The Adaptive Learning Effects in Developing Coercive Digital Leadership: Efforts to Improve Lecturer Performance in Central Java Province Through Integration of Transformational Leadership, Power and Digital Intellectuality

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Abstract

Developing a holistic business management model that guarantees transformation and high technology-based organizations are carried out for sustained value generation and global competitiveness may provide an organization with a competitive edge. This study's objective was to investigate the performance development model of lecturers at private Islamic institutions in Central Java, which is based on coercive digital leadership and adaptive learning. This research approach employs "Explanatory Research" or explanatory study, which stresses the link between research variables (causality) by testing the hypothesis that the description includes descriptions, but the emphasis is on the relationship between variables. In order to protect anonymity, data collection is conducted by distributing questionnaires that are sent directly to the leadership of the higher education institution via the Dean of the Faculty and returned in an envelope. There are both open and closed questions. Data Analysis The research data were examined descriptively, quantitatively, and using PLS Software. In addition to the analysis of the Partial Least Square Test, an analysis of the PLS model utilizing the analytical approaches of Convergent Validity, Discriminant Validity, Convergent Validity, and Inner Model Analysis was also performed, followed by hypothesis testing and model assessment. Adaptive learning has a substantial positive effect on coercive digital leadership performance, adaptive learning has a significant positive effect on lecturer performance, and coercive digital leadership has a significant positive effect on lecturer performance, as determined by PLS analysis.

Keywords: adaptive learning; coercive digilectual leadershi; lecturer performance; dan digital intellectuality

1. Introduction

Developing a holistic business management model that assures transformation and the implementation of a high technology-based organization for sustained value generation and global competitiveness may provide a firm with a competitive edge. This process must be carried out intermittently but may be repeated through periodic introspection, audacious invention, prudent risk-taking, and rapid execution. The essential notion of sustainable value creation relates to the long-term objective of adapting to changes with sufficient depth and breadth to assure organizations' and individuals' long-term economic sustainability (Ling & Jaw, 2011). Poor human resource capabilities will negatively affect individuals and organizations, whereas high human resource skills will positively affect individuals and organizations. Because this may increase the job or performance of lecturers and campus administration, it is believed that the human resources held would be able to generate high value. In this context, the optimal course of action is selected, focusing on the lecturers' productivity. Leaders can comprehend the demands of change, desire, and high levels of energy inside the individual in order for them to function as efficiently as possible. Leadership is the social

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influence process through which a person (leader) can enlist the aid of others (subordinates or followers) in accomplishing a common goal (Chemers, 2014). Numerous ideas of personality and attributes, power and influence, behavioral, situational, transactional, transformational, and integrative leadership have emerged from the study of leadership (Seters & Field, 1990). Leaders must develop ways to generate value in an analytical, organized, and dynamic environment to manage change, organizational knowledge, the future, innovation, and creativity to benefit the organization's global competitiveness and produce value for numerous stakeholders (Winzker & Pretorius, 2008). Critics of empirical research on leadership argue that the context in which the leadership process occurs must be weighed more heavily when evaluating current leadership theory (Antonakis & House, 2013; Rowold, 2011 ; Ruben, 2019). A leadership style respected and successful in one set of employment could be less desirable and less effective in another (Antonakis & House, 2013). Leadership conduct is adaptable to the environment in which it is exercised (Cameron & Quinn, 1986; Hannah et al., 2013; Sternberg, 2007; Vroom & Jago, 2007).

Leadership is essential for businesses to create lasting transformation and, eventually, greater levels of effectiveness, mainly while operating in a global market (Ruben, 2019). Transformational leadership comprises the traits of idealized influence, where transformational leaders serve as good role models for their subordinates in terms of conduct, attitudes, accomplishments, and commitments. Transformational leaders inspire their subordinates by clearly communicating high expectations and work challenges. Motivation, namely the leadership's focus on the requirements of each individual to thrive and grow through serving as a coach or counselor. The following characteristic, individualized consideration, is leadership behavior based on developing science and intellectually capable of translating it into productive and inspirational performance.

The transformational-transactional leadership concept (Bass, 1985) continues to dominate leadership literature. Transformational leadership enables the production of new knowledge and ideas via intellectual stimulation factors that drive people to tackle organizational challenges in a novel manner (Ghasabeh et al., 2015). Research has connected transformational leadership to several outcome factors, such as motivation (Andersen et al., 2018; Deschamps et al., 2016; Lin et al., 2016).

 A disruptive period in which openness and transparency through the media frequently lead to high-pressure circumstances needing leaders to maintain control to prevent leadership failure (Lopez, 2018). In addition, transparency and openness result in nearly too much individual freedom, necessitating a "powerful" leadership style Power theory is the capacity to exert influence (S., Fu & Kang, 2018). Authority refers to how a company uses its power to influence decisions on financial gain, value creation, communication, delivery procedures, market access, etc. Coercive power is often employed to influence a particular event or decision to exert control over strategic or operational objectives (Low, 2018). Power is the capacity to compel others to comply with one's desires. Leadership is predicated on the capacity to influence people. A person's influence in an organization derives primarily from his position of authority inside the organization. According to French and Raven, Reward Power, as the name implies, is a power that employs incentives or rewards to persuade an individual to comply with one's desires. Coercive power is more likely to rely on threats or punishments to persuade someone to comply with their desires. Referent power is the power that a leader gains via adoration, exemplary behavior, charm, and personality. The source of legitimate authority is a person's official position, whether in an organization, bureaucracy, or government. Expert power or Expert Power comes as a result of a person's expertise or talents.

The advancement of science and technology necessitates that leaders are intelligent and able to adapt to global developments. Leaders must have the fortitude to learn from fresh experiences. Learning may be earned from past and future events; daring to take calculated risks based on the knowledge gained. The difference in knowledge ownership (knowledge diversity) and educational background between a leader and his subordinates, as well as the field of work being managed, necessitates that a leader continues to educate himself (LOYA, 4 C.E.). The passed learning process will convert new knowledge into a new attitude (mindset), experience, and skill (J. J. Kang et al., 2020).

Numerous leadership crises are precipitated by leaders who lack an efficient learning mechanism. A leader will be better equipped to view each situational change as a challenge if he or she engages in formative learning. The learning process will boost the efficacy of public leaders' communication with others because styles, approaches, and language are adapted to the degree of knowledge, maturity, and audience. Learning will enable modification or adaptation to

change, enhancing a leader's service's effectiveness, efficiency, and quality. The qualities necessary for leadership are not innate but must be fostered via the learning process; hence, a leader must continue to learn. Experience, the experiences of others, and the advancement of science and technology relevant to the aims and strategies of the organization they manage are sources of learning (Salisbury & Irby, 2020).

Leaders in Indonesia must recognize the enormity of the duty and mandate they assume when they ascend to power. A magnificent nation with numerous historical artifacts and artifacts. The diversity of tribes, cultures, and languages may be the reason for this nation's future growth and advancement. However, this might be the opposite case if the nation's increasing polarization is solely due to individuals who prioritize just their own or their group's interests. In order to appropriately welcome the Golden Generation of 2045, the demographic bonus must be handled. It requires a leader with future competencies, such as the ability to communicate, think critically, be a responsible citizen and live in a global society, consider the moral aspect of a problem, attempt to understand and be tolerant of differing viewpoints, have a broad interest in life and a willingness to work, and possess intelligence, creativity according to his talents or interests. In the digital era, the millennial generation desires a national leader with a touch of information and communication technology, familiarity with social media, and a creative and inventive mindset.

2. Methods

The descriptive study stresses the link between research variables (causality) by testing the hypothesis that the description comprises descriptions, but the emphasis is on the relationship between variables (Widodo, 2014). The Methodology for Data Collection Through the distribution of questionnaires, direct data collection is conducted by posing a series of questions to respondents. A questionnaire was sent directly to the university administration via the Dean of the Faculty to protect the secrecy and returned in a sealed envelope. There are both open and closed questions. Open-ended questions allow the respondent to react in his way of thinking. Closed questions, on the other hand, are those in which the researcher has limited the possible responses, eliminating the opportunity for respondents to elaborate on their thinking. Data Analysis of this research data were examined descriptively, quantitatively, and using PLS Software. In addition to the analysis of the Partial Least Square Test, an analysis of the PLS model utilizing the analytical approaches of Convergent Validity, Discriminant Validity, Convergent Validity, and Inner Model Analysis was also performed, followed by hypothesis testing and model assessment.

3. Result and Findings

Data analysis was undertaken to evaluate the validity of each indicator and the construct's dependability. Convergent validity is used to evaluate validity criteria, whereas composite reliability is used to evaluate construct dependability.

3.1. Measurement (Outer) Model Evaluation

This model defines the connection between latent variables and their corresponding indicators. Alternatively, the outer model describes the relationship between each indicator and its hidden variables—tests conducted on the exterior model.

3.1.1. Validity test with convergent validity

An indicator is declared valid if it has a loading factor above 0.5 for the intended construct. The Smart PLS output for the loading factor gives the table 1.

The connection between item and concept scores is used to evaluate the validity of the reflective indicators. If other indicators of the exact construct change, measurements using reflecting indicators reveal a change in one indicator (or are removed from the model). Reflecting indicators are ideal for gauging perception. Hence reflective indicators are utilized in this study. The above table demonstrates that the loading factor exceeds the suggested value of 0.5. It indicates that the indicators utilized in this study are valid or have satisfied convergent validity.

Table 1. Results For Outer Loading

	Adaptif Learning (X)	**Coercive Digilectual Leadership (Y1)**	**Lecturer Performance (Y2)**
X.1	0,730		
X.2	0,658		
X.3	0,783		
Y1.1		0,811	
Y1.2		0,842	
Y1.3		0,788	
Y1.4		0,694	
Y1.5		0,729	
Y2.1			0,782
Y2.2			0,779
Y2.3			0,821
Y2.4			0,791
Y2.5			0,823

3.1.2. Reliability Evaluation

Examining the composite reliability value of the indicator block that gauges the construct constitutes the reliability test. If the composite reliability value exceeds 0.70, it will be deemed satisfactory. The output's composite reliability value is as follows in table 2.

Table 2. Composite Reliability dan Average Variance Extracted (AVE)

	Composite Reliability	AVE
Adaptif Learning (X)	0,855	0,546
Coercive Digilectual Leadership (Y1)	0,867	0,509
Lecturer Performance (Y2)	0,781	0,555

Source*: Processed primary data, 2022*

Table 2 shows that the composite reliability value for all constructs is above 0.7, which indicates that all constructs in the estimated model meet the discriminant validity criteria. A test with the Average Variance Extracted (AVE) value was carried out to strengthen the reliability test. If the AVE value> 0.5, then the indicators used in the research are reliable and can be used for research.

An indicator is said to have good reliability if its Average Variance Extracted (AVE) value is above 0.5. Table 2 shows the results of the Average Variance Extracted (AVE) for each construct that is good, which is above 0.5. It can be seen here that the value for the Average Variance Extracted obtained has a value of > 0.5. From the results above, the entire variable has an Average Variance Extracted value of > 0.5, which means it has a good reliability value and can be used for different research processes.

3.2. Structural Model Testing (Inner Model)

After the estimated model meets the Outer Model criteria, the next step is to test the structural model (Inner model). The Adjusted R-Square values in the construct as shown in Table 3.

Table 3. Adjusted R-Square

	Adjusted R-square
Lecturer Performance (Y2)	0,602
Coercive Digilectual Leadership (Y1)	0,726

Source: Processed primary data, 2022

Table 3 gives a value of 0.602 for the Lecturer Performance construct, which means that Adaptive Learning and Coercive Digilectual Leadership can explain the variance of lecturer performance at Private Islamic Universities in Central Java by 60.2%, the remaining 39.8% is explained by other variations that are not included in the model. The R-value is also found in the Coercive Digilectual Leadership (Y1) construct, which is influenced by Adaptive Learning, which is 72.6%, and the remaining 37.4% is influenced by other variables not included in the model. Hypothesis testing was shown on Table 4.

Table 4. Hypothesis Test

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (|O/STDE|)	P Values
Adaptive Learning (X) → Coercive Digilectual Leadership (Y1)	0,349	0,397	0,101	2,909	0,000
Adaptive Learning (X) → Lecturer Performance (Y2)	0,446	0,604	0,139	3,491	0,000
Coercive Digilectual Leadership (X) → Lecturer Performance (Y2)	0,518	0,817	0,182	2,156	0,000

Source: Processed primary data, 2022

To determine whether a hypothesis is accepted or not by comparing t_{count} with t_{table} with the condition that if $t_{count} > t_{table}$, then the hypothesis is accepted. The test uses a two-tailed test with a probability (α) of 0.05 and the degree of freedom of the test is

$$Df = (n-k)$$
$$= (80-3) = 77$$

so that the value of t table for df 77 t table two-tailed test (two tailed) found a coefficient of 1.99. So the equation formed based on the table 4 is:

Equation 1: $Y_1 = 0,349X_1 + e$
Equation 2: $Y_2 = 0,446X_1 + 0,518Y_1 + e$

Table 4 shows that the original sample estimate value of adaptive learning on Coercive Digilectual Leadership is 0.349 which indicates that the direction of the relationship is positive. The relationship between adaptive learning and Coercive Digilectual Leadership is significant with a T-statistic of 3.549 > 1.99 and a P statistic of 0.000 which is smaller than a P value of 0.05. Thus the hypothesis H1 in this study which states that the better adaptive learning will increase Coercive Digilectual Leadership is **accepted**. Table 4 shows the original sample estimate value between adaptive learning and lecturer performance of 0.446 which indicates that the direction of the relationship is positive. The T-statistical value is 3.491 > 1.99 and the P-statistical value of 0.000 is smaller than the P-value of 0.05 so that it is stated to have a significant relationship. Thus the hypothesis H2 in this study which states that the better adaptive learning will improve lecturer performance is **accepted**.

Table 4 shows that the original sample estimate of Coercive digital leadership on Lecturer performance is 0.518 which indicates that the direction of the relationship is **positive**. The T-statistic value of Coercive digilectual leadership on Lecturer performance is 2.156 > 1.99 and the P-statistical value of 0.000 is smaller than the P-value of 0.05 so that it is stated to have a significant relationship. Thus the hypothesis H3 in this study which states that the better the Coercive digilectual leadership will increase the performance of the lecturers is **accepted**.

3.3. Direct and Indirect Effects

The purpose of analyzing direct, indirect, and total effects is to evaluate the impact of the postulated factors. The direct effect is the coefficient of all coefficient lines with an arrow at one end, also known as the route coefficient. In contrast, the indirect impact is the result of the intermediate variable. While the total effect is the sum of the direct and indirect effects multiplied together, Table 5 presents tests of each variable's direct, indirect, and total impacts.

Table 5. Indirect Effects of Adaptive Learning on Lecturer Performance through Coercive Digilectual Leadership

Effect	Relationship	Coefficient	Description
Direct	Adaptive Learning on Lecturer Performance	0,446	**Significant**
Indirect	Adaptive Learning on Lecturer Performance Through Coercive Digilectual Leadership (0,349 x 0,518)	0,181	
	Total Score	0.627	

Source: Processed primary data, 2022

Table 5 shows the direct effect of Adaptive Learning on Lecturer Performance (0.446) > Indirect Effect of Adaptive Learning on Lecturer Performance through Coercive Digilectual Leadership (0.181). So that it can be seen that Coercive Digilectual Leadership cannot mediate the relationship between Adaptive Learning to Employee Performance. So to improve Lecturer Performance, organizations must increase Adaptive Learning to the maximum to improve Lecturer performance. Here is a diagram of the statistical T values based on the output with SmartPLS Version 3:
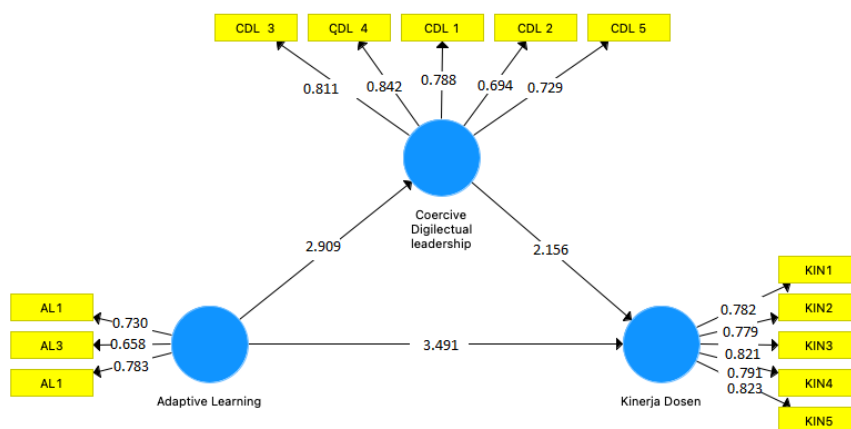
Figure 1. Bootstrapping Output

The results of the above data processing can be seen in the testing of each hypothesis that has been proposed, namely:

a) *Effect of Adaptive Learning on Coercive Digilectual Leadership*

Table 4 demonstrates a strong association between flexible learning and Coercive Digilectual Leadership based on the findings of the PLS test. Adaptive learning, as indicated by social knowledge exchange, behavioral changes, and cognitive aspects, has been shown to increase Coercive Digilectual Leadership, as indicated by the ability to capture and follow up on information; serve the best interests of the organization and oneself; create and seize opportunities; continuously develop best practices and good behavior, and have a digitally oriented strategy. The findings of this study corroborate the findings of (Broekema et al., 2019) that learning is crucial in molding the leadership style of public office holders. Then, (Bowlby, 2019) demonstrates that a learning process is required to enhance a leader in the face of rapid change.

b) *The Effect of Adaptive Learning on Lecturer Performance*

Based on the findings of the PLS test shown in Table 4, it is evident that adaptive learning and lecturer performance are significantly related. Adaptive learning, as indicated by social knowledge exchange, behavioral changes, and cognitive aspects, has been shown to improve lecturer performance, as indicated by teaching performance, research

performance, publication performance, public engagement performance, and supporting performance, according to these findings. These findings confirm that organizational learning is capable of systematic issue resolution and is favorably correlated with performance. The results of earlier research also revealed that organizational learning resulted in a complete transformation of the organization by fostering the competencies required to perform all activities successfully and make the organization run efficiently (Pawar, 2019).

c) The Effect of Coercive Digilectual Leadership on Lecturer Performance

Table 4.10 demonstrates a significant association between Coercive Digilectual Leadership and lecturer performance based on the findings of the PLS test. These results indicate that Coercive Digilectual Leadership is characterized by the ability to capture and follow up on information; serving the best interests of the organization and oneself; being able to create and seize opportunities; continuously developing best practices and good behavior; and having a digitally oriented strategy that has been shown to improve lecturer performance as measured by teaching performance, research performance, publication performance, and public engagement performance. These findings support earlier research findings indicating that performance is a significant organizational advantage resulting from leadership outcomes. (Haojie et al., 2019)demonstrated a favorable association between leadership style and organizational performance. In addition, (Jing & Avery, 2011) discovered a clear correlation between leadership and performance, but with wildly varying impact sizes. Research demonstrates that leadership may contribute to performance (Knies et al., 2016). Leadership has a significant impact on enhancing organizational performance (Knies et al., 2016).

4. Conclution

By focusing on the notion of coercive digital leadership, the research intends to propose a solution to the discrepancy between the function of organizational learning and performance. Examining the performance development model of lecturers at Private Islamic Universities in Central Java is based on coercive digital leadership and adaptive learning. Adaptive learning has a substantial positive effect on coercive digital leadership performance, adaptive learning has a significant positive effect on lecturer performance, and coercive digital leadership has a significant positive effect on lecturer performance, as determined by PLS analysis.

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