The Relationship between Corporate Reputation, CEO Narcissism, and Financial Statement Comparability

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**Abstract**  
The present study assesses the relationship between corporate reputation, CEO narcissism, and financial statement comparability of listed firms on the Tehran Stock Exchange. For this study, multivariate and logistic regression is used for hypothesis testing. The study's statistical population includes all listed firms on the Tehran Stock Exchange during 2012-2017, and the sample comprises 740 year-company. The exploratory factor analysis of 34 variables is used for calculating corporate reputation. The study results show a positive and significant relationship between corporate reputation, CEO narcissism, and financial statement comparability. This means that by increasing corporate reputation, the comparability of financial statements and CEO narcissism will go up. This paper can contribute to the development of knowledge in this field, and this is the first study to compute corporate reputation using the exploratory factor analysis of 34 variables.

**Keywords:** Corporate reputation, CEO narcissism, Financial statement comparability

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**Number of References:** 40  
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1. Introduction

The reputation of firms is a conceptual evaluation from the business firm by the stakeholders. The significance of corporate reputation has faced increasing growth over the past few decades, and numerous studies are carried out on the advantages of a reputation for a business firm. Still, no specific definition, however, is present for that yet. The conducted studies have been mostly concentrated on its measurement via initial resources that include the opinion made by the stakeholders, which may be driven from firm credit, the opinion of the analysts about the business unit, CEO, or the governing bodies (Kaur and Singh, 2018). For example, Diamond (1991) defines firm age as a factor for corporate reputation. She believes that firms initially regulate private relations to receive financial aids and modify their connections with the stakeholders only when they become well-known in the market. In other words, the more the firm gets aged, it creates an image in the minds of public people that providing credit through different areas can be potentially useful. Hence, we can conclude that firms sit tight to get aged and obtain credit. So, the more time is provided for a firm in the business world, the luckier it would be in creating a positive understanding of reputation. Datta, Iskandar-Datta and Patel, (1999) confirmed these results who declare that firm age is a good factor for corporate reputation. Several factors are used in this paper that can contribute to corporate reputation, including firm age, to calculate this factor more accurately. These variables are converted to a single variable, named corporate reputation, using the exploratory factor analysis. Corporate reputation can bring about beneficial results for business firms. Reputation is the primary qualitative source useful in the success of firms. The primary function of this variable is creating a sense of loyalty in stakeholders; especially when there is uncertainty, corporate reputation can deal with the doubt of stakeholders and cause them to trust the firm (Ewing, Windisch, and Newton, 2010). The value of benefiting from a good reputation can be observed in creating the outcome. When the firm is well thought of with a well-known brand, the products are better sold. However, it is noteworthy that reputation can be tenuous, which means it can be ruined easily. When the reputation is damaged, serious attempts should be made to reestablish that, and it is seven to ten times harder than building that a new reputation (Hodović, Mehić, and Arslanagić, 2011).

Hence, firms with reputations have higher stock value than their peers, and the managers of this type of firm are more narcissistic than others because reputation and narcissism are interrelated. So, the managers of such firms are more confident and narcissistic than that of the other firms. Since reputation originates from different areas, the financial statements of such firms enjoy a higher quality than that of the other firms, and we expect the comparability of them to be higher than that of the other firms. Since the Iranian market is not fully-fledged and such markets deal with high inflation and the purchasing power of ordinary people is extremely low, most of the manufacturing units cut down the prime cost of their products to supply their goods at a lower price. But this would lead to the decline of product quality and has a negative consequence automatically on corporate reputation.

Accordingly, this paper attempts to figure out what actions taken by highly-reputed firms in the economic market of Iran to preserve the comparability of financial statements and whether or not the reputation of Iranian firms can enhance their financial statement comparability. On the other hand, and according to the topical literature, we know that reputation is one of the criteria of narcissism, and the managers of such firms are also narcissistic people because narcissism has always been defined by the sense of superiority over others, being seen, admired, and encouraged (Chen, 2010). So, we expect business units with a high reputation to benefit from more narcissistic managers. Since narcissism can both have negative and positive sides, this paper has considered the two, which means narcissism can both enhance and debilitate the performance of business firms because such managers can obtain the results from unexpected solutions and methods and perform high-risk measures to be...
admired, which can be both to the benefit or detriment of the firm (Wallace and Baumeister, 2002). Hence, this paper attempts to discover that “whether a corporate reputation can increase the narcissism and financial statement comparability or not”. Since the present study is the first paper that is concerned about the relationship between corporate reputation and CEO narcissism and financial statement comparability in the emergent markets, like Iran, with extremely competitive markets and has used 34 indices for the first time for measuring reputation and then converted these 34 indices to a single variable, named reputation, so it is the first study on this topic. In the following, we discuss the theoretical principles and literature, then the methodology, data analysis, and conclusion will be explained.

2. Theoretical Issues, Literature Review and Hypothesis Development

One of the challenging and exciting topics in the business world of today is corporate reputation. Reputation is based on the understanding of an organization, so it is a cognitive factor. Roberts (2009) defines reputation as a set of experiences of significant shareholders with the business firm, and Fombrun (1998) describes the corporate reputation as a distance between previous experiences of an organization and what is supposed to happen in the future. The conducted studies (Fombrun, 1998) classified reputation into two groups. First, reputation is considered a corporate image that reflects the entire organization; second, reputation is defined as a set of interconnected but separated structures of firms. According to these views, reputation expresses an image the society has about the business firm and does not necessarily indicate reality. This means that even if the firm has an adverse credit but benefits from a high reputation in creating attractive job conditions, the potential staff still support them. Recently, an increase in the significance and value of getting access and holding a good reputation for a firm among managers has led to firms' attempts to create a reputation system (Van Riel Stroeker and Maathuis, 1998). Although building a favourable reputation is not an easy task for the firm, ruining that seems effortless, and the rise and fall of the Enron Company is an excellent example of a corporate reputation and destructing that. According to the resource-based theory of firms, firm credit can be an appropriate strategic factor for establishing competitive advantage (Dierickx and Cool, 1989; Capozzi, 2005). Managers have an inevitable role in enhancing the quality of financial reporting because the managers of well-known firms, by performing their managerial processes, try to present the best performance and personal characteristics of managers have caused them to select those strategies in line with the objectives of the organization that enhance the performance. But when they involve their personal feelings and moral norms in business decisions, their rationality will be questioned. Measuring financial performance, referred to as the reflection of managerial choices, is a mechanism for being admired. This can individually be one of the factors of narcissism among managers to realize the magnitude and dignity of managers (Amernic and Craig, 2010). Hence, the personal characteristics of managers can contribute to financial performance (Dikolli, Mayew, and Steffen, 2012). Interpretive prejudices and positive illusions of narcissistic managers can influence the supply of financial information for the Stock Exchange. Since narcissistic managers are likely to ignore negative confidential feedback, they naturally take no notice of information when connecting with shareholders about firm performance.

Further, narcissistic managers, similar to over-confident managers, may wisely distort the information sent for convincing investors who have promising projects in progress. In most cases, narcissistic managers attempt to achieve considerable outcomes in the firm. They move through aggressively operational strategic measures and risky businesses, to the point that such decisions would lead to profit or loss at the end of the fiscal year (Olsen and Stekelberg, 2015). Hence, such managers are more likely to perform fraudulent activities in search of achieving the best performance.
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because financial performance measurement, which is known as the reflection of managerial decisions, is a mechanism for being seen and admired, and this can be one of the factors for the outbreak of narcissism among managers (Rijsenbilt and Commandeur, 2013). Broadly, narcissistic people like to be always at the center of attention and left no stone unturned for success (Ryckman, Thornton and Butler, 1994; Luchner et al., 2011). Such people are incredibly cautious, no competitive, and firmly on their stance in negotiations and meetings (Ma and Jaeger, 2005; Hüffmeier et al., 2014). In other words, narcissism is associated with arrogance, over-confidence, and self-superiority that can cause an individual to ignore the realities due to excessive price and make a mistake in forming judgments (Carroll, 1987). Moreover, Kong (2015) expresses that narcissistic individuals in their negotiations are less willing to agree and try to persist on their stance.

Al-Shammari, Rasheed, and Al-Shammari (2019) show a significant relationship between CEO narcissism and social responsibility, such that the narcissistic CEO is associated positively and significantly with external responsibility. Still, internal social responsibility has no significant relationship. Hence, we can expect from the managers who work in highly-reputed firms to try to show off themselves, so the first hypothesis of the study is as follows:

H1: There is a significant relationship between corporate reputation and CEO narcissism.

In today's world, having a good reputation is considered an intangible asset for the firm's competitive advantage, which is vital in attracting customers and stakeholders. The value of corporate reputation can be understood in facilitating marketing transactions or low interactive costs with all institutional stakeholders. A good reputation is like an intangible asset that entrusted a legacy for current managers of the business firm. In contrast, an unfavorable reputation has devastating effects on the performance of all sections of a firm, especially profitability. On the other hand, comparability is one of the qualitative characteristics of financial information that enables the users to assess the similarities and differences between financial statements (Financial Accounting Standards Board, 2010). Comparability more causes the adjustments in information to be lower when comparing and analyzing financial information and the users outside the organization to achieve a higher amount of information quickly with a lower cost (De Franco, Kothari, and Verdi, 2011). The significance of comparability of financial statements is that according to the Conceptual Declaration No. 8 of the Financial-Accounting Standards Board, it is regarded as one of the primary reasons for the demand for financial reporting standards and growth of reported financial reports information comparability.

Moreover, it is also mentioned in the theoretical concepts of financial reporting of Iran (2011) that in case information is related and reliable but not comparable and understandable, its usefulness would be limited. Hence, comparability is a feature that helps the users realize and understand the similarities and differences, lower the information processing, and uplift the general quality of existing information in firms (De Franco, Kothari, and Verdi, 2011). Besides, comparability is one of the features of financial reporting that elevate the quantity and quality of available information for investors and allows them to predict future performance with higher accuracy by investigating the firm's previous performance. Financial reporting quality is also one of the effective items that incorporate reputation. An increase in financial reporting quality would lead to a rise in corporate reputation, so we expect that the increase in corporate reputation shows the growth of financial statement comparability. The conducted studies in this field are as follows:

Chen et al. (2018) indicate that when firms' financial statements are more comparable, the buyers obtain a higher stock return and show a higher operational enhancement after their purchase.

Choi et al. (2014) argue that financial statement comparability accelerates the reflection of individual information of a firm and information related to future special profits of the firm in the
current price of the stock. To present plenty of evidence about comparability in increasing the awareness of stock price, they assess the relationship between comparability and stock price simultaneity via comparability on the relative value of financial information related to industry/market special information firms. They observe that comparability is associated negatively with simultaneity, which means comparability increases the relative value of special information of a firm that is reflected in the stock price. Such a result expresses that comparability accelerates the reflection of information related to the special profits of the firm in the current stock price. Ross, Shi, and Xhi (2016) and Zhang (2018) perceive a positive and significant relationship between firm size and accounting comparability. Sohn (2016) discovers a negative and significant relationship between financial statement comparability and earnings management.

Moreover, Hoitash, Markelevich, and Barragato (2007) declare that different factors contribute to the quality of financial reporting (and consequently financial statement comparability), and accounting standards are only one of such elements. The impact of accounting standards is actually in determining the output of the financial reporting process is lower than some variables, like audit quality, managers’ motivation, management structure, and other organizational features. Francis, Pinnuck, and Watanabe (2014) figure out that an auditor’s style significantly affects financial statement comparability. Kawada (2014) shows that the higher the comparability of firms, the lower the earnings quality would be. Hence, given the facts mentioned earlier, the second hypothesis of the study is as follows:

**H2:** There is a positive and significant relationship between corporate reputation and financial statement comparability.

### 3. Research Methodology

This paper is causal-correlational, and in terms of methodology, it is quasi-experimental, and retrospective in the realm of positive accounting studies carried out with real information. This paper is practical in terms of nature and objectives. Practical studies aim to develop knowledge within a particular field. In terms of data collection and analysis, however, this paper is causal-correlational.

#### 3.1. Population understudy

The statistical population of this paper includes all listed firms on the Tehran Stock Exchange during 2013-2017.

#### 3.2. Sampling method

The systematic elimination method is used for sampling, and the statistical sample is selected after applying the following conditions:

1. Firms should be listed on the Tehran Stock Exchange until the end of 2012;
2. Firms should be active during the period of the study, and their shares should be transacted (no more than six months of transaction halt);
3. Firms should fully present the required information for this study; and,
4. Firms should not be affiliated with investment firms, banks, insurance, and financial intermediaries.
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3.3. Data collection and method
The required data of the study are collected based on their types from different resources. The information related to the literature of the study and theoretical facts were gathered from library resources, including Persian and Latin books and journals, and Internet websites. The information related to firms (balance sheets and profit and loss statements) is used as the research tool.

The primary and raw information and data for hypothesis testing were collected using the information bank of Tehran Stock Exchange, including Tadbir Pardaz and Rah Avard-e Novin and also the published reports of Tehran Stock Exchange via direct access (by analyzing the released reports in Codal Website and manually collected data) to CDs and also by referring to rdis.ir website and other necessary resources.

3.4. Data analysis method
The data analysis method is cross-sectional and year-by-year (panel data). In this paper, the multivariate linear regression model is used for hypothesis testing. Descriptive and inferential statistical methods are used for analyzing the obtained data. Hence, the frequency distribution table is used for describing data. At the inferential level, the F-Limer, Hausman test, test of normality, and multivariate linear regression model are used for hypothesis testing.

3.5. Research model
The following models are used for testing the hypotheses:
Model (1) is used for testing the first hypothesis
Model (1)

\[
ACOMP_{it} = a_0 + a_1 CR_{it} + a_2 size_{it} + a_3 LEV_{it} + a_4 Current_{it} + a_5 Age_{it} + a_6 Q - tobin_{it} \\
+ a_7 ROA_{it} + a_8 DA_{it} + a_9 MTB_{it} + a_{10} Ret_{it} + a_{11} Industry_{it} + a_{12} year_{it} + \varepsilon_{it}
\]

Model (2) is used for testing the first hypothesis
Model (2)

\[
CEO - NAR_{it} = a_0 + a_1 CR_{it} + a_2 size_{it} + a_3 LEV_{it} + a_4 Current_{it} + a_5 Age_{it} + a_6 Q - tobin_{it} \\
+ a_7 ROA_{it} + a_8 DA_{it} + a_9 MTB_{it} + a_{10} Ret_{it} + a_{11} Industry_{it} + a_{12} year_{it} + \varepsilon_{it}
\]

Where

Independent variable: corporate reputation is the independent variable of the study, which is calculated as follows:

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Table 1. The number of firms in the statistical population

<table>
<thead>
<tr>
<th>Description</th>
<th>Eliminated firms in total periods</th>
<th>Total No. of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total listed firms on Tehran Stock Exchange</td>
<td></td>
<td>445</td>
</tr>
<tr>
<td>Eliminating financial intermediaries, financial supply, insurance, and investment firms</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Firms with more than 6 months of transaction halt</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>Eliminating firms entered the Stock Exchange during the study period</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Eliminating due to lack of access to information</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>Statistical population</td>
<td></td>
<td>175</td>
</tr>
</tbody>
</table>

Hence, the period of this paper is six consecutive years from 2012-2017 for the listed firm on the Tehran Stock Exchange.

Given the limitations, a total number of 128 firms are selected for testing the hypotheses.
Corporate reputation (CR): The present study attempts to present a model for evaluating corporate reputation and its effect on managerial entrenchment.

The model considered by the present study for corporate reputation is conceptual, comprised of 24 variables that converted to a single variable, named corporate reputation, using the exploratory factor analysis. In other words, the factor analysis of the following 24 variables is corporate reputation:

1. Firm age (Age): time passed from the date of establishment to the year under study;
2. Export (Forging): if the business firm has an export in the year under study 1, otherwise, 0;
3. Marginal unit (SEG): if the firm has a marginal unit 1, otherwise, 0;
4. Type of ownership (INVE): the percentage of share available to institutional owners (percentage of shares available to investors, insurance, financial and credit institutions, state-owned and public institutions);
5. Firm size (SIZE): natural logarithm of total firm assets;
6. Number of marginal units (NUM_SEG): is equal to the number of marginal units of the firm in the year under study;
7. Cost of research, development, and advertisement (R&D): is equal to total costs for research and development in the year under study divided by total assets of the firm;
8. Social responsibility (PHA): if the firm has gained humanitarian aids in the year under study 1, otherwise, 0;
9. Number of personnel (employ): natural logarithm of the number of staffs of the business firm in the year under study;
10. Board degree (Degry): if the educational degree of the board members is bachelor’s or master’s or higher 1, otherwise, 0;
11. Sales price (Sales): sales price of the firm divided by total assets of the firm in the year under study;
12. Board financial expertise (BFI): if one of the board members has accounting, finance, and economics degree or one of the financial principles 1, otherwise, 0;
13. International certificate (SIN): if the firm has gained an international certificate in the year under study 1, otherwise, 0;
14. Profitability (PROF): if the firm is profitable in the year under study 1, otherwise, 0;
15. Return on assets (ROA): equal to net profit ratio divided by the book value of equity in the year under study;
16. Financial leverage (LEV): equal to total liabilities to total assets of a firm in the year under study;
17. Inverse return on sales (SBR): inverse return on sales price from firm sales in the year under study;
18. Operational costs growth (EX): is equal to operational costs of the current year minus that of the previous year divided by the operational costs of the previous year;
19. Intangible assets (INT): total intangible assets of the firm divided by total assets of the firm;
20. Industry share of the firm (FCON): Herfindal-Hirschman index which is equal to the following:

\[
HHI_{it} = \sum_{i=1}^{k} \left(\frac{Sales_{it}}{Sales_{jt}}\right)^2
\]

Sales_{it}: firm sales in the year understudy
Sales_{jt}: industry sales in the year understudy
K: number of firms per industry
21. Firm risk (RISK): standard deviation of profit or loss of the current year with that of the three years ago;
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22. The amount of IT usage (IT): if the firms utilized IT in the year under study 1, otherwise, 0;
Internet sales of the firm (ISALES): if the firm has had internet sales on the year under study 1, otherwise, 0;
Firm brand value (BV)
Dependent variable: CEO narcissism which is calculated as follows:

There are three criteria for measuring managerial narcissism:

**Testosterone Hormone Index:** CEO face width divided by his face height measured as the distance between two temples divided by the distance between the eyebrow and the upper lip. This width to height measurement is referred to as WHR. The previous studies show that WHR is a significant reason for behaviours related to testosterone in females (Wong, Ormitson and Haselhuhn, 2011; Lewis, Lefevre and Bates,2012; Jia, van Lent and Zeng, 2014). According to Stirrat and Perrett (2010), measuring face width to length is among sexual alienation features, and testosterone hormones can be a factor for examining the orientation of people toward aggressive behaviour in females.

**Cash compensation index:** narcissistic managers in organizations usually ask for higher cash compensations and stabilize their positions in organizations in this way (O'Reilly et al., 2014). The cash compensation of managers is calculated by dividing the approved cash compensation in general assembly meetings into the total payments of the fiscal year.

**CEO signature:** apparently, those firms managed by large-signature CEOs (that is psychologically a factor for their narcissism) are less efficient than those with small signatures. Recently, a study on the magnitude of the signature size of leaders has tried to assess the effects of a narcissistic leader on his organization. Nik Sirat et al. measure CEO 605 signatures with 10 years of work experience from 400 firms (members of 500 prime stocks in the New York Market). All signatures were located at the bottom of annual financial reports of firms showing that larger signatures that are indicative of personal attributes of narcissism, dominance on others, and self-confidence are associated positively with CEO prodigality, and lower return on assets and such managers are contradictorily more likely to increase the payment than other active members in that industry.

* It is worth mentioning that two variables of cash compensation and signature have been used for measuring narcissism because the first index cannot be used since firms did not provide us with the photograph of their managers.

**Accounting comparability**

Presently, the conventional method for measuring the concept is to apply the model of De Franco, Kothari, and Verdi (2011) based on the relationship between stock earnings and return. In this approach, where the stock return is an index for reflecting economic realities and accounting earnings is an index for showing the output of the accounting system.

In this paper, the model of De Franco, Kothari, and Verdi (2011) is used for measuring financial statement comparability, based on which the accounting system of a firm is considered as a function that converts the economic events to financial reports and the more the similarities of the accounting function of a firm, the more the financial statement comparability would be.

**Financial statement comparability model**

\[
E(\text{NI})_{ijt} = \alpha_i + \beta_1 \text{RET}_{it} + \varepsilon \\
E(\text{NI})_{ijt} = \beta_{ij} + \beta_j \text{RET}_{it} + \varepsilon \\
\text{ACOMP}_{ijt} = -\frac{1}{4} \sum \left| E(\text{NI})_{ijt} - E(\text{NI})_{ijt} \right| 
\]
ACOMPijt: financial statement comparability of ith and jth firms
E(NI)iit: expected firm earnings
E(NI)ijit: expected industry earnings
RET: stock return
MTB: market value to book value of equity
ROE: return on equity which is equal to net profit ratio divided by the book value of equity
Current: current ratio is equal to current assets divided by current liabilities
Q-Tobin: is equal to the total market value of stocks plus book value of liabilities divided by book value of assets

\[ Q - T O B I N_{it} = \frac{SMV + DBV}{ABV} \]

SMV: the market value of the share
DBV: book value of liabilities
ABV: book value of assets
DA: discretionary accruals, which are computed using the following equation

\[ \frac{T A_{i,t}}{Asset_{i,t-1}} = \beta_1 \times \frac{1}{Asset_{i,t-1}} + \beta_2 \times \left( \frac{\Delta Rev_{i,t} + \Delta AR_{i,t}}{Asset_{i,t-1}} \right) + \beta_3 \times \frac{PPE_{i,t}}{Asset_{i,t-1}} + \varepsilon_{i,t} \]

Where
TA: total accruals which are equal to operational earnings minus operational cash flow
Asset_{i,t-1}: total assets of the previous year
ΔRev: changes in sales of the business firm
ΔAR: changes in accounts receivable of the business firm
PPE: properties, machinery, and instruments
ε: model residuals absolute value of residuals is equal to abnormal accruals (NDA)

\[ DA = TA - NDA \]

RET: return on the stock
SIZE: natural logarithm of total firm assets;
LEV: financial leverage equal to total liabilities to total assets;
Age: firm age equal to the duration of time passed from the date of establishment to the year under study;
Industry: dummy variable of industry
Year: dummy variable of the year;

4. Data analysis
4.1. Descriptive statistics

In this paper, three models are used for assessing the relationship between corporate reputation and management entrenchment. Besides, the present study has inserted the panel data model of 129 Iranian firms during 2012-2017 in its data-based. The variables of corporate reputation, management entrenchment, and other control variables are used for model estimation.
Table 2. Descriptive statistics of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>obs</th>
<th>mean</th>
<th>Std.dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEONAR</td>
<td>738</td>
<td>0.154</td>
<td>0.105</td>
<td>0.000</td>
<td>0.261</td>
</tr>
<tr>
<td>CR</td>
<td>738</td>
<td>9.758</td>
<td>6.504</td>
<td>1.587</td>
<td>56.895</td>
</tr>
<tr>
<td>Size</td>
<td>737</td>
<td>14.242</td>
<td>1.534</td>
<td>10.533</td>
<td>19.374</td>
</tr>
<tr>
<td>LEV</td>
<td>738</td>
<td>0.593</td>
<td>0.219</td>
<td>0.090</td>
<td>2.315</td>
</tr>
<tr>
<td>Age</td>
<td>738</td>
<td>38.011</td>
<td>12.897</td>
<td>10.000</td>
<td>66.000</td>
</tr>
<tr>
<td>DA</td>
<td>737</td>
<td>0.149</td>
<td>0.309</td>
<td>0.0004</td>
<td>3.624</td>
</tr>
<tr>
<td>Current</td>
<td>728</td>
<td>0.149</td>
<td>0.309</td>
<td>0.0004</td>
<td>3.624</td>
</tr>
<tr>
<td>MTB</td>
<td>737</td>
<td>0.124</td>
<td>0.712</td>
<td>0.153</td>
<td>5.374</td>
</tr>
<tr>
<td>ROA</td>
<td>737</td>
<td>0.124</td>
<td>0.712</td>
<td>0.153</td>
<td>5.374</td>
</tr>
<tr>
<td>Ret</td>
<td>733</td>
<td>0.467</td>
<td>1.012</td>
<td>-0.663</td>
<td>6.089</td>
</tr>
<tr>
<td>Q-Tobin</td>
<td>735</td>
<td>1.937</td>
<td>0.888</td>
<td>0.801</td>
<td>6.938</td>
</tr>
</tbody>
</table>

4.1.1. Linearity test

Table 3. The results of the linearity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.34</td>
<td>0.745</td>
</tr>
<tr>
<td>CR</td>
<td>1.28</td>
<td>0.779</td>
</tr>
<tr>
<td>LEV</td>
<td>1.20</td>
<td>0.835</td>
</tr>
<tr>
<td>Size</td>
<td>1.17</td>
<td>0.854</td>
</tr>
<tr>
<td>Age</td>
<td>1.11</td>
<td>0.899</td>
</tr>
<tr>
<td>MTB</td>
<td>1.11</td>
<td>0.903</td>
</tr>
<tr>
<td>CEONAR</td>
<td>1.10</td>
<td>0.912</td>
</tr>
<tr>
<td>Growthsales</td>
<td>1.05</td>
<td>0.948</td>
</tr>
<tr>
<td>OVERCON</td>
<td>1.02</td>
<td>0.983</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.15</td>
<td></td>
</tr>
</tbody>
</table>

4.1.2. Inferential test

Model (1)

\[
CEO - NAR_{it} = a_0 + a_1 CR_{it} + a_2 Size_{it} + a_3 LEV_{it} + a_4 Current_{it} + a_5 Age_{it} + a_6 Q - Tobin_{it} + a_7 ROA_{it} + a_8 DA_{it} + a_9 MTB_{it} + a_{10} Ret_{it} + a_{11} Industry_{it} + a_{12} Year_{it} + \varepsilon_{it}
\]

Table 4. The results of model (1) estimation

<table>
<thead>
<tr>
<th>Coef</th>
<th>Coefficient</th>
<th>Std/ Error</th>
<th>t-Statistic</th>
<th>Prob/</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>0.004</td>
<td>0.001</td>
<td>6.86</td>
<td>0.000***</td>
</tr>
<tr>
<td>Size</td>
<td>-0.015</td>
<td>0.005</td>
<td>-2.76</td>
<td>0.007***</td>
</tr>
<tr>
<td>LEV</td>
<td>0.119</td>
<td>0.046</td>
<td>2.55</td>
<td>0.012***</td>
</tr>
<tr>
<td>current</td>
<td>0.031</td>
<td>0.013</td>
<td>2.35</td>
<td>0.020**</td>
</tr>
<tr>
<td>Age</td>
<td>-0.007</td>
<td>0.003</td>
<td>-2.93</td>
<td>0.004***</td>
</tr>
<tr>
<td>Q Tobin</td>
<td>-0.031</td>
<td>0.013</td>
<td>-2.34</td>
<td>0.21**</td>
</tr>
<tr>
<td>ROA</td>
<td>0.111</td>
<td>0.049</td>
<td>2.26</td>
<td>0.026**</td>
</tr>
<tr>
<td>DA</td>
<td>-0.017</td>
<td>0.010</td>
<td>-1.67</td>
<td>0.095</td>
</tr>
<tr>
<td>MTB</td>
<td>-0.002</td>
<td>0.001</td>
<td>-1.90</td>
<td>0.057*</td>
</tr>
<tr>
<td>RET</td>
<td>-0.009</td>
<td>0.005</td>
<td>-1.77</td>
<td>0.076*</td>
</tr>
<tr>
<td>C</td>
<td>0.185</td>
<td>0.072</td>
<td>2.57</td>
<td>0.010**</td>
</tr>
</tbody>
</table>

Weighted Statistics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R-squared</td>
<td>0.0805</td>
</tr>
<tr>
<td>F(9, 594)</td>
<td>108.28</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000***</td>
</tr>
<tr>
<td>F-Limer</td>
<td>F(125, 578)=1.93</td>
</tr>
<tr>
<td>Hausman</td>
<td>Chi2 (10)=14.33</td>
</tr>
<tr>
<td></td>
<td>0.1584</td>
</tr>
</tbody>
</table>

First, we should determine whether the data are pooled or panel by the F test to estimate the models.
The null hypothesis in this test is that the data are pooled, and hypothesis 1 claims that data are panel. If H0 is rejected after performing the F test, the question here is that based on which models of fixed effects or random effects, the model is analyzable, determined by the Hausman test. Regarding the results of the pooled test reported in the following Table, the null hypothesis concerning the pooled data is ejected for the research model at the 99% confidence level. Hence, the model with panel data should be used for estimating the coefficients of the models. Moreover, the results of this test are reported in Table 4, where the Hausman test statistic \( \chi^2 \) based on the estimation for the research model is 14.33 smaller than \( \chi^2 \) in the Table, so the null hypothesis is not rejected. Given that model with random effects will be selected for the pattern. According to Table 4, the results of hypothesis testing show a positive and significant relationship between corporate reputation and CEO narcissism because its p-value is 0.000 lower than the significance level of 0.05 with a positive coefficient (0.004) that indicates a positive and significant relationship between these two variables.

Table 5. The results of model (2) estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std/ Error</th>
<th>t-Statistic</th>
<th>Prob/</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>0.0001</td>
<td>0.00004</td>
<td>3.51</td>
<td>0.000***</td>
</tr>
<tr>
<td>Size</td>
<td>-0.0034</td>
<td>0.0127</td>
<td>-1.92</td>
<td>0.054*</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0049</td>
<td>0.0024</td>
<td>-2.05</td>
<td>0.041**</td>
</tr>
<tr>
<td>Current</td>
<td>-0.0011</td>
<td>0.0005</td>
<td>-2.25</td>
<td>0.025**</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0098</td>
<td>0.0049</td>
<td>2.02</td>
<td>0.045**</td>
</tr>
<tr>
<td>Qtobin</td>
<td>-0.0043</td>
<td>0.0026</td>
<td>-1.66</td>
<td>0.099*</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.0020</td>
<td>0.0009</td>
<td>-2.10</td>
<td>0.036**</td>
</tr>
<tr>
<td>DA</td>
<td>-0.0012</td>
<td>0.0006</td>
<td>-1.91</td>
<td>0.057*</td>
</tr>
<tr>
<td>MTB</td>
<td>-0.0004</td>
<td>0.0002</td>
<td>-1.75</td>
<td>0.083*</td>
</tr>
<tr>
<td>RET</td>
<td>-0.0042</td>
<td>0.0014</td>
<td>-2.94</td>
<td>0.003***</td>
</tr>
<tr>
<td>C</td>
<td>-0.0017</td>
<td>0.0045</td>
<td>-0.39</td>
<td>0.698</td>
</tr>
</tbody>
</table>

According to Table 5, the results of the F-Limer test show that research data are panel because the p-value is 0.000 lower than the significance level of 0.05, suggesting that the null hypothesis of the F-Limer test concerning the presence of pooled data is rejected. The hypothesis of the study, which insists on the panel data, is accepted. Moreover, according to this Table, the results of the Hausman test reveal that the appropriate option for model (2) is a random-effects model because its p-value is 0.7289 higher than the significance level of 5%, which shows there is no reason for rejecting the null hypothesis and the opposite hypothesis, namely fixed effects model, is rejected.

According to Table 5, the results of hypothesis testing show a positive and significant relationship between corporate reputation and financial statement comparability because its p-value is 0.000 lower than the significance level of 0.05 with a positive coefficient (0.0001) that indicates a positive and significant relationship between these two variables.

As can be seen in Tables (4) and (5), the results of both models are robust because the p-value of both models is 0.000 lower than the significance level of 0.05, showing that the two models are highly robust.
significant. Four classic econometric assumptions are evaluated in these panel data models, and reliable reports will be reported. These four assumptions include linearity among variables, exogeneity of descriptive variables, homogeneity variance, and lack of serial autocorrelation among disruptive components. Given the applied regression, the intercept of the model (1) is significant for firms because its p-value is 0.000 lower than the significance level of 0.05, but the intercept of the model (2) is not significant because its p-value is 0.698 higher than the significance level of 0.05.

5. Discussion and Conclusion

The present study is concerned about the relationship between corporate reputation and CEO narcissism and the financial statement comparability of listed firms on the Tehran Stock Exchange. The results of hypothesis testing show that corporate reputation would lead to an increase in narcissism and financial statement comparability of business firms which are in line with that of Rijsenbilt and Commandeur (2013), Dierickx and Cool (1989), and Xhi (2016), Zhang (2018), and Ewing, Windisch and Newton (2010) who show that corporate reputation can enhance the comparability and increase managers’ narcissism because corporate reputation is, in fact, indicative of the ability of an organization in supplying the needs of stakeholders and is one of the requirements for presenting information with high comparability. The stakeholders and users of business firms require information to think about their investments and, by comparing the business firms with the past and their peers in the industry, to make decisions holding or selling investments. Moreover, according to Morgan et al. (1981), corporate reputation causes the creation of potential power in leaders of highly-reputed business firms that contributes directly to their narcissism and self-confidence. People and society also have a strong positive feeling about reputed business firms (Mehtap and Kokalan, 2012), so corporate reputation is a motivational factor for firms that can not only increase the operational power and commercial growth of firms by increasing the comparability of financial statements but cause the formation of a type of favourable social position in society.

References
The Relationship between Corporate Reputation, CEO Narcissism, and Financial Statement Comparability


