

A Literature Review of Upper Echelons Theory

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Abstract. In this paper, I review the literatures about Upper Echelons Theory. Specifically, I focus on the related theories, including agency theory, five-factor model, cognitive theory, and heterogeneity theory, and so on; and the economic influences of Upper Echelons Theory, including the corporate top management (team) and administrative officials. Prior studies show that corporate top management (team) characteristics has effect on corporate governance, information disclosure and tax avoidance, etc. Moreover, background such as education degree and major of administrative officials have significant effect on governance efficiency, and local firm decisions. Overall, this paper contributes to the further exploration of top management team.

Keywords: Upper Echelons Theory; top management team; economic consequences; administrative officials.

1. Introduction

Upper Echelon Theory is about that the members from the top management teams who have different backgrounds (education background, working background, culture background, etc.) can cause various characteristics, sense of value and personal cognitive, and all these aspects have a direct impact on their strategy decision and firm performance. By researching and observing their demographic characteristic variable can explain the relationship between top management team and firm performance objectively (Hambrick, 1984).

The top management team has enormous effect on the firm performance, and what kind of factors should be considered is a crucial problem. Therefore, by studying and observing the demographic characteristics can offer the manager important evidence to make a management team accurately and efficiently. So far, plenty of researches (Tanikawa and Jung, 2017, Francoeur, Labelle and Sinclair-Desgagné, 2008, Herrmann and Datta, 2005, etc.) demonstrated that there are some reasons affect top management team are continuing being studied which are age, gender, education background, tenure, experience, psychological characteristics and so on. Not only the firm top management team, but also administrative officials in China which have a similar situation with the firm top management team, and can apply the methods of top management team.

In this paper, I aim to focus on the related theories, and the economic influences of Upper Echelons Theory, including the corporate top management (team) and administrative officials. Specifically, prior studies show that corporate top management (team) characteristics has effect on corporate governance, information disclosure

and tax avoidance, etc. Moreover, background such as education degree and major of administrative officials have significant effect on governance efficiency, and local firm decisions. This paper summarizes the related theories and can provide reference for the further study.

The remaining paper structures as follows. Section 2 introduces the related theories. Section 3 introduces the related research about individual management. Section 4 introduces related research about management team. Section 5 related research about administrative officials. Section 6 concludes and discusses.

2. Related theories

2.1 Agency theory

Jensen and Meckling (1976) define agency relationship as an agreement under which one or more persons (the principals) hire another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to this person. They argue that Agency theory is a principle that is used to explain and resolve issues in the relationship between business principals and their agents. Prior literatures have found abundant evidence between agency cost and executive compensation (Hong, Li, and Minor, 2016), firm performance (Gyan, 2017), investment decision (Nugroho A C, Firdaus M, Andati T, & Irawan.T, 2018), etc.

2.2 Five-factor model

Fiske (1949) showed the proof to support the five-factor model at the first time. It is a theory based on the Big Five personality traits, identified as openness to new

experiences, conscientiousness, extra version, agreeableness, and neuroticism. These traits are symbol stable individual differences (an individual might be high or low on a trait contrast to others) in the thoughts people have, the feelings they experience, and their behaviors. There are some previous reviews studied about Five-factor model, such as Five-factor model across culture (McCrae, R. R. 2017), creativity ability and Five-factor model (King, L. A., Walker, L. M., & Broyles, S. J. 1996).

2.3 Cognitive psychology

Cognitive psychology deals with the way in which we interpret information from the outside world. For example, our attention, memory, consciousness and so on. It has been widely applied in ideology (Sampson, E. E. 1981), lottery gambling (Rogers, P, 1998), the second language acquisition (O'Malley, J. M., Chamot, A. U., & Walker, C. 1987).

2.4 Mental Models

Mental Models (Kenneth Craik 1940) are concepts, frameworks, and worldviews that you carry in your head; As a person develops, mental models are continuously being constructed. Individuals develop mental models of physical phenomena based on internal, mental representations. (Gilbert, Boulter, & Elmer, 2000; Vosniadou & Brewer, 1992, 1994). Mental model is a crucial theory with behavior analysis for human and management team, such as young children's conditional reasoning. (Markovits, H. 2000), team mental model similarity and accuracy (Lim and Klein, 2006). Lim and Klein (2006) documented that team mental model can effectively predict team performance.

2.5 Heterogeneity theory

Heterogeneity theory is about the difference in various things. In different fields, it can be defined as the difference in Treatment Effect Heterogeneity in Theory and Practice (Joshua D. Angrist, 2004), cellular heterogeneity (Elsasser, 1984), Heterogeneity in the relationship between income and happiness (Rojas, 2007).

3. Related research about individual management

Existing literatures have found that individual management characteristics, such as age and education background, can significantly influence firm performance (Ji, 2011).

3.1 Age

Tanikawa and Jung (2017) found that when top management team members are relatively older, the negative relationship between age diversity and firm performance is lessened.

3.2 Sex

Francoeur, Labelle and Sinclair-Desgagné (2008) examines whether and how women's participation in the board of directors and senior management increases financial performance. Their findings indicate that firms with a high proportion of women officers do generate positive and significant abnormal returns in complex environments.

3.3 Education and Tenure

Herrmann and Datta (2005) indicate that Top management teams in international diversifying companies tend to be younger, have shorter tenures, have more international experience, and have higher educational levels.

3.4 Experience

Barker and Patterson (1996) did an exploration about tenure and causal attributions of top managers in downturns. The result showed that managers whose top executives have been replaced are more likely to attribute performance problems to internal causes that are stable and controllable than managers from longer-tenured teams.

3.5 Psychological characteristics

Aljuhmani, Emeagwali and Ababneh (2021) found that the core self-evaluation of CEO-top management team effect the firm performance negatively, and narcissism in the CEO- top management team context is positively impacted by environmental dynamism.

4. Related research about management team

4.1 The heterogeneity of the management team

Gu and Hu (2008) found that the heterogeneity of occupation background about the top management team members had positive and notable influence on the performance of firm innovation and R&D output. Hambrick, Cho and Chen (1996) proposed that the speed of responses and actions of heterogeneous teams were slower and less likely than homogeneous teams to respond to rival initiatives. Streufert and Pogash (1991) did an experiment to explore the team performance in different age with male. One hundred eight people were divided into three groups, they were receptively age 28 to 35, age 45 to 55 and 65 to 75. The performance of two younger groups were alike, and the oldest group were less responsive to the new information. Cui, Zhang, Guo., Hu and Meng (2019) showed that functional experience heterogeneity, overseas background heterogeneity and financial performance are correlated each other importantly and positively, while heterogeneity in academic background negatively correlates with financial performance.

4.2 Other issues

Fisher (1995) investigated the influence of childhood family surroundings on the management team roles with 199 young adults. The investigation revealed that their early behaviors which learned from childhood family might be carried into their management team role. Based on the Five-factor model, Ployhart and Lim (2004) studied five factors of personality, transformational leadership, and team performance using conditions relevant to symbolize and maximum performance situations. The results showed that neuroticism and agreeableness negatively impacted transformational leadership. Colbert, Barrick and Bradley (2014) found that organizational effectiveness is affected by both CEO and a dominant coalition of leaders by measuring the leadership and personality of top management team. Meanwhile, financial performance and organizational commitment are particularly influenced by the CEO's leadership style. Özbağ (2016) showed that employees' perception of ethical leadership is negatively impacted by neuroticism. Amason and Sapienza (1997) proposed that conflict arises is due to differences in perspective in cognitive conflict. So the team size was associated with greater affective conflict, when teams had high levels of mutuality, greater openness led to less affective conflict. Carpenter (2002) found that as indicated by a firm's international strategy, the positive relationships between TMT educational, functional, and tenure heterogeneity and performance are dependent on complexity. These relationships are substantially stronger in short-tenured management teams. Olson and Bao (2007) found that cognitive diversity is found to have a positive relationship with task conflict, and competence-based trust promotes this relationship.

5. Related research about administrative officials

5.1 Officials' experience

Most researches about Upper Echelons Theory on administrative officials are talking about official's individual experience.

Du, Zeng and Wu (2012) indicate their study results that: (1) The promotion of provincial officials has an overwhelmingly positive effect on both practice and experience of officials (PEO) and economic growth, and the PEO are much more sensitive to the promotion of their officials. (2) According to the results when four types of PEO's are classified, there is a positively correlated way between provincial officials' chances of promotion and their central experience, business experience, and economic growth. (3) Regional sub-samples and time-period sub-samples indicate an asymmetric influence of PEO and economic growth on provincial officials' promotions.

Zhang, Zhao and Luo (2012) revealed the results in their study that the central officials have a strong impact on economic growth in their native provinces, but have no

impact on the provinces for which they have worked. Double-check: experience

Zhang (2010). argues that as a whole, provincial governors with entrepreneurial backgrounds have a weak minus effect on local economic growth, but it becomes weakly positive within 0.2%. As a result of the accelerated effects of the province's governors with entrepreneurship backgrounds, the region's economy grew by about 0.8% after 1992. Zhang, E. S, & Hu, G. L, (2012). This study found that local officials with different personal features effected provincial economy differently. Officials with enterprise background functioned remarkably only by controlling the variables while officials with professional talents functioned remarkably without such a control. But the situation could be contrary in the tolerance sensitivity analysis.

5.2 Other issues

There are some other papers talk about the ability, heterogeneity and education background of officials.

Wang, Zhang and Xu (2013) found that under the appointment system, fiscal spending patterns of local governments are greatly influenced by the characteristics of local officials; The affect include the local officials' terms and education differences. Wang and Xu (2014)'s findings reveal that although incentives remain the same, their performance will differ due to different competences, measured as economic aggregate, industrial development, general income, income distribution. In other words, regional economic development can be coordinated effectively through optimizing the allocation of local officials. He and Zhang (2011) shows that the heterogeneity of political influence power of political connection and origin heterogeneity impact private enterprise get loans from the bank.

6. Conclusion and discussions

So far, there are numerous researches studied Upper Echelon Theory. This paper concludes the heterogeneity of top management team, the experience of the officials, and other issues which influence the firm or official performance.

Lastly, I have some considerations about the further research of Upper Echelon Theory. First, the related research may exist some endogeneity concerns, such as the omitted variable issues. For example, the relationship between an individual characteristic and economic consequences may be driven by other unobservable variables like one's personality. Further research can improve such issue by using DiD design with an exogenous shock, or adding individual fixed effect. Second, the individual background and demographic characteristics can be further investigated. For example, one's leadership at university (other examples, violent tendency, family happiness) may have significant influence on its further career performance. Lastly, the spillover effect can be further studied. Most of the prior research investigate the direct relation between one's characteristic and its influence on the firm. The spillover

effect to the industry peers and supply chain partners can be further taken into consideration.

References

1. Fiske, D. W. Consistency of the factorial structures of personality ratings from different sources. *The Journal of Abnormal and Social Psychology*, 44(3), 329 (1949).
2. Hong, B., Li, Z., & Minor, D. Corporate governance and executive compensation for corporate social responsibility. *Journal of Business Ethics*, 136(1), 199-213 (2016).
3. Jensen, M. C., & Meckling, W. H. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360 (1976).
4. GU, J. J., & HU, B. Relation of Heterogeneity of Knowledge Framework and Occupation Background About Top Management Team and Enterprise Technological Innovation Performance—An Empirical Study Based on Enterprise of Industry Cluster [J]. *R&D Management*, 2 (2008).
5. Gyan, A.K. (2017). Agency Theory's Effect on the Success of Total Quality Management and Firm Performance. *Singaporean Journal of Business Economics and Management Studies*, 5, 57-72 (2008).
6. Nugroho, A. C., Firdaus, M., Andati, T., & Irawan, T. Investment Decision in the Agency Theory Framework. *Mix: Jurnal Ilmiah Manajemen*, 8(1), 16-32. (2018).
7. McCrae, R. R. The Five-Factor Model across cultures. In A. T. Church (Ed.), *The Praeger handbook of personality across cultures: Trait psychology across cultures* (pp. 47–71). Praeger/ABC-CLIO (2017).
8. King, L. A., Walker, L. M., & Broyles, S. J. Creativity and the five-factor model. *Journal of research in personality*, 30(2), 189-203 (1996).
9. Rogers, P. The Cognitive Psychology of Lottery Gambling: A Theoretical Review. *J Gambl Stud* 14, 111–134 (1998).
10. Sampson, E. E. Cognitive psychology as ideology. *American Psychologist*, 36(7), 730–743 (1981).
11. O'Malley, J. M., Chamot, A. U., & Walker, C. Some applications of cognitive theory to second language acquisition. *Studies in second language acquisition*, 9(3), 287-306 (1987).
12. Gilbert, J. K., Boulter, C. J., & Elmer, R. Positioning models in science education and in design and technology education. In J. K. Gilbert & C. J. Boulter (Eds.), *Developing models in science education* (pp. 3–17). Dordrecht, the Netherlands: Kluwer (2000).
13. Vosniadou, S., & Brewer, W. F. Mental models of the earth: A study of conceptual change in childhood. *Cognitive Psychology*, 24(4), 535–585 (1992).
14. Markovits, H. A mental model analysis of young children's conditional reasoning with meaningful premises. *Thinking & Reasoning*, 6(4), 335-347 (2000).
15. Lim, B. C., & Klein, K. J. Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(4), 403-418 (2006).
16. Joshua D. Angrist, Treatment Effect Heterogeneity in Theory and Practice, *The Economic Journal*, 114(494), C52–C83 (2004).
17. Elsasser, W. M. Outline of a theory of cellular heterogeneity. *Proceedings of the National Academy of Sciences*, 81(16), 5126-5129 (1984).
18. Rojas, M. Heterogeneity in the relationship between income and happiness: A conceptual-referent-theory explanation. *Journal of economic psychology*, 28(1), 1-14 (2007).
19. Hambrick, D. C., Cho, T. S., & Chen, M. J. The influence of top management team heterogeneity on firms' competitive moves. *Administrative science quarterly*, 659-684 (1996).
20. Streufert, S. & Pogash, R. Age and management team performance. *Psychology and Aging* 5(4):551-9 (1991).
21. Ji Jian Empirical Research on the Relationship between the Background Characteristics of Top Management Team (TMT) and Firm Performance [J]. *The Theory and Practice of Finance and Economics*, 2011, 32(05):54-59 (2011)
22. Lim, B. C., & Klein, K. J. Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(4), 403-418 (2006).
23. Uitdewilligen, S., Waller, M. J., Roe, R. A., & Bollen, P. The Effects of Team Mental Model Complexity on Team Information Search and Performance Trajectories. *Group & Organization Management*, 10596011211023219 (2021).
24. Lim, B. C., & Ployhart, R. E. Transformational leadership: relations to the five-factor model and team performance in typical and maximum contexts. *Journal of applied psychology*, 89(4), 610 (2004).
25. Colbert, A. E., Barrick, M. R., & Bradley, B. H. Personality and leadership composition in top management teams: Implications for organizational effectiveness. *Personnel psychology*, 67(2), 351-387 (2014).
26. Özbağ, G. K. The role of personality in leadership: Five factor personality traits and ethical leadership. *Procedia-Social and Behavioral Sciences*, 235, 235-242 (2016).
27. Amason, A. C., & Sapienza, H. J. The effects of top management team size and interaction norms on

- cognitive and affective conflict. *Journal of management*, 23(4), 495-516 (1997).
28. Carpenter, M. A. The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journal*, 23(3), 275-284 (2002).
29. Barker III, V. L., & Patterson Jr, P. W. Top management team tenure and top manager causal attributions at declining firms attempting turnarounds. *Group & Organization Management*, 21(3), 304-336 (1996).
30. Francoeur, C., Labelle, R., & Sinclair-Desgagné, B. Gender diversity in corporate governance and top management. *Journal of business ethics*, 81(1), 83-95 (2008).
31. Olson, B. J., Parayitam, S., & Bao, Y. Strategic decision making: The effects of cognitive diversity, conflict, and trust on decision outcomes. *Journal of management*, 33(2), 196-222 (2007).
32. Wang, X. B, & Xu, X. X. Local Leader Competences and Development Performance. *South China Journal of Economics*, 2014(06):1-24 (2014) (in Chinese) .
33. Wang, X. B, & Zhang, L, & Xu, X. X What Determines Local Fiscal Expenditure Propensity: On the Jurisdiction Leaders Perspective. *Comparative Economic & Social Systems*, 2013(06):157-167+180 (2013) (in Chinese) .
34. Du, X. Q, & Zeng, Q, & Wu, J. W. Official Experience, Economic Growth and Political Promotion. *Journal of Financial Research*, 2012(02):30-47. (2012) (in Chinese) .
35. Zhang, P, & Zhao, G. C, & Luo, Z. Sources of Central Officials and Local Economic Growth. *China Economic Quarterly [J]*, 2012,11(02):613-634 (2012) (in Chinese) .
36. He, X. C & Zhang, X. L. The relationship of Political Connection, Official Background and the influences Private Enterprise [J]. *Finance & Trade Economics*, 2011(04):55-61. (2011) (in Chinese) .
37. Zhang, E. S. Economic Growth and Local Governors' Entrepreneurial Background—Evidence from the Secretary of the CPC Provincial Committee and Provincial Governor [J]. *China Industrial Economics*, 2011(04):55-61 (2010) (in Chinese) .
38. Tanikawa, T., Kim, S., & Jung, Y Top management team diversity and firm performance: exploring a function of age. *Team Performance Management: An International Journal* (2017).
39. Herrmann, P., & Datta, D. K. Relationships between top management team characteristics and international diversification: An empirical investigation. *British Journal of Management*, 16(1), 69-78 (2005).
40. Aljuhmani, H. Y., Emeagwali, O. L., & Ababneh, B. The relationships between CEOs' psychological attributes, top management team behavioral integration and firm performance. *International Journal of Organization Theory & Behavior* (2021).
41. Hambrick, D. C., & Mason, P. A. Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, 9(2), 193-206 (1984).