



Influence of Organizational Culture on the Performance of Educators in Indonesia: A Meta-Analysis in 2018-2023

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Abstract. The digital era requires educators to continue to improve performance as a form of professionalism. The performance of educators is a variable that is influenced by many factors, one of which is the organizational culture that develops in educational institutions. This study aims to calculate the summary effect size of the correlation study of the influence of organizational culture on the performance of educators. Meta-analysis quantitative methods were used in the analysis of this study. The data in this study uses secondary data in the form of articles published in the Google Scholar database in the period 2018–2023. The collected articles were then selected based on predetermined criteria, resulting in 24 articles. The data collected were analyzed using JASP applications, including heterogeneity tests, publication bias, and forest plots. The random effect model is used as an estimate of effect size. The results of the summary effect size analysis of 0.606 indicate the correlation of the two variables is positive and included in the high category. This study has been declared free of publication bias based on the results of the Egger's test with $p > 0.05$ which is 0.157 and the File-safe N test value of 4684,000 which means greater than $5k + 10$ ($5 \times 24 + 10 = 130$) so that the test data results in this study can be scientifically accounted for. School-level and type of publication are used as subgroups to further analyze the magnitude of the influence of organizational culture. The large positive effect size and high category implies that organizational culture is one of the crucial factors determining the quality of educator performance, so related stakeholders must be able to develop a healthy organizational culture to realize good educator performance and be ready to face future educational challenges.

Keywords: Organizational Culture, Educator performance, Meta-analysis.

1 Introduction

The performance of educators is a form of ability to complete duties and responsibilities as educators and educators in educational institutions and describes an achievement shown by educators during teaching activities in schools [1]. The performance of educators is generally influenced by various factors, both internal and external. Internal factors relate to personal traits, and external factors can come from the social environment. The principal's leadership, organizational culture, educator competence [2], emotional intelligence, and job satisfaction [3] can be contributing factors to an educator's performance.

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Organizational culture is one of the factors that play a role in educator performance. The existence of organizational culture in educational institutions must be realized by all elements in the school environment. Organizational culture refers to the vision and goals that are then influenced by internal ideals and accompanying external demands [4]. Organizational culture becomes the fundamental foundation of an organization as a result of an individual's interaction with work and the environment, which is reflected in shared attitudes and perceptions [5]. As part of culture itself, organizational culture is not only related to leadership but also to the socialization experience of learners [6]. So that building a good organizational culture not only has an impact on school performance but also has an impact on students.

Organizational culture is significantly related to the performance of educators. Organizational culture contributes to human performance and management, productivity, and worker turnover [7]. As part of organizational life, organizational culture has an impact on worker behavior, attitudes, and effectiveness, so performance improvement cannot be separated from organizational culture [8].

Previous studies have conducted various explorations regarding performance using meta-analyses. Transformational leadership is one of the variables that have an impact on educator performance, and it is proven that both variables have a fairly strong relationship [9]. Other studies prove a correlation between work motivation and performance, but a magnitude of the effect size is relatively small (0.46) [10]. Another meta-analysis study proved that work stress and performance have a negative correlation with the magnitude of effect size of -0.11 [11]. This research will focus on exploring the relationship between organizational culture and educator performance. A systematic review of previous studies related to the relationship between these two variables has been carried out, but the review was carried out qualitatively using a systematic literature review. The findings of this study showed that of the 33 articles analyzed, 17 said both variables were positively correlated and dominated compared to other variables, 13 said they were positively correlated but did not dominate the influence, and 2 articles used intervening variables [12].

Based on the review of previous research, exploration into the performance of educators is generally conducted through a meta-analysis of factors such as transformational leadership, work motivation, and job stress. Previous studies have mainly utilized qualitative analysis with systematic literature reviews. There has been no meta-analysis exploring the relationship between organizational culture and the performance of educators. This indicates a gap left by previous research. By further investigating organizational culture and educator performance through meta-analysis, it will strengthen the findings regarding the influence of organizational culture on educator performance. This research will contribute knowledge by conducting a meta-analysis of articles discussing the relationship between organizational culture and educator performance in schools.

Various conclusions emerged in the study of the correlation between organizational culture and educator performance. Fairy et al. concluded that the correlation between organizational culture and educator performance was in the very low correlation category (0.146) [13]. However, the study of Fortunately et al. proved the correlation of the two variables was moderate (0.446) [14]. Instead, Sari et al. presented findings that showed a high positive correlation between organizational culture and educator performance [15]. The differences in various conclusions of previous research open

up opportunities for meta-analysis of related articles. Through meta-analysis, a synthesis of different research findings will be carried out. Statistical analysis will be used to prove the magnitude of the effect size. Meta-analyses were used for two reasons: (1) using effect sizes from each study and (2) accumulating all effects in a single statistical synthesis that played a crucial role in calculating the summary effect size [16]. So that each study has a role in the accumulation of summary effect size conclusions.

This research aims to synthesize studies analyzing the relationship between organizational culture and teacher performance in schools. There are two main objectives in this study: first, to determine the effect size of the relationship between organizational culture variables and teacher performance in educational institutions; and second, to identify differences in effect size based on school level and publication type.

2 Method

This study used the quantitative meta-analysis method. Meta-analysis was conducted to synthesize several research results, either in the form of the influence of the use of a product or the correlation between variables [16]. There are several steps in the meta-analysis procedure, starting with determining the research question, collecting relevant research data, coding, calculating the effect size, and correcting publication bias [17]. The database used in this study is Google Scholar. This study chose to use the Google Scholar database because of the lack of context-appropriate data in Scopus, and researchers limited the research to the Indonesian context. To select the articles in the data base, several criteria were applied, including: (1) research was carried out in educational institutions at the elementary, junior high, and high school/vocational levels, (2) research was carried out in Indonesia, (3) the trial project in the research was an educators, (4) the research used was a correlation, (5) articles published in the range of 2018–2023, (6) to get information on the number of samples, and (7) to get statistical data information $r / t / F$ that explains the correlation between organizational culture variables and the performance of educators. This study limits the period of the year because the researcher wants to photograph research in the last 5 years so that there is up-to-date data that is still relevant to the current situation.

After collecting and selecting data based on predetermined criteria, 24 articles that met all these criteria were collected. Coding including the type of publication, publication year, school level, number of samples, and statistical data information. The data will be analyzed with JASP 0.17.3.0. Before data processing is carried out, statistical data information from the analyzed article in the form of r or t values must first be transformed into z values. Then, after being transformed into the value of z , it must calculate the variance value of z and the error standard of the value of z .

The analysis carried out includes heterogeneity tests of effect size, summary effect or mean effect size equipped with hypothesis testing, and publication bias testing. This research will also add subgroup analysis in the form of school level and type of publication. Meanwhile, the hypotheses to be tested in the study are as follows:

H_0 : There is no significant correlation between organizational culture and educator performance

H_a : There is a significant correlation between organizational culture and educator performance

Then, the effect size can be classified into several categories of effect size, including: $r \leq 0.10$ (small), $r = 0.25$ (moderate), and $r > 0.40$ (large).

3 Results and Discussion

3.1 Results

Heterogeneity Test. Heterogeneity testing aims to determine the summary effect estimation model. Heterogeneity test results with values of $Q = 200.961$ and $p < 0.001$ so that the results of the analysis of 24 studies are heterogeneous because $p < 0.05$. Therefore, the model that is suitable for estimating the summary effect is the random effect. Then this conclusion is also supported by the results of residual heterogeneity estimates in Table 2, which shows the value of $\tau = 0.114$, $\tau^2 = 0.338$, $I^2 = 89.118\%$. There are 3 categories of values I^2 , 25% (low heterogeneity), 50% (moderate heterogeneity), and 75% (high heterogeneity) [18]. In the results of the analysis of this research data, the value of I^2 is more than 75%, indicating that the test data has high heterogeneity.

Summary Effect Size. Calculation of the effect size of the study using the Random Effect (RE) model. There was a significant positive correlation between organizational culture and educator performance ($z = 8.144$; $p = < 0.001$; 95% CI (0.460; 0.752)). The correlation value is 0.606, which means it is in the high category. The results show a p value of < 0.001 , so we can conclude that H_0 is rejected, which means that there is a significant correlation between organizational culture and the performance of educators in Indonesia.

Subgroup Analysis.

School Level. Subgroup analysis with school level classification is divided into three categories, elementary schools, middle schools, including junior high school; high schools and vocational schools, and there are articles that do not mention school level, which are then included in the category "no information". The elementary school level category showed a fairly high effect size ($z = 0.436$, $SE = 2.666$). While at the secondary school level, it also showed a high effect size ($z = 0.634$, $SE = 185.99$). Finally, the "no information" category has a sufficient effect size ($z = 0.326$, $SE = 0.129$). Statistical testing of moderator variables for school level ($p = 0.002$, $SE = 12.176$). So, it can be concluded that there are significant differences between the three categories. Where the school level for secondary school educators, both junior high school / senior high school / vocational school has a greater influence than other levels in improving performance.

Types of Publications. Types of publications are divided into two categories: articles and non-articles. The non-article category includes theses. The article category has a high effect size ($z = 0.573$, $SE = 177.457$) as does the non-article category ($z = 0.792$, $SE = 10.289$). Then statistical testing of the two categories showed that the two categories had significant differences ($p = 0.000$, $SE = 13.215$). So that the type of non-article publication actually has a higher effect size.

Publication Bias.

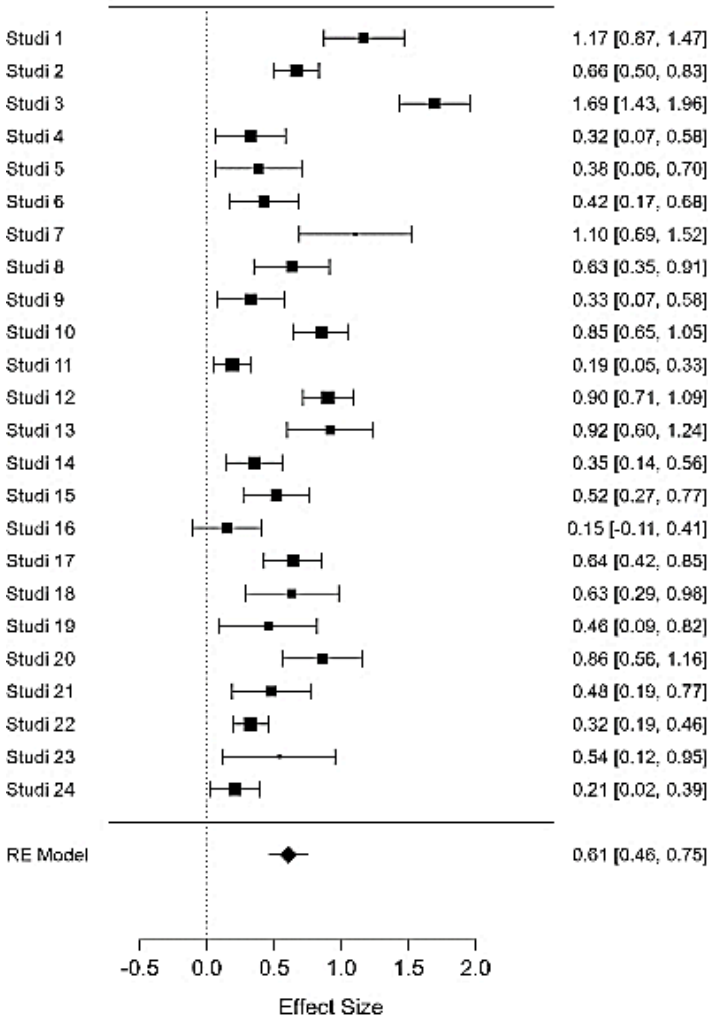


Fig. 1. Forest Plot

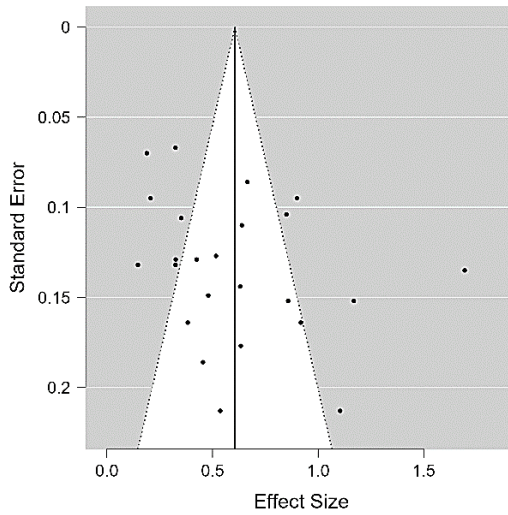


Fig. 2. Funnel Plot

Table 1. Rank correlation test for Funnel plot asymmetry

	Kendall's τ	p
Rank test	0.227	0.123

Table 2. File Drawer Analysis

	Fail-safe N	Target Significance	Observed Significance
Rosenthal	4684.000	0.050	< .001

Table 3. Regression test for Funnel plot asymmetry ("Egger's test")

	z	p
Sei	1.416	0.157

Based on the forest plot, the 24 articles analyzed had an effect size in the range of -0.5 – 2.0. Testing for publication bias can be done by looking at the funnel plot. In figure 2, we can see that there are 24 points spread symmetrically. This is supported by the test results using the rank correlation and regression methods. In table 1, we can see the value of $p = 0.123$, so $p > 0.05$, which means funnel plot symmetry. This

conclusion is also supported by data from Egger's test results in Table 3, with a value of $p = 0.157$. The file-safe N test value in Table 2 shows the number 4684,000, which means greater than $5k + 10$ ($5 \times 24 + 10 = 130$) with a target significance value of 0.05 but a significance test value of < 0.001 . Therefore, all three tests resulted in the same conclusion: the test data were free from publication bias.

3.2 Discussion

The performance of educators is one form of educator professionalism in carrying out learning functions. One factor that plays a strategic role in building educator performance is organizational culture in educational institutions. This research has conducted a meta-analysis study of 24 articles on the correlation of organizational culture to the performance of educators in Indonesia. Based on data analysis, the findings in this study show that organizational culture has a significant positive correlation with the performance of educators ($p = < 0.001$). Then the effect size between organizational culture variables and the performance of educators is 0.606, which means the effect size is in the high category.

The significant influence of these two variables is in line with the results of Samudi's research [1] and the opinions of Robbin [7] and Hefstede [8] which conclude that indeed organizational culture contributes to a teacher's performance. Inayatullah and Jehangir explained that when an organization is not able to create a good culture, it will have an impact on the stress level of employees, in this case teachers, because communication within the organization does not run well, so it will greatly affect performance [19]. It appears that organizational culture plays a big role in the performance of an organization. This also applies in organizations, such as educational institutions or schools. When a school has a healthy organizational culture and is able to facilitate educators to continue to grow, educators will be encouraged to improve their performance in the classroom.

Organizational culture as part of the elements of an organization, is built by all parties involved in organizational activities. If in the school environment, then the organizational culture is built by the principal, educators, education staff, and students [20]. All components of the school have their respective roles in building the organizational culture of the school. Because it is built by different individuals, each organization has a different organizational culture that characterizes each organization in the form of a set of values, behaviors, beliefs, and methods [21]. To be a factor that supports educator performance, organizational culture must be healthy and conducive. A conducive organizational culture occurs if it is able to accommodate the aspirations of members of an organization [22]. There are several aspects of organizational culture that can make it conducive, including work involvement, integrity, compatibility, and three indications of strategic direction (goals, objectives, and vision) [21].

Organizational culture plays a crucial role, focusing on the concerns of the members of the organization, material symbols, and the foundation on which meaning is shared by the members of the organization [23]. Therefore, organizational culture is able to have a significant impact on an individual member of the organization. If it is associated with organizations in schools, educators as members of organizations in schools, will also be affected by a conducive organizational culture. This is in line

with the findings of Febriantina et al. that organizational culture has a significant impact on educator performance at SMK Negeri 40 Jakarta [24]. Then, Virsa Sari Widuri et al. also found the same fact that organizational culture is one of the determining factors for educator performance [25]. The findings were also supported by Arifin et al. who concluded that the performance of elementary school educators in the Rimba Melintang sub-district was influenced by organizational culture [26].

The results of the effect size analysis in this study show that organizational culture has an impact on the performance of educators. The fact that these two variables play a role requires stakeholders in schools to be able to develop a healthy and conducive organizational culture. In the end, a good organizational culture will have an impact on the performance of educators. Of course, maximum educator performance will have an impact on improving the quality of learning outcomes and school performance. This is where the role of the principal must be played as well as possible in facilitating educator development.

Then, subgroup analysis was also carried out to determine the difference in the influence of organizational culture on educator performance at both elementary and secondary school levels. It is evident that organizational culture has a greater impact on secondary school educators. Subgroup analysis is also carried out based on the type of publication, namely articles and non-articles. It is proven that non-article studies have a larger effect size.

This study makes a theoretical contribution to filling the gap left by previous research because there is indeed no meta-analysis study that explores the relationship of organizational culture with teacher performance. On the other hand, practically, the findings of this study can be a recommendation from the school that organizational culture factors contribute to the performance of a teacher. So, the school needs to pay more attention to this factor in order to realize good teacher performance. This research can contribute methodologically by applying a comprehensive meta-analysis methodology to combine and synthesize findings from various previous studies that explore the relationship between organizational culture and the performance of educators in Indonesia.

4 Conclusion

Based on the results of the data analysis of 24 articles, organizational culture is positively and significantly correlated with the performance of educators in Indonesia, with a high effect size category. Then heterogeneity testing concludes that the data is heterogeneous based on the Q value, so that the model used is a random effect. To ensure that this research is free from publication bias, Rank Correlation and Regression Method tests were conducted. In both tests, it can be concluded that this study is free from publication bias, which is also proven by symmetrical funnel plots. The analysis of subgroups at the school level and type of publication also showed significant.

This research further reinforces the importance of fostering a positive organizational culture in educational institutions. This is significant for generating positive performance from teachers. In other words, a good organizational culture will

lead to improved teacher performance and ultimately contribute to the enhancement of quality in educational institutions.

This research has limitations in the distribution of the articles reviewed. The majority of articles conduct research at the secondary education level, while research at the basic education level is still minimal. So that the description of the object of research is not comprehensive.

5 Authors' Contributions

Zahrotun Salimah carried out data collection, data analysis, data interpretation, and drafted the manuscript. Lovienta Arriza is composing the introduction. Yanti Kumala Sembiring coordinated the final manuscript.

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