

CURRENT RESEARCH ON THE RELATIONSHIP BETWEEN TOP MANAGEMENT TEAM HETEROGENEITY AND CORPORATE PERFORMANCE IN CHINA

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ABSTRACT

Since Hambrick and Mason proposed the upper echelons theory in 1984, many scholars have conducted relevant studies from different perspectives and found that different types of heterogeneity in top management teams have different effects on corporate performance. In this paper, by combining the research results on the impact of top management team (TMT) heterogeneity on corporate performance in China from 2001 to the present, we find that scholars no longer dwell on the awkward and contradictory views of the theories of socialization (the two have a negative relationship) and information decision theory (the two have a positive relationship), but have formed a new consensus that TMT heterogeneity exists objectively, and the positive or negative impact on firm performance is not invariable, but will have different effects under different conditions, and it should be made best use of to promote corporate development; since the relationship between TMT heterogeneity and corporate performance may be impacted by some other factors, it is more valuable to study the indirect relationship between the two; the relevant research results present Chinese cultural characteristics; the analysis of future research directions is also of reference value for the construction of corporate top management teams and the enhancement of internationalization level.

Keywords: TMT Heterogeneity, Corporate Performance, China, Research Status

INTRODUCTION

In today's accelerating globalization, the ability of corporate managers to use information resources to make high-quality decisions determines whether the company can adapt to the uncertainty of internal and external environments and maintain its sustainable competitiveness for strategic development. Hambrick and Mason (1984) proposed the upper echelons theory, pointing out that the demographic background characteristics of the TMT, such as age, gender, tenure, educational background, and functional background, influence the innovation and performance of the company, and investigated the influence of TMT characteristics on the strategic choice of the company from a new perspective. On this basis, many scholars have conducted related studies and found that different demographic characteristics of TMT have different effects on corporate performance, but in general, there are two main classical views, one is the view of socialization theory, which believes that people are more willing to approach to individuals similar to themselves, so that the groups formed have more trust among each other, and therefore, the less heterogeneous the TMT is, the more contributions to efficient decision making. Another is the information decision theory view, which believes that TMT heterogeneity,

due to different background characteristics, will bring diverse perspectives and perceptions to team decision making, enabling the team to collect data and analyze problems from different perspectives and be able to evaluate options more comprehensively, thus improving the quality of decision making, therefore, the greater the TMT heterogeneity, the more it is conducive to improving the quality of team decision making.

However, scholars have not yet formed a unanimous view on the impact of TMT heterogeneity on corporate performance. By combing the relevant research results in China in the past two decades and exploring the new development of research and possible future directions, it helps to enrich the relevant theoretical system and has theoretical significance. At the same time, with the pace of globalization, it is of practical significance to understand the impact of the heterogeneity of TMT, as the core figure of corporate operations, on corporate performance in the Chinese cultural context and practice, not only to help improve the competitiveness and internationalization of local companies, but also to provide practical experience for multinational companies in China to take root and develop in China. The next part of the study proceeds according to the following sections: the second part presents the number and classification of relevant papers published; the third part presents the new consensus formed by the study; and the fourth part discusses future research directions.

RESEACH STATUS

Number of Papers Published

The number of papers published is on the rise. Taking CNKI data as an example, with the titles of "*top management team heterogeneity*" and "*TMT heterogeneity*" and including "*corporate performance*", and with Peking University Core and CSSCI as the source categories, the total number of highly relevant papers published is 143 from 2001 to 2020. Among them, 4 articles accounted for 2.8% from 2001 to 2007, 42 articles accounted for 29.4% from 2008 to 2014, and 97 articles accounted for 67.8% from 2015 to 2020, involving 69 journals in total (Table 1), and the number of papers published has been increasing (Figure 1).

Serial number	journal name	quantity	serial number	journal name	quantity	serial number	journal name	quantity
1	Communication of Finance and Accounting	11	24	Modern Finance and Economics	2	47	Industrial Engineering and Management	1
2	Finance and Accounting Monthly	7	25	Journal of Management Sciences in China	2	48	Journal of Business Economics	1
3	Science Research Management	7	26	Foreign Economies & Management	2	49	China Economic Studies	1
4	Science and Technology Management Research	7	27	Journal of Beijing Technology and Business University	1	50	Scientific Management Research	1

				(Social Sciences)				
5	Nankai Business Review	5	28	China Business and Market	1	51	Friends of Accounting	1
6	Management Review	5	29	Journal of Inner Mongolia University (Philosophy and Social Sciences)	1	52	Journal of Sichuan University (Philosophy and Social Science Edition)	1
7	Science & Technology Progress and Policy	5	30	Journal of Hunan Agricultural University (Social Sciences)	1	53	Modern Management Science	1
8	Soft Science	4	31	China Soft Science	1	54	Journal of Nanjing University	1
9	Chinese Journal of Management	4	32	Journal of Northeastern University (Social Science)	1	55	Finance & Economics	1
10	Commercial Research	4	33	Dongyue Tribune	1	56	Macroeconomics	1
11	Forum on Science and Technology in China	4	34	Journal of Capital University of Economics and Business	1	57	Research on Economics and Management	1
12	Management World	3	35	Academia Bimestrie	1	58	Review of Investment Studies	1
13	Statistics & Decision	3	36	Journal of Intelligence	1	59	Scientific Decision Making	1
14	Journal of Technical Economics & Management	3	37	Fujian Tribune	1	60	Science & Technology Progress and Policy	1
15	Enterprise Economy	3	38	Journal of Graduate School of Chinese Academy of Social Sciences	1	61	Journal of Tianjin University of Finance and Economics	1
16	Financial Theory & Practic	3	39	Journal of Nanjing Audit University	1	62	Reform of Economic System	1
17	On Economic Problems	3	40	China Condiment	1	63	Academic Research	1
18	Journal of Industrial Technological Economics	3	41	Tourism Tribune	1	64	South China Journal of Economics	1
19	Human Resources Development of China	2	42	Journal of Central South University (Social Sciences)	1	65	Journal of Zhongnan University of Economics and Law	1
20	Journal of Management Science	2	43	Journal of Commercial Economics	1	66	Social Sciences in Guangdong	1
21	Journal of Systems & Management	2	44	The Theory and Practice of Finance and Economics	1	67	Journal of Technology Economics	1
22	Science of Science and Management of S. & T.	2	45	Jcximal of Southeast University philosophy and Social Science)	1	68	East China Economic Management	1
23	Business Management Journal	2	46	Seeker	1	69	Economic Survey	1

Remarks:

1. Sorted in descending order by the number of papers published;
2. The data source is sorted by the author.

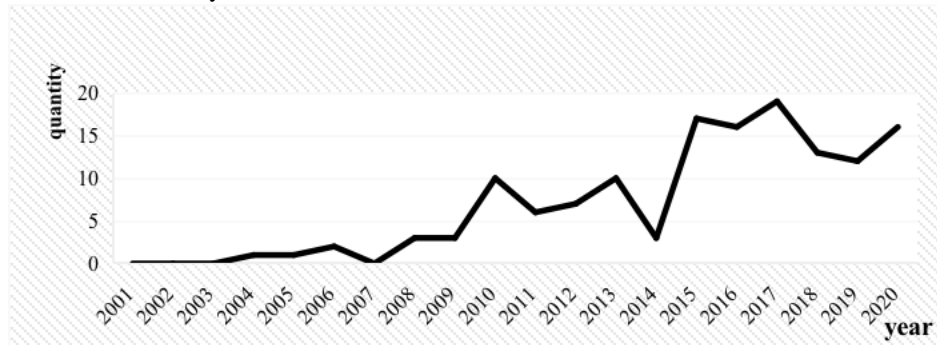


FIGURE 1
TRENDS IN THE PUBLICATION OF RELATED PAPERS IN CHINA

Remarks

- The data source is sorted by the author.

Classification of Papers Published

In the past two decades, domestic research on the relationship between TMT heterogeneity and corporate performance has been conducted from different perspectives, and in general, it can be classified according to the following criteria (Table 2): the first classification is based on the mechanism of the role of TMT heterogeneity on corporate performance. One is to study TMT heterogeneity as an independent variable, i.e. how TMT heterogeneity directly or indirectly affects corporate performance; the other is to study TMT heterogeneity as a moderating or mediating variable, i.e. how TMT heterogeneity moderates or mediates the effects of other factors on corporate performance. The second classification is by the dimensions of TMT heterogeneity.

There are multiple dimensions of TMT heterogeneity (Finkelstein & Hambrick, 1990), and the most widely used in existing studies are gender heterogeneity, age heterogeneity, tenure heterogeneity, educational background heterogeneity, and functional background heterogeneity. Therefore, studies of the above five common heterogeneities are classified as one major category, specifically into studies of common multidimensional and common single-dimensional heterogeneity; studies of other heterogeneities are classified as another major category, including values heterogeneity, compensation heterogeneity, and overseas background heterogeneity. The third classification is by TMT category. Specifically, it can be further divided into the effect of heterogeneity on all senior executives, entrepreneurial team, independent director team heterogeneity and vertical dyad (chairman-general manager, general manager-manager) heterogeneity on corporate performance.

Category		Scholar and year (example)	
1. Based on the mechanism	TMT heterogeneity as an independent variable (direct relationship)	(Fan & Wang, 2013)	
	TMT heterogeneity as an independent variable (indirect relationship)	(Zhu et al., 2013)	
	TMT heterogeneity as a mediating variable	(Su et al., 2019)	
	TMT heterogeneity as a moderating variable	(Gu & Yang, 2012)	
2. Based on the dimensions of TMT heterogeneity	Common Multidimensional Heterogeneity	(Zhu et al., 2013; Xu et al., 2019)	
	Common Single-Dimensional Heterogeneity	(Sun et al., 2011)	
	Other Heterogeneities	(Su et al., 2019; Zhu et al., 2013)	
3. Based on the TMT category	All Senior Executives	(Sun et al., 2006)	
	Entrepreneurial Team	(Niu et al., 2011; Long et al., 2020)	
	Independent Director Team	(Feng et al., 2017)	
	Vertical Dyad	Chairman-General Manager	(Long et al., 2020)
	Vertical Dyad	General Manager-Manager	(Feng et al., 2017)

Remarks

- The data source is sorted by the author.

The Impact of TMT Heterogeneity on Corporate Performance

Numerous studies have shown that there is a significant correlation between TMT heterogeneity and organizational outcomes such as corporate innovation performance, internationalization level, strategic decision making, and corporate value. According to socialization theory and information decision theory, TMT heterogeneity facilitates or hinders corporate innovation decision making to some extent, which in turn affects corporate performance. From Table 3, we can see that the results of the current studies on heterogeneity are inconsistent, except for two dimensions of heterogeneity, namely, compensation and overseas background, which have more uniform opinions. In the study of educational background heterogeneity, many scholars believe that it has a significant impact on corporate performance, finds that there is no significant relationship between the heterogeneity of educational level of the TMT and business model innovation; in the study of tenure heterogeneity, some scholars have come up with different results in the same study, such as finds that the relationship between

tenure heterogeneity of the TMT and corporate performance is affected by the degree of competition in the industry, and when the competition in the industry is weak, the relationship is positive, while when the competition in the industry is strong, the relationship is negative. It can be said that there is no consensus on whether the relationship between TMT heterogeneity and corporate performance is positive or negative.

Serial number	Heterogeneity category	The impact	Scholar and year (example)
1	Age	positive	(Niu et al., 2011)
		negative	(Niu et al., 2011)
2	Gender	positive	(Meng et al., 2012)
		negative	(Su et al., 2019)
3	Tenure	positive	(Zhu et al., 2013)
		negative	(Wang, 2020)
4	Educational Background	positive	(Xu et al., 2019)
		negative	(Xie et al., 2008)
		Insignificant	(Xu et al., 2019)
5	Functional Background	positive	(Wang, 2020)
		negative	Chen and Chang (2009)
6	Values	positive	(Wang, 2020)
		negative	(Su et al., 2019)
7	Compensation	negative	(Zhu et al., 2013 Su et al., 2019)
8	Overseas Background	positive	(Su et al., 2019)

Remarks

- The data source is sorted by the author.

DISCUSSION

In response to the awkward state of socialization theory and information decision theory, respectively, in explaining the relationship between the two issues, relevant studies in the last two decades have provided new insights:

The effect of TMT heterogeneity on firm performance is not either positive or negative. Heterogeneity is the objective nature of the TMT, TMT heterogeneity is an important consideration in building the team, is the most significant factor influencing corporate behavior, TMT characteristics can only represent the static characteristics and resources of the TMT, executive personnel characteristics have different advantages, the positive or negative impact on corporate performance is not set in stone, depending on the situation in which whether the company has taken advantage of heterogeneity, different strategic boards need to dynamically adjust and motivate the TMT members, continuously replenish and improve the human capital stock, and improve the matching degree of organizational characteristics and tasks (Huang et al., 2011). Heterogeneity can only achieve the goal of enhancing team creativity and resilience if the

team makes good use of it, or it will cause a significant reduction in team performance, and the best value of heterogeneity will only occur when the TMT characteristics and organizational goals are the best fit. The heterogeneity of the TMT enables the team to collide in the complex and diverse professional experience, knowledge and skills, judgment and decision making and relationship network, which can make the company in a dynamic state and contribute to constructive development; while the similarity can make the team more harmonious, cooperative and effective, both of which will positively affect the level of team cooperation and corporation performance. Therefore, the essence of team management is to control the degree of integration of heterogeneity and similarity (Zhang & Zhang, 2016).

It is more valuable to study the indirect relationship between executive team heterogeneity and corporate performance. The results of many scholars' empirical studies support that executive heterogeneity has an impact on corporate performance, but recent studies have found that executive team demographic characteristics variables do not directly and truly reflect the intrinsic motivation of the team and do not simply directly affect corporate performance, but are more likely to be influenced by some mediating or moderating variables (Chen & Chang, 2009). It is of no great meaning to study the relationship directly because different types of heterogeneity can have completely different effects on firm performance due to the interference of external factors. It is more valuable to focus on the indirect effects of executive team heterogeneity on firm performance and to analyze what factors affect the process of interaction between the two than to simply explore the relationship (Zhang & Xiao, 2018). Of the 143 sample papers, 118 conducted empirical studies, while 83 (70.3%) studied the indirect impact of executive team heterogeneity on corporate performance, accounting for a relatively large share, an increasing number of scholars is trying to discover the possible influencing factors between the two.

The impact of TMT heterogeneity on firm performance is influenced by culture. According to Hofschneider, corporate management is essentially a cultural issue, and culture is not static and unchanging, so management is also never convergent. Scholars have also found cultural "*shadows*" in the management of Chinese companies, where the impact of TMT characteristics on corporate performance differs from that of foreign companies (Ping, 2007). Due to cultural differences between China and the West, professional background heterogeneity has a negative rather than a significant positive effect in China, unlike abroad, and executive teams with more heterogeneous professional backgrounds may take more time and practice to integrate than abroad to demonstrate their positive effect on firm technological innovation (Xu et al., 2019). Since there is still an "*obedience culture*" in Chinese firms, executives with shorter tenure and less experience are more likely to obey their seniors than to disagree when participating in decision making, and thus the complementary diversity of information required for the establishment of information and decision theory will be hindered. The difference in educational background of TMT is more likely to cause conflicts in our culture, which will weaken the internal cohesion and centripetal force of the TMT and decrease with the occurrence of conflicts, forming the phenomenon of "*clique*", which will affect the speed and quality of decision making, and also reduce the overall execution of the TMT. Due to the differences in culture, institutions, and social processes between the East and the West, China cannot copy the Western theories, but needs to conduct theoretical and empirical research with Chinese practices.

CONCLUSION

Based on the current research results, we can make the following conclusions:

First, the study of TMT heterogeneity is still an important part of executive team research, and its important impact on corporate performance has been empirically and consistently recognized by scholars, but the focus of research has shifted from discussing whether TMT heterogeneity is positively or negatively related to corporate performance to studying how to use the TMT heterogeneity to achieve a positive boost to corporate performance.

Second, scholars have been trying to uncover the "black box" of the executive team and have conducted useful discussions on both direct and indirect factors, but the process of executive team is very complex and still has a lot of "noise". There is still a long way to go to explore the indirect relationship between executive team heterogeneity and corporate performance.

Third, as globalization progresses and companies engage in more and more transnational behavior, cultural factors have emerged as important factors affecting the relationship between TMT heterogeneity and corporate performance. Research from a cultural perspective provides potentially more operational guidance on executive team practices.

FUTURE REAEARCH

Although the relationship between TMT heterogeneity and corporate performance has been empirically proven by many scholars, and the topic no longer rests on whether the relationship is positive or negative, but on how to contribute to the positive relationship between the two, and various influencing factors of the relationship have been continuously explored, the existing research has a wide variety of mediating or moderating variables, which cannot systematically explain the impact process of TMT heterogeneity on corporate performance, therefore, scholars can do further exploration on this deficiency. In addition, although cultural factors have been found to influence the relationship between TMT heterogeneity and corporate performance in some scholars' studies, and the country is considered to be an important reason affecting the relationship between TMT characteristics and corporate diversity strategy, there is still less literature that goes into in-depth analysis from a cultural perspective, and a comparison of the impact of TMT heterogeneity on corporate performance in different countries' cultural contexts can be conducted in the future, which will not only help Chinese companies to improve their international competitiveness by taking advantage of the heterogeneity of TMT, but also provide some references for multinational companies to understand Chinese corporate management culture and build their executive teams when they invest in China.

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