

AUTHENTIC LEADERSHIP AND ORGANIZATIONAL EFFECTIVENESS AT PRIVATE UNIVERSITIES: THE MEDIATING EFFECT OF VIRTUOUSNESS

Ahmad Nawaz^{1*}, Fransisca Laij²

Management Program, STIE Jakarta International College, Indonesia.

*Corresponding Author: ahmad.nawaz@jic.ac.id

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ABSTRACT

The purpose of this study is to investigate the relationship between authentic leadership, organizational Virtuousness, and departmental effectiveness at private universities in Jakarta. Two-stage sampling was undertaken in this study. In the first stage, a sample of 17 private universities was selected using a simple random sampling technique. In the second stage, faculty members were randomly contacted from the selected departments from sampled private universities to fill out the questionnaire for this study. Data was collected from the experienced faculty members of various departments of private universities and processed through the Structural Equation Modelling - PLS technique. This study finds that Authentic leadership plays a significant role in cultivating a virtuous environment in a private university department and enhances organizational effectiveness within the department of private universities. Furthermore, the findings propose that organizations must reinforce significant internal powers such as authentic leadership and organizational Virtuousness to improve their efficiency and effectiveness. Authentic leadership, as an upbeat leadership style, can nurture positive qualities in the company. The amplifying and buffering roles of organizational Virtuousness will contribute to the organization's effectiveness. Limitations of the study were primarily because the focus was on relatively contemporary topics like authentic leadership and organizational Virtuousness, which are part of the evolving research areas. There is little information available, particularly in the context of Indonesian organizations. Secondly, the number of items in the original survey instrument was too large to be efficiently answered in one questionnaire; therefore, it was cut short to a more appropriate scale with experts' assistance.

INTRODUCTION

The standard of higher education institutions is vital to a country's progress. It is reflected through its performance or effectiveness and has a proven role in improving its economic growth (Hanushek, 2016). Abungah (1996) indicated that one of the constant challenges higher education institutions face is demonstrating their effectiveness to the government, internal and external constituencies, and the general public. For that reason, organizations have always been under pressure to establish systems and strategies to facilitate organizational effectiveness and accountability as standards for organizational effectiveness and accountability have risen (Cameron & Whetten, 2013; Burke & Associates, 2005).

According to Cameron (1978), Organizational effectiveness is the extent to which students are Satisfied with their educational Experience (SES), Students have Developed Academically (SAD), students are Satisfied with their Career Development (SCD), students are Satisfied with their Personal Development

(SPD), Faculty and Administrators are Satisfied with their Employment (FAES), Professional Development and Quality of Faculty (PDQF) are attained, there is System Openness and Community Interaction (SOCI), the institution has the Ability to Acquire Resources (AAR), and the institution functions smoothly in terms of its processes and operations, that is, the Organizational Health (OH). According to Donald & Denison (2001) and Mansour et al. (2015), in higher education, organizational effectiveness and its measurement are of great importance to national and global entities.

With a high number of high school graduates, although Indonesia has made progress in the field of education, however, Indonesian universities and colleges must expand their capacity to accommodate a growing number of secondary school graduates, as well as improve the quality of education provided at these institutions (Sulisworo, 2016; Hussain & Siddik, 2013). Since Indonesia was ranked last among all OECD countries regarding adult literacy and skills in 2016, the government and other related authorities bear a significant responsibility to determine its causes and appropriate solutions (OECD, 2016).

Dr. Illah Sailah, Head of the Institution of higher education services in Jakarta, mentioned that 316 private tertiary institutions operate in Jakarta, universities, colleges, and academies. Moreover, she commented that 200 private tertiary institutions are sufficient for Jakarta as it is better to have fewer private higher education institutions that are prestigious than many that do not meet the quality standards of education (Putra, 2019). There is a need to explore the effectiveness of higher education institutions in Indonesia; thus, this research will identify the weak areas and provide solutions.

In this paper, we consider authentic leadership as a predictor of organizational effectiveness. Literature provides examples from past studies that discussed the relationship between authentic leadership with organizational effectiveness. Such as, Lee (2018) studied the relationship between authentic leadership and organizational effectiveness and revealed that authentic leadership has a positive influence on organizational effectiveness. Few empirical studies are conducted to test the impact of authentic leadership on the effectiveness of educational institutions. One of such efforts was made by Ma (2016), where she found that authentic leadership has helped turnaround schools and enhanced their effectiveness significantly. This study is meant to understand the role of authentic leadership in achieving organizational effectiveness. It will identify the importance and application of authentic leadership philosophy within Indonesian private universities and how it affects the efficacy of these universities' departments.

Literature proves that authentic leaders enhanced organizational Virtuousness (an organization's culture associated with a significant degree of optimism, compassion, forgiveness, trust, and integrity; Cameron et al., 2004). We test how authentic leadership influences organizational Virtuousness by using the data from Indonesian private universities. For example, Rego et al. (2015) studied stores of a retail chain in Brazil and empirically supported the relationship between authentic leadership and group virtuousness. Ozkan and Ceylan (2016) researched within the construction industry and found a link between authentic leadership and positive work outcomes, particularly highlighting follower's well-being at work and collective efficacy perceptions of employees.

Several studies explored the relationship between organizational Virtuousness and organizational performance (Cameron et al. 2004, 2011; Rego et al. 2013; Cameron, 2020). Oswald et al. (2015) studied university students, which revealed a positive relationship between human well-being and

performance. Notably, in higher education, the effectiveness of an organization, its Virtuousness, and leadership are all considered critical topics discussed by many scholars (Kouzes & Barry, 2019; Kadoić, 2018; Temple, 2018; Imansyah, 2017). Departments of Indonesian private universities constitute strong universities. This study investigates the role of Virtuousness to enhance the effectiveness of those departments.

Indonesian higher education structure is very diverse. Higher education institutions operate in the form of academies, polytechnics, colleges, institutes, or universities. The Indonesian government is increasingly focusing on higher education leadership and taking steps to improve the leadership and governance of higher education institutions. According to Rakhmat and Adzarna (2016), Indonesia needs good educational leadership to address the poor quality and slow transformation in its education system. This study attempts to find the relationship between authentic leadership and departmental effectiveness through the mediating role of organizational Virtuousness within the departments of private universities located in Jakarta.

This research aims at the departmental level of Indonesian private universities to explore and understand the relationship between authentic leadership, Virtuousness, and effectiveness variables. Study programs offered at these universities would be considered departments in the current context of the research as departments contributing to the change and improvement for the whole institution have been discussed by scholars in the past (Wenger, 1998; Harris, 2001).

LITERATURE REVIEW

Authentic Leadership

While authentic leadership research is still in its early stages, researchers are increasingly interested in this subject. In 1993, the first research article on authentic leadership was published, and since then, many researchers have given their perspectives on the topic (Adams, 2013). Several scholars (Waite et al., 2014; Avolio & Mhatre, 2012) suggested that the authentic leadership philosophy is more than just about “effective” leadership and addresses the “good” by improving the quality of moral character of organizational culture. Northouse (2016) has discussed two types of approaches to authentic leadership: theoretical and practical.

Several scholars have discussed the Theoretical Approach concerning authentic leadership. According to Avolio et al. (2004) and Gardner et al. (2005), authentic leaders are defined as positive in their attitude, completely aware of their viewpoints, and fully understand the context of their work. Eagly (2005) noted that the interactions between leaders and subordinates play an essential role to engender authenticity in leadership within an organization. Additionally, Leroy et al. (2012) stated that authentic leaders who are naturally open and accurate to themselves, their actions do not differ from their words.

Robert Terry’s and Bill George’s approaches are two well-known practical approaches discussed by scholars (Northouse, 2016). The practical approach depends on real-world examples and focuses on ‘how to become an authentic leader.’ In 1993, Robert Terry developed a practical approach for authentic leaders. This approach is centered on actions since it emphasizes the acts of the leaders, leadership team, or even the organization to address a particular problem. Moreover, in 2003, Bill George developed a model based on the dimensions and characteristics of authentic leaders. This model has two sections where the inner section contains dimensions, and the outer section has each dimension’s related characteristic. Five dimensions are included: pursuing purpose understanding, strongly believing in

values, behaving with heart, building relationships based on trust, and exhibiting self-discipline (George, 2003).

Organizational Virtuousness

The concept of Organizational Virtuousness is based on Aristotelian principles of virtue, such as moral goodness, social betterment, inherent value assumption, and eudemonic assumption (Meyer, 2016). According to Cameron (2003), the concept of Organizational Virtuousness contains three primary components; human impact, moral goodness, and social betterment. Moreover, suppose the management strives to improve virtuous practices on an individual basis or organizational basis. In that case, it will enhance the quality of overall performance and lead to a better environment within the organization. He explained that the human impact in Virtuousness refers to its relevance with human beings; moral impact represents “what is good, right, and worthy of cultivation.” Social betterment reflects the support or value produced for others without expecting any returns.

Virtuousness nurtures amplifying and buffering abilities in organizations (Bright et al., 2006). Their study described that because of the amplifying effect of Virtuousness, the organization could craft a positive feedback system where everyone is motivated enough to follow virtuous practices based on others’ feedback. The buffering effect reflects the ability of individuals and groups to promote resiliency and healthiness within organizations under challenging times. More recently, positive social science literature has drawn attention to eudaemonic assumption and the inherent value assumption properties of the organizational virtuousness concept. Eudaemonic assumption attribute creates helping or contributing behavior.

In contrast, the inherent value assumption reflects “goods of first intent”, which means that Virtuousness is an achievement and doesn’t require other rewards acknowledged as valuable (Cameron & Winn, 2012). They noted that Virtuousness adds value to society and causes an overall social betterment. Also, when someone acts based on virtuous principles, it benefits others and the actor itself. According to Meyer (2016), the benefits of organizational Virtuousness can be categorized in three ways; benefits for human well-being, societal and financial gains, and best ethical actions.

According to Kooshki (2016), Cameron is one of the pioneers in developing the Organizational Virtuousness framework. Cameron et al. (2004) established and validated a five-factor model for measuring Organizational Virtuousness. The model included five characteristics to measure the organization’s Virtuousness: organizational optimism, forgiveness, trust, compassion, and integrity.

Organizational Effectiveness

The concept of organizational effectiveness gained significant focus in the late 1920s by the scholars that it became a construct in the business literature (Henry, 2011). To measure effectiveness is one of the constant challenges that higher education institutions face: demonstrating their effectiveness to the government, internal and external constituencies, and the general public (Abungah, 1996). The construct of organizational effectiveness is hard to define and measure and is so vast that it has many definitions. Different scholars offer different criteria, and several methods have been discussed to measure the construct (Cameron, 1978; Peterson & Blackburn, 1985).

Organizational effectiveness, as described by Cameron (1978), highlighted the following major areas: (1) student educational satisfaction, (2) faculty and administrator employment satisfaction, (3)

organizational health, (4) student academic development, (5) professional development and quality of the faculty, (6) student personal development, (7) student career development, (8) systems-openness and community interaction, and (9) ability to acquire resources. In 1979, Cameron summarized these dimensions into four categories: organizational goal, systems resource, internal processes, and participant satisfaction.

According to Abungah (1996), definitions of organizational effectiveness differ concerning different types of organizations. He surmised that organizations could be categorized as units formed to achieve goals, associations responding strategically, enterprises to address individual needs, systems to develop meaningful processes, and systems to process available information. The management structure of higher education institutions is critical to the institutions' effectiveness.

According to Cope (1981), organizational effectiveness is the system's ability to achieve organizational goals. Chinta et al. (2016) argued that some models heavily depend on evaluators. Further, input, process, and output components are given primary importance in such models. For example, four stages model, in which the following four stages are covered to evaluate an institution:

1. University carries out a self-evaluation process
2. An external evaluator reviews the process
3. A report is published by the evaluation committee and quality agencies
4. The quality agencies revisit university

Some evaluation models are established based on the objectives of institutions. Stufflebeam and Shinkfield (2007) have illuminated methods that consider objectives while evaluating the institutions, such as pseudo evaluation, quasi-evaluation, accountability-oriented evaluation, social agenda, and advocacy and mixed evaluation methods. Furthermore, Wang (2009) discussed that some evaluation methods address the perspectives of management, outcome, or process, depending upon the institution's objectives for evaluation. In 1986, Cameron conducted a study that covered 29 higher education institutions from the northeast United States. These institutions were a mix of public and private entities. The respondents included faculty, department heads, academic, financial, student affairs, and general administrators. Cameron noted that the areas emphasized in his earlier study (Cameron, 1978) were helpful to measure effectiveness in the 1986 scenario.

Authentic Leadership and Organizational Virtuosity

Literature proves that leaders enhance organizational Virtuosity. A study conducted by Moore and Beadle (2006) discussed this relationship. It proposed that leaders who own the characteristics of virtuous behavior indeed play the role of virtuous agents in promoting the environment, which supports positive behavior at the workplace. Such leaders will have the ability to communicate and spread virtuous culture through their interpersonal relationships with their subordinates and their behaviors. As for authentic leadership, Rego et al. (2015) used sixty-eight stores of a retail chain in Brazil and empirically supported the relationship between authentic leadership approach and group virtuosity. According to Arda et al. (2016), when positivity is exercised within organizations, it promotes positive emotional attitudes such as hope, courtesy, self-efficacy, appreciation, trust, and honesty. Moreover, they proposed a positive link between authentic leadership behavior and the positivity of the followers. To investigate the relationship between authentic leadership and organizational Virtuosity within the Indonesian context, hence this study hypothesizes that:

H₁: Authentic leadership influences the organizational Virtuosity of private universities'

departments.

Organizational Virtuousness and Organizational Effectiveness

The link between organizational Virtuousness and organizational effectiveness has been studied by several researchers (Cameron et al. 2004, 2011; Rego et al. 2010, 2013). Cameron et al. (2004) took a sample of 18 organizations from a variety of industries and found that even in organizations expected to suffer from the damaging effects of downsizing; a positive relationship was noticed between Virtuousness and organizational performance, mainly by reasons of the amplifying and buffering functions of organizational Virtuousness. More recently, Oswald et al. (2015) found a positive relationship between human well-being and performance. Gelade and Young (2005), while studying the banking sector, illuminated that Virtuousness and sales achievement were related. Thus, the following hypothesis is proposed:

H₂: Organizational Virtuousness influences the organizational effectiveness of private universities' departments.

Authentic leadership and organizational effectiveness

Organizational effectiveness is affected by many factors. Some of these factors are external, such as demographic, economic, and political environments, and some are internal, like leadership, organizational values, and processes (Abungah, 1996). Few empirical studies have been done to test the impact of authentic leadership on the effectiveness of educational institutions. One of such efforts is made by Ma (2016) in the form of a dissertation. Her selected sample included two principals and sixteen teachers from two high schools and eight parents. She found that authentic leadership has helped turnaround schools and enhanced their effectiveness significantly. Park & Lee (2016) studied 239 employees of Korea Company to explore the link between authentic leadership and organizational effectiveness. Their study revealed that authentic leadership has a positive influence on organizational effectiveness. Khan (2010) investigated the construct of authentic leadership and how does it impact organizational performance. After reviewing the previous literature, Khan concluded that authentic leaders influenced organizational performance by improving followers' attitudes and behavior. In one study, authentic leadership has positively influenced organizational effectiveness in those organizations (Lee, 2018). Hence, it is hypothesized:

H₃: Authentic leadership influences the organizational effectiveness of private universities' departments.

The model in this study is based on the three hypotheses discussed above.

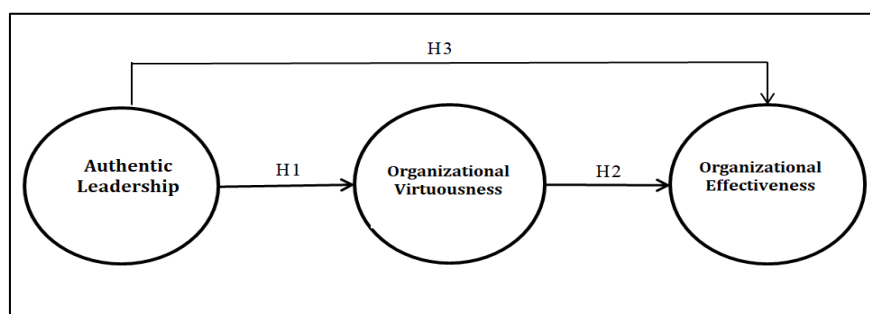


Figure 1: Research Model

METHOD

The relationship between the variables, namely; authentic leadership (AL), organizational virtuousness (OV), and organizational effectiveness (OE), will be investigated using a quantitative research method

in this analysis. Two-stage sampling was undertaken in this study. In the first stage, from 56 private universities, a sample of 17 universities is selected using a simple random sampling technique. Since this study focuses on the universities’ departmental level, the university department is regarded as the unit of analysis in this context. A disproportionate stratified random sampling method (Sekaran & Bougie, 2016) is one of the most efficient probability sampling methods that ensure diversity and an acceptable representation of the whole group. For this study, 78 departments were selected from the random sample of 17 private universities. Units of observation in this study are the faculty members from various departments of private universities located in LLDikti III. This study contains one exogenous latent variable, namely authentic leadership, one intervening latent variable, namely organizational Virtuosity, and one endogenous latent variable, namely organizational effectiveness. Structural Equation Modeling (SEM) – PLS is used to process the data in this study.

RESULT AND DISCUSSION

Out of 125 responses received, 28 were discarded because they did not meet the research’s requirements. Each variable’s indicator in the questionnaire is measured using a six-point Likert scale to assess the respondent’s willingness to the items posted.

The following chart presents the distribution of departments and their responses across sample universities.

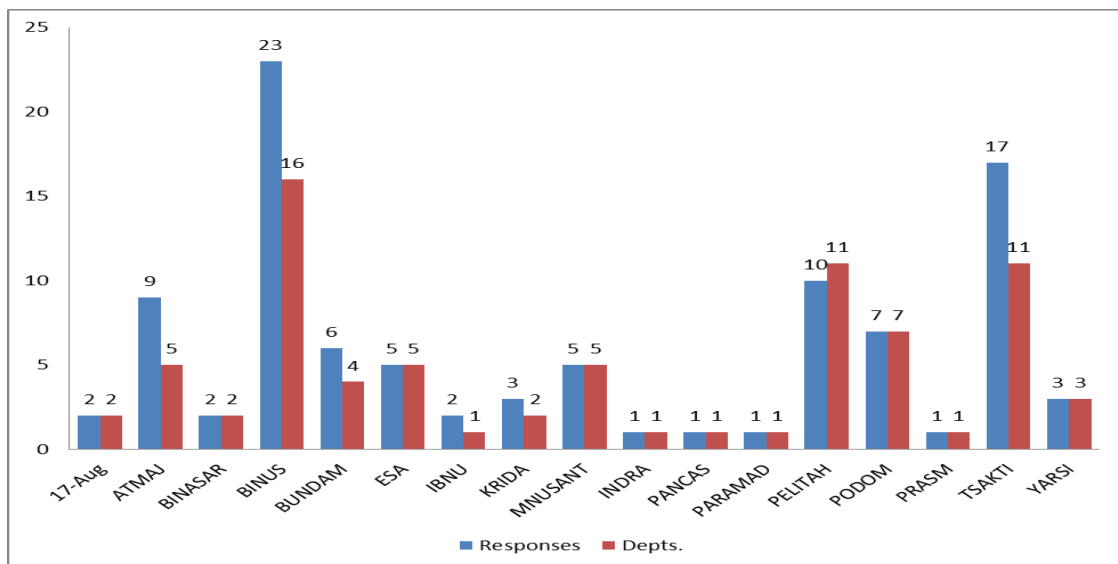


Figure 2: Distribution of Depts./Responses across Sample Universities

Each respondent was required to have a minimum of two years of experience in their respective departments to ensure data reliability and accuracy. The following chart illustrates this attribute.

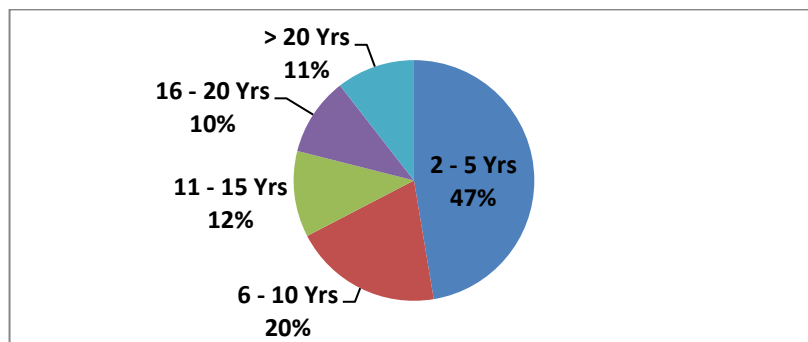


Figure 3: Work Experiences of the Respondents

Structural equation modeling (SEM) has been used to analyze the hypothesized structural relationships among latent variables in the current study.

The following tables, namely; table 1, 2 and 3, provide statistics to prove the reliability of the indicators used in the study:

Table 1: Mean, SD, and reliability of Authentic Leadership (AL)

Mean, Standard Deviation, and Reliability of Authentic Leadership					
	Indicators	Mean	SD	Factor loadings	Cronbach alpha
Codes	Authentic Leadership	4.51	1.22	-	0.9
AL1	My department head shows consistency between his/her beliefs and actions.	4.56	1.22	0.868	
AL2	My department head uses his/her core beliefs to make decisions.	4.41	1.13	0.887	
AL3	My department head objectively analyzes relevant data before making a decision.	4.43	1.25	0.736	
AL4	My department head is guided in his/her actions by internal moral standards.	4.65	1.17	0.713	
AL6	My department head shows that he/she understands his/her strengths and weaknesses.	4.39	1.22	0.828	
AL7	My department head clearly states what he/she means.	4.63	1.26	0.839	

Table 2: Mean, SD, and reliability of Organizational Virtuousness (OV)

Mean, Standard Deviation, and Reliability of Organizational Virtuousness					
	Indicators	Mean	SD	Factor loadings	Cronbach alpha
Codes	Organizational Virtuousness	4.37	1.2	-	0.95
OV1	My department is a virtuous place to work—it represents the best of humankind.	4.41	1.3	0.881	
OV2	My department demonstrates and fosters forgiveness for mistakes.	4.18	1.2	0.897	
OV3	My department helps inspire employees.	4.22	1.2	0.901	
OV4	My department emphasizes the profound purpose and meaningfulness of our work.	4.43	1.1	0.888	
OV5	My department demonstrates and fosters friendships and sincere caring for one another.	4.49	1.1	0.813	
OV6	My department demonstrates and fosters gratitude and appreciation toward employees.	4.46	1.2	0.879	
OV7	My department demonstrates and fosters trust and integrity among employees.	4.47	1.3	0.814	
OV8	My department provides compassionate support to employees who experience difficulty.	4.4	1.18	0.889	

Table 3: Mean, SD, and reliability of Organizational Effectiveness (OE)

Mean, Standard Deviation, and Reliability of Organizational Effectiveness					
	Indicators	Mean	SD	Factor loadings	Cronbach alpha
Codes	Organizational Effectiveness	3.91	1.42	-	0.87
OE1	This department recognizes and rewards individuals for good work.	4.45	1.2	0.775	
OE2	There is a very high emphasis on department-community or department environment activities.	4.22	1.02	0.743	
OE3	When hiring new faculty members, this department can attract the leading people in the country in their respective fields to take a Job here.	3.85	1.39	0.838	
OE4	This department is highly responsive and adaptive to meet the changing needs of its external constituencies.	4.33	1.16	0.791	
OE5	One of the outstanding features of this department is the opportunity it provides students for personal development in addition to academic development.	4.69	1.11	0.808	
OE6	How many faculty members at this department would you say published a book or an article in a professional journal, or displayed a work of art in a show last year.	2.97	1.57	0.500	
OE7	How many students would you say engage in extra academic work (e.g., reading, studying, writing) over and above what is specifically assigned in the classroom.	3.01	1.48	0.803	
OE8	Estimate how many employees at this department are personally satisfied with their employment.	3.77	1.28	0.500	

Internal consistency and individual indicator reliability can be assessed using composite reliability. Convergent validity can be assessed using average variance extracted (AVE), and discriminant validity can be measured using the Fornell-Larcker criterion, as Hair et al. (2014) discussed. Convergent validity is defined by Carmines & Zeller (1979) as the degree to which different methods evaluate the same characteristics, while discriminant validity is defined as the extent to which characteristics are unrelated. Internal consistency and convergent validity scores are shown in Table 4 below.

Table 4: Internal Consistency and Convergent Validity Scores

Constructs	Composite Reliability	Average Variance Extracted (AVE)
Authentic Leadership	0.910	0.672
Organizational Effectiveness	0.914	0.640
Organizational Virtuousness	0.962	0.759

Cronbach's Alpha values provided in the tables above are greater than the minimum acceptable score of 0.70. All the composite reliability values are within the appropriate limit of 0.70 to 0.90 (Hair et al., 2014). Average variance extracted (AVE) values for all the constructs are greater than the acceptable score of 0.50, representing adequate convergent validity. It means that all of the model's constructs account for a large portion of the variance in their indicators.

Table 5: Fornell-Larcker Criterion

Fornell-Larcker Criterion			
Latent Variables	AL	OE	OV
AL	0.820		
OE	0.522	0.8	
OV	0.455	0.844	0.871

According to the above results in table 5, the model met the internal consistency reliability and convergent validity requirements, but the discriminant validity remained poor. The square root of each construct's AVE should be greater than its highest correlation with other constructs (Hair et al., 2014), which was not found in OE cases, indicating that this variable has overlapping attributes with other variables. However, the instrument used in this study had stronger convergent validity than discriminant validity, which means it provided valid construct measures. Still, there was some overlap between the measures of different constructs. (Hill & Hughes, 2007). According to Hair et al. (2014), measures that can be used to assess the structural model are VIF for collinearity issues, R^2 values, the f^2 effect size, the predictive relevance (Q^2), and the significance of the path coefficients.

Table 6 provides VIF values for the current model. All the values are within the appropriate range of 0.2 to 5, suggesting no collinearity among the predictor variables.

Table 6: Collinearity Statistics for the Model

Collinearity Statistics (VIF)			
Latent Variables	AL	OE	OV
AL		1.261	1.000
OE			
OV		1.261	

Tables 7 and 8 below show the coefficient of determination (R^2) and f square effect size scores, respectively.

Table 7: R-Square & R-Square Adjusted Values of the Endogenous Constructs

R-square & R-square Adjusted Values		
Latent Variables	R Square	R Square Adjusted
OE	0.736	0.731
OV	0.207	0.199

Table 8: f-Square Values of the Constructs

f Square Values			
Latent Variables	AL	OE	OV
AL		0.091	0.261
OE			
OV		1.757	

According to Hair et al. (2014), the coefficient of determination test (R square) is used to measure the contribution from the independent constructs to the dependent constructs; besides that, the f square test is used to assess the variable significance in the interpretation of selected endogenous variables. The f^2

effect size is used to explain the meaningfulness of the effect size since not every statistically significant relationship meaningfully explains variance in the endogenous latent variable. Usually, if this value is above 0.15, it shows a meaningful effect size (Hair et al., 2016).

More specifically, the f^2 effect size value of 0.02 represents small, 0.15 represents medium, and 0.35 and above represents significant effects (Hair et al. 2014). It is noted that R-square and R-square adjusted values are not much different from one another. The coefficient of determination (R^2) value for endogenous latent variable organizational virtuousness is 0.207. It proposes that 20.7% of the variation in organizational Virtuousness is explained by authentic leadership (exogenous variable). The f^2 effect size of the authentic leadership variable is 0.261; hence it can be concluded that the authentic leadership construct has a medium effect of 21% of the variation in organizational Virtuousness. The R^2 value of endogenous latent variable organizational effectiveness is 0.736, which means 73.6% of the variation in organizational effectiveness is explained by two exogenous variables: authentic leadership and organizational Virtuousness. F-square value (1.757) for organizational Virtuousness is greater than 0.35 threshold, showing strong effect, and f square value (0.091) for authentic leadership is less than 0.15 but greater than 0.02, showing a small effect on 73.6% of the variance explained in organizational effectiveness.

Table 9 below shows the Q^2 values of both endogenous constructs: organizational Virtuousness and organizational effectiveness.

Table 9: Q-square Values of the Endogenous Constructs

Latent Variables	Q-square Values
OE	0.448
OV	0.150

Both the Q^2 values are greater than zero, which means the model has predictive relevance for these endogenous constructs. Goodness of Fit (GoF) measure is used to see whether data fits the model and the quality of its fitness. It has been calculated using the following formula to check the quality of the model used in this study.

$$\text{Goodness of Fit} = (\sqrt{\text{Mean AVE} * \text{Mean R-square}})$$

$$\text{Mean AVE} = 0.6903 \text{ in this study}$$

$$\text{Mean R-square} = 0.4715 \text{ in this study}$$

$$\text{Hence Goodness of Fit} = (\sqrt{(0.6903 * 0.4715)}) = 0.5705$$

According to Wetzels et al. (2009), if GoF value is more than 0.5, the model quality is considered good. Moreover, according to Latan & Ghozali (2012), the quality level of GoF can be assessed using three values as below: Low quality (GoF=0.10), medium quality (GoF=0.25), and high quality (GoF=0.36). Based on the calculation for the model in this study (GoF = 0.5705), it can be stated that the data fits the model with high quality.

This study follows a two-tailed test approach with a 5% level of significance. Hence the t critical value of 1.96 is used. The t statistic value must be greater than 1.96 for a coefficient to be significant at a 5% significance level. The followings are the conclusions for the structural model's paths.

- Authentic Leadership → Organizational Virtuousness, t-value = 4.194, which is > 1.96, the path is **significant**.

- Organizational Virtuousness → Organizational Effectiveness, t-value = 15.658, which is > 1.96, the path is *significant*.
- Authentic Leadership → Organizational Effectiveness, t-value = 2.882, which is > 1.96, the path is *significant*.

Effect of authentic leadership approach on organizational Virtuousness:

Authentic leadership has been found to affect organizational Virtuousness within private universities' departments in LLDikti III. These results are consistent with Rego et al. (2015) and Ling et al. (2017). However, the path coefficient value (0.483) reveals that this relationship is not strong.

Effect of organizational Virtuousness on organizational effectiveness:

Organizational Virtuousness has been found to significantly affect organizational effectiveness within private universities' departments in LLDikti III. It supports several previous studies that suggested significant relationships between organizational Virtuousness and organizational performance (Cameron et al. 2004; Rego et al. 2013). Path coefficient value (0.757) reveals that this relationship is quite strong.

Effect of authentic leadership approach on organizational effectiveness:

Authentic leadership has been found to influence organizational effectiveness within private universities' departments in LLDikti III. Previously, Khan (2010), and Park and Lee (2016) produced similar results and suggested that authentic leadership and organizational performance are related. But the path coefficient value (0.160) reveals that this relationship is very weak.

Additionally, the results also highlight that authentic leadership has a strong impact (based on path coefficient score) on organizational effectiveness through organizational Virtuousness (0.366) compared with influencing organizational effectiveness directly (0.161).

The findings of this study are supposed to have significant practical contributions for practitioners within the Indonesian higher education sector. Such as, regarding a leader-follower relationship, authentic leadership styles establish a harmonious leader-follower connection. Hence it is expected to motivate the employees to work more enthusiastically in the private universities' departments. Encouraging employees to adopt virtuous practices increases the workers' morale and leads to a better environment (Arda et al., 2016). The outcomes of this research also suggest that it is essential for managers to build and sustain organizational Virtuousness to motivate their workers. The various functions evidence the significance of organizational Virtuousness that it can support, such as amplifying and buffering within organizations (Cameron et al., 2004). This study proposes that HR departments of higher education institutions can organize training programs to help their managers/department heads better understand authentic leadership philosophies, such as self-awareness, self-regulation, and ethical behavior, which would increase the positivity and effectiveness in those departments.

CONCLUSION

This study was undertaken to explore several research questions within higher education in Indonesia. Conclusions are derived based on the analysis of the measurement and structural models. After analyzing the discussion on the hypotheses' results, AL has been shown to affect OV in private university departments. Mainly because AL, as a positive leadership style, can nurture positive qualities in the company. OV has been found to influence OE significantly within private university departments.

Because of the amplifying and buffering roles of organizational Virtuousness, this research indicates that organizations that cultivate and maintain Virtuousness will see their employees contribute to the effectiveness of their organizations.

AL has been found to influence OE significantly within private university departments since AL can improve the dimensions, namely, organizational goal, systems resource, internal processes, and participant satisfaction of OE as stated in the previous research. Finally, it was also observed that When AL influences OE through OV rather than directly, it has a more substantial effect on OE. This could be because OV represents the positivity of the whole culture and therefore can influence OE more than AL, representing an individual's attributes.

This study focused on the departments of private universities to investigate the relationships among research variables; it would be interesting to know the outcomes if other forms of private tertiary institutions such as institutes, colleges, academies, and polytechnics are considered to study the same variables. Organizational Virtuousness is relatively a new phenomenon in the context of Indonesian organizations, further study to explore this concept would be valuable for the Indonesian society at large. It would also be advantageous to capture the qualitative aspect of the research variables based on the experiences and perceptions of leaders in the higher education sector in Indonesia, providing a clearer understanding of the relationship between these variables. This study should be extended to other sectors in Indonesia, such as the manufacturing sector, so that the findings may help more organizations understand the nature of authentic leadership and Virtuousness.

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