

# Identifying Dimensions of Social Responsibility of Listed Companies in Tehran Stock Exchange Using Exploratory Factor Analysis

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## Abstract:

*This paper aims at identifying aspects of social responsibility of listed companies in Tehran Stock Exchange. Enjoying high validity and reliability, Singhapakdy et al.'s standard questionnaire and Mohammed Hossain et al.'s questionnaire were used in this study. Forty-nine companies listed in Tehran Stock Exchange made up the population of the study. Exploratory factor analysis was used to identify factors shaping the variable "corporate social responsibility". Results corresponding to cumulative variances show that the proposed factor structure, consisting of four factors, includes over 51.23% of the cumulative variance. The following demonstrate the percentage of different factors in cumulative variance, respectively: ethical dimension 21.44%; legal dimension 11.84%; humanitarian dimension 10.01%; and economic dimension 7.94%. The results of the final rotated matrix show that questions are only on a high load factor, so we can arrange the elements of moral, legal, economic, humanitarian and named.*

**Keyword:** *corporate social responsibility, ethical responsibility, legal responsibility, humanitarian responsibility, economic responsibility.*

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## Introduction

In recent years, many countries, social responsibility movement particularly industrialized countries, have led social responsibility movement and protests against the power of big corporations. A wide range of enterprises are encouraged to be socially responsible and behave correspondingly. This is in such a way that important issues have been raised about the role of big business in democracy and development. The importance of social responsibility to shareholders is to the extent that, for example, professional managers in the United States of America have maintained 1.3 trillion dollars of identified assets in their portfolios as investment in social responsibility. This indicates that the performance of social responsibility directly affects investors' wealth (Cho et al., 2013).

Matsushita states in his book that any business enterprise is founded to respond to the needs of society in a specific time and it must invest in developing products which enhance society's culture in future. An enterprise with having a serious goal and properly doing its responsibilities for the society can improve people's lives and enhance the social life of its surroundings community; thus it will survive as far as it is able to progress its activities towards the advancement and progress of society. In recent decades, corporate social responsibility has become an important strategic issue for many countries. Therefore, they considered social and environmental sustainability as an important legal source and provided it with performance guarantee and finally authorized it (Moura-Leite et al., 2011). Business managers, as good citizens, also seek to prudently and wisely solve these problems; this is a way to honor ethical values and respect people, communities and the natural environment (Boesso et al., 2012).

Porter and Kramer (2011) stated that a symbiotic relationship between company and its stakeholders will reinforce company's position and stakeholders together. Studies of corporate social responsibility are growing and new dimensions in management science and accounting are explored and found every day. But at the national level and in the management literature of Iran the issue is already obsolete; although there are both public and private businesses in Iran that have promoted social duty of the enterprise in business, social responsibility needs to be investigated more in this country. For these reasons, the present study is carried out to identify the aspects of social responsibility of the companies listed in Tehran Stock Exchange.

### **Review of national and international literature**

In their study, Lee et al (2013) state that corporate social responsibility performance impacts on information asymmetry. Also, the negative relationship between corporate social responsibility performance and bid-ask spread exists in firms with high levels of institutional ownership compared with firms with lower levels of institutional ownership. Boesso et al. (2012) examined the relationship between descriptive, instrumental, and strategic approaches to corporate social responsibility and corporate performance. Results showed that each of the three approaches to corporate social responsibility has a direct relationship with firm performance.

In an investigation entitled "Implementing corporate social responsibility: Comparing profit and non-profit corporates", Smith (2011) examined and compared social responsibility in profit and non-profit firms. Social responsibility was defined in this study as one of the intangible assets. The issue of social responsibility has also been addressed in developed countries in recent years. Werner (2009) investigated social responsibility in Bangladesh and concluded that corporate social responsibility has potential positive and lasting impact on developing countries, especially in countries with social constraints (Werner, 2009).

Mohammad Hossain et al. (2011) conducted an investigation to explore the current situation and the amount of annual reports of some Qatari companies. They acknowledged that factive companies in Qatar take into account human resources and product development, but environmental issues are not disclosed in the annual reports (Mohammad Hossain et al., 2011)

In a research on the effect of traditional attitudes towards cultural values on the understanding of the social responsibility of Korean companies, Kim and Kim (2010) found that the effect of the fundamental and traditional attitudes and beliefs on the understanding of corporate social responsibility is more important than the influence of cultural values (Kim and Kim., 2010).

Paganeo et al. (2005) suggested that corporate managers may use activities related to social responsibility as a means of preventing the dominance by the capital market and thus they provide shareholders' satisfaction (Paganeo et al., 2005).

### **Methodology**

The study employed a survey design for collecting data and followed a practical application. In addition, since this study only examines the status quo without manipulation it is considered a descriptive study. No specific hypothesis has been proposed in this study and it has just been tried to address the following basic question:

What are the dimensions of social responsibility in companies listed in Tehran Stock Exchange? CEOs and PR managers of manufacturing companies listed in Tehran Stock Exchange made up the study population. The data used in this study are of two categories: the first information category includes theoretical foundations of and the literature which was collected by reading articles, books and Iranian and foreign theses published on the Internet, and national and international journals gathered through library research. The second category of information involves those data related to social responsibility which was collected using Singhapakdy et al.'s and Mohammed Hossain et al.'s questionnaire. Questionnaires were sent to 185 managers of companies listed in Tehran Stock Exchange by free-fare post and email; 52 companies returned their questionnaires among which 48 were approved which is 25% of total number of distributed questionnaires. It must be mentioned that the questionnaires consisted of 48 items with answers designed on Likert-scale. Cronbach's alpha coefficient for the questionnaire was 0.923 which represented an acceptable reliability. In order to ensure validity, the items of the questionnaire, which were adapted from English valid papers, were examined by experts in the field after translation and they were edited and modified in multiple stages before the final edition was prepared.

### **Data analysis**

Exploratory factor analysis was used to determine the dimensions of the questionnaire. The first step in exploratory factor analysis is sampling adequacy which is performed by KMO-Bartlett test. Also principal component analysis with Varimax rotation was used in all stages of examining the extraction method.

### **Results and discussion**

#### **Explanatory factor analysis**

Exploratory factor analysis was used to determine the dimension of the questionnaire and it was observed that five items (items 8, 16, 13, 7 & 26) had factor loadings less than 0.4 for every four factors; therefore, they were excluded from the analysis and exploratory factor analysis was conducted again; the following is the obtained results.

The first step in exploratory factor analysis is sampling adequacy; results of KMO-Bartlett test results are shown in table below. According to the obtained results, the exploratory factor analysis can be conducted on data. The value of KMO statistic which was 0.6 confirmed the sampling adequacy; confidence level of zero for the Bartlett test also indicates the suitability of factor model. Also, principal component analysis with Varimax rotation was used in all stages of examining the extraction method.

Table 1. KMO and Bartlett's test

0.609	KMO sampling adequacy index	
81.1730	Approx. Chi-Square	Bartlett's test
903	df	
0.000	Sig.	

#### Total variance explained

The following table demonstrates the number of factors extracted from the data (primary variables). The last column of the table shows that all the factors together make what percent of the variability of the primary variables. Results presented in the table shows that the proposed factor structure consists of four factors that include more than 51.23% of the cumulative variance. The first factor makes up 21.44% of the total variance, the second factor 11.84%, the third factor 10.01 and the fourth one 7.94%.

Factor	Rotated			Eigenvalues		
	Total	Variance percentage	Cumulative percentage	Total	Variance percentage	Cumulative percentage
1	13.416	31.201	31.201	9.221	21.444	21.444
2	3.126	7.271	38.471	3.126	11.837	33.281
3	2.938	6.833	45.304	2.938	10.009	43.290
4	2.549	2.549	51.233	2.549	7.943	51.233
The method used for extracting the results: Principal Component Analysis						

Table2: Resultsof cumulativevarianceof dimensions

Results of rotated matri

Table 3. Rotated matri

factor									
.338	-.136	.579	.159	Q40	.128	-.140	.091	.752	Q3
.262	.314	.539	.142	Q17	.208	.253	.302	.736	Q43
.249	-.203	.514	.372	Q19	.065	.127	.067	.734	Q2
.306	.059	.513	.070	Q18	.090	.177	.249	.728	Q14
.261	.189	.478	.319	Q36	.115	.166	.311	.724	Q24
-.076	.205	.472	.330	Q34	.041	.107	.263	.660	Q45
.087	.089	.456	.390	Q21	.114	.014	.115	.639	Q4
-.160	.144	.433	.189	Q35	.044	.315	.160	.638	Q46
.151	-.167	.426	.225	Q1	.086	.393	-.199	.633	Q44
.232	.722	-.067	-.160	Q47	.237	-.006	.016	.629	Q6
-.021	.656	.351	.299	Q27	.185	.018	.139	.612	Q28
-.054	.636	.377	.294	Q39	.037	.167	.145	.581	Q10
-.061	.628	.290	.380	Q37	.230	.366	.024	.560	Q48
.082	.555	-.008	.047	Q41	-.194	-.089	.382	.523	Q32
.115	.451	-.151	.323	Q15	.301	.241	.294	.520	Q42
.103	.425	.349	.214	Q23	-.262	.343	.072	.517	Q5
.720	.005	.012	-.034	Q30	.386	.329	.210	.506	Q29
.659	.384	-.214	.134	Q38	.004	.068	.296	.462	Q9
.636	.263	.105	.273	Q12	.201	.115	.377	.456	Q25
.591	.001	.198	.188	Q11	.110	.269	.648	-.047	Q33
.533	-.232	.196	.379	Q31	-.225	.228	.603	-.343	Q22
					-.171	-.017	.602	.290	Q20

As shown, inthefinal rotatedmatrix the items only have highloads on a singlefactor; thus, according to the resultsofrotatedmatrix,factorscan be named as follows

Table 4. Dimensions of Corporate's Social Responsibility

Factors	Name	Number of factors
Factor 1	Ethical dimension	19
Factor 2	Legal dimension	12
Factor 3	Humanitarian dimension	7
Factor 3	Economic dimension	5

Ethical dimension of social responsibility: according to the obtained results from rotated matrix, ethical responsibility in this questionnaire consists of 19 items. The items address commitment to ethics, doing right things, justice, equity and respecting human rights. The origin of these responsibilities is the religious beliefs, moral traditions, humanistic principles and human rights obligations.

Legal dimension of social responsibility: according to the obtained results from rotated matrix, the legal responsibility of the questionnaire consisted of 12 items. These are some questions about the legal responsibilities which include corporate commitment to the law, observing regulations as well as rules of labor and social security, safety and health, maintaining environment and so on.

Humanitarian social responsibility: this consists of 7 items in the questionnaire. The issues addressed here involve voluntary efforts by the company to solve society problems; this is done by the company without any economic gain expectation. These include some activities such as artwork, public education and charitable activities.

Economic dimension of corporate social responsibility: this is the primary responsibility of any company that is also called profitability. According to the obtained results from rotated matrix, it consists of 19 items that include items such as investment returns for the owners and shareholders make in order to increase company profitability, job creation, fair payments of the staff, and economic development of the country. Therefore, economic responsibility is that of the company seek profitability by producing good quality products with fair prices for consumers.

## Conclusion

Today's concept of corporate social responsibility is not seriously known for the corporate managers in Iran. However, this concept for Iranian companies exists in some frameworks such as dedications, non-profit loans, and charity. Factors such as economic freedom and competitiveness of some industries led some companies to consider issues such as taking responsibility for employees, customers, and the community and taking into account the profits of stakeholders in their plans and activities. But in general, there is no recognition of the whole matter. The current study shows that only a handful of companies dedicated some part of their websites to social responsibility.

According to the results obtained from explanatory factor analysis of corporate's social responsibility, the proposed factor structure consists of four factors that include more than 51.23% of the cumulative variance. They can, thus, be divided into four aspects which are respectively ethical, legal, humanitarian, economic dimension. Results of the table show that the ethical dimension is more important for corporate managers. Ethical dimension includes some cases such as doing right things, justice, equity and respecting human rights. The origin of these responsibilities is the religious beliefs, moral traditions, humanistic principles and human rights obligations. Iranian culture is influenced by Islam and this religion is the one which is not restricted by sets of pure economic and social rules and regulations; rather, humans try to develop and perfect themselves and their community within the divine regulations and human values. That is the reason they consider it more important to follow social responsibility rather than pure profitability. Thus, based on the obtained results it is probable that moral teachings of religion influence attitudes, behaviors, and decisions of Iranian managers.

## Recommendations

Results indicated that the four dimensions identified in this study, consisting of ethical, legal, humanitarian, economic aspect, enjoy the greatest variance of social responsibility of manufacturing firms. Therefore, it is recommended to the investigated companies to take into account the discussed dimensions in order to find approval from the public and stakeholders; this way they can benefit from the numerous advantages of observing social responsibility. They should move towards gaining the mentioned dimensions and their factors in order to improve the status of their company.



They are recommended to conduct research for examining the relationship between social responsibility with identified dimensions and other aspects of accounting variables. It is also suggested that they try to identify dimensions of social responsibility using methods other than exploratory factor analysis.

### **Limitations of the study**

One limitation of this study was that it was conducted in a questionnaire-based method and questionnaire by itself suffers from some inherent limitations. The managers not filling the questionnaires due to various reasons such as being extremely busy or not valuing academic studies can be considered a limitation which by itself is an indication of managers' interest in social activities.

### **References**

- Boesso, G., and Kumar, K., Michelon, G., (2013). "Descriptive, instrumental and strategic approaches to corporate social responsibility Do they drive the financial performance of companies differently?" Vol. 26 No. 3, pp. 399-422.
- Cho, S., Y., Lee, Ch, R.J., Pfeiffer Jr., (2013) "Corporate social responsibility performance and information asymmetry" J. Account. Public Policy 32, pp.71-83
- Kim, Y. & Kim, S. Y. (2010), "The Influence of Cultural Values on Perceptions of Corporate Social Responsibility: Application of Hofstede's Dimensions to Korean Public Relations Practitioners", Journal of Business Ethics, Vol. 91, pp. 485-500.
- Mohammed Hossain, -Hend Abdulla AlNaimi, Mahmood Ahmed Momin (2012), "Corporate social responsibility reporting in Qatar: a descriptive analysis", Social Responsibility Journal, Vol. 8 Iss: 4 pp. 511 - 526.
- Moura-Leite, Rosamaria C. and Robert C. Padgett (2011) SOCIAL RESPONSIBILITY JOURNAL j VOL. 7 NO. 2011, pp. 528-539, Q Emerald Group Publishing Limited, ISSN 1747-1117.
- Pagano, M. & Volpin, P. (2005). "Managers, Workers, and Corporate Control", The Journal of Finance, Vol. 60, 841-868.
- Porter, M.E., and Kramer, M.R., (2011), "Strategy and society: the link between competitive advantage and corporate social responsibility", Harvard Business Review, pp. 62-77.
- Singhapakdi, A.; Vitell, S. J.; Rallapalli, K. C. & Kraft K., (1996), "The Perceived Role of Ethics and Social Responsibility:

- Smith, A. D., (2011), "Corporate social responsibility implementation Comparison of large not-for-profit and for-profit companies", International 10-10-Journal of Accounting and Information Management, Vol. 19 No. 3, pp. 231-246.
- Werner, W. J., (2009), "Corporate Social Responsibility Initiatives Addressing Social Exclusion in Bangladesh", J. Health PopulNutr, Vol. 27, No. 4, 545-562.