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## Factor Influencing Student Performance: Organizational Culture, Transformational Leadership, and Student Engagement



**Abstract:** - We examine the factors influencing student performance in student organizations on private campuses in Indonesia by exploring the relationship between organizational culture and transformational leadership. However, the topic of student performance is still limited to research. Most research on organizational culture focuses on employee performance. This is a quantitative approach that is based on cross-sectional data. In total, 157 respondents were used to infer the results through the structural equation model. The results do not support the argument that organizational culture relations are based more on student engagement than student performance. Conversely, the results support the argument that transformational leadership relationships affect student performance and engagement. To address the possibility of endogeneity issues, we use a series of variables, including student engagement which mediates in this study.

**Keywords:** Organizational Culture, Student Engagement, Transformational Leadership, Student performances.

### I. INTRODUCTION

Research on performance has received attention among scholars, especially in the field of management. However, discussion of this issue in the context of higher education is still limited, especially in the context of intra-campus organizations. Performance is the activity of a group of people intended to carry out organizational tasks for which they are responsible [1]. Performance is also an indicator that can describe the quality of an organization's human resources. A person's good performance can be improved by utilizing human resources professionally, ultimately leading to better organizational performance [2].

The success of an organization can be seen in the quality of its human resources. This is because human resources are important for the organization's operational activities. According to Bayanova et al., (2019), member performance has an important role in the organization because member performance contributes to the achievement of the performance of each organizational function [3]. In turn, organizational functions contribute to achieving organizational performance. In producing good performance, organizations also need to pay attention to existing ties within the organization. The attachment between members of the organization will create the chemistry needed when working in a team. According to Gillen-O'Neel (2019), members with a high level of engagement can generate a competitive advantage for the organization, good performance, and low turnover [4]. Thus, to improve organizational performance, an organization must consider several factors that affect employee performance. These factors include organizational culture, transformational leadership, and student engagement.

Organizational culture is the social glue that binds members to the organization. Organizations need to establish a strong culture in the work environment so members feel a strong bond. According to Upadhyay & Kumar (2020), organizational culture is the values and norms adopted and carried out by an organization related to the environment in which the organization carries out its activities [5]. Organizational culture can be formed not only in companies with employees but at the higher education level. Organizational culture can be formed with students. The existence of an organizational culture for students in developed and developing countries makes the difference visible. For example, the World Population Review (2023) states that developed nations almost always have an adult literacy rate of 96% or better. In contrast, the least developed nations manage an average literacy rate of only 65%. As for the difference in the quality of education felt between developed and developing countries. For this reason, the relationship between organizational culture and student performance in developing countries needs to be investigated.

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In an organization, leadership also takes a role. Leadership is an important management function that helps maximize efficiency and achieve organizational goals. Leadership studies have determined that an organization's behavioral and personality attributes are important [6]. Transformational leadership is one of the factors that affect performance because transformational leadership is a type of leader who pays attention to the needs of his subordinates, changes subordinates' beliefs to solve problems in new ways, and can always inspire subordinates to try to achieve group goals [7].

A transformational approach to leadership has long been advocated as a productive component in conditions like those faced by school or university settings targeted for reform [8]. Sufficient evidence suggests that transformational practices contribute to capacity building and commitment [9] [90]. Evidence is available in the minority regarding whether these socio-psychological effects produce organizational change and improve organizational outcomes, especially in the university context. Therefore, exploring this question is our goal in this study. This research was conducted to add insight into the literature study of factors that influence student performance at the higher education level. The results of this study can also provide a variety of results on transformational leadership formed by private university students in Indonesia.

However, despite the attention paid to the topic of student performance, these determinants and how they are influenced by organizational culture, transformational leadership, and student engagement are still under discussion [10]. Research gaps also exist in studies of the joint effects of these factors in the higher education sector. In addition, researchers suggest that variables such as student engagement as a mediating variable should be examined as a mediating variable to explain this relationship better [11], and that other organizational culture factors should also be considered [12]. Therefore, this study aims to address some of the gaps in the literature and investigate how the proposed relationship might impact the environmental performance of organizations in the higher education sector.

In short, this study examines the factors influencing student performance on private campuses. It contributes to the literature in several ways. First, it confirms the direct and indirect relationship between organizational culture and student performance. Second, the findings support the positive role of transformational leadership on student performance. Third, this study supports the mediating role of student engagement on organizational culture and student performance. Fourth, the positive relationship between transformational leadership and student engagement has been confirmed. Fifth, the study validates the application of the proposed model in explaining student performance at the private higher education level. Finally, it was argued that the issue of organizational culture in higher education still needed to be widely discussed [12]. This study empirically investigates this topic in a developing country, Indonesia, using a model developed by Transformational Leadership (TL)

## II. LITERATURE REVIEW

### *Transformational Leadership*

The discussion regarding leadership development in promoting engagement has been recognized by both academics and practitioners, culminating in studies exploring employee perceptions of such activities [13]–[18]. In explaining the results of two studies examining the mediating role of self-efficacy between transformational leadership and work involvement, Avolio, Walumbwa, & Weber (2009) found that follower characteristics moderate the relationship between transformational leadership and follower engagement [19]. When the leader feels the follower has less positive characteristics, the level of work involved is lower. Song, Kolb, Hee Lee, & Kim (2012) show that work engagement mediates the relationship between transformational leadership and organizational knowledge-creation practices in Korea [20]. Breevaart et al., (2014) showed that naval cadets were more engaged when their leaders demonstrated more transformational leadership and provided contingent rewards (transformational components and action leadership) [21]. In a study by Ghadi, Fernando, & Caputi (2013), employees' perceptions of meaning in work partly mediated the relationship between transformational leadership and work engagement in the Australian context [22].

Most of the studies on instructor leadership in the context of higher education modules (from now on referred to as instructor leadership) examine the utility of transformational leadership for the teaching practice [23]. A transformational leader 'articulates a realistic vision of the future that can be shared, stimulates followers intellectually, and notices differences among subordinates' [9]. Adapting this definition to the context of higher education modules, we define a transformational leader-instructor as a person who guides students toward the module's learning objectives stimulates students intellectually, and pays attention to differences between students. The key difference between the enterprise and higher education module's definitions of transformational leadership is that the leader's vision or goals in the module context may not be 'shared' to the same extent as in the enterprise

context. For example, in a corporate context, followers adopt a shared vision and coordinate and direct their efforts to achieve goals towards this vision for their own and mutual benefit [24]. It is likely to exist in the context of teaching and learning activities in the classroom with shared goals between instructors and students related to learning or academic achievement [25]. Students may need help to get good grades for the prestige associated with good grades, career reasons, increased satisfaction, etc. At the same time, instructors may be concerned about good grades because these visible indicators of class performance are often yardsticks of teaching effectiveness and quality, influencing promotion prospects. Therefore, the transformational leadership principle of shared vision or goals may only be partially applicable to the context of higher education modules.

### ***Organizational Culture and Student Performance***

In addition to these layers of organizational culture, Maslowski (2006) identified three critical aspects of culture: content, homogeneity, and strength [26]. The content describes the meaning of basic assumptions, norms, and values the organizational members share. It is defined as the aggregated members' ratings of cultural perceptions. A high score indicates the high perceived priority for the considered aspect (e.g., students' performance, teachers' collaboration), and a low score indicates a lower priority. The content is often characterized by typologies (for a typology of school culture, see Hargreaves, 1995) or dimensions [27]. The second aspect of organizational culture, homogeneity, refers to the extent to which organizational members share basic assumptions, norms, values, and cultural artifacts. A culture is perfectly homogeneous if all staff members share the same assumptions, norms, and values. Organizational culture is a set of shared values, beliefs, and norms that influence how employees think, feel, and behave [28]. Culture is transmitted to organizational members through socialization and training, rites and rituals, communication networks, and symbols. Corporate culture has four functions: it provides members with a sense of identity, increases their commitment, reinforces organizational values, and serves as a control mechanism to shape behavior [29]. Leaders shape and support culture by what they pay attention to, how they behave, allocate rewards, and hire and fire individuals. Sometimes organizations have to change their culture. Leaders can do this by helping current members buy new values, socializing newcomers to the organization, and removing current members accordingly [30]. Organizational culture is a factor in business performance because a strong culture can dictate the behavior of business members and influence members to work together synergistically [31]. In working synergistically, some targets have been set to motivate students to improve their performance in running the organization. Therefore, according to Ghassani et al. (2020), organizational culture is one factor that influences student performance in organizations, both on campus and in companies [31]. Previous research conducted by Soomro & Shah (2019) shows the results of organizational culture affecting performance [32]. From the results of this description, the first hypothesis in this study is:

H1: Organizational culture has a positive and significant effect on student performance

### ***Organizational Culture and Student Engagement***

According to Havik, T. & Westergard, E. (2020), organizational culture is the subject of solving external and internal problems whose implementation is carried out consistently by a group which then passes on to new members in the right way to understand, think and feel about related issues [33]. Universities currently have organizations that students handle. Most students who participate in intra-campus organizations have several activities organized to support activities within the college [34]. Activities organized by intra-campus organizations handled by students will be carried out well if the culture within the organization is good. To examine the relationship between organizational culture and student involvement, the current study uses student involvement in intra-campus organizations at one of the private tertiary institutions in Indonesia. Student engagement is a broad construct consisting of several aspects of student commitment to school, and it is strongly associated with academic achievement [35]–[38]. Although researchers have used various definitions of student engagement [39], there is consensus that student engagement is multidimensional and, at a minimum, includes both emotional and behavioral components [40], [41]. Several reasons support the link between organizational culture and student engagement. Therefore, previous research conducted by Gillen-O'Neel (2019) showed that corporate culture significantly and positively influences employee engagement [42]. From the results of this description, the hypothesis in this study is:

H2: Organizational culture has a positive and significant effect on student engagement.

### ***Transformational Leadership and Student Performance***

Transformational leadership must be linked to job involvement for many reasons. Vincent-Hoper, Muser, and Janneck (2012) explain that transformational leaders can increase job engagement by helping their employees realize their potential, thus meeting high-level needs [43]. Kopperud, Martinsen, and Humborstad (2014) added

that transformational leaders could influence work engagement through emotional transmission [44]. These leaders express positive emotions that can spread to their employees. Employees can become more emotionally involved in interacting with co-workers and customers [45]. Finally, Kopperud et al. (2014) explained that the challenges presented by transformational leaders could encourage work engagement when these challenges are considered positive [44].

Empirical studies support the relationship between transformational leadership and job involvement [43], [44]. Although there is strong support for the relationship between transformational leadership and job involvement, this support comes from studies limited by Bass's (1985) model [46]. One of the main issues here is that transformational leadership is a multidimensional concept and thus needs to be treated as such when developing its nomological network [47]. In light of this, certain dimensions of transformational leadership should have a stronger relationship with job involvement than others. Explanations from previous researchers on the scope of transformational leadership with student performance are limited to 'employees' in an organization. Even though the organizations around us are included in the intra-campus organizations at tertiary institutions with student members, a recent exploration of transformational leadership referring to the tertiary level with a focus on students as members of an intra-campus organization can be researched. Morela et al. (2023) argue that transformational leadership is a process of people interacting with others, creating relationships that create motivation and morality in leaders and subordinates [48]. Bernardin & Russel (2003) argue that performance results from work achievements that a person has achieved by their job function in a certain period [49]. Previous research conducted in addition to the influence of leaders on teacher attitudes and behavior, the final hypothesis focuses on the impact of leader behavior on actual student performance in the school system. It has been a tradition in leadership research to assess the impact of leadership style on objective performance criteria such as productivity, turnover, and absenteeism [50], [51]. Most often, such a relationship is the study between managers and employees of profit-oriented companies. Our focus here is on the influence of leadership behaviors on objective measures of academic achievement of students participating in intra-campus organizations. Thus, we assume that:

H3: Transformational leadership has a positive and significant effect on student performance.

### ***Transformational Leadership and Student Engagement***

Research on transformational leadership has been extensively researched to add insight in the scope of human resources. Transformational leadership is well suited for three important reasons. First, transformational leadership is one style that has received attention in the performance literature but with different findings [50], [51], as discussed below. Despite criticisms ranging from dependence on followers and negative connotations for the leaders themselves [52], to a lack of sufficient evidence of moderate influence (van Knippenberg & Sitkin, 2013), transformational leadership has received much praise in literature. It has been associated with idealized effect, inspirational motivation, individual judgment, and intellectually stimulating behavior [53]. It has been largely recognized for its positive influence on process and team performance over the years and in various studies for inspiring followers. Achieve goals [54]–[56]. Second, transformational leadership seems to really help the team so that the performance of its members can be of high quality. It has been recognized as a “major driver” [57] and is associated with student engagement [58]. Thus, transformational leadership is the right focus for our study of student performance and student engagement with members who are students at one of the private tertiary institutions in Indonesia. Third, and paradoxically, team members may increasingly perceive their transformational team leaders as inauthentic because of the identity of fellow students in the organization in college [51]. Such perceptions can reduce the effectiveness of transformational leadership in student teams. According to Aldholay et al. (2020), transformational leadership is a leadership spirit possessed by a leader who is not concerned with his interests, can provide interesting ideas, and can exert significant influence on his subordinates [57]. Previous research conducted by Eisenberg et al. (2019) showed that the transformational leadership style positively and significantly affects employee engagement [59]. From the results of this description, the hypothesis in this study is:

H4: Transformational leadership has a positive and significant effect on student engagement.

### ***Student Engagement and Student Performance***

Engagement is defined as “the amount of physical and psychological energy that the student devotes to the academic experience” [60]. Three types of student engagement are identified, and they are cognitive, emotional, and behavioral engagement [61]. Cognitive engagement includes students invested cognitive efforts and resources [62]; emotional engagement involves motivation and commitment; and behavioral engagement deals with

students' on-task behavior [63]. Student engagement increases by collaborating and interacting during learning, enhancing co-creation, satisfaction, and commitment [64].

According to Picciano (2002), student performance may be defined and measured in many ways, including successful course completion, grades, and increased knowledge and skills [65]. To argue the effectiveness of online learning, many researchers compare student performance using standard evaluations and final course grades [66]. However, they are universally used to measure students' performance and are often considered reliable indicators of students' achievement of course objectives [67]. Bacon (2003) emphasized the importance of tests in students' major fields [68], referencing a study of program effectiveness by Miller, Chamberlain, and Seay [69]. Miller and colleagues (1991) found that tests in a student's major field were the most useful variable to measure the effectiveness of marketing programs [69]. Sanjeev, R. & Natrajan, N.S. (2019) stated that engagement is a psychological state in which members of the organization feel interested in the organization's success and are motivated to increase performance to a level that exceeds the required work standards [70]. Previous research conducted by Carter, Nesbit, Badham, Parker, & Sung (2018) and Ismail, Iqbal, & Nasr (2019) shows that employee engagement has a positive and significant effect on employee performance [71], [72]. From the results of this description, the hypothesis in this study is:

H5: Student engagement has a positive and significant effect on student performance.

#### ***The Mediating Effect of Student Engagement***

Theoretical understanding and conceptualization of engagement remain fragmented and untested [73]. According to the perspective adopted in this study, student engagement in the context of higher education can be defined as a positive, satisfying, work-related (study) state of mind characterized by passion, dedication, and absorption [74]. The student engagement scale developed by Schaufeli et al. (2002) was previously investigated by them in the context of higher education, examining the student engagement dimensions of enthusiasm, dedication, and absorption. This dimension of student engagement can be described as follows [75] passion is characterized by high levels of energy and mental resilience while working, a willingness to invest effort in one's work, and persistence even in the face of adversity. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption is characterized by complete concentration and enjoyment in one's work, where time passes quickly, and one has difficulty detaching from work [76]. With these three dimensions, all aspects of engagement are captured: behavioral, emotional/affective, and cognitive engagement [77]. The assumption is that the better educational experiences students have through higher-quality relationships, the more engaged they will be in their studies. Engagement, in turn, can positively influence student engagement in academic, social, or extracurricular activities. Therefore, engagement is considered essential for achieving positive academic outcomes such as completing a degree and demonstrating the effects of positive relationships between students and their faculty/educational staff [78], namely student engagement and supportive behavior outside the classroom. The latter can also be captured under the concept of "student loyalty" [79].

From previous research conducted by Kwan (2020), the results show that employee engagement mediates the influence of organizational culture on employee performance [51]. Student engagement with the school has behavioral and affective components [8]. The behavioral component is the extent of students' participation in school activities inside and outside the classroom. The affective component is the extent to which students identify with school and feel they belong. From previous research conducted by Li & Liu (2022), the results show a positive and significant relationship between employee engagement in mediating transformational leadership on employee performance [59].

H6: Student engagement has a positive and significant effect in mediating the relationship between organizational culture and student performance.

H7: Student engagement has a positive and significant effect in mediating the relationship between transformational leadership and student performance.

Figure 1 displays our research framework, which is derived from the theoretical foundation and hypotheses.

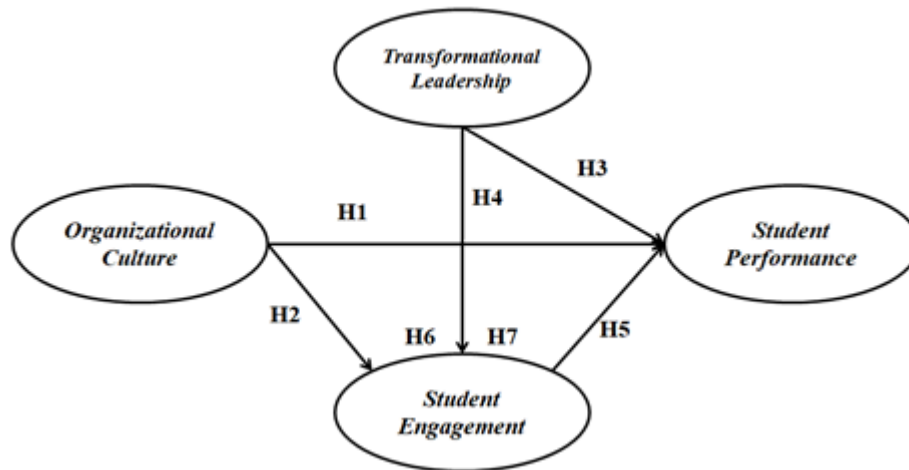


Figure 1. Research Model

### III. METHOD

#### *Measurement*

Before we distributed the questionnaires, we had carried out face validity of each item used by professors who are experts in the HR field. Then, we conducted a pilot test to test the loading factor between the items used to measure the variables used in this study. The results of the loading factor with a pilot test of 30 respondents show a value that is in accordance with the AVE rule of thumb ( $> 0.5$ ).

#### *Organizational Culture*

The organizational culture referred to in this study is the corporate culture in the form of values, norms, and policies in the Intra-Campus Organization. The indicators in the Organizational Culture variable are seven items that refer to Soomro & Shah (2019) with dimensions including integrity, sustainability, leading, accountability, modernity, innovation, and commitment [32].

#### *Student Engagement*

Student engagement in this study is student engagement as part of an intra-campus student organization at the faculty level in a tertiary institution in carrying out their duties and responsibilities. The indicators in the student engagement variable refer to Nikolova, Schaufeli, & Notelaers (2019) with the dimensions of Vigor 3 items, Dedications 3 items, and Absorption 3 items [80].

#### *Transformational Leadership*

The transformational leadership referred to in this study is how each member of the Intra-Campus Student Organization on the private campus in Indonesia perceives the leadership of the head of the organization in encouraging or directing and motivating organizational members who are ready to face rapid transformation. Indicators in the transformational leadership variable refer to Avolio & Bass (1995) with the dimensions of idealized influence as many as three items, inspirational motivation as three items, intellectual stimulation as two items, and individualized consideration as three items [81].

#### *Student Performance*

The student performance referred to in this study is the results students achieve in fulfilling their duties and obligations in the Intra-Campus Student Organization. The indicators in the Student Performance variable refer to

Liu et al. (2015) with the dimensions of "getting work done on time", "fast in solving problems," "quality work," and "work efficiently" [82].

**Results**

*Test of Model Fit*

For estimates of fit indices such as SRMR and NFI, in this study, one can immediately see the results of the estimation of the PLS-SEM or PLSc-SEM models (that is, report results) and the value of these criteria with certain thresholds at SRMR <0.08 and NFI > 0.90 [83]. The SRMR is the difference between the observed and model-implied correlation matrices. Thus, it allows assessing the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of the (model) fit criterion. A value less than 0.10 or 0.08 (in a more conservative version; see Hu & Bentler 1999) is considered a good fit [84]. Henseler et al., (2014) introduce the SRMR as a goodness-of-fit measure for PLS-SEM that can be used to avoid model misspecification [83]. In Table 1, the results of SRMR 0,061, the value is less than 0.1 or 0.08, measuring the model's suitability in this study can be said to be fit.

Table 1. Model Fit

	<b>Saturated Model</b>	<b>Estimated Model</b>
<b>SRMR</b>	0,061	0,061
<b>d_ULS</b>	1,833	1,833
<b>d_G</b>	1,020	1,020
<b>Chi-Square</b>	817,913	817,913
<b>NFI</b>	0,771	0,771

*Descriptive statistics, reliability, and validity tests*

Descriptive statistics have been utilized to examine the demographic characteristics of the interviewees. According to Table 2, many respondents (86.6%) are male, whereas 54.7% are between 18 to 20 years old. Results also show that most of the respondents (49.0%) member organizations on BEM only, while the remaining member organizations on Himama (15.9%), member organizations on Hima (12.7%), and 22,4% member organizations on Himie.

The testing technique used in this research is a validity test to measure whether a variable is valid. The validity test in this study used the Confirmatory Factor Analysis (CFA) method with a loading factor value of > 0.7 which was said to be valid and seen from the AVE (Average Variance Extracted) value, where the AVE value was said to be good if it had a value of > 0.50 [85]. The results of the validity test in this study can be seen in Table 3. which shows that all indicators are valid with an AVE > 0.5.

Table 2. Statistic Descriptive

Items	Level	Frequency	Percentage
Gender	Male	136	86,6
	Female	21	13,4
Age	18-20	86	54,7
	21-23	71	45,3
Organization	Management Association	25	15,9
	Student Executive Board	77	49,0
	Accounting Association	20	12,7
	Economic Association	35	22,4
	Total	157	100,0

Table 3. Results of Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Organizational Culture	0,872	0,901	0,566
Student Engagement	0,887	0,909	0,526
Student Performance	0,879	0,917	0,734
Transformational Leadership	0,938	0,947	0,619

Furthermore, the reliability test is carried out, namely a test carried out on indicators, to measure the theoretical construct. Meanwhile, according to Hair et al. (2014), the reliability test results from measurements using the same object will produce the same data [86]. A variable is said to be reliable if it has a Composite Reliability (CR) value of  $> 0.70$  [85]. The results of the reliable test can be seen in Table 3. which shows that the construct in this study is reliable with a CR value  $> 0.7$ . After testing the validity and reliability, a regression test was performed using PLS-SEM.

#### IV. RESULTS AND DISCUSSION

##### *Main and mediation effects*

To verify the effect of organizational culture on student performance through student engagement, this study followed the procedure recommended by Baron & Kenny (1986) [87]. According to Baron & Kenny (1986), a mediating effect occurs if the following conditions are met: (a) the independent variable (organizational culture) must affect the mediator (student engagement) in the first equation, (b) the independent variable must affect the dependent variable (student performance) in the second equation, and (c) the mediator must affect the dependent variable in the third equation (p. 1177) [87]. The results of testing the mediation model are shown in Table 5. Table 5 shows that student engagement influences mediating the relationship between organizational culture and student performance, as evidenced by a p-value of 0.001. However, the second requirement for a mediating effect from Baron & Kenny (1986) is that the independent variable (organizational culture) must affect the dependent variable (student performance), and the results for hypothesis 1 are not supported because the P value is 0.585 [87].

Furthermore, in the Figure 2. and Table 4. the transformational leadership variable has a positive relationship to student performance, with a p-value of 0.009. In contrast, the student engagement variable plays a role and has a relationship in mediating transformational leadership and student performance with a p-value of 0.004. therefore hypothesis 3 is supported and hypothesis 7 is also supported because it meets the requirements of the mediating effect of Baron & Kenny (1986) [87]. After that, the organizational culture variable has a significant positive relationship to student engagement as evidenced by a p-value of 0.000. Thus, hypothesis 2 is supported.

The transformational leadership variable has a significant positive relationship to student engagement, as evidenced by the p-value of 0.006, so hypothesis 4 is supported. Finally, on the results of hypothesis 5, student engagement has a significant positive relationship with student performance which is also supported as evidenced by a p-value of 0.000.



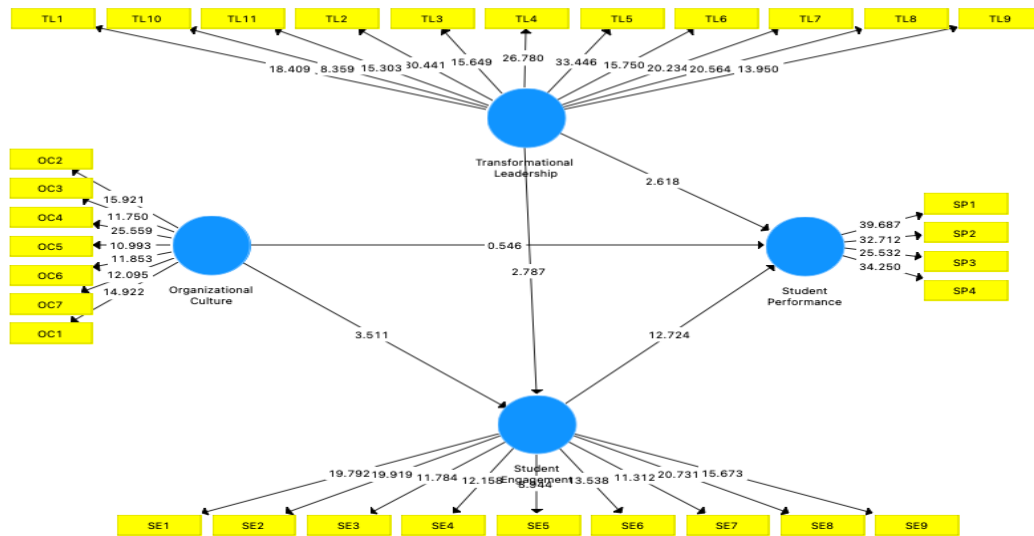


Figure 2. Path Analysis Using SmartPLS

Table 4. Result of Path Analysis

	Hypothesis	Original Sample (O)	T Statistics ((O/STDEV))	P Values
H1	Organizational culture influences student performance	0,030	0,546	0,585
H2	Organizational culture has a positive and significant effect on student engagement.	0,393	3,511	0,000
H3	Transformational leadership has a positive and significant effect on student performance.	0,192	2,618	0,009
H4	Transformational leadership has a positive and significant effect on student engagement	0,295	2,787	0,006
H5	Student engagement has a positive and significant effect on student performance.	0,723	12,724	0,000

Table 5 shows the results of student engagement mediation with several relationships in this study. The results of Hypothesis 6 show that student engagement has a positive relationship as a mediation between the indirect relationship of organizational culture and student performance. This result is evidenced by a p-value of 0.001 and a T-statistic of 3.302 which is > 1.98. The results of hypothesis 7 show that student engagement positively affects an indirect relationship between transformational leadership and student performance. This result is evidenced by a p-value of 0.004 and a T-statistic of 2.857.

Table 5. Result of total indirect effect (mediation effect).

	Hypothesis	Original Sample (O)	T Statistics ((O/STDEV))	P Values
H6	Student engagement has a positive and significant effect in mediating the relationship between organizational culture and student performance	0,284	3,302	0,001
H7	Student engagement has a positive and significant effect in mediating the relationship between transformational leadership and student performance	0,213	2,857	0,004

**Discussion**

This study aims to determine the relationship of organizational culture on student engagement and student performance. The relationship of transformational leadership on student performance is also studied in the

university environment. The results of this study indicate that organizational culture does not positively influence student performance, but organizational culture positively influences student engagement. In this study, the individual level was used as a respondent in a study that served as a student in a campus organization. This means that the intended student involvement in this study has a higher influence on organizational culture than student performance on organizational culture. With university student involvement as the dependent variable, the study results show that transformational leadership has a significant, albeit weak, effect on the affective or psychological (engagement) and behavioral (performance) dimensions of student involvement.

This measure of the effect of transformational leadership is roughly the same as that found for the effect of principal-specific leadership in two of our previous studies [88], [89], which also used student engagement as the dependent variable. The research results in the outline all influence in accordance with the hypothesis proposed, both direct and indirect effects. However, the focus is on the direct relationship that occurs between organizational culture and student performance, which is shown from the research results. Students who were involved as respondents in this study considered that the organizational culture in their dictionary environment had not fully influenced student performance to take appropriate action. Organizational culture can be improved with open leadership that can invite its members to be active and participate in every existing activity. This can affect student performance so organizational culture and leadership have a significant role for its members.

## V. LIMITATIONS AND CONCLUSION

This research has several limitations that need to be corrected. The main limitation is the possibility of general method bias because we used a survey questionnaire to measure all factors based on student perceptions (Podsakoff et al., 2012). Although the CFA confirmed that the multi-factor model fits the data well, we performed Harman's single-factor test to explore discriminant validity and assess any general method bias. Our tests aim to see whether most of the variance can be explained by a single factor by limiting the number of factors in our CFA to one and examining solutions that are not rotated. A single factor does not account for most of the variance explained; hence, general method bias was not a concern in our study can seen in Appendix 1. We propose that future studies consider superiors' perceptions when collecting data, in other words, not only members within an organization or management.

Another potential limitation relates to data collection in this study being cross-sectional, which hinders causal inferences. Despite adopting a theoretical framework that strongly supports the causal direction of our hypothesis, we suggest that future research use a longitudinal design to make inferences about results regarding work engagement and explore variation over time. Finally, the data were obtained from the education sector at universities only, which may limit the findings' generalizability. Transformational leadership can be found in several organizations. We, therefore, encourage future research to examine interactions between these constructs across sectors and countries where cultures and power distance vary to account for different contexts and to include psychological empowerment as a predictor of job engagement and organizational outcomes such as job performance, turnover or absenteeism.

This study investigated organizational culture as a basic mechanism that explains the positive relationship between transformational leadership and student performance, as depicted in the student engagement model. The findings illustrate that organizational culture does not affect student performance, but the relationship between organizational culture and student engagement has a positive influence. Such a social structure, in turn, gives rise to high levels of job involvement.

### Notes on contributors

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Appendix Table 1.

Remedies undertaken against common method bias (based on Podsakoff et al., 2012)

Remedy and rationale	Implementation
<i>Procedural Remedy</i>	
Protect respondent anonymity	Respondents do not need to state their name and position in the organization. We conducted field tests with intra-campus organizations at the study program level to identify ambiguous and sensitive instructions and questions. We adjusted several questions and instructions and deleted one question related to the encouragement of creative thinking by leaders of intra-campus organizations.
Reduce item ambiguity	
Obtain measure of independent variables and dependent variables from different sources	Although one person should respond to independent and dependent variables, the dependent variables do not involve feelings, perceptions, or beliefs. We also performed additional regressions using different subsamples.
Proximal separation between independent variables and dependent variables	The questions related to organizational culture and transformational leadership (the main independent variables) are separate from the dependent variable questions.
<i>Statistical Remedy</i>	
CFA market technique	When all items based on transformational leadership were included together in the factor analysis, the results of the validity test showed (<0.5). Because our data did not pass the validity test, we deleted items on the transformational leadership variable. Then we re-test the validity of the results that are appropriate.
Instrumental variable technique	

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