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How transformational leadership and organizational citizenship behavior influence organizational resilience during COVID-19 pandemic: A cross sectional study at hospital in East Kalimantan, Indonesia

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Abstract--The purpose of this study is to analyze the influence of Transformational Leadership and Organizational Citizenship Behavior on Organizational Resilience during the COVID-19 pandemic at Hospital in East Kalimantan, Indonesia. A cross-sectional study was conducted in December 2021 at a type B referral hospital for COVID-19 in East Kalimantan. Questionnaires was used to obtain data, and the data was analyzed using SmartPLS software. The population of the study was the manager of the type B referral hospital for COVID-19 in East Kalimantan. A total of the respondents were 218 managers. The sampling technique in this research was total sampling with a response rate of 97%. The results of this study show: Transformational Leadership has a significant positive effect on the

Organizational Resilience ($p = 0,036$), and Organizational Citizenship Behavior has no significant effect on the Organizational Resilience ($p = 0,295$). Leadership competence should be one of the hospital director's main capacities to enhance hospital resilience during a crisis.

Keywords---transformational leadership, organizational citizenship behavior, organizational, resilience.

Introduction

Each organization must go through a crisis. The sustainability of an organization depends on the ability to resist and adapt, known as resilience. Resilience is the system's ability to decrease and absorb the shock and recover quickly (1,2). According to Cooper *et al.* (2013), resilience is a condition to bounce back from a setback after facing a severe shock and then grow more potent than before (3). COVID-19 pandemic is a crisis. The spread of the disease is so wide that the World Health Organization (WHO) announced the pandemic on March 11th, 2020. This crisis started when WHO *China Country Office* reported the first unknown pneumonia case in Wuhan City, Hubei Province, China, on December 31st, 2019. Then, on January 7th, 2020, unspecified pneumonia was successfully identified as the new coronavirus (novel coronavirus). On February 12th, 2020, WHO officially stated that the disease was caused by a novel human coronavirus called Coronavirus Disease-19 (COVID-19). On March 2nd, 2020, President Joko Widodo then announced two confirmed positive COVID-19 cases in Indonesia (4). Since that time, the spreading of COVID-19 has continued widely on the whole globe, including East Kalimantan, Indonesia.

Based on the disaster classification from Guha-Safir *et al.* (2012), cited by Zhong (2014:2), the COVID-19 pandemic is a *biological disaster*. As a disaster, this pandemic is a severe stressor for an organization because, as never imagined before, it persists and is complex (1). The COVID-19 pandemic impact is huge, and experts noticed that the world needs more than one decade to recover economically and socially. COVID-19 pandemic significantly interferes with the achievement of Sustainable Development Goals 2030 (4–6). Globally, hospitals are organizations that are most affected by the COVID-19 pandemic crisis because they have to face various problems. One of the problems is many employees have to work overload due to a sudden spike in cases that exceeds the capacity of hospitals in general and the capacity of existing human resources. Another problem is in financial management that occurs due to an increase in the burden of hospital operating costs as a result of changes in standards and service flow in the context of prevention, control of transmission, and handling of COVID-19 cases. The provision of additional isolation treatment rooms, medical devices, personal protective equipment, and various other needs to support the handling of COVID-19 resulted in costs that were never prepared before (7).

The same condition was experienced by all hospitals in Indonesia, including East Kalimantan. Due to the sudden spike in COVID-19 cases, all hospitals were facing serious problems in terms of supply of logistics, medicines and medical equipment, and isolation rooms. This resulted in an unforeseen consequent

increase in costs for the hospital. Health workers also have to face the risk of increasing workload, which causes fatigue, transmission risk, violence, work pressure, stigma, psychological & emotional disturbances, and even death (8,9). On the other hand, hospitals must still be providers of the "lifeline" to minimize the impact of disasters on the community so that community resilience is also realized. As an important part of the healthcare system, the role of hospitals in disasters has been widely recognized, and it greatly affects the health outcomes of the affected population (10–14). Hospitals are expected to continue to operate, even beyond their capabilities, to maintain uninterrupted service. The maintenance of this hospital's operational capacity has symbolic value for a community because the hospital is seen as a haven whenever there is a disaster (15).

The previous description showed that the COVID-19 pandemic was a severe shock/crisis for hospitals. In order to continue to carry out its function as a provider of "lifelines" for the community, hospitals must have a good level of resilience. A literature search shows that leadership is an important factor that influences organizational resilience. Eliot (2020:1) states that every crisis requires leadership that can build resilience in the face of the crisis (16). The COVID-19 pandemic, which is full of uncertainty, involves the importance of strong leadership. The COVID-19 pandemic has been a test of resilience and resilience for leaders. Certain leadership traits and approaches may make the difference between an organization's life and death in the face of a pandemic. Leaders must be able to adapt their approach to survive a disaster they have never seen before (17,18).

Fener et al. (2015:697) state that to deal with crises well, leadership in crisis management is needed, and leadership is able to analyze scenarios and carry out good team coordination. His findings suggest that leaders in crisis management should provide opportunities for subordinates to express their opinions and concerns without boundaries to reduce the uncertainty and doubt felt by subordinates (19). This is also in line with Brownlee (2020), who requires active listening to one of the important qualities a leader must possess during the COVID-19 pandemic (17). Each leader's personality, experience, and work environment all have an impact on their leadership style. The term "leadership style" generally refers to the various habits that a leader develops over time through personal experience and sustained leadership practices, both consciously and unconsciously (20). Leadership that embodies the ideal sway, inspiration for motivation and inspiration for thought, intellectual stimulation, and individual consideration is known as transformational leadership (21). Such leadership is thought to have a significant direct and indirect impact on an organization's capacity for resilience (21,22). The impact of transformational leadership on organizational resilience has been thoroughly researched by earlier experts. Resilience benefits from transformational leadership, according to Abd Majid et al. (2021). When Cop et al. (2021) examined the impact of these two variables on 351 employees of 4- and 5-star hotels in Turkey, they came to the same conclusion. Other researchers like Valero et al. (2015), Dimas et al. (2018), and Sommer et al. also discovered a strong connection between transformational leadership and organizational resilience (23–27).

Another factor that can affect organizational resilience is employees who have a civic attitude towards their organization, known as Organizational Citizenship Behavior. Corporate Citizenship In order to increase the effectiveness of the organization, behavior is defined by Organ (1988) as individual discretionary behavior that is not directly or explicitly recognized by the formal reward system. Discretionary behavior is behavior that does not directly or explicitly conform to the requirements of the role or job description in question. Such behavior is a personal choice that is required of the employee as part of the employment agreement with the company, so negligence is typically not seen as a criminal offense (28). Meanwhile, according to Stephen & Judge (2013), OCB is a preferred behavior that is not required of employees formally but aids in the smooth operation of the company (29). Despite the fact that Organizational Citizenship Behavior was a mediating variable in this study, Mangundjaya's research (2020) discovered a direct relationship between these two variables. The results of Mgbechi et al. (2015), who found that organizational citizenship behavior has a significant impact on corporate resilience in Nigerian airlines, are consistent with this (30,31).

East Kalimantan province has sixteen COVID-19 referral hospitals. Based on observations made by researchers at the hospital, where researchers compared the level of patient visits and hospital income before the pandemic with the trend of visits and hospital income during the nine months of being in a pandemic condition, it was found that each hospital had a different trend of visits and income. If referring to the category from the Department for International Development: Defining Disaster Resilience, it is stated that the level of resilience to crises can be in the form of bounce back better, bounce back, recover but worse than before and did not recover at all / collapse (32). From observations, it had made 5 (five) hospitals manage to bounce back better or recover from being better than before, which was marked by the recovery of patient visits and income gradually exceeding conditions before the COVID-19 pandemic, namely before March 2020. 5 (five)) the hospital was only able to bounce back or recover the same as before where the level of patient visits and income managed to recover but did not manage to exceed pre-pandemic conditions and 5 (five) hospitals recovered but worse than before, meaning that the hospital managed to increase the level of visits and revenues significantly. slowly but not yet managed to match the conditions before March 2020. This phenomenon shows that the COVID-19 referral hospital in East Kalimantan has different levels of resilience. This then makes researchers want to find out more about the factors that affect resilience at the organizational level / organizational resilience of the COVID-19 referral hospital in East Kalimantan.

Based on empirical evidence, it can be concluded that the resilience of an organization / Organizational Resilience is influenced by Transformational Leadership and Organizational Citizenship Behavior. However, some researchers found that there are dimensions of Transformational Leadership that are not significantly related to Organizational Resilience. Djourova et al. (2020) who conducted a study of 225 social service employees in Spain found that the dimensions of Idealized Influence and Inspirational Motivation had no significant effect on self-efficacy and Resilience, and Besuner et al. (2017) found that the Idealized Attributes dimension was not significantly related to Organizational

Resilience. (33,34). Regarding Organizational Citizenship Behavior, Paul et al. (2016) found the opposite: Resilience, which affects Organizational Citizenship Behavior through research examining the mediation model that connects resilience and Organizational Citizenship Behavior through well-being and Organizational Commitment (35). This shows that there is still a research gap related to the variables to be studied, so this study aims to prove and analyze the effect of Transformational Leadership and Organizational Citizenship Behavior on Organizational Resilience in Hospitals in East Kalimantan.

Method

This type of research is a quantitative method that uses a cross-sectional design. This research's respondents are managers at type B COVID-19 referral hospital in East Kalimantan. The population of the research was 224 people. The sampling technique in this research is total sampling. Data was collected through a questionnaire using Google Forms. Respondents filled the questionnaire consisting of 41 items using the Likert scale. The instrument has been validated by calculating the correlation coefficient between the item scores and the total score using the Pearson Product Moment correlation method. The instrument is valid if the r-value > 0.30 and the significance value of r correlation $< 95\%$ or $\alpha = 0.05$. The results of the validity test indicate that all items in the questionnaire have met the requirements. Therefore, it can be concluded that all items are valid. And the reliability test shows that the questions in the research instrument are reliable because the Cronbach's Alpha value for each item is greater than the r table.

The variables used in this study are Transformational Leadership and Organizational Citizenship Behavior as exogenous variables and Organizational Resilience as endogenous variables. Descriptive analysis was used to describe the demographic data of respondents. The influence of exogenous variable to endogenous variable was examined with regression analysis. The level of significance of each variable if the P-Value value > 0.05 . Data was analyzed using SmartPLS software. Figure 1. is a conceptual framework that describes the relationship between the variables of Transformational Leadership, Organizational Citizenship Behavior and Organizational Resilience.

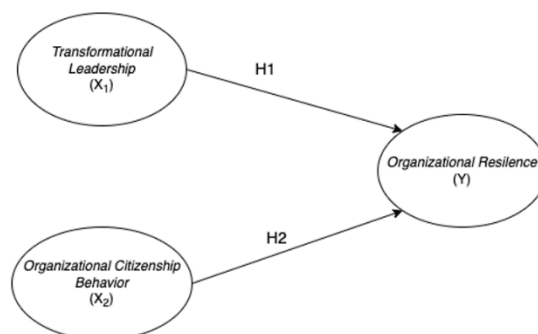


Figure 1. Research framework

Transformational Leadership is measured using the following indicators: 1) Idealized Influence related to the extent to which hospital directors in East Kalimantan are role models for their employees in terms of presenting and implementing the ideal values of the organization; 2) Inspirational Motivation related to the extent to which hospital directors in East Kalimantan can motivate their employees to align their vision and mission with the organization's vision and mission and then achieve them together; 3) Intellectual Stimulation related to the extent to which the director of a Hospital in East Kalimantan is intellectually able to stimulate his employees to be creative in facing job challenges and 4) Individualized Consideration related to the extent to which the director of a Hospital in East Kalimantan can see that each employee is an individual who has contributed to the organization.

Organizational Citizenship Behavior is measured using the following indicators: 1) Altruism related to the attitude of hospital employees who always give help to fellow employees even though it is not their obligation; 2) Courtesy related to the attitude of hospital employees who always maintain the image of the organization; 3) Civic Virtue related to the attitude of hospital employees who always care about progress in the organization; 4) Conscientiousness related to the attitude of hospital employees who always try to give something that exceeds the expectations of the organization and 5) Sportsmanship related to the attitude of hospital employees who always try to tolerate less than ideal conditions in the organization without raising objections. Organizational Resilience is measured using the following indicators: 1) Robustness related to the hospital's ability to face and survive in the face of the COVID-19 pandemic crisis; 2) Agility related to the hospital's ability to take quick action when facing various problems in the COVID-19 pandemic crisis and 3) Integrity related to the hospital's ability to invite all employees together to face the COVID-19 pandemic crisis.

Result

Based on the total respondents, 218 filled the questionnaire with a response rate of 97%. The demographic analysis results are shown in Table 1. The respondents were dominated by women, amounting to 51.8%, and men by 48.2%. The average age of most respondents is 46 - 55 years at 48.6%. The most recent education of the respondents was Master (S2) at 38.1%, followed by Bachelor (S1) at 33.9%, and finally Diploma (D3) at 6.4%. Officials/managers who work as specialist doctors are 22.1%, followed by nurses/midwives by 16.5%, general practitioners by 14.2%, pharmacists by 4.1%, radiographers by 0.4%, and non-professionals by 42.7%. Based on years of service, most of the respondents have a working period of 11 - 20 years, which is 39.9%, followed by 27.5% with a service period of 21 - 30 years, then a working period of 1 - 10 years by 22.9% and 9.7 % with 31 - 40 years of service.

Table 1
Demographics data

No	Category	Proportion	
		Total	Percentage (%)
1	Gender		
	Male	105	48,2
	Female	113	51,8
2	Age		
	< 25 years old	0	0
	26 - 35 years old	21	9,6
	36 - 45 years old	73	33,5
	46 - 55 years old	106	48,6
	56 - 65 years old	18	8,3
3	Position		
	Manager	218	100
4	Education		
	Diploma (D3)	14	6,4
	Sarjana/ Bachelor (S1)	74	33,9
	Master (S2)	83	38,1
	Profession	47	21,6
5	Profession		
	Spesialist	48	22,1
	General Practitioner/ Dentist	31	14,2
	Nurse/Midwife	36	16,5
	Radiographer	1	0,4
	Pharmacist	9	4,1
	Non-Health Profession	93	42,7
6	Years of Service		
	1 - 10 years	50	22,9
	11 - 20 years	87	39,9
	21 - 30 years	60	27,5
	31 - 40 years	21	9,7

Based on figure 2, the effect of Transformational Leadership on Organizational Resilience is significant, with a t-statistic value of 2.098 and a p-value of 0.036. The t-statistic value is greater than the t-table ($2.098 > 1.96$), and the p-value is smaller than 0.05 ($0.036 < 0.05$). This means that Transformational Leadership has a positive and significant effect on Organizational Resilience in Hospitals in East Kalimantan. Meanwhile, Organizational Citizenship Behavior's influence on Organizational Resilience shows a t-statistic value of 1.048 and a p-value of 0.295. The t-statistic value is smaller than t-table ($1.048 < 1.96$) and the p-value is greater than 0.05 ($0.295 > 0.05$). This means that Organizational Citizenship Behavior has no significant effect on Organizational Resilience in Hospitals in East Kalimantan.

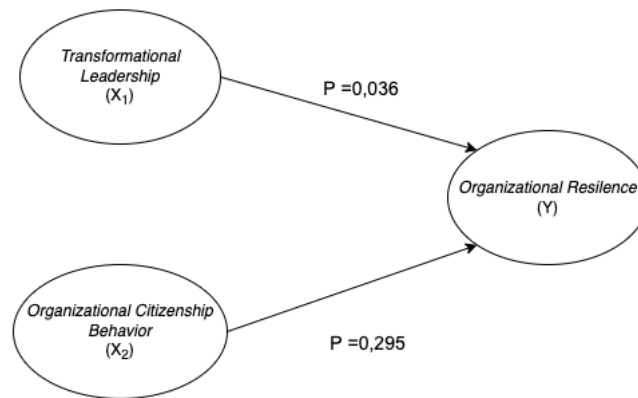


Figure 2.

Discussion

The analysis results indicate that the organization has a significant positive effect on organizational resilience. That means the higher the transformational attitude of a hospital director, the higher the organizational resilience. The results of this study align with the opinion of several previous researchers that leadership is an important factor that influences organizational resilience. The leadership has an important role in facing the crisis (16). An organization's resilience level is strongly influenced by a series of adaptive capacities (36). Engle et al (2010: 7); Folke et al (2005:456) and Gupta et al (2010:464) state that leadership plays an important role in the emergence of adaptive capacity (37–39). As it is known, adaptive capacity refers to the ability of an organization to adjust, modify and even change the characteristics of its organization to reduce the potential for damage to a minimum when a crisis occurs. Dartey et al. (2015) state that transformational leadership is one of the popular styles used when organizations face crises (40). Transformational leadership characterized the ideal influence, motivational inspiration, intellectual stimulation and individual consideration. This leadership style helps organizations to grow and achieve higher performance (21).

The study's results confirmed previous studies that explored the influence of the two variables. Donovan's research (2014) which examines the relationship of Transformational Leadership to Resilience in African-American female leaders shows that Transformational Leadership has a positive effect on Resilience. Valero et al. (2015) conducted a study of 112 respondents from firefighters, police stations, and non-profit organizations in the Southeast Economic Zone of South Korea. They found that Transformational Leadership has a positive effect on Organizational Resilience (25). Then, Cop et al. (2021) examined the effect of green transformational leadership on green team resilience through the mediation of green work engagement. The results show that Green Transformational Leadership positively affects Green Work Engagement and Green Team Resilience, where Green Work Engagement fully mediates the relationship between the two variables. Sommer et al. (2016) found that Affect mediates the relationship between Transformational Leadership on Resilience. It was also found by Abd Majid et al. (2021) that Transformational Leadership and Person Organization

affect Resilience. Besides, its impact and self-awareness work more on lecturers in South Sulawesi. Dimas et al. (2018), examining the relationship between Transformational Leadership and Team Resilience on 445 employees from 40 companies in Portugal found a positive relationship between the two variables.

Organizational Citizenship Behavior does not have a significant effect on Organizational Resilience. That means the higher Organizational Citizenship Behavior possessed by hospital employees, the lower the results of organizational resilience. These results contradict the research of Mgbechi et al. (2015) and Mangundjaya (2020). Mgbechi et al. (2015) found that Organizational Citizenship Behavior has a significant effect on Corporate Resilience on Nigerian airlines. Meanwhile, Mangunjaya (2020) found a direct influence between Organizational Citizenship Behavior and Organizational Resilience even though in his research Organizational Citizenship Behavior was a mediating variable. However, Paul et al. (2019) found the opposite result: Resilience affects Organizational Citizenship Behavior. In this study, resilience is a mediating variable.

In general, human resource is one of the important dimensions that shapes adaptive capacity. This may increase after a crisis as employees with extra roles or with Organizational Citizenship Behavior contribute adaptive, strong, flexible and responsive behaviors to the organization and collective resilience at the organizational level. However, the nature of the work process in a hospital environment is dominated by complex technicalities with rigid Standard Operating Procedures and strict working time arrangements. Maintaining an excellence service to ensure patient safety while on duty is important. Thus, Organizational Citizenship Behavior which characterizes employees who work more than working hours and their obligations may not apply in hospitals because it will cause the load to become overloaded, interfere with rest periods, and affect the quality of work life.

Conclusion

This study shows that transformational leadership influences organizational resilience. However, *Organizational Citizenship Behavior* has no significant influence on organizational resilience. Therefore, it is important to consider transformational leadership style as a main competency for directors' qualification because hospital is one of the critical infrastructures that has to be maintained, especially during a crisis. Moreover, leadership can ensure the hospital's capacity to provide services and become catalyzed of community resilience during a crisis.

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