THE ROLE OF DEMOGRAPHIC CHARACTERISTICS AND HETEROGENEITY TOP MANAGEMENT TEAM ON HOSPITAL PERFORMANCE

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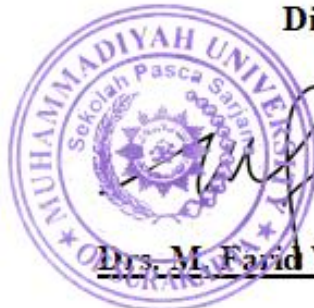
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THE ROLE OF DEMOGRAPHIC CHARACTERISTICS AND HETEROGENEITY TOP MANAGEMENT TEAM ON HOSPITAL PERFORMANCE

Abstract

The characteristics and demographic heterogeneity of Top Management Team (TMT) can be as human capital to improve performance, formulating strategy, and gaining legitimacy in making decisions. The aim of this study was to prove the role of demographic characteristics and heterogeneity hospital's top management team (TMT) in performance. This was a cross-sectional study that entailed hospital's TMT in Central Java Indonesia. Secondary data was filled by human resource department staff. Hospital identity, demographic characteristics and heterogeneity of all members of TMT were; 1) age, 2) gender, 3) organizational experience inside/outside the hospital, 4) experience as a hospital's TMT, 5) education level, and 6) educational specialization. The hospital performance score was measured by BSC, using LIKERT scale; 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = more agree; and 5 = strongly agree. Total score of performance was grouped; i) score 0-75 (good), and ii) score 76-100 (very good). A total of 105 (44.38%) from 242 questionnaire have been analyzed. The average age and heterogeneity, female and gender heterogeneity, period of experience serving as TMT and heterogeneity, level and specialization of education and heterogeneity, did not play a role in hospital performance. The short period of experience in the organization inside or outside the hospital of hospital's TMT members did not play a role, but heterogeneity played a positive role (Pearson Chi-Square = 0.037, p<0.05 or significant). The demographic characteristics and heterogeneity of hospital's TMT in Central Java did not play a role in hospital performance as measured by BSC. The performance was thought to be influenced by hospital management courses and training, which was needed to be further proven

Keywords: **BSC performance, characteristics, demographics, heterogeneity, hospital's TMT**

Abstrak

Karakteristik dan heterogenitas demografis Top Management Team (TMT) dapat menjadi modal manusia untuk meningkatkan kinerja, merumuskan strategi, dan memperoleh legitimasi dalam mengambil keputusan. Tujuan dari penelitian ini adalah untuk membuktikan peran karakteristik demografi dan heterogenitas tim manajemen puncak (TMT) rumah sakit dalam kinerja. Ini adalah studi potong lintang yang melibatkan TMT rumah sakit di Jawa Tengah Indonesia. Data sekunder diisi oleh staf departemen sumber daya manusia. Identitas rumah sakit, karakteristik demografi dan heterogenitas semua anggota TMT adalah; 1) umur, 2) jenis kelamin, 3) pengalaman organisasi di dalam/luar rumah sakit, 4) pengalaman sebagai TMT rumah sakit, 5) jenjang pendidikan, dan 6) spesialisasi pendidikan. Skor kinerja rumah sakit diukur dengan BSC, menggunakan skala LIKERT; 1 = sangat tidak setuju; 2 = tidak setuju; 3 = setuju; 4 = lebih setuju; dan 5 = sangat setuju. Total skor kinerja dikelompokkan; i) skor 0-75 (baik), dan ii) skor 76-100 (sangat baik). Sebanyak 105 (44,38%) dari 242 kuesioner telah dianalisis. Rata-rata usia dan heterogenitas, heterogenitas perempuan dan gender, masa pengalaman menjabat sebagai TMT dan heterogenitas, tingkat dan spesialisasi pendidikan dan heterogenitas, tidak berperan dalam kinerja rumah sakit. Pengalaman singkat dalam organisasi di dalam atau di luar rumah sakit anggota TMT rumah sakit tidak berperan, tetapi heterogenitas memainkan peran positif (Pearson Chi-Square = 0,037, p<0,05 atau signifikan). Karakteristik demografi dan heterogenitas TMT rumah sakit di Jawa Tengah tidak berperan dalam kinerja rumah sakit yang diukur dengan BSC. Kinerja tersebut diduga dipengaruhi oleh kursus dan pelatihan manajemen rumah sakit, yang perlu dibuktikan lebih lanjut.

Kata kunci: kinerja BSC, karakteristik, demografi, heterogenitas, TMT rumah sakit

1. Introduction

The characteristics and demographic heterogeneity of Top Management Team(TMT) can be as human capital to improve performance (Wajdi & Isa, 2014; Mudasetia, 2020), formulating strategy (Finkelstein et al. 2008), and gaining legitimacy in making decisions (Kauer et al. 2007). It influenced the direction and decisions of organization, closely related to success strategy and performance (Goll & Johnson's, 2008; Díaz-Fernández et al., 2014).

High performance results may be achieved if management was carried out onhuman resources, and changing practice strategies, that requiring organizational structureand culture (Robbins & Judge, 2013). As hospital was a complex organizational structureand culture, that many human resources networks, professionals, departments and specialists, it required innovations and changes, especially in their managerial systems and culture (Robbins & Judge, 2013; Chatterjee et al., 2018). The hospital's TMT may make changes in strategy, have potential impact on improving and achieving best performance, so criteria was needed regarding demographic characteristics.

There were no empirical studies for that issues before, as well as how heterogeneityof expertise and professionalism may be able to produce best performance. Ideally, heterogenous hospital's TMT would eliminate gaps and obtain the ideal conditions to achieve best performance. The aim of this study was to prove the role of demographic characteristics and heterogeneity hospital's top management team (TMT) in performance. The aim of this study was to prove the role of demographic characteristics and heterogeneity hospital's top management team (TMT) in performance.

2. Method Research

A cross-sectional study to prove the characteristics and demographic heterogeneityof TMT roles on hospital performance as measured by BSC. Secondary data from full-filled questionnaire of all TMT members, by the HR staff. The hospital performance was assessed by a member of TMT. The research subjects were 242 hospitals in Central Java that asked to fill out questionnaire, and followed up within 14 working days, during March to May 2021. Completely filled data, verified and approved by the main director were analyzed.

2.1 Demographic characteristics and heterogeneity data

Data for all members of hospital's TMT were consisted of; identity, demographic characteristics, and BSC perfomance. The age data divided into two groups; 1) to 55 y and2) >55 y. The gender divided men and women. Data on organizational experience inside/outside

hospital divided; 1) 0 - 6 y, and 2) >6 y. The experience as hospital's TMT was divided; 1) to 6 y, and 2) >6 years. The education level data was divided; 1) diploma, 2) strata-1 (bachelor), 3) strata-2 (master, specialist), and 4) strata-3 (PhD, doctoral). The education specialization data was divided by eight; 1) MD, 2) MD + specialist, 3) MD + admin, business, finance, 4) non-MD, 5) non-MD + specialist, 6) non-MD + admin, business, finance, 7) MD/ non-MD + hospital-specific training, and 8) MD/non-MD + science & engineering.

2.2 Hospital's performance data

The hospital performance based on BSC, contained four perspectives; financial,patient, internal business process, learning and growth (Hegazy et al. 2020). Each variablewas measured with a LIKERT scale as follows; i) 1 = strongly disagree; ii) 2 = disagree; iii) 3 = agree; iv) 4 = agree more; and v = strongly agree. The total score of hospital performance is grouped into two, namely; i) Score 0-75 (good), and ii) Score 76-100 (very good).

Data analysis

One-Sample Kolmogorov Smirnov was performed to test normality of data distribution, and it was not normal so inferential analysis using non-parametric statistics was performed with Statistical Package for Social Sciences version 26 (Hinton PR, 2004).

3. Results And Discussion

Research subjects analysis A total of 105 (44.38%) from 242 questionnaire have been filled in and acceptedby researchers during March to May 2021. There were 98 (40.49%) questionnaire has been analysed. The data set for list of hospitals in Central Java was taken from the pages http://sirs.yankes.kemkes.go.id/fo/home/accreditation.

Holbrook A (2008) noted that response rates to questionnaires varied from 4% to 70%, with an average of 30% for questionnaires sent by post and/or email. The average response rate increased to 67% for direct contact questionnaires. The response rate in this study was 44.38%, which was still higher than average of previous study, so it can be concluded that subject's involvement was good, and the number of subjects met the quota. (Holbrook A et al., 2008)

The expert opinion stated that hospital's performance questionnaire was good and deserved to be circulated. The value of Sig. (2-tailed) for the correlation of Item_1 to Item_20 questions with total_score were significant at 1% significance, and the Pearson Correlation was positive. The Cronbach's Alpha that compared with r table at N=20 was 0.754 > 0.561 (r

table at 1% significance). All performance questionnaire items were declared valid and reliable, so they could be used as an accurate data collection.

Hospital's characteristics in Central Java : The private foundations (47.98%) and company (24.49%) were the largesthospital's owner (72.45%), and so indicating that community involvement, through therole of private sector, in building the health care system is very important. The hospital's characteristics data of Central Java compared to Indonesia showed synchronous results. This fact further proves that the hospital health service system in Indonesia was highly supported and dependent on the private sector.

In Indonesia, there are around 60 type A hospitals (2.1%), of which 9 are inCentral Java. Three type A hospitals were involved in this study, or about 3.06% ofthetotal subject hospitals (98 hospitals). The composition of the type of hospital showsa proportion that is balanced and parallel to the composition of the type of hospital in the city of Semarang. In the city of Semarang in 2019, there were 32 hospitals, with a composition of 2 type A (6.25%), 6 type B (18.75%), 19 type C (59.38%) and 5 type D (15.63%). In conclusion, the characteristics of subject was resemble conditions in Indonesia. Data for 2017, there were 2,831 hospitals, of which 64% of hospitals were operated by private sector, 27% by local governments and 9% by central government.

The characteristics and demographics of hospital's TMT : Table 1 showed, a total of 256 (69.9%) members of TMT were less than 55 year old, and be referenced for TMT's peak age limit for best performers (Khan & Vieito, 2013; Ernestine & Setyaningrum, 2018). The TMT's gender was dominated by male (63.7%), thus confirming lack of female representation in highest levels of health leadership (Lantz, 2008; Sexton et al., 2014). The period of experience in TMT organization was dominated by > 6 year (72.4%), while experience as a TMT in same hospital was highest ingroup of 1-5 y (33.3%). The terminal education level of TMT was strata-1 (48.9%) mostly, with non-MD (28.1%) was most specialization. There were 86 MD as TMT (23.5%), where all main directors were medical professionals. The data showed that 10 hospitals were led by only one director. As many as 50% hospitals were led by 1 to 3 directors and 50% by 4to 6 directors as TMT. Most of hospitals (77.3%) were managed by TMT with a homogeneous age (< 55 y), but the heterogeneous gender composition (64.8%) was greater.

Most of organizational experience of TMT members (76.1%) are in homogeneous group, which more than 6 year. The experience period as TMT's member was the most (58.0%) in heterogeneous group. There were new members and some have long served on

board of directors. The terminal education levels were more heterogeneous (64.8%), from diploma to doctoral levels. Most of specializations were homogeneous, dominated by non-MD (28.1%), MD (23.5%) and specialists (16.9%) subsequently.

Table 1. Demographic Characteristics and Heterogeneity of Hospital's TMT

Variable	Frequency N (%)	Heterogeneity	
		Homogeneous (%)	Heterogeneous (%)
Age		77.3%	22.7%
Up to 55 y	256 (69.9%)		
> 55y	110 (30.1%)		
Gender		35.2%	64.8%
Male	233 (63.7%)		
Female	133 (36.3%)		
Organizational Experience		76.1%	23.9%
Up to 6 y	101 (27.6%)		
> 6 y	265 (72.4%)		
Experience as a Hospital's TMT		42.0%	58.0%
< 1 y	37 (10.1%)		
1-5 y	122 (33.3%)		
5 - 10 y	94 (257%)		
> 10 y	113 (30.9%)		
Education Level		35.2%	64.8%
Diploma	28 (7.7%)		
Strata-1 (Bachelor)	178 (48.9%)		
Strata-2 (Master, Specialist)	144 (39.6%)		
Strata-3 (PhD, Doctoral)	14 (3.8%)		
Education Specialization		95.5%	4.5%
MD	86 (23.5%)		
MD + Specialist	62 (16.9%)		
MD + Admin, Business, Finance	53 (14.5%)		

Non-MD	103 (28.1%)
Non-MD + specialist	0 (0%)
Non-MD + Admin, Business, Finance	38 (10.4%)
MD/Non-MD + Hospital-specific Training	12 (3.3%)
MD/Non-MD + Sains & Engineering	12 (3.3%)

The characteristics and heterogeneity of hospital's TMT in Central Java weredominated by men, aged > 55 y, who have organizational experience > 6 y, the educationlevels were S1 and S-2 non-MD and MD.

3.1 Hospital's performance based on BSC

Financial perspective :During 2020, the overall average hospital's financial performance was not betterthan previous year (2.45 ± 1.176). The hospital also did not experience an increase inoperating income. Average score for questions; "Hospital has increased operating income"was 2.39 ± 1.410. Hospital could not increase profits (2.46 ± 1.247) and could not repaydebt (2.79 ± 1.115). The financial performance of hospital only showed sufficient abilityin cost savings with an average value of 3.04 (SD = 1.192). So, the 2020 financial performance was lower than 2019, thus requiring a change in strategy and long-term performance arrangements.

Patient perspective: Patient's perspective was based on cumulative experience of all interactions shapedby hospital's culture during course of care (Wolf Ja, 2014), and were indicators ofhealth system (Kumah E, et al. 2017) that differentiate hospital's performance (Galstianet al. 2018; Manary, et al. 2013). The mean of overall result was 3.23 ± 1.028, or good. Hospitals were able to increase customer retention (3.43 ± 0.992), highest score in performance assessment, and also quite good in an effort to increase customer satisfaction(3.04 ± 0.888). Patients were quite accepting of hospital's conditions in serving (3.31 ± 0.758), unfortunately, not showed as ability to reduce patient's complaints. The patient satisfaction and retention were not related to hospital perfomance's complaints. For conclusion, hospital's performance from perspective of patients remains good or same as 2019, and may be used as leverage for strategies and long-term performance arrangements.

Table 2. Hospital's performance based on BSC*

Perspectives	Mean	Std. Deviation

Financial		
a) Increase in operating income	2.39	1.410
b) Get cost savings	3.04	1.192
c) Increases hospitals profits	2.46	1.247
d) Debt decreases	2.79	1.115
e) Overall average for finance	2.45	1.176
Patient		
a) Increase patient satisfaction	3.04	0.888
b) Reduce patient complaints	2.89	1.000
c) Get patient acceptance	3.31	0.758
d) Increase patient retention	3.43	0.992
e) Overall average for patients	3.23	1.028
Internal Business Process		
a) Improvement of product quality	3.41	1.011
b) Services & programs improve the efficiency of internal processes	3.27	1.061
c) Improvement of management efficiency	3.11	1.034
d) Improvement of patient safety & health through risk management	3.18	0.961
e) Overall average for internal business processes	3.03	0.902
Learning and Growth		
a) Improve employee training and learning	2.67	1.063
b) Increases employee satisfaction and attitudes towards work	2.92	1.083
c) Encouraging the development of creativity and innovation	3.59	0.990
d) Allow feedback and continuous learning process	2.94	1.084
e) Overall average for learning and growth	2.86	1.101
Overall Average for Hospital's Performance	3.00	1.055

*SCALE 1=Strongly Disagree; 2=Disagree; 3=Agree; 4=Agree More; V=Strongly Agree.

Internal business perspective :The mean was 3.03 ± 0.902, or quite well. The highest on improving service quality (3.41 ± 1.011), followed by hospital improvements in internal business process efficiency (3.27 ± 1.061). Hospitals may improve management efficiency (3.11 ± 1.034) and patient safety (3.18 ± 0.961). Hospital's performance of internal business processes in 2020 showed an increase in efficiency, compared to 2019. Therefore, performance strategy should be more directed to improve services, which in turn will increase management efficiency. The internal business processes put more emphasis on internal hospital processes to increase patient satisfaction and loyalty.

Learning and growth perspective: The overall mean of learning and growth revealed (2.86 ± 1.101) or was not good enough. However, hospitals experienced a strong push in development of creativity and innovation (3.59 ± 0.990), and so were advised to make adjustments to these conditions, by further improving organizational learning performance and growth. The value of "Improve employee training and learning" was the lowest (2.67 ± 1.063), but "Improve employee satisfaction and attitude towards work" was 2.92 ± 1.083. Hospitals were less able to increase employee satisfaction through support that provided by

management, such as training and skills development, then followed by a low mean value of the "Allow continuous feedback and learning process" (2.94 ± 1.084). These implies that learning and growth performance was not better than before. Hospital's performance of 2020 showed not better than 2019, and have to change strategies and performance arrangements that focus more on customer satisfaction and loyalty.

3.2 The demographic characteristics and heterogeneity of TMT in hospital's performance

Age : Table 3 showed the average age of TMT members did not play a negative role in hospital performance (Pearson Chi-Square test, p=0.980). The older you get, the more positive your performance will be. The next test to assess role of age heterogeneity got p=0.345, means that also was not play a positive role. It may be said that age variations have no effect on performance. The role of age on company performance was still controversial. Some experts argued that older leader has better performance (Kusumastuti, et al. 2007), as well as this study. The age limit of 55 y was 'cut off' for TMT's age grouping (Khan & Vieito, 2013).

The proportion of age <55 y compared to >55 yin achieving very good performance, almost comparable (8% : 5%), of total subjects (61%: 39%). This illustrates that older TMT also performs very well, compare to the younger. Ernestine & Setyaningrum (2018) argue that older CEO had more skilled in doing business, so would perform better (Chenget al., 2010; Ernestine & Setyaningrum, 2018). Age had no effect on hospital performance as measured by BSC, as well asthe heterogeneity.

Gender : The presence of female hospital TMT members did not play positive role in hospital performance (Pearson Chi-Square test, p = 0.137). The gender heterogeneity also did not play positive role (p = 0.615). Several studies provide different conclusions about the gender-role of leaders on company performance. Female and male have same opportunity to perform well (Ernestine & Setyaningrum, 2018). Female's TMT and the presence of female in TMT have no effect on performance. As consequences, the recruitment process for TMT members did not need to provide gender requirements. Hospitals were not advised to give priority to TMT positions onthe basis of gender, although empirically, female leaders performed better on communication and social skills (Liu et al., 2014; Gulamhussen & Santa, 2015; Post & Byron, 2015).

Organizational experience inside/outside hospital : The TMT members certainly have experience in organization before serving as TMT. The average short tenure in organization

inside or outside hospital was not play positive role in hospital performance (Pearson Chi-Square test, p = 0.150). However, its heterogeneity obtained p value = 0.037,or has positive role, but the more heterogeneous of experience period, their role were decreasing. The period of organizational experience used as 'cut-off' was 6 y, because leader will have sufficient knowledge and experience to organize team (Ernestine & Setyaningrum, 2018). The failure rate of hospital performance would decreased when managed by a CEO with less than 6 year of tenures (Alexander & Lee, 1996).

Table 3. Role of Demographic Characteristics and Heterogeneity of TMT on Hospital Performance

Variable	Hospital's Perfomance Category (BSC Score)		Asymp. Sig. (2-tailed)
	GOOD (%)	VERY GOOD (%)	
Age			
Up to 55 yr	53	8	0.980
> 55yr	34	5	
Age Heterogeneity			
Homogeneous	68	9	0.345
Heterogeneous	18	5	
Gender			
Male	69	8	0.137
Female	17	5	
Homogeneous	30	6	0.615
Heterogeneous	57	8	
Organizational Experience Inside/Outside Hospital			
Up to 6 yr	22	1	0.150
> 6yr	64	12	
Organizational Experience Heterogeneity			
Homogeneous	63	14	0.037*
Heterogeneous	24	0	
< 1 yr	11	1	0.769
1-5 yr	31	4	
5 - 10 yr	11	3	
> 10 yr	34	5	

Homogeneous	35	7	0.548
Heterogeneous	51	7	
Diploma	27	1	0.227
Strata-1 (Bachelor)	55	11	
Strata-2 (Master, Specialist)	5	1	
Homogeneous	32	3	0.425
Heterogeneous	55	10	
Education's specialization			
MD	21	1	0.331
MD + Specialist	26	5	
MD + Admin, Business, Finance	29	5	
Non-MD + Admin, Business, Finance	1	1	
MD/Non-MD + Hospital-specific Training	7	0	
MD/Non-MD + Sains & Engineering	3	1	
Education Specialization Heterogeneity			
Homogeneous	83%	3	0.498
Heterogeneous	3	1	

*Pearson Chi-Square, p < 0,05 (significant)

Hospital's Perfomance Category (BSC Score)

Score   0-75   = GOOD

Score   76-100 = VERY GOOD

The period of experience in organization was not direct predictor of performance achievement. However, TMT members who have high knowledge and work experience will accelerate team to work faster. Besides, TMT members with shorter tenures would actually bring progressive changes to company's strategy. This study prove the heterogeneity significant role of organizational experience in hospital performance, thus confirmingand supporting this theory.

3.3 Experience as a hospital's TMT

Controversy about the role of average tenure serving as TMT on performance still occurs. The average length of work experience as a TMT was not have a negative role in hospital performance (Pearson Chi-Square test, $p = 0.769$). Henderson et al. (2006) stated that CEO tenure was negatively related to organizational performance. A shorter tenure as a TMT would be able to achieve good performance, because they may collaborate more effectively and have more innovative strategies. Newly appointed members of hospital's TMT should also be more willing to take risks and be more prepared for change, than who have been in office for a long time (Finkelstein et al. 2008).

Hospital performance was not influenced by the heterogeneity experience as TMT (Pearson Chi-Square test, p = 0.548). The variation in length of tenure was not play a role in hospital performance either, although Michel & Hambrick (1992) states that long-serving CEOs produce more social cohesion. Therefore, TMT with a homogeneous length of tenure (e.g, all of them >5 y), will create management who are reluctant to challenge the status quo.

3.4 The education level

Prasetyo et al. (2021) proved that higher academic levels have an effect onleadership, administrative competence, and better patient experience. (Prasetyo et al., 2021) The hospital's TMT mostly has a higher education level that focuses on health sector. However, in globalization era, TMT must have management skills, administrative competencies and leadership styles to meet market demands, patient satisfaction, and be able to respond to health sector policies and complexities in the healthcare environment. Top management was expected to demonstrate measurable, effective and efficient results, also to practice evidence-based management (Ghanem M, 2014; Berghout, et al. 2017; Sfantou, et al. 2017; Chatterjee et al., 2018; Ochonma et al., 2018; Vainieri M et al., 2019).

The general competency domains for hospital leaders can be achieved through educational and professional programs, so as to maximize hospital performance outcomes (Ochonma et al., 2018; Sarto & Veronesi, 2016). Hospital's TMT with advanced education level was positively related to better ability, management skills and performance. The ability to facilitate organizational adaptation, motivate followers, and their effect on patient experience and satisfaction is also related to the technical, human resources, business and conceptual skills of a TMT (Galstian et al., 2018). Formal education may equiped leaders with better leadership theory and practice, as well as management skills to identify the drivers and barriers to change. Formal education was also used to implement the most effective approach in improving patient satisfaction and experience, as well as improving hospital performance (Galstian et al., 2018).

Research has proven that leaders with an academic degree at postgraduate level (strata-2) and above are more likely to exhibit transformational leadership behavior, according to modeling the role of behavior in achieving the desired goals (Galstianet al., 2018; Pastor & Mayo, 2008). Besley et al. (2011) states that leaders with higher education degrees are associated with better organizational performance, because they   equip leaders with technical skills, understanding of human resources, understanding of business and conceptual. Postgraduate education familiarizes TMT with the theory and practice of

successful leadership. Top management teams with higher levels of education are more able to make effective evidence-based decisions, there by reducing errors (Rappleye, 2015).

Unfortunately, this study failed to prove the role of higher education on hospital performance. The terminal academic degree of TMT did not have a positive role in hospital performance (Pearson Chi-Square test, $p = 0.227$), as well as its heterogeneity ($p = 0.425$). This study were in line with Ernestine & Setyaningrum (2018) which states that CEO continuing education was not related to company performance, and CEOs can achieve higher performance with or without further education. This study raise the assumption that further education for TMT that played role in hospital performance was in the form of courses and training. Those were more important and support the improvement of hospital performance compared to formal education. Further education has to bedistinguished according to the managerial needs of each hospital (Kartikaningrum SD, 2016; Trofimova A, 2017). As a conclusion, TMT education and its heterogeneity were not play a role in hospital performance. Informal education was more necessary in improving hospital performance.

3.5 The education specialization

Educational specialization is a particular academic area, which can bring changes tothe hospital in the direction of progress, findings and improvement. Hospitals need human resources with various specializations to support their performance, including doctors, specialists, nurses, technicians, general administration, finance, law, etc.In the hospitals of United States, there was an increase in number of leaders with higher education level, that specifically focuses on field of health care, not business management. The hospital's TMT must have training experience and specific skills to manage effectively and successfully as leaders (Matthews et al. 2013; Collins et al., 2009). The relationship between possession of master's degree and top management positions, where more than50% of health service leaders held master's degree (mostly Master of Health Administration), has a significant relationship (Garman et al., 2010).

This study proved that educational specialization and its heterogeneity had not playa role in hospital performance. The administrative and business disciplines, science and engineering – backgrounds, did not have positive role in hospital performance (Pearson Chi-Square test, $p = 0.331$), as well as its heterogeneity ($p = 0.498$).

The less than half of hospital's population were analyzed made the conclusionsbe inadequate. The data was needed to be verified directly with primary source, so mayhad

better accuracy. The role of leadership style as a key factor in achieving hospital performance was also needed to be analyzed.

4. Conclusion

The demographic characteristics and heterogeneity of hospital's TMT in CentralJava did not play a role in hospital's perfomance as measured by BSC. It was necessary to change strategies and performance arrangements that were more focused on customer satisfaction and loyalty.

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