry. The independent variables explain 49 per cent, 55 per cent and 67 per cent of the variations in the dependent variable in linear, exponential and power functions respectively. The coefficients show that all the variables are negatively related except net fixed assets in the linear function; and the t-value of net fixed assets turns out to be significant. In the exponential function the coefficient shows that age of the company and net fixed assets are positively related; and the t-values of age of companies, net fixed assets and net profit turn out to be highly significant and that of net sales is significant. In the power function, the coefficients of net sales and net fixed assets are positively related; and the t-values of net sales and net fixed assets turn out to be highly significant. The F- value comes out to be significant in linear and exponential functions and highly significant in the power function

Table 3
Factors Affecting Environmental Disclosures of Company Characteristics in Metal, Mining & Chemical and Petro-Chemical Industries

	Linear	Exponential	Power
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	14.94(1.77)*	2.18 (3.82)***	10.16 (3.19)***
X1(Age of the company)	-0.818 (1.209)*	0.591 (3.191)***	-0.817 (2.77)**
X2 (Net Profit)	-0.33 (1.33)*	-0.241 (2.27)**	0.147 (3.99)***
X3 (Net Sales)	0.751 (2.77)**	0.551 (3.58)***	0.007 (3.03)***
X4 (Net Fixed Assets)	-0.181 (0.141)*	-0.353 (3.34)***	-0.535 (1.58)*
R^2	0.498	0.550	0.670
Adjusted R^2	0.123	0.106	0.620
F-value	3.350	3.240	7.990
Significance	S.	S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

THE FINANCE & HOUSING RELATED INDUSTRY

It is quite evident from Table 4 that the selected independent variables explain 89 per cent, 56 per cent and 62 per cent of the variations in linear, exponential and power functions respectively. The coefficients of net fixed assets and net profit are positively related with the total environmental score in the linear function; and the t-value of net profit turns out to be highly significant. In the exponential function, the coefficients of net fixed assets and net profit indicate that these are positively related with the dependent variable; and the t-values of age of the company and net sales turn out to be highly significant. Further, the coefficients of net fixed assets and net profit explain that these variables are positively related in the power function also; and the t-values of these two variables come out to be highly significant. The F-values indicate that it is highly significant in linear and power functions and is significant in the exponential function

Table 4
Factors Affecting Environmental Disclosures of Company Characteristics in Finance & Housing Industry

Variable	**Linear**	**Exponential**	**Power**

	Equation 1	Equation 2	Equation 3
Constant	4.85(1.35)*	1.60 (2.41)**	3.85 (3.35)***
X1(Age of the company)	-0.32 (2.84)**	-0.173 (3.25)***	-0.66 (2.89)**
X2 (Net Profit)	-0.162 (1.63)*	-0.788 (3.64)***	-0.671 (0.91)*
X3 (Net Sales)	0.092 (2.77)**	0.117 (2.73)**	0.006 (3.77)***
X4 (Net Fixed Assets)	0.0621 (2.98)***	0.138 (1.173)*	0.167 (4.98)***
R^2	0.892	0.560	0.620
Adjusted R^2	0.785	0.380	0.600
F-value	8.300	3.300	4.160
Significance	H.S.	S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)

Note: The figures given in parentheses indicate the t-values.

THE HEALTH CARE INDUSTRY

Table 5 highlights the relationship between dependent and independent variables in the health care industry.

Table 5

Factors Affecting Environmental Disclosures of Company Characteristics in the Health Care Industry

	Linear	Exponential	Power
Variable	Equation 1	Equation 2	Equation 3
Constant	2.25(0.39)*	3.03 (0.52)*	3.26 (3.19)***
X1(Age of the company)	0.33 (3.04)***	-0.09 (3.58)***	-0.078 (2.96)***
X2 (Net Profit)	0.25 (1.98)*	0.030 (2.81)**	0.067 (3.18)***
X3 (Net Sales)	-0.23 (3.13)***	-0.35 (1.44)*	0.679 (3.56)***
X4 (Net Fixed Assets)	-0.47 (2.32)**	-0.91 (0.43)*	0.007 (1.56)*
R^2	0.580	0.320	0.280
Adjusted R^2	0.250	0.200	0.220
F-value	2.790	1.610	3.990
Significance	N.S.	N.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)

Note: The figures given in parentheses indicate the t-values.

The value of R^2 indicates that 58 per cent, 32 per cent and 28 per cent of the variation in the dependent variable is explained by the selected independent variables in the linear, exponential and power functions respectively. The values of coefficient of the age of company and net sales point out that these variables are positively related with the total environmental score in the linear equation; and the t-values of the age of company and net fixed assets turn out to be highly significant. The coefficients of all the variables except net sales in the exponential function indicate that these are negatively related with the dependent variable in the exponential function; and the t-value of the age of company comes out to be highly significant. In the case of power function, the coefficients of all the selected independent variables except the age of company show a positive relationship with the dependent variable; and the t-values of all the variables except net profit appear to be highly significant. The F-value of the power function comes out to be highly significant.

THE CONSUMER DURABLES, TRANSPORT, TEXTILE, AGRICULTURE AND TOURISM INDUSTRIES

Table 6 shows that the selected independent variables explain 68 per cent, 52 per cent and 48 per cent of the variations in the dependent variable in linear, exponential and power functions respectively. The coefficients of net sales and net profit show a positive relationship with the dependent variable in the linear function; and the t-value of net sales turns out to be highly significant. In the exponential function, the coefficients of net sales and net profit show a positive relationship with the dependent variable; and the t-value of net sales turns out to be highly significant. However, in the case of power function, the coefficients of net sales and net profit show a positive relationship with the dependent variable; and the t-values of age of the companies, net fixed assets and net profit turn out to be highly significant. The F-value of power function turns out to be highly significant.

Table 6

Factors Affecting Environmental Disclosures of Company Characteristics in the Consumer Durables, Transport, Textile, Agriculture and Tourism Industries

Variable	Linear Equation 1	Exponential Equation 2	Power Equation 3
Constant	10.42(2.92)***	0.670 (0.127)*	5.41 (4.47)***
X1(Age of the company)	-0.95 (1.53)*	-0.971 (2.05)**	-0.678 (3.11)***
X2 (Net Profit)	0.359 (3.21)***	0.351 (3.49)***	0.356 (1.90)*
X3 (Net Sales)	-0.765 (2.89)**	-0.671 (2.65)**	-0.067 (3.89)***
X4 (Net Fixed Assets)	0.010 (1.15)*	0.171 (1.33)*	0.077 (3.33)***
R^2	0.680	0.520	0.480
Adjusted R^2	0.360	0.480	0.460
F-value	2.150	1.120	5.570
Significance	N.S.	N.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)

Note: The figures given in parentheses indicate the t-values.

THE CAPITAL GOODS INDUSTRY

The values of R^2 given in Table 7 indicate that the selected independent variables explain 89 per cent, 27 per cent and 67 per cent of the variations in the dependent variable in the linear, exponential and power functions respectively. The coefficients of net fixed assets and net profit show that both dependent and independent variables are positively related; and the t-values of all the variables except age of the company turn out to be highly significant in exponential function. The coefficients of the net fixed assets and net profit reflect that these two variables are positively related; and the t-values of all the variables except age of the company turn out to be highly significant. The coefficients of all the variables except age of the companies indicate that these are positively related; and the t-values of these variables also turn out to be highly significant. The F-values of linear and power functions turn out to be highly significant and significant respectively.

Table 7

Factors Affecting Environmental Disclosures of Company Characteristics in the Capital Goods Industry

Variable	Linear Equation 1	Exponential Equation 2	Power Equation 3
Constant	2.89(1.57)*	1.06 (2.49)**	5.11 (2.42)*
X1(Age of the company)	-0.34 (2.02)*	-0.27 (3.63)***	0.56 (2.15)*
X2 (Net Profit)	-0.69 (5.33)***	-0.33 (2.15)*	-0.279 (5.96)***
X3 (Net Sales)	0.56 (5.65)***	0.27 (1.23)*	0.489 (3.81)***
X4 (Net Fixed Assets)	0.30 (4.98)***	0.014 (3.05)***	0.015 (3.11)***
R^2	0.890	0.270	0.670

Adjusted R^2	0.810	0.110	0.610
F-value	10.900	1.470	3.470
Significance	H.S.	N.S.	S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

THE TRANSPORT EQUIPMENT INDUSTRY

Table 8 evidently shows that the selected independent variables under the linear function explain 29 per cent of the variations in the dependent variable and the coefficients of age of the companies; and the net fixed assets show a positive relationship with the dependent variable. The t - value of the age of companies turns out to be highly significant; and that of net sales is significant. The coefficients of all the variables except net sales show a positive relationship with the total environmental score in the exponential function; and the t-values of net fixed assets and net profit turn out to be highly significant; and the rest of the two variables come out to be significant. The coefficients of all the variables except age of the companies come out to be positively related with the dependent variable and the t-value of the net sales turns out to be highly significant. The F-value of the exponential function turns out to be highly significant and that of linear and power functions is significant.

Table 8
Factors Affecting Environmental Disclosures of Company Characteristics in Transport Equipment Industry

	Linear	**Exponential**	**Power**
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	2.14(0.64)*	4.64 (3.15)***	3.14 (2.79)**
X1(Age of the company)	0.75 (3.94)***	0.13 (2.78)**	-0.17 (2.92)**
X2 (Net Profit)	-0.19 (2.53)**	-0.13 (2.89)**	0.076 (3.59)***
X3 (Net Sales)	0.17 (1.67)*	0.004 (2.92)***	0.0291 (1.56)*
X4 (Net Fixed Assets)	-0.082 (0.12)*	0.98 (3.59)***	0.01 (0.11)*
R^2	0.291	0.470	0.580
Adjusted R^2	0.260	0.330	0.470
F-value	3.520	4.160	3.110
Significance	S.	H.S.	S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

THE POWER AND FMCG INDUSTRIES

The values of given in table 9 indicate that the selected independent variables explain 93 per cent, 87 per cent and 81 per cent of the variations in dependent variable in linear, exponential and power functions respectively. The coefficients of age of the company and net profit show a positive relationship with the dependent function in the linear function; and the t-values of all the variables except net sales turn out to be highly significant. In exponential function, the coefficients of age of the company and net profit indicate a positive relationship between the two variables; and the t-value of net fixed assets turns out to be highly significant. In power function, the coefficients of age of the company and net profit come out to be positive; and the t-values of age of the companies and net profit turn out to be highly significant. The F-values of all the three functions turn out to be highly significant.

Table 9
Factors Affecting Environmental Disclosures of Company Characteristics in the Power and FMCG Industries

	Linear	**Exponential**	**Power**
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	1.81(0.57)*	0.82 (3.53)***	0.11 (3.09)***

X1(Age of the company)	0.21 (3.29)***	0.151 (2.19)*	0.56 (3.87)***
X2 (Net Profit)	-0.16 (1.82)*	-0.271 (2.81)**	-0.007 (1.81)*
X3 (Net Sales)	-0.17 (3.40)***	-0.161 (3.14)***	-0.006 (2.14)*
X4 (Net Fixed Assets)	0.171 (3.33)***	0.116 (2.16)*	0.716 (8.16)***
R^2	0.930	0.870	0.810
Adjusted R^2	0.860	0.750	0.760
F-value	13.490	7.250	4.560
Significance	H.S.	H.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

THE OIL AND GAS INDUSTRY

Table 10 exhibits the relationship of different variables in the Oil and Gas industry. The values of indicate that the selected variables explain 80 per cent, 24 per cent and 78 per cent of the variations in the dependent variable in the linear, exponential and power functions respectively. The coefficients of all the variables except net sales show a positive relationship with the dependent variable in the linear function; and the t-values of net sales and net fixed assets turn out to be highly significant. In exponential function, the coefficients of all the variables come out to be positively related with the dependent variable; and the t-value of age of company turns out to be highly significant. The coefficients of all the variables in the power function also come out to be positive; and the t-values of net sales and net profit turn out to be highly significant. The F-values turn out to be highly significant in linear and power functions, and significant in exponential function.

Table 10
Factors Affecting Environmental Disclosures of Company Characteristics in the Oil and Gas Industry

	Linear	**Exponential**	**Power**
Variable	**Equation 1**	**Equation 2**	**Equation 3**
Constant	3.36(0.931)*	5.10 (1.11)*	4.56 (3.11)***
X1(Age of the company)	0.116 (0.786)*	0.98 (3.52)***	0.107 (0.799)*
X2 (Net Profit)	-0.801 (2.99)***	0.107 (0.152)*	2.170 (3.99)***
X3 (Net Sales)	0.431 (3.22)***	0.371 (2.18)*	0.817 (1.99)*
X4 (Net Fixed Assets)	0.07 (1.57)*	0.195 (0.32)*	0.079 (4.56)***
R^2	0.80	0.24	0.78
Adjusted R^2	0.67	0.12	0.72
F-value	6.30	3.12	7.96
Significance	H.S.	S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)
Note: The figures given in parentheses indicate the t-values.

OVERALL BEHAVIOUR OF INDEPENDENT VARIABLES WITH TOTAL ENVIRONMENTAL DISCLOSURE SCORE

This part of the study shows the overall behaviour of selected independent variables with the total environmental score. Multiple regression is applied over the age of company, net sales, net fixed assets, net profit and the dependent variable with the total environmental score. The following table is compiled to know the results of the relationship of both the independent and dependent variables.

Table 11
Factors Affecting Environmental Disclosures of Company Characteristics

Variable	Linear Equation 1	Exponential Equation 2	Power Equation 3
Constant	3.72 (2.36)**	1.186 (7.16)***	4.51 (3.16)***
X1(Age of the company)	0.07 (3.25)***	0.072 (3.00)***	0.076 (4.11)***
X2 (Net Profit)	-0.046 (3.94)***	0.160 (2.009)*	0.767 (3.99)***
X3 (Net Sales)	0.002 (1.54)*	0.036 (1.97)*	-0.031 (3.06)***
X4 (Net Fixed Assets)	0.112 (2.75)**	0.012 (3.07)***	0.466 (0.50)*
R^2	0.890	0.860	0.920
Adjusted R^2	0.660	0.590	0.870
F-value	5.370	4.410	5.990
Significance	H.S.	H.S.	H.S.

*** Highly Significant (H.S.) ** Significant (S.) * Non-significant (N.S.)

Note: The figures given in parentheses indicate the t-values.

Table 11 shows that the selected independent variables explain 89 per cent, 86 per cent and 92 per cent of the variations in the dependent variable in linear, exponential and power functions respectively. The coefficient of the variable age of the company is showing a positive relationship with the total environmental score; and its t-value turns out to be highly significant in all the three equations. This means that as the company grows older the more will be its total environmental disclosures. The coefficient of net sales of the company is showing a positive relationship with the total environment score in all the three equations except in the linear function. Its t-values turn out to be highly significant in linear and power functions. The coefficient of the variable net fixed assets is showing a positive relationship in linear and exponential functions but negative in the power function; and its t-value comes out to be highly significant in power function. The coefficient of net profit is, again, showing a positive relationship in all the three functions; and its t-value turns out to be significant in linear function and highly significant in the case of power function. This means that the companies earning more profits disclose more environmental related items. The F-values come out to be highly significant in all the three functions.

So, it can be said that all the selected independent variables have mostly shown a positive relationship with the total environmental score. As the age of company, its net sales, net fixed assets and net profits increase the total environmental disclosures also increase.

CONCLUSION

In Metal, Mining & Chemical and Petrochemical industries, the net fixed assets are showing positive relationship with the total environmental score. Similarly in Finance and Housing Related industries the net fixed assets and net profits are showing positive relationship with environmental total score.

In the Health Care industry the net sales are showing positive relationship with the environmental disclosures. In Consumer Durables, Transport, Textile and Agriculture & Tourism Industries, the net profits and net sales are showing positive relationship with the environmental disclosures while the net fixed assets are showing the negative relationship.The industry of Capital Goods, the net fixed assets and net profits are showing positive relationship, while the net sale is showing negative relationship with environmental score. In the industry of Transport Equipment, the net fixed asset is showing positive relationship with the environmental disclosure. The age of the companies and the net profits are showing positive relationship while the net sales and the net fixed assets are showing negative relationship environmental score. In the industry of Oil and Gas, the age of the companies, net fixed assets and net profits are showing positive relationship with the environmental disclosure. This is the only industry in which maximum number of variables are showing the relationship with the environmental disclosure and that all are positively related. In overall, if all the industries are taken together, all the four variables i.e. the age of the companies, net sales, net fixed assets and net profits are showing positive relationship with the environmental disclosure.

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