HETEROGENEITY OF TOP MANAGEMENT TEAM RELATIONSHIP, CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE PERFORMANCE

Yang Chang

Dhurakij Pundit University, Bangkok, Thailand

Based on the perspective of corporate social responsibility, this paper builds an index of executive-team relationship heterogeneity based on four dimensions of academic, financial, market and foreign background relationships, and systematically explores the objective results, advocacy paths and value effects of executive-team relationship heterogeneity on corporate performance in the context of social relationships in China. The results show that the higher the heterogeneity of executive-team relationships is, the more negative the impact on corporate performance will be. As for the path of influence, a mediating effect test is used to verify that executive-team relationship heterogeneity can affect corporate performance by influencing the level of CSR performance. This paper expands the literature on factors influencing corporate performance at the micro level of the context of executive team relationships, which is an important guideline for improving the structure and mechanism for selecting managers in listed companies, further regulating the corporate governance system, and enhancing corporate value.

Keywords: corporate social responsibility, heterogeneity of Top Management Team relationship, mediating effect

Introduction

The external environment is changing rapidly, economic policies are constantly being updated, and society is at the epicenter of great changes every moment. For companies to survive in a highly competitive environment, they must always look for opportunities to solve problems, and their managers are spiritual leaders.

Top management plays a critical role in achieving the desired strategic outcomes for the company, and organizational failures are mostly due to the failures of those who are ultimately responsible for the decisions and actions of the company.
Hambrick & Mason (1984) point out "Top echelon theory", which is a landmark study of corporate performance through demographic characteristics of Top Management Team, but it still does not address the topics related to TMT in realistic scenarios and does not consider the reality context, conflict, perceptions, and values are not taken into account, and the results of studies based on this are deeply divergent. As the corporate grows and entry of a large number of managers from different backgrounds, the importance of TMT is self-evident. Therefore, it is of great practical importance to study the relevant characteristics of TMT in the development of corporate.

In the face of the deteriorating living environment, CSR behavior has gradually become a key strategic component for enterprises to gain competitive advantage and achieve sustainable development. As the key decision makers in formulating and executing corporate development strategies, TMT will directly affect corporate performance.

However, studies have focused on the impact of demographic characteristics of executive-team on corporate performance, but less on the impact of heterogeneity, which plays an important role in management decision making, and even less on the impact of heterogeneous characteristics of executive-team on CSR, especially the dynamic heterogeneous characteristics that reflect interpersonal relationships based on interpersonal relationship theory.

Taken together, this paper argues that the impact of executive-team characteristics on corporate performance is a complex process, and there is still no in-depth research on the mechanism of the impact of executive-team heterogeneity on corporate performance.

**Objectives of the study**

1. To analyze and test the impact of heterogeneity of TMT relationship on corporate performance.
2. To explain mechanism by which heterogeneity of TMT relationship acts on firm performance.
3. To explain the role of Corporate Social Responsibility as it happens.

**Literature reviews**

**Concept definition**

Heterogeneity of Top Management Team Relationship reflects the degree of diversity of relationship backgrounds among executive-team members. Drawing on the research of scholars such as Zhang et al. (2018), executive-team members include executive officers and board members other than independent directors as disclosed in the annual reports of listed companies.

Referring to the definition of variables in Zhu & Chen (2020) and the availability of actual data, this paper classifies the social relationships of an executive team into four major categories, namely academic background, financial background, market background, and overseas background relationship, and considering the data characteristics of the categorical variables, this study adopts the Herfindal-Hirschman heterogeneity coefficient method to measure Heterogeneity of Top Management Team Relationship.
Previous Research
When members have different background characteristics, they are divided into opposing "insiders" and "outsiders". Stereotypes of "insiders" and "outsiders" often lead to negative results, reducing the efficiency of communication within the team, decreasing cooperation between team members, and maintaining a certain level of team conflict. Executives with different social network relationships or different functional backgrounds have different perceptions of the same thing (Zhang, 2006), and it may be difficult to reach a consensus on the short term, which can easily produce social identity effects, which can negatively affect internal team communication and increase communication costs and lead to decision-making is affected (Zhang & Yuan, 2011).

Members of the executive-team embedded in different social networks are prone to divergent views due to their different access to information and their own professional experience, making it difficult to reach consensus at the CSR decision-making level. Especially in the macro environment of economic turmoil and social problems, Murano & Knight (1999) the goal of profit maximization is the primary basis for a company's stable survival, so it is even more difficult to reach consensus on CSR-related decisions. Daboub et al. (1995) found that the professional experience of top executives influenced their perception of the environment and their willingness to engage in unethical behavior.

On the one hand, the operation and development of enterprises are inseparable from the resource support of various stakeholders, including but not limited to the financial capital of shareholders, the labor capital of employees, the market development capital of the supply chain, the public service of the government and the capital of the natural environment in which they are located.

The fulfillment of social responsibility by enterprises can obtain resource support from external stakeholders, thus ensuring the legitimacy of corporate activities and thus promoting the improvement of financial performance and innovation capacity of enterprises (Li & Yang, 2019).

On the other hand, the active implementation of CSR can serve as a signaling mechanism to signal the strong sustainable development capability of the enterprise to various stakeholders, thus alleviating the problem of information asymmetry among all parties, enriching the information of all stakeholders about the future development of the enterprise, optimizing the capital relationship among all parties of the enterprise, effectively improving the performance of the enterprise and maintaining long-term healthy development. Meanwhile, a large number of empirical studies have shown that firms that care about their stakeholders have more competitive advantages than those that do not (Griffin & Mahon, 1997).

Theoretical Basis---Social identity
According to social identity theory, members of the same team (e.g., with the same professional background, the same education, etc.) will develop self-understanding, and this state will lead to the formation of a social identity, which will lead the participants to behave in one way or another in a particular team, and will behave in accordance with the rules of behavior of that particular team and discriminate against other groups.

Therefore, the heterogeneity of TMT relationship can lead to the social functioning of executive teams, and the operational processes related to work tasks become more responsible and difficult, thus reducing the level of behavioral integration and corporate
performance of executive teams, a process in which social identity theory always plays an important role.

**Theoretical Framework**

Analyzing heterogeneity of TMT relationship, CSR and corporate performance from the perspective of Team-Strategy-Performance will provide some practical implications for the improvement of corporate competitiveness. To sum up, the theoretical framework of this paper is constructed, as shown in Fig. 1.

![Diagram](image)

**Figure 1 - Theoretical framework of the research (compiled by the author)**

**Research hypothesis and methods**

**Research Hypothesis**

Based on the above theoretical analysis, this paper proposes the following hypotheses regarding the research topic:

- **H1**: Heterogeneity of TMT relationship is significantly and negatively related to firm performance
- **H2**: Heterogeneity of TMT relationship is significantly and negatively related to corporate social responsibility
- **H3**: Corporate social responsibility is significantly and positively correlated with corporate performance
- **H4**: Corporate social responsibility mediates heterogeneity of TMT relationship and corporate performance

**Data sources and methods**

From the consideration of data availability, this paper takes Chinese listed companies in the Shanghai and Shenzhen A-share categories from 2009 to 2018 as the research sample and screens them according to the following procedures:
(1) exclude listed companies in the financial category;
(2) exclude the sample of companies in ST, *ST, and PT status in the study year; and
(3) exclude the sample of companies with abnormal data and relevant data missing. To eliminate the influence of extreme values, this article also performs winsorization of variables.

The data in this paper are all obtained from the CSMAR CSRAR database, and a total of 853 listed companies with 5522 valid samples were finally obtained after screening.

In this research, the basic descriptive statistics were first performed to include the presentation of distributional characteristics, and the calculation of correlations. The data is unbalanced panel data and a fixed effects model is used to perform tests of causation while avoiding the endogeneity issue.

Results and discussion

Descriptive statistics of main variables

First, a descriptive statistical analysis of the main variables in the study is shown in Tab. 1 with a standard deviation of 0.06, indicating that the gap between the performance levels of the sample enterprises is not very obvious; the mean value of CSR performance is 38.755, the minimum value is 11.69, and the maximum value is 89.003, indicating that the overall level of CSR performance of the sample listed companies is low and the gap between them fluctuates widely.

Table 1 - Descriptive statistics of the variables
(compiled by the author)

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Median</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>5522</td>
<td>0.046</td>
<td>0.06</td>
<td>0.038</td>
<td>-0.645</td>
<td>0.669</td>
</tr>
<tr>
<td>Hre</td>
<td>5522</td>
<td>0.844</td>
<td>0.185</td>
<td>0.918</td>
<td>0.172</td>
<td>1</td>
</tr>
<tr>
<td>CSR</td>
<td>5522</td>
<td>38.755</td>
<td>12.324</td>
<td>36.095</td>
<td>11.69</td>
<td>89.003</td>
</tr>
<tr>
<td>Lev</td>
<td>5522</td>
<td>0.493</td>
<td>0.200</td>
<td>0.506</td>
<td>0.008</td>
<td>1.352</td>
</tr>
<tr>
<td>Age</td>
<td>5522</td>
<td>12.666</td>
<td>6.097</td>
<td>13</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Cash</td>
<td>5522</td>
<td>0.146</td>
<td>0.110</td>
<td>0.117</td>
<td>0.001</td>
<td>0.923</td>
</tr>
<tr>
<td>Growth</td>
<td>5522</td>
<td>0.167</td>
<td>0.747</td>
<td>0.106</td>
<td>-0.953</td>
<td>43.885</td>
</tr>
<tr>
<td>Size</td>
<td>5522</td>
<td>23.131</td>
<td>1.464</td>
<td>22.988</td>
<td>19.541</td>
<td>28.52</td>
</tr>
<tr>
<td>Tmsize</td>
<td>5522</td>
<td>7.257</td>
<td>2.882</td>
<td>7</td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>

Analysis of basic regression results

The variables were determined based on the original hypothesis based on the mixed estimation model first to perform F-test, p-value less than 0.000, significant at 5% level of significance, so reject the original hypothesis cannot use the mixed model. The Hausman test was then performed for the fixed-effects model and the random-effects model, and the test result cardinality value was 129.67 with a p-value less than 0.000, which was significant at the 5% significance level, so the fixed-effects model was used for regression.
Tab. 2 reports the fixed effect regression results of the main effects test. Column (1) in the table is the control model, and the model controls six control variables. Column (2) adds the explanatory variable of this study, heterogeneity of Top Management Team relationship, to the control model.

As can be seen from columns (1) and (2) in Tab. 2, the Adj-R² of the control model without the inclusion of the explanatory variable is 0.2395, and the Adj-R² of model 2a after the inclusion of the explanatory variable is 0.2400. And, as shown by column (2) in Table 2, the coefficient of heterogeneity of TMT relationship is significantly negative ($\alpha=0.009$; $p<0.05$), indicating that heterogeneity of TMT relationship has a significant negative effect on firm performance and H1 is verified.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA</th>
<th>CSR</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Hre</td>
<td>-0.009** (0.004)</td>
<td>-7.115** (0.774)</td>
<td>-0.008* (0.004)</td>
</tr>
<tr>
<td>CSR</td>
<td>-0.139*** (0.005)</td>
<td>-0.139*** (0.005)</td>
<td>-1.029 (0.897)</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.000*** (0.000)</td>
<td>-0.000*** (0.000)</td>
<td>-0.030 (0.025)</td>
</tr>
<tr>
<td>Age</td>
<td>0.069*** (0.007)</td>
<td>0.069*** (0.007)</td>
<td>2.361* (1.414)</td>
</tr>
<tr>
<td>Cash</td>
<td>0.008*** (0.001)</td>
<td>0.008*** (0.001)</td>
<td>-0.077 (0.185)</td>
</tr>
<tr>
<td>Growth</td>
<td>0.008*** (0.001)</td>
<td>0.008*** (0.001)</td>
<td>3.339*** (0.120)</td>
</tr>
<tr>
<td>Size</td>
<td>0.001*** (0.000)</td>
<td>0.001*** (0.000)</td>
<td>0.356 (0.051)</td>
</tr>
<tr>
<td>Year</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Constant</td>
<td>0.029*** (0.005)</td>
<td>0.038*** (0.006)</td>
<td>14.521*** (1.242)</td>
</tr>
<tr>
<td>Adj-R²</td>
<td>0.2395</td>
<td>0.2400</td>
<td>0.3190</td>
</tr>
</tbody>
</table>

Note: Standard deviations are in parentheses; *, **, *** indicate significant at the 10%, 5%, and 1% levels, respectively.

The results of this study suggest that TMT of Chinese listed companies operate in an environment that is influenced to some extent by the culture of Chinese society. The Chinese culture is typically collectivist (Ronen & Shenkar, 1985), and the members of TMT influenced by collectivist cultural, pay attention to small behavioral and cognitive differences of others, and prefer to set boundaries between internal and external group members.
Therefore, although members of TMT are in different social networks, they are still influenced by collectivism and relational orientation, and there are differences in values and ways of thinking among members of the top management from different backgrounds, which can easily increase contradictions in the process of team operation and reduce the effectiveness of team decision-making.

**Regression results analysis of the influence path**

According to the Higher Echelon Theory, the demographic characteristics of managers can influence the strategic decision making of the firm, and then play an important role in firm performance or value creation. The rich and diverse relationship background, as one of the important heterogeneity characteristics, will certainly have an important impact on firm performance or value creation.

Tab. 2 column (3) shows the regression model of heterogeneity of TMT relationship on the mediating variable CSR, and the coefficient of heterogeneity of TMT relationship is significantly negative at a 0.05 level of significance, H2is supported. Table 2 column (4) adds the mediating variable CSR to the control model column (1), and the coefficient of CSR is significantly positive at a 0.05 level of significance and H3 is supported.

Column (5) of Table 2 adds the mediating variable CSR to column (2), and its regression coefficient is 0.0002, which is significant at 0.05 level of significance, and the regression coefficient of heterogeneity of TMT relationships -0.008, and is significant at 0.1 level of significance.

According to the test criteria of mediation effect, the regression coefficient of heterogeneity of TMT relationship in column (5) is significant under the premise that the regression coefficient of heterogeneity of TMT relationship in column (5) and column (2) are significant, and the coefficient value in column (5) is greater than that in column (2), therefore, CSR has a partial mediation effect on the relationship between heterogeneity of TMT relationship and corporate performance, and H4 is supported.

Based on the discussion of the basic effect, heterogeneity of TMT relationship has a significant negative effect on corporate performance. The research results also show that heterogeneity of TMT relationship has a significant negative effect on CSR, support to some extent the study of Zhu et al. (2014) that the higher the homogeneity of the executive-team in terms of demographic background characteristics such as education, occupational background, and tenure, the more it is conducive to improving the innovation development performance of the firm, while its heterogeneity has an inhibiting effect on the innovation development performance of the firm.

The research hypothesis was verified that CSR significantly and positively affects corporate performance. In the post-epidemic era, the pressure faced by enterprises has increased dramatically, and it is more important to pay more attention to the demands of stakeholders in such a market context, to fight against the social competitive environment of economic downturn together with stakeholders, and to positively influence the performance of enterprises by undertaking more CSR.

With regard to the mediating role of CSR, the findings show that CSR partially mediates the relationship between heterogeneity of TMT relationship and corporate performance, and the research hypothesis is supported. This shows that by controlling heterogeneity of TMT relationship can be translated into the performance of CSR and thus
affect corporate performance, and the research results further validate the research logic of the Higher Echelon Theory, CSR strategy decision.

In business practice, companies can influence corporate performance by appropriately controlling heterogeneity of TMT relationship, enhancing the willingness of "specialists" to share knowledge by employing a reasonable proportion of executive teams with similar functional relationship backgrounds, and efficiently reaching team consensus through CSR performance.

Conclusions and recommendations

TMT is a key subject of corporate risk decisions, and the diverse background relationship characteristics of its team will certainly have an important impact on corporate strategic decisions and, in turn, on corporate performance and sustainable value creation and breakthrough growth.

This paper takes 2009-2018 Chinese A-share listed companies in Shanghai and Shenzhen as the research sample, based on the interdisciplinary theoretical foundation of Social Identity Theory and Social Embedding Theory, and focuses on the perspective of imperfect rationality, based on the "Institutional Environment - Influence Effect - Influence Path - Economic Consequences". The results of the study indicate that

(1) the higher heterogeneity of TMT relationship, the more corporate performance will be negatively affected.

(2) controlling for heterogeneity of TMT relationship translates into CSR performance and thus affects corporate performance. This paper investigates the impact of heterogeneity of TMT relationship on corporate performance and provides new evidence to support the screening and selection of corporate executives by incorporating important features of China's relational society.

The research results of this paper broaden the scope of existing theoretical studies while providing references for stakeholders at different levels to make decisions.

(1) Enterprise micro level: to improve the training and selection mechanism of high-level talents, enterprises should not only pay attention to the relationship background characteristics of different talent, but also build a good cooperation platform for talents, such as rotational exchange learning, to cultivate comprehensive management skills and diversified ways of thinking of managers and enhance their awareness and ability of cooperation and communication in the decision-making process.

(2) Individual level of managers: on the one hand, managers should pay attention to the role of rich management practice in improving management ability, maintain an open and inclusive and continuous learning mentality, not stick to the work habits of a certain field, but focus on learning the way of thinking and management in different fields, enhance knowledge transfer ability and cross-border ability; on the other hand, managers should realize that different relationship backgrounds between people should not constitute an obstacle to communication with each other, and that the relevant stakeholders of the enterprise attach importance to the performance and development of the enterprise, clarify the comprehensive requirements of the current professional manager market for managerial traits, and improve their own awareness and ability to cooperate in the management decision-making process.
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References:


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