

# COGNITIVE TOP MANAGEMENT TEAM DIVERSITY, COMPREHENSIVENESS IN DECISION MAKING, SOCIAL INTE- GRATION AND FIRM PERFORMANCE: **STUDIES IN RURAL BANKS**

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<b>1 INTRODUCTION</b>	S. 96
<b>2 THEORY</b>	S. 96
<b>3 HYPOTHESIS DEVELOPMENT</b>	S. 97
<b>4 METHOD</b>	S. 98
<b>5 ANALYSIS</b>	S. 98
<b>6 DISCUSSION</b>	S. 99
<b>7 CONCLUSION</b>	S. 100

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## 1. Introduction

Upper echelon theory proposed by **Hambrick and Mason**<sup>1</sup> is a starting point that fosters the attention of researchers on the topic of strategic leadership, particularly the company's management team. There was a lot of research on this subject in the context of developed countries and a major industry.<sup>2</sup> However, research in the context of developing countries as well as in a smaller but competitive industry was rarely undertaken. In developing countries such as Indonesia, rural banks (Bank Perkreditan Rakyat) are very important financial institutions that encourage the growth of the economy. The industry had distributed credit in the amount of Rp 49.818 billion in December 2012 (about € 4.200 mill), an increase of more than 20% from the previous year and supports millions of small businesses in Indonesia.<sup>3</sup> It is surprising to see that even though it is significant to the economy, the study of this industry is rarely conducted.

Most of the research in this field questioning the influence of the management team's diversity on corporate performance<sup>4</sup> is either directed to the influence between the diversity on the performance<sup>5</sup> or to mediating the effects from other variables.<sup>6</sup> Research on the effect of diver-

sity management team on performance is still inconclusive. Some researchers found the effect of the diversity of the management team on performance is positive due to the contribution of knowledge diversity to the organization.<sup>7</sup> Others found that diversity can lead to conflicts due to the different behavior of each member of the team can exacerbate social behavior.<sup>8</sup> As a proxy of top management team diversity, this study employed cognitive diversity of the top management team.

## 2. Theory

Cognitive diversity is defined as the extent to which differences in beliefs among members of the management team in terms of preferences of organizational goals and causal relationships that influence those preferences.<sup>9</sup> This definition shows the position of each member in a continuum on the attributes of confidence in the company's goal preferences.<sup>10</sup>

Comprehensiveness characterizes the level of rationality of the decision makers in the process

1 Hambrick, D. C., & Mason, P. A. (1984): The organization as a reflection of its top managers. In: *Academy of Management Review*, 9 (2), 193-206.

2 Neilsen, S. (2010): Top Management Team Diversity: A review of Theories and Methodologies. In: *International Journal of Management Reviews*.

3 Bank of Indonesia (2012): Banking Statistics Dec. 2012, Tab. 3.1

4 Finkeilstein, S., Hambrick, D. C., & Cannella, A. A. (2009): *Strategic Leadership: Theory and Research on Executive, Top Management Team, and Boards*. Oxford University Press.

5 Norburn, D., & Birley, S. (1988): Top Management Team and Corporate Performance. In: *Strategic Management Journal*, 9 (3), 225-237.

6 Smith, K. G., Smith, K. A., Olian, J. D., Henry P. Sims, J., O'Bannon, D. P., & Scully, J. A. (1994). Top Management Team Demography and Process: The Role of Social Integration and Communication. In: *Administrative Science Quarterly*, 39 (3), 412-438. Knight, D., Pearce, C. L., Smith, K. G., Olian, J. D., Sims, H. P., Smith, K. A., & Flood, P. (1999): Top Management Team Diversity, Group Process, and Strategic Consensus. In: *Strategic Management Journal*, 20 (5), 445-465.

7 Bantel, K. A., & Jackson, S. E. (1989): Top Management and Innovation in Banking: Does the Competition of the Top Team Make a Difference? In: *Strategic Management Journal*, 10, 107-124. Norburn, D., & Birley, S. (1988), op cit.; Bunderson, J. S., & Sutcliffe, K. M. (2002): Comparing Alternative Conceptualization of Functional Diversity in Management Teams: Process and Performance Effect. In: *Academy of Management Journal*, 45 (5), 875-893. Bunderson, J. S. (2003): Teams Member Functional Background and Involvement in Management Teams: Direct Effect and The Moderating Role of Power Centralization. In: *Academy of Management Journal*, 46 (4), 458-474.

8 Smith et al. (1994) op cit.; Knight et al. (1999), op cit.; Simons, T., Pelled, L. H., & Smith, K. A. (1999): Making Use of Difference: Diversity, Debate, and Decision Comprehensiveness in Top Management Team. In: *Academy of Management Journal*, 42 (6), 662-673. Lankau, M. J., Ward, A., Amason, A., Ng, T., Sonnenfeld, J. A., & Agle, B. R. (2007): Examining the Impact of Organizational Value Dissimilarity in Top Management Teams. In: *Journal of Managerial Issues*, 19 (1), 11-34. Chou, S. Y. (2011): Group Social Integration: The Role of Demographic Diversity and Perceived Dissimilarity. In: *International Journal of Business and Public Administration*, 8 (1).

9 Miller, C., Burke, L. M., & Glick, W. H. (1998): Cognitive Diversity among Upper-Echelon Executive: Implication for Strategic Decision Processes. In: *Strategic Management Journal*, 19 (1), 39-58.

10 Chattopadhyay, P., Glick, W. H., Miller, C. C., & Huber, G. P. (1999): Determinants of Executive Beliefs: Comparing Functional Condition and Social Influence. In: *Strategic Management Journal*, 20 (8), 763-789.

of decision making.<sup>11</sup> Comprehensiveness can be defined as the extent to which the company's management team considers various aspects thoroughly in the decision making process when faced with an opportunity or a threat in which the decision must be executed. A comprehensive decision process is characterized by the complexity of the methodology, the level of investigation, thoroughness, searching and testing various decision alternatives. Social integration means the interaction and linkages between the team members in the organization. This concept reflects the informal behavior among the members in the team, including the inclusiveness or exclusiveness of members.<sup>12</sup>

### 3. Hypothesis Development

The decision making process, primarily the comprehensive one consists of several systematic stages. In the beginning stages there is discussion and identification of the organizational problems, identification of alternative solutions, evaluation of each alternative and, in the end, the decision making among alternatives. Cognitive diversity, which is inherently durable and hard to change, makes it difficult for the team to move from one stage to the next stage in the decision process because there is strong disagreement among members about the purpose and causal relationships that are believed to affect the performance of the organization. Consistency theory could help explain why the decision makers maintain consistency between attitudes and decisions, and this makes decision makers behave differently com-

pared to the other team.<sup>13</sup> These differences also lead to differences of opinion on the appropriate alternatives and the consequences of the options on the future of the organization.<sup>14</sup> The higher the cognitive diversity of the team the more difficult for them to be comprehensive in the decision making process. Therefore, the hypothesis is formulated as follows:

**H1: Cognitive diversity management team negatively influences the comprehensiveness in decision making.**

Team members with a different cognition tend to oppose the other members of the team.<sup>15</sup> The opposite position of the members was shown to others explicitly through attitudes and behaviors and can exacerbate personal conflicts that usually have happened before. Since the company's management team must take and execute decisions and eliminate the alternative, there will be dissatisfaction from members of the team if the decision is contrary to their values and beliefs.<sup>16</sup> Dissatisfaction will increase interpersonal conflict<sup>17</sup> and lower social integration among members. Thus, the more diverse the cognition of the top management team the less the social integration within the team.

**H2: Cognitive diversity management team negatively affects social integration.**

- 11 Papadakis, V. M., Lioukas, S., & Chambers, D. (1998): Strategic Decision-Making Processes: The Role of Management and Context. In: *Strategic Management Journal*, 19 (2). Frederickson, J. W., & Mitchell, T. R. (1984): Strategic Decision Processes: Comprehensiveness and Performance in an Industry with an Unstable Environment. In: *Academy of Management Journal*, 27 (2), 399-423.
- 12 O'Reilly, C. A., Caldwell, D. F., & Barnett, W. P. (1989): Work Group Demography, Social Integration, and Turnover. In: *Administrative Science Quarterly*, 34, 21-37. Smith et al. (1994), op cit.; Finkelstein et al. (2009), op cit.; Chou (2011), op cit.

- 13 Kiesler, S., & Sproul, L. (1982): Managerial Responses to Changing Environments: Perspectives on Problem Sensing from Social Cognition. In: *Administrative Science Quarterly*, 27, 558.
- 14 Hambrick & Manson (1984), op cit.
- 15 Harrison, D. A., & Klein, K. J. (2007): What the Difference? Diversity Constructs as Separation, Variety, or Disparity in Organization. In: *Academy of Management Review*, 32 (4), 1199-1229.
- 16 Lankau et al. (2007) op cit.; Cunningham, G. B. (2007): Perceptions as Reality: The Influence of Actual and Perceived Demographic Dissimilarity. In: *Journal of Business and Psychology*, 22 (1), 79-89.
- 17 Barsade, S. G., Ward, A. J., Turner, J. D., & Sonnanfeld, J. A. (2000): To Your Heart's Content: A Model of Affective Diversity in Top Management Teams. In: *Administrative Science Quarterly*, 45 (4), 802-836.

The decision making process involves a comprehensive examination of various factors.<sup>18</sup> Through the process of testing alternatives and integrating them with internal conditions, the decision that has been made by the team increasingly fits with the company's internal situation. The more comprehensive the decision making process the better the decision is, which is shown by a better performance.

### H3: Comprehensiveness in the decision making process has a positive effect on company performance

Social integration is a form of cohesion to improve efficiency in the team. The team members who are integrated make the team require less time and energy to consolidate and coordinate the behavior of its members to do the job. With high social integration, each team member feels assured to one another informally and emotionally and increases the involvement in the team.<sup>19</sup> Involvement from each member will improve the company's performance as each member will use his/her best efforts to achieve the company's goals as a consequence of their emotional attachment to the team. Teams that have a high social integration will perform better.

### H4: Social Integration has positive effects on company performance

18 Miller et al. (1998), op cit.; Frederickson, J. W. (1984): The Comprehensiveness of Strategic Decision Processes: Extension, Observations, Future Directions. In: *Academy of Management Journal*, 27 (3), 445-466. Iaquinto, A. L., & Frederickson, J. W. (1997): Top Management Agreement about the Strategic Decision Process: A Test of Some of Its Determinants and Consequences. In: *Strategic Management Journal*, 18 (1), 63-75.

19 Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001): Social Networks and the Performance of Individuals and Groups. *Academy of Management Journal*, 44 (2), 316-325.

## 4. Method

The first data set was collected through questionnaires completed by each top management team; the second data set was extracted from the financial statements published by the rural banks in Indonesia. The samples in this study were rural banks, which operate in the region of West Sumatra. The questionnaire was sent to 80 banks determined randomly. A total of 66 banks filled out the questionnaire. After examination of completeness, only 53 set of data could be analyzed further. The total management team minimum is three and the maximum is five.

Cognitive top management team is measured using a four-item questionnaire with a scale of one to seven, developed by Miller et al.<sup>20</sup> To measure cognitive diversity we used the standard deviation.<sup>21</sup> After collecting the data, the level indicator on the internal consistency between these variables were measured using Cronbach's alpha was equal to 0.79. Comprehensiveness was measured using a five-item questionnaire with a scale of one to seven, developed by Miller et al. Cronbach's alpha values indicating internal consistency was 0.81. Social integration was measured using the nine-item questionnaire developed by Smith et al.<sup>22</sup> The Cronbach's alpha was 0.71.

## 5. Analysis

The analysis and hypothesis testing was conducted using hierarchical regression techniques. To test the mediation effect, the procedures of Baron and Kenny<sup>23</sup> was employed. Classical assumption test results showed that the data for the study met

20 Miller et al. (1998) op cit.

21 Harrison & Klein (2007), op cit.

22 Smith et al. (1994), op cit.

23 Baron, R. M., & Kenny, D. A. (1986): The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistic Considerations. In: *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.

all assumptions of regression analysis and best linear unbiased estimation (BLUE). *Table 1 and table 2* give the descriptive statistics of the data.

**Table 1: Mean and Standard Deviation of the variables**

	MEAN	S.D.
LE (Level of Education)	1,8267	0,192
TA (Total Assets)	12688344	8123141,1
EU (Environment Uncertainty)	3,9153	0,92
CD (Cognitive Diversity)	0,3195	0,24
Co (Comprehensiveness)	5,5513	0,46
SI (Social Integration)	5,9756	0,45
ROE (Return on Equity)	18,5941	10,6

**Table2: Correlation among the variables**

	LE	TA	EU	CD	Co	SI	ROE
LE	1						
TA	-0,01	1					
EU	-0,04	0,07	1				
CD	0,084	-0,13	-0,1	1			
Co	-0,2	0,3*	0,12	-0,34**	1		
SI	-0,24*	0,26*	0,13	-0,28*	0,5**	1	
ROE	-0,05	0,179	0,08	-0,2	0,47**	0,39*	1

\* $p < 0,05$ , \*\* $p < 0,01$

*Table 3* contains the results of multiple regression analyzes. Model 1 shows the results of the direct relationship between the independent variable on the dependent variable. Model 2 explains the test between the independent variables and the mediating variable. While model 3 shows the test between the independent variables and the mediating variables simultaneously to the dependent variable.

**Table 3: Regression Analysis**

Independent Variable	MODEL 1	MODEL 2		MODEL 3	
	ROE	Co	SI	ROE	
EU	-0.039	-0,179	-0,219*	0,041	0,037
TA	0,151	0,260*	0,225*	0,035	0,073
EU	0,049	0,069	0,086	0,018	0,019
CD	-0,175	-0,282**	-0,231*	-0,049	-0,095
Co				0,447***	
SI					0,349**
F	0,890	3,389*	2,843*	2,730**	0,114*
R2	0,069	0,222	0,192	0,225	0,167
$\Delta R2$				0,185	0,147

\* $p < 0,05$ , \*\* $p < 0,01$

## 6. Discussion

**Hypothesis 1** supported by the data indicates that the top management team that has different beliefs, both a normative belief and a confidence in a causal relationship, make it difficult for the team to make a comprehensive decision making process. The results of this study support the theory that the different team members find it difficult to move from one stage to the next stage in the decision process because of a conflict

exists between the goals and causal relationships.<sup>24</sup> Consistency theory proved here that when a manager maintains his faith and other managers also behave similarly, there will be a conflict between them which results in the failure of comprehensiveness in decision making.

**Hypothesis 2** is also supported by research data. The theory of similarity attraction states that team members who have similar characteristics will be more interested in interacting with one another.<sup>25</sup> The tendency to interact with other members who share similar characteristic can lead to the concept of groupthink that will ultimately lead to a negative impact on social integration.

**Hypothesis 3** supports the statement that comprehensiveness in the decision process positively influences company performance. The result supports previous studies.<sup>26</sup> Teams with a comprehensive decision making process showed that they considered many decision alternatives and analyzed them from different perspectives. With such a process, the possibility of the company to make the best decisions becomes greater.

The acceptance of the **hypothesis 4** indicated that strong social integration between the members of the management team will improve corporate performance through easy consensus and work efficiency as a result of entanglement between members, especially the emotional attachment that forms trust and mutual support among members. These results support the research of **O'Reilly et al., Smith et al.**

<sup>24</sup> Miller et al. (1998); Lankau et al. (2007).

<sup>25</sup> Lankau et al. (2007); Cunningham (2007); Simsek, Z., Veiga, J. F., Lubatkin, M. H., & Dino, R. N. (2005): Modeling the Multilevel Determinants of Top Management Team Behavioral Integration. In: *Strategic Management Journal*, 48 (1), 69-84.

<sup>26</sup> Frederickson (1984), Miller et al. (1998), and Miller, C. (2008): Decisional Comprehensiveness and Firm Performance: Toward a More Complete Understanding. In: *Journal of Behavioral Decision Making*, 21, 598-620.

## 7. Conclusion

The results of our research suggest that cognitive diversity has a negative effect on the company, and implies that the top management team needs to equate perceptions of strategic issues faced by the company. Each member in the team should share goals with each other so that the decision making process is better. In addition, the company is expected to make a comprehensive decision making process and build social integration among members of their top management team that will provide a positive impact for the company. Comprehensive decision process is capable of directing the company to choose the best decisions from various options. Strong social integration within the team creates efficiencies within the team in performing managerial duties and showed cohesiveness among members that can also give effect to the integration of all members in the company.

This study acknowledged limitations in the data collection process which used a self-report from respondents. Homogeneity of the sample may also reduce the generalization of the results of this study, thus future studies need to consider the scope of more than one industry.

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