Top management team (TMT) age diversity and firm performance: the moderating role of the effectiveness of TMT meetings

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Abstract

Purpose – This study aims to investigate the direct effect of directors' age diversity, and its interaction effect with the effectiveness of TMT meetings on bank performance.

Design/methodology/approach – Quantitative data were extracted from the bank's annual reports for the six years 2011–2016. Age diversity was calculated using the coefficient of variation, and the bank's performance was measured as return on assets and return on equity. The frequency of directors' meetings was used as a proxy for the effectiveness of TMT meetings.

Findings – Based on the hierarchical regression analysis, the results do not support the hypothesis that there is a negative influence between age diversity on performance. However, the results support the hypothesis that age diversity has a positive effect on performance because of the high effectiveness of TMT meetings.

Research limitations/implications – The limitations of the study include the use of only samples of the banks registered with Bank Indonesia. The subsequent research could use cross-country bank samples. In addition, the research uses age-related diversity variables only. Therefore, further research could consider other types of diversity such as education, functional or tenure. Furthermore, this study is limited to the effectiveness of the director (TMT) meetings as the only moderating variable. Further research could improve on this by including other moderating variables.

Practical implications – The findings of this study indicate that the existence of age diversity in TMT will aid bank governance if it is accompanied by effective meetings among groups of directors of varying ages. This age composition of directors will make meetings more effective as rich information for strategic decisions will be generated from different points of view because of the wide spectrum of age categories, and hence, there will be a positive impact on bank performance.

Social implications – This study indicates that effective meetings of TMT groups of different ages will minimize the rise of "self-esteem". Therefore, they will benefit the creation of a better quality relationship among TMT individuals. Accordingly, TMT within a company will have more opportunities to discuss in providing bright ideas for the company on how to innovate and create a new strategy to improve its performance.

Originality/value – This study, being the first to explore the effectiveness of TMT meetings to bank performance in the contexts of directors' age diversity, contributes to the literature in this area, and especially to the body of knowledge about companies implementing a two-tier governance system.

Keywords Performance, Top management team, Age diversity, Effectiveness TMT meetings

Paper type Research paper

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1. Introduction

Performance, especially in terms of efficiency, is an important competing factor for the Indonesian commercial banks in the ASEAN Economic Community banking sector in 2020. However, governance is one of the determinants of bank performance (Bozec *et al.*, 2010; Chan and Heang, 2010; Tanna *et al.*, 2011; Zabri and Ahmad, 2015; Ramli and Ramli, 2016; Pillai and Al-Malkawi, 2017; Mahrani and Soewarno, 2018). Concerning corporate governance practices, diversity in the top management team (TMT) is considered to be an important variable that supports performance (Hambrick and Mason, 1984). TMT is a relatively small group of the most influential executives, which possesses the authority to determine strategies at the apex of an organization. Some studies limit TMT to the two top levels of organizational management which include Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief Financial Officer (CFO) and Chief Information Officer (CIO) (Carpenter, 2002; Finkelstein and Hambrick, 1996; Wiersema and Bantel, 1992).

Based on the public companies in Indonesia (including banks), the issue of diversity in TMT has been a concern for regulators since 2014, as described in the road map of the country's corporate governance. According to Chapter 2 related to strengthening good corporate governance, it was recommended that companies should consider the diversity composition of the commissioner and director boards. This included academic qualifications, expertise, age and gender, to achieve a good governance (Financial Services Authority, 2014). Also, this policy was further regulated into the Circular Letter of the Financial Services Authority No. 32/SEOJK.04/2015, concerning governance guidelines for public companies, including banks. Furthermore, age diversity is specifically a very interesting topic to be further studied in Indonesian companies, including banks. This is because of the entrance of the country into the demographic bonus era, where the population structure with the number of productive ages (15–64 years) is very large. However, the proportion of the young and elderly population is becoming smaller and not very large, respectively (Falikhah, 2017). Based on a large proportion of productive age, the possibility of increase in the age diversity of company workers is assumed (Boehm *et al.*, 2011).

Previous research related to the relationship between TMT age diversity and performance have been globally and locally (in Indonesia) conducted; however, the results have not been consistent (Kilduff *et al.*, 2000; Webber and Donahue, 2001; Ozer, 2010; Nielsen and Nielsen, 2013; Talavera *et al.*, 2017; Tanikawa *et al.*, 2017; Rompis *et al.*, 2018). Some studies have found a positive relationship (Kilduff *et al.*, 2000), while others have identified negative (Ozer, 2010; Talavera *et al.*, 2017; Tanikawa *et al.*, 2017) and non-significant relationships (Webber and Donahue, 2001; Nielsen and Nielsen, 2013; Rompis *et al.*, 2018). Furthermore, various results have shown that diversity in directors is like a double-edged sword, as the theory stated by Williams and O'Reilly (1998), which had positive and negative impacts. However, some experts stated that the inconsistency between the relationship of TMT diversity according to these previous studies might be because of some important moderating or intervening variables which were ignored (Carpenter, 2002; Olson *et al.*, 2006; Van Knippenberg and Schippers, 2007). Therefore, it is important to examine the moderating variables in the relationship between TMT diversity and corporate performance as the relationship might be complex and indirect.

The previous literature explained that several variables as moderate factors were used to highlight the relationship between TMT diversity, which contained other types of diversification (Carpenter, 2002; Boehm *et al.*, 2011; Tanikawa *et al.*, 2017), meetings (Al-Musali and Ku Ismail, 2015) or increased interaction among members (Boehm *et al.*, 2011). Carpenter (2002) and Tanikawa *et al.* (2017) studied the role of moderating variables by examining the relationship between TMT's age diversity on performance with only a narrow focus on the variables related to personal characteristics of TMT's members. Furthermore, there are limited studies on the effect of age diversity on performance with moderating variables, which are related to TMT characteristics in organizational contexts. These characteristics include meetings in developing countries, such as Indonesia, where the governance administration adheres to a two-tier board system.

Based on filling the gap with the addition of empirical analysis, this study aims to examine the role of TMT meeting effectiveness, in moderating the effect of age diversity on performance. Therefore, the main question in this study is to determine whether the meeting effectiveness moderates the effect of age diversity on performance. Furthermore, this study focuses on the effectiveness of TMT meetings as a moderating variable, because of being an important part of corporate governance (Al-Musali and Ku Ismail, 2015). Previous literature also showed that these meetings improve performance (Harymawan *et al.*, 2020), and conceptually reduce the negative impact arising from TMT diversity (Al-Musali and Ku Ismail, 2015).

This study also theoretically and conceptually contributes to existing knowledge, by examining the factors influencing the interactive effects of TMT meeting effectiveness and age diversity on performance. Theoretically, the study provides empirical evidence on the role of TMT meeting effectiveness in moderating the influence of age diversity on performance. In concept, the findings of this study have implications for improvement in bank performance through an evidence-based decision on the implementation of good governance.

The outline of the remaining part of the paper is presented as follows: Section 2 dwells on literature review, Section 3 explains the methodology, while Sections 4 and 5 present the results of analysis and discussion, respectively.

2. Literature review

2.1 Upper echelon theory

Upper echelon theory hypothesizes that the top management characteristics affect the outcomes of an organization (Hambrick and Mason, 1984), which includes a strategic choice. The experience, values and personality of the board of directors who are the TMT in an organization have a major influence on deliberations at meetings and affect decisions regarding the choice of strategy. Therefore, strategic choices are generally more influenced by components of behaviour and reflect the idiosyncrasy of the decision makers, such as the cognitive basis. March and Simon (1958) in Hambrick and Mason (1984) argue that every decision maker, in this case, directors, carries a group of *givens*. Givens reflects the cognitive basis of decision makers, which includes knowledge or assumptions about future events, knowledge of alternatives and knowledge of the consequences inherent in alternatives. Thus, this theory can be used to understand how management makes a strategic decision based on its characteristics, which in turn will have an impact on organizational performance

2.2 Resource dependence theory

Resource dependence theory focuses on the benefits provided by individuals within the company, through linkages with external organizations (Pfeffer and Salancik, 1978). The companies that depend on their environment, directors and commissioners play a role in connecting with external organizations, towards overcoming this dependence. Also, the demographic and cognitive diversities of directors and commissioners are expected to support this ability, because of diverse boards having better access to information and networks (Bryant and Davis, 2012).

According to Pfeffer and Salancik (1978), there were four functions of external linkages:

(1) provision of resources such as information and expertise;
(2) creation of communication channels between companies and their constituents;
(3) availability of additional support from external organizations, in the form of financial commitments or reputations; and
(4) provision of additional legitimacy.

Furthermore, diversity in the membership of directors provides more valuable resources, which affects the improvement of company performance when used.

2.3 Top management team

TMT is defined as a coalition of dominant or influential actors in an organization (Pettigrew, 1992), or top executives who have a direct influence on strategy formulation (Finkelstein and Hambrick, 1996; Nielsen, 2010). Based on the relation to TMT, the corporate governance literature explained that there were generally two main sets of legal rules in organizational management supervision, namely, one- and two-tier boards. According to the one-tier system, the roles of the supervisory and executive boards are combined in a single forum known as the directors (Tricker, 2009). However, the dualism of separate management and supervisory boards was used, based on the two-tier system (Jungmann, 2007). The one-tier board is widely applied by companies in European countries and the UK, whereas the two-tier system is used by the organizations in Germany, The Netherlands, Austria, Finland and Denmark (Jungmann, 2007).

The management supervisory system of companies in Indonesia adheres to a two-tier board system, where shareholders appoint a group of operation managers (management), which are represented by directors and supervisors known as the Board of Commissioners. Therefore, there is a separation between the supervisory and management functions (Darmadi, 2011; Budiarti and Sulistyowati, 2014). Based on the governance rules of commercial banks (POJK No. 55/POJK.03/2016), the directors are fully responsible for the management of the organization, while the board of commissioners are obliged to supervise the implementation of duties and responsibilities. These boards are also responsible for providing advice to the directors, based on the business plan of the bank (POJK No. 5/POJK.03/2016). Based on reference to the definition of TMT (Carpenter, 2002; Finkelstein and Hambrick, 1996; Wiersema and Bantel, 1992), the directors are the TMT group on the governance structure of Indonesian banks.

2.4 Top management team diversity

Company performance is a reflection of the TMT characteristics and actions (Hambrick and Mason, 1984). One such important characteristics is TMT diversity. Diversity refers to varieties of attributes among individuals that make people different from one another (Williams and Knippenberg, 1998). Based on the relation to the diversity of the TMT, Williams and O'Reilly (1998) describe three theoretical perspectives related to diversity used by most researchers as the basis to investigate. The three perspectives are social categorization theory, similarity/attraction theory and information and decision-making theory. According to social categorization theory and similarity theory, the diversity in TMT tends to have a negative impact as heterogeneity breeds lack of satisfaction in the group, increased turnover, lack of cohesion and increased conflict. On the other hand, information and decision-making theory suggests that the varieties in group composition can have a direct positive impact through increased skills, abilities, information and knowledge brought about by diversity, regardless of what happens in the group process. The heterogeneity of group members indicates that different individuals have access to various external information networks, which may be beneficial to the group for a better decision-making process that results in improved performance.

2.5 Effectiveness of top management team meetings

TMT meeting is an activity conducted by TMT members in a company, which is positively related to organizational performances. Several previous studies used different measures to promote the effectiveness of TMT meetings in companies. Bang *et al.* (2010) used primary data (questionnaires) to measure intra-team behaviour, based on the three dimensions of team effectiveness stated by Hackman (2002), to explain the efficiency of TMT meetings. These three dimensions were task performance, relationship quality and member satisfaction. Furthermore, task performance is the degree to which the productive output of a team (for example, solutions to problems, decisions, ideas) meets or exceeds the goal of raising the problem. The relationship quality is also the degree to which team members treat each other, towards enhancing the ability to work together in an interdependent manner. Also, member satisfaction is the degree to which discussion of agenda items "positively contributes to the learning and personal well-being of individual team members".

Several studies with secondary data samples further used the number of TMT meetings in one year as a measure of effectiveness (Harymawan *et al.*, 2020; Al-Musali and Ku Ismail (2015). Harymawan *et al.* (2020) explained that more TMT meetings were associated with higher company performance, where more conferences reflected greater effective efforts (for example, through focused communication, constructive dialogue and quality decision-making).

Based on the TMT meeting in Indonesian banks, the directors have been regulated into the governance rules of commercial financial institutions (POJK No. 55/POJK.03/2016 Article 20 and Article 31), which stated that every policy and a strategic decision made by the directors should be decided by its meeting. According to the governance rules of public companies (POJK, No. 33/POJK.04/2014 Article 16), it was stated that the Directors should hold regular meetings at least once every month. Al-Musali and Ku Ismail (2015) stated that the effectiveness of board meetings plays an important role in reducing the negative effects associated with board membership diversity. In addition, the frequency of board meetings is important in ensuring an in-depth discussion of the company's issues, which gives more opportunities to negotiate and define strategies (Vafeas, 1999). The more frequent the intensity of board meetings, the increase the effectiveness of the board (Conger *et al.*, 1998) through knowledge and skills sharing among members of diverse characteristics (Wincent *et al.*, 2010).

2.6 Hypotheses development

2.6.1 Top management team age diversity and performance. Membership age diversity has an impact on experience and knowledge at the disposal of the TMT. The literature on TMT identifies age as a proxy for experience (Herrmann and Datta, 2005), and age-related diversity implies varieties of experience, values and perceptions (Hambrick and Mason, 1984). Younger age is associated with more flexibility, innovation and adventuring (Hambrick and Mason, 1984), whereas older aged workers are considered to be more experienced, better in judgment and paying good attention to work ethics and quality (Robbins and Judge, 2015). Even though younger workers tend to be more satisfied with their work, older workers have better relationships with their colleagues and are more committed to the organization (Singh and Sarkar, 2012). Hambrick and Mason (1984) stress that teams consisting of members of different age groups tend to reflect different values, attitudes or cognitions. Besides, the age of TMT members represents psychological constructs made up of experience, values and perceptions for collective strategic decision-making influencing company performance (Tanikawa *et al.*, 2017). Furthermore, decision-making theory explains that diversity of ages can have a positive impact on the organization because of the pooled experiences in the group. Contrarily, social categories and similarity theories stated that the diversity of age tends to bring conflict and a negative impact on organizational performance (Williams and O'Reilly, 1998; Pelled *et al.*, 1999).

Although there are conflicting views regarding the relationship between age diversity and bank performance, this study still assumed a negative association, based on the perspectives of social categorization and similarity/attraction theories (Williams and O'Reilly, 1998). By evidence, a previous study confirms a negative relationship between age diversity and performance (Talavera *et al.*, 2017; Tanikawa *et al.*, 2017). Furthermore, negative impact because of age diversity highly causes conflict, which further leads to a longer decision-making process, therefore, reducing the team performance effectiveness. Considering the positions of the existing literature reviewed above, this study formulated and tested the following postulation as its first hypothesis:

H1. The diversity of the directors' age has a negative effect on performance.

2.6.2 Moderating role of the effectiveness of board meetings in weakening the negative influence of age diversity on performance. Many previous studies on the relationship between the diversity of directors and company performance were inconsistent in findings. For instance, one of such studies affirms the positive effect of age diversity on performance (Kilduff *et al.*, 2000), while another indicates a negative relationship between the two variables (Tanikawa *et al.*, 2017), and some other findings indicate no influence at all (Nielsen and Nielsen, 2013; Webber and Donahue, 2001). This inconsistency in the previous studies might be probably because of exclusion of some intervening variables (Miller *et al.*, 1998; Pitcher and Smith, 2001; Olson *et al.*, 2006; Mutuku *et al.*, 2013) or moderating variables (Carpenter, 2002) which must be further investigated. Because of differences in experience and perspectives from each age group, the negative impact of age diversity on performance can cause conflict and lack of cohesion (Williams and O'Reilly, 1998).

The previous literature showed that several variables used as moderating factors to explain the relationship between diversity in TMT contained other types of diversification (Carpenter, 2002; Boehm *et al.*, 2011; Tanikawa *et al.*, 2017), meetings (Al-Musali and Ku Ismail, 2015) or increased interaction among TMT executives (Boehm *et al.*, 2011). Based on resource dependency theory, Al-Musali and Ku Ismail (2015) find a weak link between governance and performance in the context of BOD's diversity which can be overcome by including the effectiveness of BOD's meetings in the model. This implies that the number of meetings can be fashioned as a TMT tool for effective communication and transfer of knowledge and expertise across each age group for better performance (Wincent *et al.*, 2010; Al-Musali and Ku Ismail, 2015).

This study referred to the three dimensions of the team, which was stated by Hackman (2002), namely, task performance, relationship quality and member satisfaction. Furthermore, the author assumed that high-intensity meetings provided more time for TMT to discuss organizational goals and problems, as well as establish a better quality relationship among members. Based on individuals being assumed to have a desire in maintaining levels of "self-esteem" (Williams and O'Reilly, 1998), the age diversity in TMT is found to cause conflicts. However, this diversity is still expected to reduce these behaviours, because of high frequency of meetings, which in turn leads to the emergence of good individual potentials. Harymawan *et al.* (2020) indicated that TMT meetings were positively related to company performance, while further suggesting that more TMT conferences represented higher effective efforts. The study of Bagire *et al.* (2015) also explained that meetings provided a forum for decision-making, communication, motivation, interpersonal relationships and dispute resolution.

Mutuku *et al.* (2013) explained that organizations should encourage diverse TMTs to conduct meetings, to identify the root cause of problems. This was because the forum provided an opportunity to generate multiple options, through a brainstorming process. Furthermore, TMT meetings allow the sharing of information and desired allocation of resources. Based on these meetings, diverse members are found to improve communication and develop new ideas to enhance bank services. Vafeas (1999) also found that firm performance increased when there was an increment in the frequency of board meetings. Based on the reviewed literature above, this study formulates and tests the following as the second hypothesis:

H2. Effectiveness of TMT meetings moderates (weakens) the negative relationship between of directors' age diversity (TMT) and performance.

3. Methodology

3.1 Research data and samples

The population for the study was commercial banks registered with Bank Indonesia for the period 2010–2016, with the exclusion of the regional development banks (BPD) not listed on the Indonesia Stock Exchange (IDX). Through sampling, an unbalanced panel data consisting of 40 groups with observations of 228 was obtained. The study analyzed the secondary data sourced from banks' annual reports, bank websites, bank news releases or governance reports and banks' financial statements.

3.2 Research model

The model for testing the hypotheses in this research is shown in Models 1, 2 and 3. The research models were adapted from Al-Musali and Ku Ismail (2015):

The research model for testing *H1*:

$$\begin{aligned} PERFit = {} & \beta + \beta 1DIV\_AGEit + \beta 2\ DIV\_GENit + \beta 3SIZE\_DIRit \\ & + \beta 4SIZEit + \beta 5LISTit + \beta 6LEVit + \beta 7GOVit \\ & + \beta 8FOREIGNit + \beta 9Competitionit + \varepsilon it \end{aligned} \tag{1}$$

(1) The research model for testing *H2*:

$$\begin{aligned} PERFit = {} & \beta + \beta 1DIV\_AGEit + \beta 2EFEK\_DIRit + \beta 3DIV\_GENit \\ & + \beta 4SIZE\_DIRit + \beta 5SIZEit + \beta 6LISTit + \beta\ 7LEVit \\ & + \beta 8GOVit + \beta 9FOREIGNit + \beta 10Competitionit + \varepsilon it \end{aligned} \tag{2}$$

$$\begin{aligned} PERF\ it = {} & \beta + \beta 1DIV\_AGEit + \beta 2EFEK\_DIRit \\ & + \beta 3DIV\_AGE{*}\ EFEK\_DIRit + \beta 4DIV\_GENit + \beta 5SIZE\_DIRit \\ & + \beta 6SIZEit + \beta 7LISTit + \beta 8LEVit + \beta 9GOVit \\ & + \beta 10FOREIGNit + \beta 11Competitionit + \varepsilon it \end{aligned} \tag{3}$$

where PERF is the current performance of banking as measured by return on equity (ROE) and return on assets (ROA) in bank i in year t; *DIV_AGE* is the bank directors' age diversity measured using the coefficient of variation; EFEK_DIR is the effectiveness of directors (TMT), measured by the number of directors meetings in a year at bank i in year t; DIV_GEN is the gender diversity of directors in the index; SIZE is the size of bank i in year t in log_aset; SIZE_DIR is the number of directors in the bank; LEV is the total debt leverage divided by total assets; LIST is a bank listed in the IDX with a value of 1 and 0 for others. GOV is a dummy variable 1 if the bank is owned by the government, and 0 for others; FOREIGN is a dummy variable 1 if it is a foreign bank and 0 otherwise. Competition is the level of competition at the bank level, and competitiveness is seen from the cost price margin.

3.3 Operationalization of defined variables

3.3.1 Dependent variable: bank performance (PERF). The bank's performance in this study was measured using two indicators, namely, financial performance in terms of profitability measured using the ratio approach, namely, return on equity (ROE) and return on assets (ROA) (Tanikawa, 2017). ROE is a measure of financial performance calculated by dividing net income by average shareholders' equity, whereas ROA is obtained from pre-tax profit divided by average total assets.

3.3.2 Independent variables: age diversity (DIV_AGE). The age diversity of directors was calculated using the coefficient of variation, which was calculated as follows: variation coefficient = (σ/x), where σ is the standard deviation and x is the mean (Bantel and Jackson, 1989; Wiersema and Bantel, 1992; Bedeian and Mossholder, 2000).

3.3.3 Moderating variable: effectiveness of top management team meetings. According to Al-Musali and Ku Ismail (2015) and Harymawan *et al.* (2020), the frequency of directors (TMT) meetings was measured as a proxy for TMT meeting effectiveness. This proposition was based on the idea that meeting frequency reduced the negative effect of TMT diversity. Therefore, the interaction between the diversification and effectiveness of TMT meetings improved performance by attenuating the negative impact of age diversity, which in turn created positive effects.

3.3.4 Control variables. In this study, the control variables consisted of bank size, gender diversity, number on directors, listing status on IDX, leverage, ownership and competition. The size of the bank (SIZE) was derived from the natural log of total assets (Oyewole *et al.*, 2013). This SIZE was further linked to bank performance, because of the abilities of larger financial institutions to achieve cost reductions, based on scale economies. De Andrés and Vallelado (2008) suggested that growth was a major factor in determining profitability, although large banks presented lower costs and higher market power. Therefore, this study considered the logarithm of total assets (Setiyono &Tarazi, 2014; Díaz-Fernández *et al.*, 2014). DIV_GEN is gender diversity of directors in the index (Schwab *et al.*, 2015). Based on being similar to age diversity, this gender diversification was observable (Milliken and Martin, 1996), because of being associated with better analytical processes, as well as access to information and decision-making. It also increased completeness in decision-making, and improved organizational performance (Carpenter, 2002). SIZE_DIR is the number of directors in the bank, where the increase in size and diversity of these executives provided benefits for the company. This was because of the creation of a network with external parties, while also ensuring the availability of resources (Wijayanti and Mutmainah, 2012). LIST indicated whether the bank was registered or not on the IDX (Setiyono and Tarazi, 2014); a value of 1 was assigned if the listing was on the stock exchange and 0 otherwise. A bank that is listed on the stock exchange is expected to be monitored more and subject to stronger market discipline which leads to better performance. LEV is total debt leverage divided by total assets; GOV is the bank ownership, dummy variable code 1 was assigned if there was government ownership of banks, and 0 otherwise (Shuying *et al.*, 2017). Li and Simerly (1998) showed that bank ownership structure affected the level of managerial supervision, based on an effort to improve performances. According to the conventional efficiency-based economic perspective, state ownership played a minor role in promoting innovation and firm performances (Zhou *et al.*, 2016). FOREIGN was the ownership of the bank, dummy variable 1 was assigned if there was foreign ownership and 0 otherwise (Setiyono and Tarazi, 2014). Furthermore, the presence of foreign owners caused lower financial intermediation costs (namely, spreads or lower margins), which in turn led to lowering profitability (Claessens *et al.*, 2001). The competition variable was a measure of the level of competition at the company level; the ability to compete was seen from the cost price margin (Bos *et al.*, 2013). Competition also stimulated bank innovation activities, as well as ensured more efficiency in screening and monitoring borrowers, which in turn affected risk-taking and profitability (Hu and Xie, 2016).

3.3.5 Analysis method. The study used a panel data model, and the Chow and Hausman test was applied to fit the best regression model between pooled least square, fixed effect or random effect. The panel data analysis estimators used the generalized least square method. Heteroskedastic violations were overcome by adding the “vce (robust)” option when carrying out the regression command in STATA (Cameron and Trivedi, 2009). For testing classic assumptions for multicollinearity, the variance inflation factor (VIF) test was applied, where the mean VIF above 10 indicates multicollinearity. Based on the VIF test for each test model, there were multicollinearities for several test variables. The violation of multicollinearity in this study was treated by centering and eliminating the independent variables that caused multicollinearity.

4. Results and discussion

The study was conducted on 40 selected banks registered with the Bank Indonesia from 2010–2016 with a total of 228 observations. The 40 banks consisted of 4 state-owned banks, 3 regional development banks (BPD), 26 private banks and 7 sharia commercial banks. Data were extracted for analysis from the financial report, annual report, bank governance reports and bank websites.

Table 1 shows the descriptive analysis and multivariate analysis, which consists of means, standard deviations and correlations for the variables selected to explain the effect of TMT diversity on performance with the effectiveness of TMT meetings as a moderating variable.

Testing *H1* to examine the effect of age diversity on performance (ROE and ROA), the regression results in Table 2 show that in Model 1, age diversity does not affect performance (ROE and ROA), and the value of each coefficient is not significant. The coefficient of the effect on ROE is -0.090 and a p-value is 0.391 (p-value > 0.1) with a R^2 value of 44.24%. For the effect on ROA, the coefficient is -0.017 with a p value of 0.471 (p-value > 0.1) and an R^2 value of 52.49%. Because the p-value is not significant, the decision indicates that *H1* is not accepted.

The results of this study support previous findings that found no effect of age diversity on performance (Webber and Donahue, 2001; Nielsen and Nielsen, 2013; Rompis *et al.*, 2018). The absence of the influence of age diversity on performance might be because of several probable reasons which include the fact that varieties of experience can be generated through age diversity; however, it is less related to the group’s task and work done (Pelled, 1996; Pelled *et al.*, 1999). On the other hand, attributes related to age diversity form the

Table 1. Means, standard deviations and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. ROE	0.016	0.019	1											
2. ROA	0.11	0.16	0.89 ***	1										
3. DIV_AGE	0.09	0.04	−0.10	−0.12	1									
4. EFEK_DIR	1.43	0.25	0.27 ***	0.22 ***	−0.26 ***	1								
5. DIV_GEN	0.20	0.19	0.05	0.03	0.13 *	−0.06	1							
6. SIZE	13.53	0.70	0.28 ***	0.29 ***	−0.08	0.42 ***	0.13 **	1						
7. SIZE_DIR	6.61	2.65	0.27 ***	0.28 ***	0.08	0.29 ***	0.27 ***	0.85 ***	1					
8. LIST	0.74	0.43	−0.03	0.04	0.13 **	−0.17 **	0.11 *	0.38 ***	0.50 ***	1				
9. LEV	0.72	0.28	0.11	0.18 ***	0.14 **	−0.35 ***	0.10	0.27 ***	0.45 ***	0.68 ***	1			
10. GOV	0.18	0.38	0.28 ***	0.29 ***	−0.21 **	0.22 ***	−0.21 **	0.42 ***	0.18 **	0.10	0.07	1		
11. FOREIGN	0.12	0.33	−0.13 *	−0.11 *	−0.03	−0.08	0.12 *	−0.06	−0.10	0.08	−0.04	−0.18 **	1	
12. Competition	0.48	0.18	−0.64 ***	−0.71 ***	0.10	−0.20 **	−0.00	−0.27 ***	−0.28 ***	0.00	0.25 ***	−0.20 **	0.03	1

Notes: $n = 128$; ***, **, *significance at the 1%, 5% and 10%, level

Independent Variable	Description	Predi ct	Var. Dep: PERF= ROE Model 1	Model 2	Model 3	Var. Dep: PERF = ROA Model 1	Model 2	Model 3
		Coef. (Prob *t*-stat)			Coef. (Prob *t*-stat)			
DIV_AGE	−	−0.090 (0.391)	−0.091 (0.341)	−1.898 (0.046**)	−0.017 (0.471)	−0.003 (0.487)	−0.241 (0.017**)	
EFEK_DIR	+		0.006 (0.498)	−0.149 (0.056*)		−0.0042 (0.186)	−0.022 (0.010**)	
Interaction								
DIV_AGE × EFEK_DIR	+			1.44 (0.026**)			0.171 (0.011**)	
Control variables								
DIV_GEN	+/−	−0.0257 (0.620)	−0.023 (0.658)	−0.029 (0.573)	−0.002 (0.613)	−0.0035 (0.524)	−0.004 (0.461)	
SIZE	+/−	−0.3111 (0.304)	−0.313 (0.303)	0.030 (0.289)	0.0001 (0.967)	0.0004 (0.889)	0.0004 (0.879)	
SIZE_DIR	+/−	0.196 (0.013**)	0.019 (0.017**)	0.020 (0.009***)	0.001 (0.155)	0.0013 (0.117)	0.001 (0.091*)	
LIST	+/−	−0.0425 (0.211)	−0.0417 (0.220)	−0.0479 (0.161))	−0.001 (0.750)	−0.0414 (0.694)	−0.001 (0.602))	
LEV	+/−	−0.0250 (0.624)	−0.0230 (0.673)	−0.220 (0.687)	−0.001 (0.833)	−0.002 (0.639)	−0.002 (0.644)	
GOV	+/−	0.0725 (0.054*)	0.072 (0.053*)	0.073 (0.053*)	0.006 (0.117)	0.007 (0.112)	0.007 (0.053*)	
FOREIGN	+/−	−0.0235 (0.534)	−0.023 (0.529)	−0.0233 (0.539)	−0.003 (0.451)	−0.0034 (0.451)	−0.0233 (0.539)	
Competition	+/−	−0.463 (0.000***)	−0.462 (0.000***)	−0.456 (0.000***)	−0.056 (0.000***)	−0.0572 (0.000***)	−0.456 (0.000***)	
Cons		0.836 (0.026)	0.830 (0.028)	1.062 (0.007)	0.056 (0.165)	0.0595 (0.144)	1.062 (0.007)	
N		228	228	228	228	228	228	
R^2		44.24%	44.41%	45.12%	52.49%	51.88%	53.37%	
R^2 change		44.24%	0.17%	0.71%	52.49%	−0.61%	1.49%	
Chi^2		136.81***	136.69***	140.70***	169.37***	169.82****	140.70***	

Note: ***, **, *significance at the 1%, 5% and 10% level

Table 2.
Regression results of Models 1, 2 and 3 (*H1* and *H2*)

context of social relationships that are less related to team goals. Furthermore, based on the upper echelon theory, the characteristics of individual members of TMT have an impact on strategic action, which in turn can be linked to company performance (Hambrick and Mason, 1984). Homberg and Bui (2013) and several other studies have linked it to decision-making and cognition. Thus, some previous researchers suggested that the relationship between TMT diversity and performance should be mediated by a variable that shows the outcomes of TMT to reveal when and how TMT diversity can affect organizational performance (Miller *et al.*, 1998; Pitcher and Smith. 2001; Carpenter, 2002; Kochan *et al.*, 2003; Olson *et al.*, 2006; Mutuku *et al.*, 2013). In addition to the use of mediating or intervening variables, some researchers also suggested using moderating variables (Carpenter, 2002; Mutuku *et al.*, 2013).

Based on several suggestions from a previous study that there was no relationship between TMT diversity and performance, it was possible that moderating variables were not included in the research model (Carpenter, 2002). Therefore, further tests were carried out by considering moderating variables related to TMT, which were expected to clarify how the diversity of the TMT affected company performance. This study also used a one-year meeting frequency conducted by TMT, as a moderating variable. Furthermore, previous literature explained that more meetings reflected more effective efforts (e.g. focused communication, constructive dialogue and quality decision-making), to improve company performances (Harymawan *et al.*, 2020).

In Model 2 as shown in Table 2, when the effectiveness of the TMT meeting (EFEK_DIR) is included in the equation, the result remains insignificant with an R^2 value of 44.41% for ROE performance and an R^2 value of 51.88% for ROA performance. In Model 3, when the interaction between DIV_AGE and EFEK_DIR (DIV_AGE × EFEK_DIR) is included in the equation, the regression results show the coefficient value of −1.898 for the impact of DIV_AGE on performance (ROE) with a p-value of 0.046 (p-value < 0.05). Similarly, the coefficient value of DIV_AGE × EFEK_DIR on ROE is 1.44, with a p-value of 0.026 (p-value < 0.05) and R^2 of 45.12%. Therefore, the change in R^2 from Model 2 to Model 3 was 0.71%. Likewise, the value of the DIV_AGE variable coefficient on performance (ROA) shows the same direction of −0.241 and a p-value of 0.017 (p-value < 0.05), and the variable coefficient value of DIV_AGE × EFEK_DIR on ROA is 0.171 with a p-value of 0.011 (p-value <0.05) with R^2 of 53.37%. Therefore, the change in R^2 from Model 2 to Model 3 was 1.49%. The regression results of Model 3 show an increase in R^2 compared to Models 1 and 2, and the regression results for the interaction of the DIV_AGE and EFEK_DIR variables show significant results. The regression results show that there is a significant effect of the moderator variable on the dependent variable as a pure moderator. Therefore, *H2* is accepted and it infers that the effectiveness of board meetings (TMT) moderates the influence of age-related diversity of directors (TMT) on the performance.

The graph of the relationship between bank performance and age diversity of directors with meeting effectiveness is shown in Figure 1. Based on the results of the regression in Model 2 (when age diversity interacted with the effectiveness of meetings), a positive relationship to performance was observed. Therefore, the line shifted higher when the number of meetings was greater, indicating an increase in performance.

These results supported the upper echelon and resource dependency theories, as well as strongly demonstrate previous studies' suggestion for a moderating variable to examine the relationship between diversity and performance (Carpenter, 2002; Olson *et al.*, 2006). The upper echelon theory stated that the experience, values and personality of the directors had a major influence on the meeting discussion and decisions, regarding strategy choices (Hambrick and Mason, 1984). Therefore, the results indicated that when TMT groups with different age backgrounds conducted the meeting, they have more opportunities to provide ideas from experiences and knowledge. Furthermore, it was possible for the age diversity of TMT to build wider relationships with external parties, which provides increased opportunities for banking customers. This was found to be in line with resource dependence theory (Pfeffer and Salancik, 1978). Although it is undeniable that the diversity of different individual ages causes "self-esteem", the high intensity of these encounters should be reduced, to create better relationship qualities among TMT members. A good TMT relationship also encourages constructive discussions, which generate bright ideas for the company.

By implication, the results show that the interactions between age diversity and the effectiveness of top management meetings have a positive effect on performance. The possible reason for this is that the positive age diversity is capable of generating potential for a better experience and rich knowledge from different age groups, while the negative impact of selfishness because of heterogeneity is reduced through the effective meetings of the directors. The more frequent the meetings of directors of various ages, the increase the directors' effectiveness, and best performance impacting decision is easily attained through collaboration and sharing of knowledge and expertise. The findings of this study support the application of rules on governance and emphasize the importance of diversity in directors' membership and the need for more intensive directors' meetings.

5. Conclusion

The main objective of this study is to explain the relationship between the age-related TMT diversity and performance, and the moderating role of the effectiveness of TMT meetings in weakening the negative influence of TMT diversity on performance. The analysis results using panel data indicate that age diversity, measured by variation coefficient, has no direct effect on performance. The results of the regression model show the moderating role of the effectiveness of TMT meetings on the effect of TMT age diversity on performance in commercial banks in Indonesia.

This research is expected to contribute towards corporate governance, as an additional literature and input for future studies, based on the influence of TMT age diversity on bank performance, as well as the role of meeting effectiveness in moderating the effects. The results of the study have several implications. First, this research provides a deeper understanding of the benefits of director diversity (TMT) to the company's performance based on the effectiveness of board meetings in producing the positive effects that reduce the negative impact of the TMT diversity. Second, this research is useful for regulators as an input in making policies related to membership of corporate organs, especially directors, to support the implementation of better corporate governance in Indonesia. Furthermore,

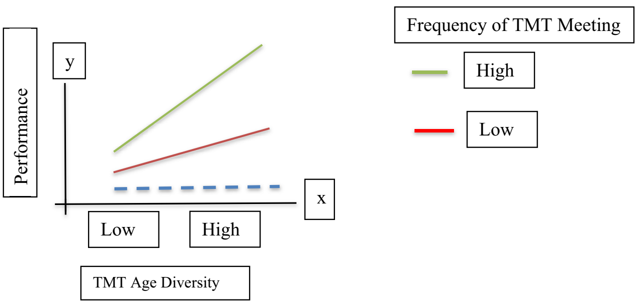

Figure 1. Graphical representation of the relationship between TMT age diversity and performance, with frequency of meeting

commercial banks in Indonesia should implement good corporate governance, including the implementation of policies on age diversity. This was because of being empirically confirmed to affect bank performance, through the occurrence of innovative and creative attitudes during discussions in meetings. The research also provided input to the Financial Services Authority (OJK). This was based on being the Indonesian banking regulator that encouraged the application of commercial banks' governance rules into the Financial Services Authority Regulation No. 55/POJK.03/2016, where there was no policy regarding the director diversity. Third, this study is useful to the investors in making consideration regarding the prediction of company performance based on the directors' characteristics in the bank and the need for information on internal activities at TMT, which were often disclosed in the annual report. This was because these activities were confirmed to increase the TMT performance effectiveness, which in turn led to an impact on improving company efficiency.

The limitations of the study include the use of only samples of the banks registered with Bank Indonesia. The subsequent research could use cross-country bank samples, because of each country having a TMT diversity policy that differed in its corporate governance rules. Based on the use of cross-country data, experts were allowed to obtain different results on the same topic. In addition, the research uses age-related diversity variables only. Therefore, further research could consider other types of diversity such as education, functional or tenure. Furthermore, the study only used the number of TMT meetings in one year as a moderating variable, without considering the quality. This was because of the utilization of secondary data, which were obtained from the annual report of the company. Therefore, further research should use the meeting quality obtained from primary data, which considered the TMT intra-personal relationship as a measure of effectiveness (Bang *et al.*, 2010).

References

Al-Musali, M.A.K.M. and Ku Ismail, K.N.I. (2015), "Board diversity and intellectual capital performance: the moderating role of the effectiveness of board meetings", *Accounting Research Journal*, Vol. 28 No. 3, pp. 268-283, doi: 10.1108/ARJ-01-2014-0006.

Bagire, V., Byarugaba, J. and Kyogabiirwe, J. (2015), "Organizational meetings: management and benefits", *Journal of Management Development*, Vol. 34 No. 8, pp. 960-972, doi: 10.1108/JMD-03-2014-0023.

Bang, H., Fuglesang, S.L., Ovesen, M.R. and Eilertsen, D.E. (2010), "Effectiveness in top management group meetings: the role of goal clarity, focused communication, and learning behavior", *Scandinavian Journal of Psychology*, Vol. 51 No. 3, pp. 253-261.

Bantel, K. and Jackson, S. (1989), "Top management and innovations in banking: does composition of the team make a difference?", *Strategic Management Journal*, Vol. 10 No. 1, pp. 107-124, doi: 10.1002/smj.4250100709.

Bedeian, A.G. and Mossholder, K.W. (2000), "On the use of the coefficient of variation as a measure of diversity", *Organizational Research Methods*, Vol. 3 No. 3, pp. 285-297, doi: 10.1177/109442810033005.

Bos, J.W.B., Kolari, J.W. and Van Lamoen, R.C.R. (2013), "Competition and innovation: evidence from financial service", *Journal of Banking and Finance*, Vol. 37 No. 5, pp. 1590-1601.

Boehm, S.A., Baumgaertner, M.K., Dwertmann, D.J.G. and Kunze, F. (2011), "Age diversity and its performance implications – analysing a major future workforce trend", in Boppel, M., Boehm, S. and Kunisch, S. (Eds), *From Grey to Silver*, Springer, Berlin, doi: 10.1007/978-3-642-15594-9_11

Bozec, R., Dia, M. and Bozec, Y. (2010), "Governance–performance relationship: a re-examination using technical efficiency measures", *British Journal of Management*, Vol. 21 No. 3, pp. 684-700, doi: 10.1111/j.1467-8551.2008.00624.x.

Bryant, P. and Davis, C. (2012), "Regulated change effects on board of directors: a look at agency theory and resource dependency theory", *Academy of Strategic Management Journal*, Vol. 11 No. 2, pp. 1-15.

Budiarti, E. and Sulistyowati, C. (2014), "Ownership structure and company board structure", *Journal of Theoretical and Applied Management Year*, Vol. 7 No. 3.

Cameron, A.C. and Trivedi, P.K. (2009), *Micro Econometrics Using Stata*, Stata Press.

Carpenter, M.A. (2002), "The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance", *Strategic Management Journal*, Vol. 23 No. 3, pp. 275-284, doi: 10.1002/smj.226.

Chan, S.G. and Heang, L.T. (2010), "Corporate governance, board diversity and bank efficiency: the case of commercial banks in Malaysia", *The Asian Business and Management Conference- Osaka, Japan*.

Claessens, S., Demirgüç-Kunt, A. and Huizinga, H. (2001), "How does foreign entry affect domestic banking markets? ", *Journal of Banking and Finance*, Vol. 25 No. 5, pp. 891-911.

Conger, J., Finegold, D. and Lawler, E. III, (1998), "Appraising boardroom performance", *Harvard Business Review*, Vol. 76 No. 1, pp. 136-148.

Darmadi, S. (2011), "Board diversity and firm performance: the indonesian evidence", *Corporate Ownership and Control*, Vol. 8 No. 2.

De Andrés, P. and Vallelado, E. (2008), "Corporate governance in banking: the role of the board of directors", *Journal of Banking and Finance*, Vol. 32 No. 12, pp. 2570-2580, doi: 10.1016/j.jbankfin.2008.05.008.

Díaz-Fernández, M.C., González-Rodríguez, M.R. and Pawlak, M. (2014), "Top management demographic characteristics and company performance", *Industrial Management and Data Systems*, Vol. 114 No. 3, pp. 365 -386, doi: 10.1108/IMDS-04-2013-0210.

Falikhah, N. (2017), "Bonus demografi peluang dan tantangan bagi Indonesia", *Alhadharah: Jurnal Ilmu Dakwah*, Vol. 16 No. 32, doi: 10.18592/Alhadharah.V16i32.1992.

Financial Services Authority (2014), "Roadmap Tata Kelola Perusahaan di Indonesia (Indonesia Corporate Governance Roadmap)", Otoritas Jasa Keuangan (OJK).

Finkelstein, S. and Hambrick, D.C. (1996), "Strategic leadership: top executives and their effects on organizations (west strategic management series)".

Hackman, J.R. (2002), *Leading Teams: Setting the Stage for Great Performances*, Harvard Business School Press, Boston.

Hambrick, D.C. and Mason, P.A. (1984), "Upper echelons: the organization as reflection of its top managers", *Academy of Management Review*, Vol. 9 No. 2, pp. 193-206.

Harymawan, I., Nasih, M. and Nowland, J. (2020), "Top management team meetings and firm performance", *Accounting Research Journal*, Vol. 33 No. 6, pp. 1030-9616, doi: 10.1108/ARJ-03-2020-0062.

Herrmann, P. and Datta, D.K. (2005), "Relationships between top management team characteristics and international diversification: an empirical investigation", *British Journal of Management*, Vol. 16 No. 1, pp. 69-78, doi: 10.1111/j.1467-8551.2005.00429.x.

Homberg, F. and Bui, H.T.M. (2013), *Group and Organization Management*, Vol. 38 No. 4, pp. 455-479, doi: 10.1177/1059601113493925.

Hu, T. andXie, C. (2016), *Competition, Innovation, Risk-Taking, and Profitability in the Chinese Banking Sector: An Empirical Analysis Based on Structural Equation Modeling*, Hindawi Publishing Corporation Discrete Dynamics in Nature and Society.

Jungmann, C.M. (2007), "The effectiveness of corporate governance in one-tier and two-tier board systems – evidence from the UK and Germany", *European Company and Financial Law Review*, Vol. 3 No. 4, doi: 10.1515/ECFR.2006.019.

Kilduff, M., Angelmar, R. and Mehra, A. (2000), "Top management-team diversity and firm performance: examining the role of cognitions", *Organization Science*, Vol. 11 No. 1, pp. 21-34.

Kochan, T., Bezrukova, K., Ely, R.J., Jackson, S., Joshi, A., Jehn, K., Leonard, J., Levine, D. and Thomas, D. (2003), "The effects of diversity on business performance: report of the diversity research network", *Human Resource Management*, Vol. 42 No. 1, pp. 3-21.

Li, M. and Simerly, R.L. (1998), "The moderating effect of environmental dynamism on the ownership and performance relationship", *Strategic Management Journal*, Vol. 19 No. 2, pp. 169-179.

Mahrani, M. and Soewarno, N. (2018), "The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable", *Asian Journal of Accounting Research*, Vol. 3 No. 1, pp. 41-59.

Milliken, F.J. and Martin, L.L. (1996), "Searching for common threads:understanding the multiple effects of diversity in organizational groups", *Academy of Management Review*, Vol. 21 No. 2, pp. 402-433.

Mutuku, C., Obonyo, P.K. and Awino, Z.B. (2013), "Top management team diversity, quality of decisions and performance of commercial banks in Kenya", *Asian Journal of Humanities and Social Sciences (AJHSS)*, Vol. 1 No. 3, ISSN: 2320-9720.

Miller, C.C., Burke, L.M. and Glick, W.H. (1998), "Cognitive diversity among upper-echelon executives: implications for strategic decision processes", *Strategic Management Journal*, Vol. 19 No. 1, pp. 39-58, doi: 10.1002/(SICI)1097-0266(199801)19:1<39::AID-SMJ932>3.0.CO;2-A.

Nielsen, S. (2010), "Top management team diversity: a review of theories and methodologies", *International Journal of Management Reviews*, pp. 301-316, doi: 10.1111/j.1468-2370.2009.00263.x.

Nielsen, B.B. and Nielsen, S. (2013), "Top management team nationality diversity and firm performance: a multilevel study", *Strategic Management Journal*, Vol. 34 No. 3, pp. 373-382, doi: 10.1002/smj.2021.

Olson, B.J., Parayitam, S. and Twigg, N.W. (2006), "Mediating role of strategic choice between top management team diversity and firm performance: upper echelons theory revisited", *Journal of Business and Management; 2006*, Vol. 12 No. 2, p. 111.

Oyewole, O., Abba, S., El-Maude, M. and Gambo, J. (2013), "E-banking and bank performance: evidence from Nigeria", *International Journal of Scientific Engineering and Technology*, Vol. 2 No. 8, pp. 766-771, pp: ISSN: 2277-1581

Ozer, M. (2010), "Top management teams and corporate political activity: do top management teams have influence on corporate political activity?", *Journal of Business Research*, Vol. 63 No. 11, pp. 1196-1201.

Pelled, L.H. (1996), "Demographic diversity, conflict, and work group outcomes: an intervening process theory", *Organization Science*, Vol. 7 No. 6, pp. 615-631.

Pelled, L.H., Eisenhardt, K.M. and Xin, K.R. (1999), "Exploring the black box: an analysis of work group diversity, conflict, and performance", *Administrative Science Quarterly*, Vol. 44 No. 1, pp. 1-28, doi: 10.2307/2667029.

Pettigrew, A.M. (1992), "On studying managerial elites", *Strategic Management Journal*, Vol. 13 No. 2, pp. 163-182, doi: 10.1002/smj.4250130911.

Pfeffer, J. and Salancik, G. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, available at SSRN: https://ssrn.com/abstract=1496213

Pillai, R. and Al-Malkawi, H.-A.N. (2017), "On the relationship between corporate governance and firm performance: evidence from GCC countries", *Research in International Business and Finance*, Vol. 44, doi: 10.1016/j.ribaf.2017.07.110.

Pitcher, P. and Smith, A.D. (2001), "Top management team heterogeneity: personality, power, and proxies", *Organization Science*, Vol. 12 No. 1, pp. 1-18, doi: 10.1287/orsc.12.1.1.10120.

Ramli, J.A. and Ramli, M.I. (2016), "Corporate governance and corporate performance of Malaysian companies: examining from an islamic perspective", *Procedia Economics and Finance*, Vol. 35, pp. 146-155.

Robbins, S.P. and Judge, T.A. (2015), *Organizational Behavior*, 16th edition, published by Pearson Educationm Inc.

Rompis, N.K., Worang, F.G. and Tulung, J.E. (2018), "Effect of board size, diversity of age and gender diversity on financial performance of regional development banks in all Indonesia book 2 year 2014-2016", *Jurnal EMBA*, Vol. 6 No. 4, pp. 2628-2637.

Schwab, A., Werbel, J.D., Hofmann, H. and Henriques, P.L. (2015), "Managerial gender diversity and firm performance: an integration of different theoretical perspectives", *Group and Organization Management*, Vol. 41 No. 1, pp. 1-27.

Setiyono, B. and Tarazi, A. (2014), "Does diversity of bank board members affect performance and risk? Evidence from emeging market", available at: https://hal-unilim.archives-ouvertes.fr/hal-01070988.

Shuying, W., Shuijuan, Z. and Bobo, L. (2017), "Effect of diversity on top management team to the bank'sinnovation ability-based on the nature of ownership perspective", *Procedia Engineering*, Vol. 174, pp. 240 -245.

Singh, M. and Sarkar, A. (2012), "The relationship between psychological empowerment and innovative behavior", *Journal of Personnel Psychology*, Vol. 11 No. 3, pp. 127-137, doi: 10.1027/1866-5888/a000065

Talavera, O., Yin, S. and Zhang, M. (2017), "Age diversity, directors' personal values, and bank performance", *International Review of Financial Analysis*, Vol. 55, doi: 10.1016/j.irfa.2017.10.007.

Tanikawa, T., Kim, S. and Jung, Y. (2017), "Top management team diversity and firm performance: exploring a function of age", *Team Performance Management: An International Journal*, Vol. 23 Nos 3/4, doi: 10.1108/TPM-06-2016-0027.

Tanna, S., Pasiouras, F. and Nnadi, M. (2011), "The effect of board size and composition on the efficiency of UK banks", *International Journal of the Economics of Business*, Vol. 18 No. 3, pp. 441-462, doi: 10.1080/13571516.2011.618617.

Tricker, R.I. (2009), *Corporate Governance – Principles, Policies and Practices*, Oxford University Press, Oxford.

Vafeas, N. (1999), "Board meeting frequency and firm performance", *Journal of Financial Economics*, Vol. 53 No. 1, pp. 113-142, doi: 10.1016/s0304-405x(99)00018-5.

Van Knippenberg, D. and Schippers, M.C. (2007), "Work group diversity", *Annual Review of Psychology*, Vol. 58 No. 1.

Webber, S.S. and Donahue, L.M. (2001), "Impact of highly and less job related diversity on work group cohesion and performance: a meta-analysis", *Journal of Management*, Vol. 27 No. 2, pp. 141-162, doi: 10.1177/014920630102700202.

Wiersema, M. and Bantel, K.A. (1992), "Top management team demography and corporate strategic change", *Academy of Management Journal*, Vol. 35 No. 1, pp. 91-121, doi: 10.5465/256474.

Williams, K. and Knippenberg, C. (1998) "Forty years of diversity research: a review", Staw BM, Cummings LL (Eds), in *Research in Organizational Behavior*, JAI Press, Greenwich, CT, pp. 77-140.

Williams, K.Y. and O'Reilly, C.A. (1998), "Demography and diversity in organization: a review of 40 years of research", *Res Organ Behav*, Vol. 54, pp. 77-140.

Wijayanti Mutmainah, S. (2012), "Pengaruh penerapan corporate governance terhadap kinerja keuangan pada perusahaan perbankan yang terdaftar Di bursa efek Indonesia (BEI) tahun 2009-2011", *Diponegoro Journal of Accounting*, Vol. 1 No. 2, pp. 1-15.

Wincent, J., Anokhin, S. and Ortqvist, D. (2010), "Does network board capital matter? A study of innovative performance in strategicSMEnetworks", *Journal of Business Research*, Vol. 63 No. 3, pp. 265-275, doi: 10.1016/J.JBUSRES.2009.03.012.

Zabri, S.M. and Ahmad, K. (2015), "Corporate governance practices and firm performance: evidence from top 100 public listed companies in Malaysia", *Procedia Economics and Finance*, Vol. 35 No. 2016, pp. 287 -296.

Zhou, K.Z., Gao, G.Y. and Zhao, H. (2016), "State ownership and firm innovation in China: an integrated view of institutional and efficiency logics", *Administrative Science Quarterly*, Vol. 62 No. 2, p. 30.

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