# Leadership, psychological climate, and group decision-making performance

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Psychologic	al Climate;	The psychological cl	imate that occurs in	a group becomes an im	portant external		
Leadership;	Group	factor that influence	s the success of the	e group's performance.	The dimensions		
Performance	e; Decision-	of the group's psychological climate include: (1) the leader's caring; (2)					
making		cohesivity; (3) auton	omy; and (4) pressu	ure. This study purposes	s to examine the		
-		influence of the group's psychological climate, especially the leader's caring					
		dimension, which can be interpreted as a form of leadership on group					
		the influence of psychological climate on the group decision making					
		performance. The ex	perimental design u	used was a post-treatme	ent measurement		
		design with a $(2 \times 2)$	x 2 factorial design	n which consisted of th	ree independent		
		variables with t	wo levels: 1	eadership: (caring	vs uncaring),;		
		autonomy:(autonome	ous vs non-autono	omous),; and pressure:	(without time		
		pressure vs with time	e pressure) using rar	ndom assignment in gro	up division. The		
		results revealed that	the interaction effec	t of group psychologica	al climate had an		
		effect of 10.3% (F	= 3.126; p <0.05; 1	$\eta^2 = 0.103$ ) on group (	decision-making		
		performance. The in	fluence of the leade	er's climate, which coul	d also mean the $\frac{15}{771}$		
		process of leadership $0.01$ : $n^2 = 0.367$ ) of	p in the group gave	e an effect of 50.7% (f	f = 15.771; p < 1000		
		the group performa-	nce was determine	d more by internal fac	tors within the		
		group, which were	the psychological	climates of the groun	b. than external		
		factors	1, , , , , , , , , , , , , , , , , , ,	8 1	,		

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### **INTRODUCTION**

Life is surrounded by uncertainties. For this reason, humans carry out the decision-making process in their lives and group life to determine what actions need to be taken. In achieving their goals, social groups often have to make group decisions together. In the group decision-making process, problems often arise within the group such as conflicts, very strong dissent, and dis-unity between group members which can affect group performances. The psychological climate that occurs in the group is also an essential factor that influences the success of group performances (Bamel et al., 2013; Koys & Decotiis, 1991).

This article aims to comprehend this phenomenon from indigenous psychology. Indigenous psychology has the perspective to understand people in their context. Indigenous worldviews contain a set of morals, values, and bits of knowledge, which dictate and guide perceptions, attitudes, and behavior (Craven et al., 2016). In the context of Javanese culture in Indonesia, a proverb is known to

describe the psychological climate of the group. "*Entuk iwake ora buthek banyune*" (*catching the fish without making the water turbid*). This suggests that the psychological climate in the environment can influence the process of achieving goals. Group psychological climate and group performance are important in Indonesia because of the context of collectivistic culture.

A person or group of individuals can achieve their life goals or best group performances without having to cause conflicts with the environment. Psychological climate is a set of perceptions that define how an individual intellectually makes interpretations of the environment based on subjective experiences (Barkhi & Kao, 2011 ; Toprak & Karakus, 2018). At the individual level of analysis, researchers have described the relationships between employee's perceptions of their work environment and outcomes such as job satisfaction, job involvement organizational citizenship behavior, and job performance. When gathered to the group or organization level, employee climate perceptions have been used to predict group-level outcomes such as customer satisfaction, group performance, and financial performance. The employee perceptions of their environment can be understood in the context of individual and group (Parker et al., 2003).

The dimensions of group psychological climate according to Odden & Sias (1997) include: (1) the leader's concern; (2) group cohesivity; (3) autonomy; and (4) pressure. The blueprint of "psychological climate, organizational climate, school climate and organizational culture when specifying to human perceptions of the work environment (Parker et al., 2003; Hasyim & Mangundjaya, 2019) It is wellknown that the psychological climate belongs to every individual, as well as in theoretical approaches, measurement, and analysis (White et al., 1998). Furthermore, group psychological climate is a perception that gives an insight into the group by taking into account policies, procedures, and operational applications within the scope of a group or organization Furthermore, group psychological climate is a perception that gives an insight around the group by taking into account policies, procedures, and operational applicational applications within the scope of a group or organization (Rentsch, 1990; Weziak-Bialowolska et al., 2020; James et al., 2008). Referring to the organizational climate construct the group psychological climate is then explained as the perceptions of individuals who collaborate to a shared description of their environment, especially the group task environment (Pudjiomo & Sahrah, 2019).

Carless (2004) contends that the psychological climate is a person's assessment of the extent to which the work environment is beneficial to their sense of well-being. The psychological climate is an personal phenomenological experience when processing and abstracting the situation and relating it to the work environment. This perceived experience depends on the effect of the workplace on the individual because the effect is reflected in the experience and feelings of the individual (Biswas, 2010).

Based on the studies conducted by (Koys & Decotiis, 1991) and the results from the analysis (Odden & Sias, 1997), it can be inferred that the aspects of group psychological climates are: (1) leader's caring;

(2) cohesivity; (3) autonomy; and (4) pressure. This leader's concern can also be interpreted as a form of leadership that exists in the group's processes. The literature review suggested that the group's psychological climate is an important role to work effectiveness (Boerner & von Streit, 2005; Ho et al., 2018).

Group performance is the accomplishment shown by a group while dealing with atask. Research also examines information processing within and by groups that is how groupstry to reach an agreement on available decision alternatives (Kerr & Tindale, 2004). The theory of psychological climate is entrenched in social psychology and develops in the implementation of industrial and organizational psychology, educational psychology, and clinical psychology (Suratman et al., 2021; Kawiana et al., 2021; Cezmi Savas & Toprak, 2014). The psychological climate in common language is the individual's perception of their environment, sharing a usual description of their environment, especially the group task environment. Literature review suggests that the group's psychological climate is an important benefaction to work effectiveness (Boerner & von Streit, 2005; White et al., 1998 ; Koys & Decotiis, 1991 ;Suratman, 2019).

Group performance is also known as the main determinant of the achievement of a group (Stott & Walker, 1995). Furthermore, group performance is considered by experience in terms of excellence, capacity, and process; because performance is not only measured as a result but also all the processes and related factors that occur.

Hellriegel, Slocum, and Woodman (1989) mention seven aspects that can influence group behavior and performance, such as group size, compositions and roles of group members, group norms, group goals, cohesiveness, leadership, and group external environment. Each aspect does not stand alone but interacts and influences each other.

The four factors that determine group performance based on a literature review and research conducted by Macbryde & Mendibil (2003), Hackman and Oldham (1980), Katzenbach and Smith (1993) are:

*First*, the effectiveness of a group is the level of a task or the results of a workflow that gives fulfillment to the stakeholders. Groups can display the results expected by the stakeholders. *Second*, efficiency is a stage that refers to the processes that occur in a group (including interaction, coordination, delegation, leadership, collaboration, and decision-making), the provision of support for the accomplishment of the processes, and the development of the abilities of the group members. This process will determine the group's ability to work without delay.

*Third*, learning and growth which are notable in the results of the learning process (knowledge objects) include innovation, transmitted skills, documented learning outcomes, bestpractices, tools, methods, and progress. *Fourth*, the satisfaction of group members is usually related to the contribution of group work results which impact the self-improvement of team members.

The results of meta-analytic studies also showed a strong correlation between psychological climate and criteria at the personal level (Carr et al., 2003), (Parker et al., 2003); (Schulte et al., 2009). A study conducted by Kopelman (1990) found empirical evidence that psychological climates affect individual output (such as persistence, performance, sense of belonging, and withdrawal behaviors) and output at the organizational level such as effectiveness and efficiency. This study purposes to consider the influence of group's psychological climate, especially leader's caring, which can be interpreted as leadership in the group decision-making performances.

#### METHOD

This research was conducted with experiments to empirically test the effects of group psychological climates that were deliberately created on group decision-making performance. There are 3 manipulations of the theoretical concept carried out in groups, so it is unfeasible to test the theory straight on groups that are already established in social reality in terms of the control and manipulation that will be done.

Three hundred and sixty university students were recruited for this study, and they were divided into 120 groups, each consisting of 3 students. Seventy-six students were male (21.1%) and 284 were female (78.9%). All participants were university students who were at least in their fifth semester.

The group psychological climate in this study was carried out by manipulation (leader's caring, autonomy, time pressure) and control (cohesiveness). This study was led to test the effect of three dependent variables, 2 types of leader's caring (*caring and uncaring*), 2 types of autonomous tasks (*autonomy and non-autonomy*), and 2 types of pressure (*with time pressure and without time pressure*).

Group decision-making performance was determined by four dimensions: (1) group decision effectiveness, (2) group efficiency, (3) group learning and growth, and (4) group satisfaction. Group decision effectiveness is the accuracy of a group when making decisions. Group effectiveness was measured by the accuracy of the answers to the decision choices taken (correct = score 1; incorrect = score 0) and was assessed by the leader. Group efficiency is the extent to which the group experiences internal processes of group development in dealing with group tasks. Group efficiency was measured by rating observers from a list of behavioral observations. Group learning and growth is the stretch on how far group members and other group members can learn from each other, from leaders, and from the decision-making task faced which is beneficial to the group. Learning and growth weremeasured by the psychological scale of learning and group growth which consisted of 8 statement items (reliability coefficient  $\alpha = 0.706$ ). An example of the statement item is: "We can learn from each other's strengths in small groups and from class leaders". Group satisfaction is the extent to which the group feels the results of the decision-making are associated with self-improvement expectations of group members.

Group satisfaction was measured by a group satisfaction scale consisting of 8 statement items (reliability coefficient  $\alpha = 0.747$ ). An example in this scale is: "We can satisfactorily complete tasks in our small groups". The experimental design used was a post-treatment measurement design with a model of (2 x 2 x 2 factorial) design using random assignment in group division.

#### **RESULTS AND DISCUSSION**

Making decisions is interpreting and choosing one thing from several combinations of available resources. The decision-making could be executed by individuals and groups. This study focused on the group decision-making performances which is influenced by the group's psychological climate. The psychological climate of the group as an independent variable was operationalized in the form of an experimental treatment composed of the relation of the leader's caring, autonomy, manipulated time pressure, and controlled cohesivity. One hundred and twenty participant groups were involved in the data analysis process with a 2X2x2 factorials design which consisted of three independent variables with two levels: leader's care (caring vs uncaring), autonomy: (autonomous vs nonautonomous), and pressure: (without time pressure vs with time pressure). The data were analyzed using multivariate analysis of variance between groups.

#### **Manipulation Check Results**

Based on the results of the analysis of the climate manipulation check, leader's concern, autonomy, and pressure, there was a significant difference among 8 groups in the leader's concern manipulation condition (F= 31.662; p < 0.01) and the group's pressure manipulation situation (F = 20.442; p < 0.01). The results of the analysis test showed that there was no significant difference among the 8 groups in the group autonomy manipulation condition (F = 1.998; p > 0,01). The condition of group cohesion was deliberately controlled in the study, in which each group had the same cohesiveness situation. The condition was supported by the results of the manipulation check with the result of the cohesion manipulation check which showed no difference among the 8 treatment groups (F = 2.389; p > 0,01). A comparison of the mean results of the experimental manipulation treatment is presented in Table 1.

Table 1. Comparison of Mean Results of Manipulation Checks

	-		-		
Treatment Crown	Mean Results of Manipulation Checks				
Treatment Group	Leader's Caring	Autonomy	Cohesion	Time Pressure	
Caring Leader	66,05	22,40	20,60	17,88	
Uncaring Leader	55,50	21,98	20,63	16,93	
Total	60,70	22,20	20,60	17,40	
	F=31,662p < 0,01	F=1,998p > 0,01	F=2,389p > 0,01	F=20,442p<0,01	

The outcomes of the analysis show the total mean of cohesion (M = 20.60), leader's caring (M = 60.70), autonomy (M = 22.20), and time pressure (M = 17.40). Based on the categorization of the two large groups, the caring leader group and the uncaring leader group, the cohesion mean in the caring leader group (M = 20.60) was similar tothat in the uncaring leader group (M = 20.63). The mean of a leader's caring in the caringleader group (M = 66.05) was higher than the leader's caring mean in the uncaring leader group (M = 55.50). The mean of autonomy in the caring leader group (M = 22.40) was higher than the autonomy mean in the uncaring leader group (M = 21.98). The mean of time pressure in the caring leader group (M = 17.88) was higher than that in the uncaring leader group (M = 16.93). Altogether, the results of the analysis indicated that the treatment manipulation was successful.

#### **Statistical Procedure**

A multivariate analysis of variance was required to determine whether the dependent variables could be correlated with each other. This is done using Bartlett's test of sphericity (Hair, Anderson, Tatham, & Black, 1998; Sharma, 1996). The results of the Bartlett test showed a value of  $\chi 2 = 107.854$ ; db = 6; p < 0.001, indicating that multivariate analysis of variance was appropriate to use to analyze the data.

#### Analysis of Group Psychological Climate

Pillai's criteria used in this analysis showed the effect of group psychological climaterelation on group decision-making performance with 10.3% (p <0.05;  $\eta 2 = 0.103$ ). The result of the three-way multivariate analysis of variance of group psychological climate can be seen in Table 2.

2	2		0
Influence	F	$\eta^2$	р
Intercept	9,033	0,997	<0,001
Leader's Caring (C)	15,771**	0,367	<0,001
Autonomy (A)	2,059	0,070	0,091
Pressure (P)	1,639	0,057	0,170
C x A	1,935	0.066	0,110
C x P	1,224	0,043	0,305
A x P	1,854	0,064	0,124
C x A x P	3,126*	0,103	0,018

Table 2. Three-way multivariate analysis of variance of group psychological climate

Pillai's criteria developed from Olson's criteria (Sharma, 1996) is a powerful the test statistic for detecting differences between groups. The findings of this study showed that group decision-making performances concerning different psychological climates were different. Thus, the hypothesis in this study could be accepted.: "Group decision-making performance, (effectiveness, efficiency, group

learning-growth, and satisfaction of group members) is influenced by the relation of group psychological climate (leader's caring, autonomy, and time pressure of the group)".

Another finding also showed that there were significant differences in decision-making performance in different climates of leader's caring (F = 15.771; p < 0.01;  $\eta 2 = 0.367$ ). The effect of the leader's caring on group decision-making performance was 36.7%.

Based on the description above, it can be concluded that the interaction effect of group psychological climate had an influence of 10.3% on group decision-making performance. The influence of the leader's caring, which could also mean the process of leadership in the group, had an influence of 36.7% on the group's decision-making performances.

#### **Group Decision-Making Performance**

Following the relation activity with the group on facing a task, the group then showed the results of the achieved work. The results of this work were commonly referred to the group performance. Table 3 and Table 4 show the interaction effect of the leader's concern, autonomy, and pressure on differences in decision-making performance between groups.

Source	Dependent Variables	dh	F	m <sup>2</sup>	
	Between groups	ab	Γ	ų	р
C x A x P	Effectiveness	1	2,415	0,021	0,123
	Efficiency	1	8,078**	0,067	0,005
	Learning-Growth	1	1,369	0,012	0,244
	Satisfaction	1	0,170	0,002	0,681
Leader's Caring (C)	Effectiveness	1	3,993*	0,034	0,048
	Efficiency	1	0,091	0,001	0,763
	Learning-Growth	1	53,819**	0,325	<0,001
	Satisfaction	1	11,642**	0,094	0,001

Table 3. Univariate Analysis of Variance Group Decision-Making Performance

The psychological climate of the group altogether (leader's caring, autonomy, and pressure) had a very significant effect on group efficiency (F = 8.078;  $\eta 2 = 6.7\%$ ; p <0.01). The group psychological climate did not affect group effectiveness, learning and growth, and groupsatisfaction.

Leader's caring had a significant effect on effectiveness (decision-making accuracy, F = 3.993;  $\eta 2 = 3.4\%$ , p <0.05), learning and growth (F = 53.819,  $\eta 2 = 32.5\%$ , p <0.01), and group satisfaction (F = 11.642;  $\eta 2 = 9.4\%$ , p <0.01).

The findings also presented that the leader's caring did not affect efficiency (F = 0.091;  $\eta 2 = 0.1\%$ , p > 0.05). This was due to the role of a leader who only showed caring without the ability to manage time well, therefore, the efficiency of group work also did not show maximum results. With a leader whose main concern is building warm social relationships but without good time management

skills in making decisions related to group assignments, the group may only spend time building good social relationships without paying attention to the allocated time to complete the tasks.

Table 4. Comparison of Mean of Group Decision-Making Performance					
Group Decision-Making Performance	Group Total				
Effectiveness	0,78				
Efficiency	8,00				
Group Growth and Learning	39,32				
Group Satisfaction	40,61				
Group Decision-Making	Leader's Caring		n		
Performance	Caring Leader	Uncaring Leader	Р		
Effectiveness	0,85	0,70	0,048		
Efficiency	8,08	7,92	> 0,05		
Group Growth and Learning	40,99	37,64	0,000		
Group Satisfaction	41,37	39,86	0,001		

Table 4 shows that group effectiveness in the group of caring leaders was better than in the group of uncaring leaders (M = 0.85 > M = 0.70; p < 0.05). There was no difference in the level of efficiency between the caring leaders and the uncaring leaders (M = 8.08 and M = 7.92; p > 0.05). Group learning and growth of the caring leader group were better than those of the uncaring leader group (M = 40.99 > M 37.64; p < 0.05). Group members' level of satisfaction with caring leaders was higher than with of uncaring leaders (M = 41.37 > M = 39.86; p < 0.05).

The outcome of this study as a whole presented three findings: First, the relation of psychological climate had a significant influence on group decision-making performance, especially efficiency. Efficiency is the ability of a group to work without delay. This group decision-making performance indicator is considered while a group completes the assignments and thus it can be encouraged by the relation of the leader's caring, autonomy, andtime pressure.

Group psychological climate is the perception that gives an insight into the group task environment, which is outside the group members. This psychological climate contains 4 dimensions, cohesion, leader's caring, autonomy, and time pressure perceived by group members. The similarity of perception among group members regarding the leader's caring, autonomy, and time pressure affects the results of work achieved by the group, particularly group efficiency.

Second, the leader's caring has a strong influence on group performance (Koys & Decotiis, 1991; Odden & Sias, 1997), particularly group effectiveness. A leader in a broad sense also plays a role as a leader in a group. A leader, who knows which direction the group is going, escorts and leads group members to walk toward the goal. In this study, the leader's caring had an impact on effectiveness, learning, and group growth, and group member satisfaction.

Effectiveness is the accuracy of the group in making a decision. Group learning and growth are the member's perception of the results of the learning process, skills that are mutually transmitted from leaders to group members and between group members, and the progress of the group learning process by making improvements to provide benefits for group members. Group member satisfaction is the perception of the satisfaction of the group in which the groups and leaders mutually contribute to the completion of group assignments and the results of group work affect group members' self-development. Group members perceive that they feel they have benefited from the learning process and are satisfied with the results achieved.

The leader's caring had an important influence on group effectiveness, the learning process, and group growth as well as group member's satisfaction. A leader's caring is an important dimension in group psychological climates. Group psychological climates positively influence work effectiveness (Boerner & von Streit, 2005; Koys & Decotiis, 1991). The effectiveness of decision-making in this study was more influenced by a single dimension of the leader's caring. In the Indonesian indigenous psychology context, charismatic leadership follows the concept of Ki Hadjar Dewantara, "*Ing Ngarsa Sung Tuladha, Ing Madya Mangun Karsa, Tut Wuri Handayani*" (Marliani & Djadjuli, 2019). This concept means that a good, superior, and caring leader can be a role model when leading from the front, inspire and motivate when leading from the middle, and encourage others when leading from the back.

Third, the psychological climate had an influence of 10.3% on group performance. Thisshowed that the results achieved by the group were determined more by internal factors within the group than external factors namely psychological climates of the group. These internal factors were in the form of beliefs, views of group members on tasks, and the level of motivation of group members to complete tasks.

#### CONCLUSION

Results of this study, this research formulated a notion that to achieve good social performance, from the point of view of group psychological climates. There would seem to be a definite need to create an excellent group performance and be follow up with essential factors such as group cohesiveness, caring leadership based on fairness, trust, giving support and approval to members, autonomy by considering the type of tasks and the provision or time requirements that must be accomplished by the group while completing the tasks. Exerting pressure on the completion of the tasks may not be suggested.

Based on these results, new findings have been discovered. The psychological climate that supports groups or social performance can be formulated as follows:

# GP = f {C, Le, A, R} Group Performance = f {Cohesivity, Leadership, Autonomy, Requirements}

The psychological climate of the group is the function of cohesiveness, leadership, autonomy, and the requirements or demands that social groups should fulfill when dealing with group tasks and it also affects the group performance.

If these results are aligned with Kurt Lewin's concept that "behavior is a role of people and the environment" ( $\mathbf{B} = \mathbf{f} \{\mathbf{P}, \mathbf{E}\}$ ), the psychological climate of the group can be equated with function E (environment) which gave an effect of 10.3 % on group or social performance (GP) or behavior (B). Group or social performance, especially decision-making, was more influenced by the P function (person). The P function in the group is group members that actively elaborate on the group decision-making process and have collective efficacy to succeed in achieving group performance. Future studies can also examine internal factors in the group, namely the influence of group members' collective efficacy on group performance.

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#### REFERENCES

- Bamel, U. K., Rangnekar, S., Stokes, P., & Rastogi, R. (2013). Organizational climate and managerial effectiveness: An Indian perspective. *International Journal of Organizational Analysis*, 21(2), 198–218. https://doi.org/10.1108/IJOA-09-2011-0514
- Barkhi, R., & Kao, Y. C. (2011). Psychological climate and decision-making performance in a GDSS context. *Information and Management*, 48(4–5), 125–134. https://doi.org/10.1016/j.im.2011.02.003
- Biswas, S. (2010). Relationship between psychological climate and turnover intentions and its impact on organizational effectiveness: A study in Indian organizations. *IIMB Management Review*, 22(3), 63. https://doi.org/10.1016/j.iimb.2010.07.008

- Boerner, S., & von Streit, C. (2005). Leadership and Group Results from Symphony Descriptions. *Journal of Leadership and Organizational Studies*, 12(2), 31–41.
- Carless, S. A. (2004). Does psychological empowerment mediate the relationship between psychological climate and job satisfaction? *Journal of Business and Psychology*, *18*(4), 405–425. https://doi.org/10.1023/B:JOBU.0000028444.77080.c5
- Carr, J. Z., Schmidt, A. M., Kevin Ford, J., & DeShon, R. P. (2003). Climate perceptions matter: A meta-analytic path analysis relating molar climate, cognitive and affective states, and individual level work outcomes. *Journal of Applied Psychology*, 88(4), 605–619. https://doi.org/10.1037/0021-9010.88.4.605
- Cezmi Savas, A., & Toprak, M. (2014). Mediation effect of schools' psychological climate on the relationship between principals' leadership style and organizational commitment. *Anthropologist*, *17*(1), 173–182. https://doi.org/10.1080/09720073.2014.11891427
- Craven, R. G., Ryan, R. M., Mooney, J., Vallerand, R. J., Dillon, A., Blacklock, F., & Magson, N. (2016). Toward a positive psychology of indigenous thriving and reciprocal research partnership model. *Contemporary Educational Psychology*, 47, 32–43. https://doi.org/10.1016/j.cedpsych.2016.04.003
- Hasyim, W., & Mangundjaya, W. L. (2019). *The Mediating Role of Psychological Capital in the Organizational Climate and Work Engagement Relationship*. 229(Iciap 2018), 990–999. https://doi.org/10.2991/iciap-18.2019.81
- Ho, V. T., Kong, D. T., Lee, C. H., Dubreuil, P., & Forest, J. (2018). Promoting harmonious work passion among unmotivated employees: A two-nation investigation of the compensatory function of cooperative psychological climate. *Journal of Vocational Behavior*, *106*, 112–125. https://doi.org/10.1016/j.jvb.2018.01.005
- James, L. R., Choi, C. C., Ko, C. H. E., McNeil, P. K., Minton, M. K., Wright, M. A., & Kim, K. Il. (2008). Organizational and psychological climate: A review of theory and research. *European Journal of Work and Organizational Psychology*, 17(1), 5–32. https://doi.org/10.1080/13594320701662550
- KAWIANA, I. G. P., DEWI, L. K. C., HARTATI, P. S., SETINI, M., & ASIH, D. (2021). Effects of Leadership and Psychological Climate on Organizational Commitment in the Digitization Era. *Journal of Asian Finance, Economics and Business*, 8(1), 1051–1062. https://doi.org/10.13106/jafeb.2021.vol8.no1.1051
- Kerr, N. L., & Tindale, R. S. (2004). Group performance and decision making. Annual Review of Psychology, 55(February 2004), 623–655. https://doi.org/10.1146/annurev.psych.55.090902.142009
- Koys, D. J., & Decotiis, T. A. (1991). Inductive Measures of Psychological Climate. *Human Relations*, 44(3), 265–285. https://doi.org/10.1177/001872679104400304
- Macbryde, J., & Mendibil, K. (2003). Designing performance measurement systems for teams: theory and practice. *Management Decision*, 41(8), 722–733. https://doi.org/10.1108/00251740310496233
- Marliani, L., & Djadjuli, R. D. (2019). Menakar Trilogi Kepemimpinan Ki Hajar Dewantara Di Era Globalisasi. *Kebijakan : Jurnal Ilmu Administrasi*, 10(2), 74. https://doi.org/10.23969/kebijakan.v10i2.1654

- Odden, C. M., & Sias, P. M. (1997). Peer communication relationships and psychological climate. *Communication Quarterly*, 45(3), 153–166. https://doi.org/10.1080/01463379709370058
- Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: A metaanalytic review. *Journal of Organizational Behavior*, 24(4), 389–416. https://doi.org/10.1002/job.198
- Pudjiomo, W. S., & Sahrah, A. (2019). Pengaruh Iklim Organisasi Dan Keterlibatan Kerja Terhadap Ocb Pegawai. *Insight: Jurnal Ilmiah Psikologi*, 21(2), 78. https://doi.org/10.26486/psikologi.v21i2.878
- Rentsch, J. R. (1990). Climate and Culture: Interaction and Qualitative Differences in Organizational Meanings. *Journal of Applied Psychology*, 75(6), 668–681. https://doi.org/10.1037/0021-9010.75.6.668
- Schulte, M., Ostroff, C., Shmulyian, S., & Kinicki, A. (2009). Organizational Climate Configurations: Relationships to Collective Attitudes, Customer Satisfaction, and Financial Performance. *Journal* of Applied Psychology, 94(3), 618–634. https://doi.org/10.1037/a0014365
- Suratman, A. (2019). The importance of psychological climate's effect toward employee performance. *Jurnal Ilmiah Bisnis Dan Ekonomi Asia*, *15*(2), 143–158. https://doi.org/10.32812/jibeka.v15i2.287
- Suratman, A., Suhartini, S., Palupi, M., Nurdiana DIHAN, F., & Bakr MUHLISON, M. (2021). The Impact of Psychological Climate and Self-Resilience on Employee Performance During the COVID-19 Pandemic: An Empirical Study in Indonesia\*. *Journal of Asian Finance*, 8(5), 1019– 1029.
- Toprak, M., & Karakus, M. (2018). Psychological Climate in Organizations: A Systematic Review. *European Journal of Psychology and Educational Research*, 1(1), 43–52. https://doi.org/10.12973/ejper.1.1.43
- Weziak-Bialowolska, D., Bialowolski, P., Leon, C., Koosed, T., & McNeely, E. (2020). Psychological climate for caring and work outcomes: A virtuous cycle. *International Journal of Environmental Research and Public Health*, 17(19), 1–19. https://doi.org/10.3390/ijerph17197035
- White, S. S., Paul, M. C., & Schneider, B. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology*, 83(2), 150–163.