

E-testing in Determining the Direct and Indirect Effects Between Training, Organizational Culture, Leadership, and Motivation on Lecturer Performance



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Manuscript submitted: 2 January 2022, Manuscript revised: 24 March 2022, Accepted for publication: 21 April 2022

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Keywords

e-testing;
lecturer performance;
organizational culture;
participatory leadership;
training programs;
work motivation;

Abstract

Lecturers are instrumental input factors that play an essential role in higher education institutions. The problem that commonly arises is the quality of lecturers related to performance in teaching, research, and service. This study aims to develop a measurement instrument and determine perceptions of the factors that can affect the performance of lecturers through the E-Testing tool. The stages of this research are the preparation of the instrument and the testing of the instrument. This study uses a quantitative approach with the variables to be studied training programs, organizational culture, participatory leadership, motivation, and lecturer performance. The minimum sample size for a population of 239 is 173 (Warwick & Lininger formula). The data collection technique used is using a questionnaire. Validity test through product-moment correlation coefficient. The reliability calculation technique uses the split-half method. The data analysis used in this research is Partial Least Squares Path Modeling. This study meets the test of the validity and reliability of the instrument. The perception of lecturers as respondents to the variables of training programs, organizational culture, participatory leadership, work motivation, and lecturer performance has a very good response, good, good, enough, very good. Based on the complete model of the influence of training, organizational culture, leadership, and motivation on lecturer performance, some indicators already have a loading factor of more than 0.50 for further analysis through a series of improvements and revisions.

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1 Introduction

In implementing the tri dharma of higher education, lecturers' responsibility in carrying out their duties must be in line with teaching, research, and community service. In carrying out the educational process, lecturers adjust to the fields of science and educational strata being taught (Kupina et al., 2022). In carrying out research, lecturers must be able to change the research carried out with the field of science and level of education so that it is aligned and can produce maximum research that is useful for other researchers. In the implementation of community service, lecturers are also expected to devote their knowledge to the community by contributing to what is happening in the community according to their field of expertise. The implementation follows Law no. 14 of 2005 article 60 (Ekawati & Purnomo, 2020).

One of the factors that are considered to affect the performance of lecturers in the training program. A training program was developed to improve the competence of lecturers regarding learning design (Saputra, 2019). The training can be used as a reference for guidance in carrying out effective and efficient training. The training is carried out to develop the professional ability of lecturers for the development of higher education quality (Achyar & Gistituati, 2021). Implementing the training program can increase knowledge, skills, and skills and change attitudes in a performance. Several other factors are also considered to affect a lecturer's performance, namely organizational culture, leadership, and work motivation. In organizing, the preparation and grouping of various jobs are carried out (Alvesson & Sveningsson, 2015). In line with leadership, what is needed is responsible, empowering members to the maximum without ignoring the applicable regulations (Maitland & Thomson, 2014). Other factors that affect the performance of lecturers can also be in the form of motivation. Motivation comes from within oneself and can also be triggered by others. Everyone is motivated to get a better position or a better career in their work (Schneider & Barbera, 2014), including in education. Lecturers can be inspired by the spirit of teaching and sharing knowledge with students to participate in the nation's intellectual life. In this case, it can be said that lecturers who have high work motivation will produce a high performance as well (Shkoler & Kimura, 2020).

Based on the applicable law related to the main task of lecturers to transform, develop and disseminate science and technology through education, research, and community service, it can be acquired through the application of the tri dharma of higher education with well-executed training programs, good organizational culture, good leadership (Aarons et al., 2014). Good responsibility and sound and good work motivation. However, the facts on the ground show that the performance of lecturers as a determinant for improving the intelligence of the nation's life has not shown optimal work and still needs to be reviewed, in line with the quality in an institution (Aithal & Kumar, 2016). Based on the data and promotion or rank as a benchmark for lecturers, this can be seen as a benchmark. In addition, the level of commitment on the part of the lecturers in carrying out the assigned tasks and responsibilities is still low, which is related to the organizational culture being active in it (Benson et al., 2016).

Some results of previous research indicate an influence of organizational culture, satisfaction, and work environment on lecturer performance (Zheng et al., 2010; Gregory et al., 2009). Increased corporate culture, dignity, and work environment will increase lecturer performance (Awaluddin, 2016). In terms of job satisfaction does not affect employee performance, motivation affects employee performance, job satisfaction does not affect organizational commitment, motivation affects corporate dedication, and organizational

commitment does not affect employee performance (Gunawan et al., 2020). While work motivation has a positive and significant effect on lecturer performance, lecturer training has a positive and significant effect on lecturer performance (Samian & Noor, 2012). Simultaneously, Work Motivation and Lecturer Training positively and significantly impact lecturer performance (Fenia, 2018).

Therefore, the authors researched the effect of training programs, organizational culture, leadership, and motivation on lecturer performance, which aims to measure the validity and reliability of research instruments, showing the results of E-Testing in determining direct and indirect effects between training program variables, organizational culture, participatory leadership, work motivation, and lecturer performance, and structural equation model analysis (Mustakerov & Borissova, 2011).

2 Materials and Methods

Research design

This research is research with a quantitative approach. The variables that will be studied in this research are training program (X1), organizational culture (X2), participatory leadership (Y1), motivation (Y2), and lecturer performance (Y3). This research was conducted at the Institute of Technology and Business (ITB) STIKOM Bali from May to October 2021. The validity test that will be used is the validity of the test device, namely the correlation technique through the product-moment correlation coefficient. Test the reliability of each variable using Cronbach's Alpha. Data analysis will be carried out using SEM (Structural Equation Modeling) to analyze the influence between variables.

Population and research sample

The population in this study were all Lecturers of the Institute of Technology and Business (ITB) STIKOM Bali, totaling 239 people. The sample in this study will be selected randomly. The number of samples will be determined based on the population size table and the ratio of the number of samples to be taken according to Krejcie & Morgan (Agung, 2014). According to the Krejcie and Morgan formula, the minimum number of samples for a population of 239 is 148. In this study, a minimum of 148 respondents must be collected, and the data can be analyzed. In this case, the researcher uses the Warwick and Lininger formula with the following formula:

$$Js = \frac{n}{0,90 \times 0,95} \quad (1)$$

Notes:

Js = Number of final samples for distributing questionnaires.

n = The minimum number of samples that must be studied.

0.90 or 90% = Estimated number of samples that can be observed (number of instruments returned by respondents)

0.95 or 95% = Estimated number of samples that can be processed in the data.

By using this formula, the number of samples for distributing this research questionnaire can be calculated as follows:

$$\begin{aligned} Js &= \frac{n}{0,90 \times 0,95} \\ &= \frac{148}{0,855} \\ &= 173,09 = 173 \end{aligned}$$

Based on the above calculations, the number of samples obtained is 173 from a population of 239 or about 72.3 percent. This number shows that more than the minimum sample must be taken so that any number of questionnaires returned by respondents will be analyzed after deducting the damaged questionnaires.

Data collection techniques and Instruments

The data collection technique used is using a questionnaire. Questionnaires are used to collect responses from agencies related to the problems studied using a list of questions prepared based on measurement indicators. The questionnaire used refers to the Likert scale model. While the performance of lecturers is collected by distributing questionnaires. The completed questionnaire will be matched with the scoring guidelines to get a score according to the assessment of each respondent.

Measurement Indicator

Measurement indicators are compiled through a grand theory matrix on each variable and refer to a literature review. The contents of the grand theory matrix can be seen in full in Table 1.

Table 1
Grand theory matrix on each measurement variable

| Variable | Grand Theory | Characteristics | Indicators |
|--|--|---|---|
| Lecturer performance (Y3) | | | |
| MeithianaIndrasari in 2017; Edward Betof & NilaBetof in 2010; Mangkunegara (2009) in the journal Setyowati & Haryani in 2016; Notoatmodjo (2009) in Rani Kurniasari in 2018. | Lecturer performance is the result of an assessment of the tasks that have been carried out by each lecturer following the provisions of the tri dharma of higher education. | <ul style="list-style-type: none"> • Evaluation • Task • Obligation • Responsibility • Competence • Job description • Motivation • Development Guidance • Work result • Quality • Quantity • Work appearance | <ul style="list-style-type: none"> • Y3.1 Responsibilities • Y3.2 Competence • Y3.3 Job description • Y3.4 Motivation • Y3.5 Coaching • Y3.6 Development • Y3.7 Work results |
| Training Program (X1) | | | |
| Gary Dessler (2014) in Nurul Fizia in 2018; SigmarMalvezzi 2015; Kurt Kraiger and Thomas M. Cavanagh 2020; Salas & Cannon-Bowers, 2001 in Steve W.J. Kozlowski and Eduardo Salas (2010) | Training is a tool in human resource management that can be used to acquire a person's skills, expertise, or attitudes to improve work performance or performance. | <ul style="list-style-type: none"> • Resource management • Ability • Routine • Education • Experience • Exercise • Knowledge • Skills • Attitude • Flexibility | <ul style="list-style-type: none"> • X1.1 Abilities • X1.2 Education • X1.3 Practice • X1.4 Knowledge • X1.5 Skills • X1.6 Attitude • X1.7 Flexibility |
| Organizational culture (X2) | | | |
| Pettigrew (in Mark G Ehrhart) 2014; Robert G. Owens (in UjangWawan Sam Adinata, 2015; David V. Day in Oxford University Press, 2014; Schein (2010); Hill and Jones (1995) in John Lawler and Andy Bilson (2010). | Organizational culture is a value that has certain characteristics because every organization has fundamental differences between one organization and another. | <ul style="list-style-type: none"> • Confidence • Behavior • Organizational structure • Control system • HR practices • Trust • Habit • Norms • Value of togetherness • Coordination of efforts • Common goals • Division of work | <ul style="list-style-type: none"> • X2.1 Confidence • X2.2 Behavior • X2.3 Control System • X2.4 Habits • X2.5 Norms • X2.6 Trust • X2.7 Mutual Value |

| | | | |
|--|---|--|---|
| | | <ul style="list-style-type: none"> • Hierarchy of authority • Values • Practce | |
| Participatory Leadership (Y1) | | | |
| Prof. Dr. Husaini Usman in 2020; Marilee Sprenger (2010); Edward Betof&NilaBetof (2010). | Leadership is a leader's way of influencing subordinates with certain characteristics so that they can achieve the desired goals. | <ul style="list-style-type: none"> • Consultation • Joint decision making • Sharing power • Decentralization • Delegation • Empowerment • Management • Democratic • Responsible • Share vision and mission • Emotional intelligence • Routine evaluation | <ul style="list-style-type: none"> • Y1.1 Consultation • Y1.2 Joint decision making • Y1.3 Sharing power • Y1.4 Decentralization • Y1.5 Delegation • Y1.6 Empowerment • Y1.7 Democratic management |
| Work motivation (Y2) | | | |
| Winardi (2011) in Rani Kurniasari (2018); Buford, Bedeian, & Lindner in AlgonAriyiliyanto (2013); Jones & George, (in AlgonAriyiliyanto 2013); Rivai and Sagala (2010) in Rani Kurniasari (2018); Hasibuan (2010) in Rani Kurniasari (2018). | Motivation can be interpreted as encouragement in everyone to be able to achieve something desired in the form of reciprocity for something that has been done. This reciprocity can be in the form of material, position, or other things related to satisfaction in a person when achieving a goal. | <ul style="list-style-type: none"> • Desire • Purpose • Needs • Effort • Defensive ability • Attitude • Interest • Effective communication • Goal integration • Facility • Team work | <ul style="list-style-type: none"> • Y2.1 Desire • Y2.2 Goal • Y2.3 Needs • Y2.4 Effort • Y2.5 Defensive Ability • Y2.6 Attitude • Y2.7 Interest |

3 Results and Discussions

3.1 Results

Test the validity and reliability of research instruments

The results of the research instrument validity test of the training variable (X1), organizational culture variable (X2), participatory leadership variable (Y1), work motivation variable (Y2), and lecturer performance variable (Y3) are presented in the following tables.

Table 2
Results of the Validity Test of Research Instruments Training Variables (X1), Organizational Culture Variables (X2), Participatory Leadership Variables (Y1), Work Motivation Variables (Y2), and Lecturer Performance Variables (Y3)

| Training variables (X1) | | | | |
|-------------------------|-------------|---------------------|---------|-------------|
| Indicators | Item number | Pearson Correlation | p-value | Description |
| X1.1 | 1 | 0.688 | 0.000 | Valid |
| | 2 | 0.688 | 0.000 | Valid |
| | 3 | 0.682 | 0.000 | Valid |
| | 4 | 0.696 | 0.000 | Valid |
| | 5 | 0.692 | 0.000 | Valid |
| | 6 | 0.731 | 0.000 | Valid |
| X1.2 | 7 | 0,760 | 0.000 | Valid |
| | 8 | 0.689 | 0.000 | Valid |
| | 9 | 0,760 | 0.000 | Valid |
| | 10 | 0.731 | 0.000 | Valid |

| | | | | |
|---|--------------------|----------------------------|----------------|--------------------|
| X1.3 | 11 | 0.775 | 0.000 | Valid |
| | 12 | 0.708 | 0.000 | Valid |
| | 13 | 0.674 | 0.000 | Valid |
| | 14 | 0.676 | 0.000 | Valid |
| X1.4 | 15 | 0.733 | 0.000 | Valid |
| | 16 | 0.760 | 0.000 | Valid |
| X1.5 | 17 | 0.699 | 0.000 | Valid |
| | 18 | 0.674 | 0.000 | Valid |
| | 19 | 0.678 | 0.000 | Valid |
| | 20 | 0.699 | 0.000 | Valid |
| | 21 | 0.747 | 0.000 | Valid |
| X1.6 | 22 | 0.698 | 0.000 | Valid |
| | 23 | 0.702 | 0.000 | Valid |
| | 24 | 0.750 | 0.000 | Valid |
| | 25 | 0.720 | 0.000 | Valid |
| | 26 | 0.716 | 0.000 | Valid |
| X1.7 | 27 | 0.714 | 0.000 | Valid |
| | 28 | 0.703 | 0.000 | Valid |
| | 29 | 0.716 | 0.000 | Valid |
| | 30 | 0.729 | 0.000 | Valid |
| Organizational culture variable (X2) | | | | |
| Indicator | Item number | Pearson Correlation | p value | Description |
| X2.1 | 1 | 0.389 | 0.000 | Valid |
| | 2 | 0.425 | 0.000 | Valid |
| | 3 | 0.491 | 0.000 | Valid |
| | 4 | 0.484 | 0.000 | Valid |
| X2.2 | 5 | 0.484 | 0.000 | Valid |
| | 6 | 0.710 | 0.000 | Valid |
| | 7 | 0.682 | 0.000 | Valid |
| | 8 | 0.482 | 0.000 | Valid |
| | 9 | 0.648 | 0.000 | Valid |
| | 10 | 0.488 | 0.000 | Valid |
| | 11 | 0.530 | 0.000 | Valid |
| X2.3 | 12 | 0.564 | 0.000 | Valid |
| | 13 | 0.567 | 0.000 | Valid |
| | 14 | 0.633 | 0.000 | Valid |
| X2.4 | 15 | 0.478 | 0.000 | Valid |
| | 16 | 0.699 | 0.000 | Valid |
| | 17 | 0.546 | 0.000 | Valid |
| | 18 | 0.564 | 0.000 | Valid |
| | 19 | 0.631 | 0.000 | Valid |
| | 20 | 0.596 | 0.000 | Valid |
| | 21 | 0.683 | 0.000 | Valid |
| X2.5 | 22 | 0.467 | 0.000 | Valid |
| | 23 | 0.477 | 0.000 | Valid |
| | 24 | 0.702 | 0.000 | Valid |
| | 25 | 0.697 | 0.000 | Valid |
| | 26 | 0.472 | 0.000 | Valid |
| X2.6 | 27 | 0.482 | 0.000 | Valid |
| | 28 | 0.479 | 0.000 | Valid |
| | 29 | 0.447 | 0.000 | Valid |
| | 30 | 0.482 | 0.000 | Valid |
| | 31 | 0.635 | 0.000 | Valid |

| | 32 | 0.477 | 0.000 | Valid |
|-------------------------------|--|---------------------|---------|-------------|
| X2.7 | 33 | 0.697 | 0.000 | Valid |
| | 34 | 0.418 | 0.000 | Valid |
| | 35 | 0.568 | 0.000 | Valid |
| | 36 | 0.641 | 0.000 | Valid |
| | Participatory leadership variable (Y1) | | | |
| Indicator | Item number | Pearson Correlation | p value | Description |
| Y1.1 | 1 | 0.591 | 0.000 | Valid |
| | 2 | 0.616 | 0.000 | Valid |
| | 3 | 0.621 | 0.000 | Valid |
| Y1.2 | 4 | 0.444 | 0.000 | Valid |
| | 5 | 0.616 | 0.000 | Valid |
| | 6 | 0.621 | 0.000 | Valid |
| | 7 | 0.444 | 0.000 | Valid |
| | 8 | 0.285 | 0.000 | Valid |
| | 9 | 0.437 | 0.000 | Valid |
| | 10 | 0.436 | 0.000 | Valid |
| Y1.3 | 11 | 0.473 | 0.000 | Valid |
| | 12 | 0.642 | 0.000 | Valid |
| | 13 | 0.719 | 0.000 | Valid |
| | 14 | 0.648 | 0.000 | Valid |
| | 15 | 0.731 | 0.000 | Valid |
| | 16 | 0.454 | 0.000 | Valid |
| | 17 | 0.456 | 0.000 | Valid |
| Y1.4 | 18 | 0.642 | 0.000 | Valid |
| | 19 | 0.719 | 0.000 | Valid |
| | 20 | 0.648 | 0.000 | Valid |
| | 21 | 0.731 | 0.000 | Valid |
| | 22 | 0.473 | 0.000 | Valid |
| | 23 | 0.486 | 0.000 | Valid |
| Y1.5 | 24 | 0.456 | 0.000 | Valid |
| | 25 | 0.723 | 0.000 | Valid |
| | 26 | 0.636 | 0.000 | Valid |
| Y1.6 | 27 | 0.566 | 0.000 | Valid |
| | 28 | 0.473 | 0.000 | Valid |
| Y1.7 | 29 | 0.723 | 0.000 | Valid |
| | 30 | 0.636 | 0.000 | Valid |
| | 31 | 0.446 | 0.000 | Valid |
| | 32 | 0.413 | 0.000 | Valid |
| | 33 | 0.617 | 0.000 | Valid |
| | 34 | 0.573 | 0.000 | Valid |
| | 35 | 0.670 | 0.000 | Valid |
| Work motivation variable (Y2) | | | | |
| Indicator | Item number | Pearson Correlation | p value | Description |
| Y2.1 | 1 | 0.586 | 0.000 | Valid |
| | 2 | 0.594 | 0.000 | Valid |
| | 3 | 0.593 | 0.000 | Valid |
| | 4 | 0.471 | 0.000 | Valid |
| Y2.2 | 5 | 0.465 | 0.000 | Valid |
| | 6 | 0.729 | 0.000 | Valid |
| | 7 | 0.654 | 0.000 | Valid |
| | 8 | 0.712 | 0.000 | Valid |

| | | | | |
|---|--------------------|----------------------------|----------------|--------------------|
| | 9 | 0.525 | 0.000 | Valid |
| Y2.3 | 10 | 0.484 | 0.000 | Valid |
| | 11 | 0.609 | 0.000 | Valid |
| | 12 | 0.712 | 0.000 | Valid |
| Y2.4 | 13 | 0.614 | 0.000 | Valid |
| | 14 | 0.572 | 0.000 | Valid |
| | 15 | 0.535 | 0.000 | Valid |
| | 16 | 0.474 | 0.000 | Valid |
| | 17 | 0.602 | 0.000 | Valid |
| Y2.5 | 18 | 0.355 | 0.000 | Valid |
| | 19 | 0.647 | 0.000 | Valid |
| | 20 | 0.712 | 0.000 | Valid |
| | 21 | 0.557 | 0.000 | Valid |
| Y2.6 | 22 | 0.343 | 0.000 | Valid |
| | 23 | 0.571 | 0.000 | Valid |
| | 24 | 0.595 | 0.000 | Valid |
| | 25 | 0.605 | 0.000 | Valid |
| | 26 | 0.590 | 0.000 | Valid |
| | 27 | 0.532 | 0.000 | Valid |
| Y2.7 | 28 | 0.593 | 0.000 | Valid |
| | 29 | 0.577 | 0.000 | Valid |
| | 30 | 0.663 | 0.000 | Valid |
| | 31 | 0.649 | 0.000 | Valid |
| | 32 | 0.592 | 0.000 | Valid |
| | 33 | 0.599 | 0.000 | Valid |
| | 34 | 0.513 | 0.000 | Valid |
| | 35 | 0.353 | 0.000 | Valid |
| | 36 | 0.449 | 0.000 | Valid |
| Lecturer performance variable (Y3) | | | | |
| Indicator | Item number | Pearson Correlation | p value | Description |
| Y3.1 | 1 | 0.629 | 0.000 | Valid |
| | 2 | 0.591 | 0.000 | Valid |
| | 3 | 0.733 | 0.000 | Valid |
| | 4 | 0.704 | 0.000 | Valid |
| | 5 | 0.688 | 0.000 | Valid |
| | 6 | 0.701 | 0.000 | Valid |
| | 7 | 0.66 | 0.000 | Valid |
| | 8 | 0.721 | 0.000 | Valid |
| | 9 | 0.725 | 0.000 | Valid |
| Y3.2 | 10 | 0.496 | 0.000 | Valid |
| | 11 | 0.711 | 0.000 | Valid |
| Y3.3 | 12 | 0.664 | 0.000 | Valid |
| | 13 | 0.667 | 0.000 | Valid |
| | 14 | 0.244 | 0.001 | Valid |
| | 15 | 0.387 | 0.000 | Valid |
| Y3.4 | 16 | 0.489 | 0.000 | Valid |
| | 17 | 0.471 | 0.000 | Valid |
| | 18 | 0.323 | 0.000 | Valid |
| | 19 | 0.419 | 0.000 | Valid |
| | 20 | 0.619 | 0.000 | Valid |
| | 21 | 0.635 | 0.000 | Valid |
| | 22 | 0.672 | 0.000 | Valid |
| | 23 | 0.412 | 0.000 | Valid |

| | | | | |
|------|----|-------|-------|-------|
| | 24 | 0.639 | 0.000 | Valid |
| Y3.5 | 25 | 0.647 | 0.000 | Valid |
| | 26 | 0.743 | 0.000 | Valid |
| | 27 | 0.680 | 0.000 | Valid |
| | 28 | 0.672 | 0.000 | Valid |
| | 29 | 0.695 | 0.000 | Valid |
| | 30 | 0.676 | 0.000 | Valid |
| | 31 | 0.493 | 0.000 | Valid |
| | 32 | 0.434 | 0.000 | Valid |
| Y3.6 | 33 | 0.434 | 0.000 | Valid |
| | 34 | 0.647 | 0.000 | Valid |
| | 35 | 0.743 | 0.000 | Valid |
| Y3.7 | 36 | 0.404 | 0.000 | Valid |
| | 37 | 0.684 | 0.000 | Valid |
| | 38 | 0.667 | 0.000 | Valid |
| | 39 | 0.233 | 0.002 | Valid |

Table 3

Reliability test results of research instruments variables of training, organizational culture, participatory leadership, work motivation, and lecturer performance

| Variables | Cronbach's Alpha | N of Items | Description |
|--------------------------|------------------|------------|-----------------------|
| Training | 0,669 | 30 | Reliable (Hight) |
| Organizational Culture | 0,697 | 36 | Reliable (Hight) |
| Participatory Leadership | 0,914 | 35 | Reliable (Very Hight) |
| Work Motivation | 0,960 | 36 | Reliable (Very Hight) |
| Lecturer Performance | 0,701 | 39 | Reliable (Hight) |

Respondents' perceptions of training program variables

A description of respondents' perceptions of the training variable indicators is presented in Table 4.

Table 4

Description of research variables for training program construct

| Indicators | Indicator Score and Percentage of Respondents | | | | | | Average |
|------------|---|------|------|-------|-------|-------|---------|
| | 1 | 2 | 3 | 4 | 5 | Total | |
| X11 | 0,00 | 0,00 | 0,00 | 3,33 | 96,67 | 100,0 | 4,97 |
| X12 | 0,00 | 0,00 | 0,00 | 7,22 | 92,78 | 100,0 | 4,93 |
| X13 | 0,00 | 0,00 | 0,00 | 10,56 | 89,44 | 100,0 | 4,89 |
| X14 | 0,00 | 0,00 | 0,00 | 4,44 | 95,56 | 100,0 | 4,96 |
| X15 | 0,00 | 0,00 | 0,00 | 12,78 | 87,22 | 100,0 | 4,87 |
| X16 | 0,00 | 0,00 | 0,00 | 16,67 | 83,33 | 100,0 | 4,83 |
| X17 | 0,00 | 0,00 | 0,00 | 72,78 | 27,22 | 100,0 | 4,27 |
| Average | 0,00 | 0,00 | 0,00 | 18,25 | 81,75 | 100,0 | 4,82 |

Notes: Training variables include the following 7 indicators, (1) Ability, (2) Education, (3) Training, (4) Knowledge, (5) Skills, (6) Attitude, and (7) Flexibility.

Respondents' Perceptions of Organizational Culture Variables

A description of respondents' perceptions of organizational culture variable indicators is presented in Table 5.

Table 5
Description of research variables for the construct of organizational culture

| Indicators | Indicator Score and Percentage of Respondents | | | | | | Average |
|------------|---|------|------|-------|-------|-------|---------|
| | 1 | 2 | 3 | 4 | 5 | Total | |
| X21 | 0,00 | 0,00 | 0,00 | 15,56 | 84,44 | 100,0 | 4,84 |
| X22 | 0,00 | 0,00 | 0,00 | 11,11 | 88,89 | 100,0 | 4,89 |
| X23 | 0,00 | 0,00 | 0,00 | 21,11 | 78,89 | 100,0 | 4,79 |
| X24 | 0,00 | 0,00 | 0,00 | 77,78 | 22,22 | 100,0 | 4,22 |
| X25 | 0,00 | 0,00 | 0,00 | 78,89 | 21,11 | 100,0 | 4,21 |
| X26 | 0,00 | 0,00 | 0,00 | 87,78 | 12,22 | 100,0 | 4,12 |
| X27 | 0,00 | 0,00 | 0,00 | 81,67 | 18,33 | 100,0 | 4,18 |
| Average | 0,00 | 0,00 | 0,00 | 53,41 | 46,59 | 100,0 | 4,47 |

Notes: The organizational culture variable includes the following 7 indicators. (1) Beliefs, (2) behavior, (3) control systems, (4) norms, (5) beliefs, (6) shared values, and (7) division of labor.

Respondents' perceptions of participatory leadership variables

A description of respondents' perceptions of the indicators of the participatory leadership variable is presented in Table 6.

Table 6
Description of research variables for the participatory leadership construct

| Indicators | Indicator Score and Percentage of Respondents | | | | | | Average |
|------------|---|------|------|-------|-------|-------|---------|
| | 1 | 2 | 3 | 4 | 5 | Total | |
| Y11 | 0,00 | 0,00 | 0,00 | 8,33 | 91,67 | 100,0 | 4,92 |
| Y12 | 0,00 | 0,00 | 0,00 | 78,89 | 21,11 | 100,0 | 4,21 |
| Y13 | 0,00 | 0,00 | 0,00 | 77,22 | 22,78 | 100,0 | 4,23 |
| Y14 | 0,00 | 0,00 | 0,00 | 78,33 | 21,67 | 100,0 | 4,22 |
| Y15 | 0,00 | 0,00 | 0,00 | 82,78 | 17,22 | 100,0 | 4,17 |
| Y16 | 0,00 | 0,00 | 0,00 | 12,78 | 87,22 | 100,0 | 4,87 |
| Y17 | 0,00 | 0,00 | 0,00 | 78,89 | 21,11 | 100,0 | 4,21 |
| Average | 0,00 | 0,00 | 0,00 | 59,60 | 40,40 | 100,0 | 4,40 |

Notes: The leadership variable includes 7 indicators, as follows. (1) Consultation, (2) Democratic Management, (3) Decentralization, (4) Delegation (5) Responsible, (6) emotional intelligence and (7) routine evaluation.

Respondents' perceptions of work motivation variables

Descriptions of respondents' perceptions of the indicators of work motivation are presented in Table 7.

Table 7
Description of research variables for the construct of work motivation

| Indicators | Indicator Score and Percentage of Respondents | | | | | | Average |
|------------|---|------|------|-------|-------|-------|---------|
| | 1 | 2 | 3 | 4 | 5 | Total | |
| Y21 | 0,00 | 0,00 | 0,00 | 77,22 | 22,78 | 100,0 | 4,23 |
| Y22 | 0,00 | 0,00 | 0,00 | 78,33 | 21,67 | 100,0 | 4,22 |
| Y23 | 0,00 | 0,00 | 0,00 | 80,00 | 20,00 | 100,0 | 4,20 |
| Y24 | 0,00 | 0,00 | 0,00 | 83,33 | 16,67 | 100,0 | 4,17 |
| Y25 | 0,00 | 0,00 | 0,00 | 80,00 | 20,00 | 100,0 | 4,20 |
| Y26 | 0,00 | 0,00 | 0,00 | 77,78 | 22,22 | 100,0 | 4,22 |
| Y27 | 0,00 | 0,00 | 0,00 | 83,89 | 16,11 | 100,0 | 4,16 |

| | | | | | | | |
|---------|------|------|------|-------|-------|-------|------|
| Average | 0,00 | 0,00 | 0,00 | 80,08 | 19,92 | 100,0 | 4,20 |
|---------|------|------|------|-------|-------|-------|------|

Notes: The motivation variable includes the following 7 indicators. (1) desires, (2) goals, (3) needs, (4) efforts, (5) attitudes, (6) facilities, and (7) teamwork.

Respondents' perceptions of lecturer performance variables

A description of respondents' perceptions of the indicators of lecturer performance variables is presented in Table 8.

Table 8
Description of research variables for lecturer performance construct

| Indicators | Indicator Score and Percentage of Respondents | | | | | | Average |
|------------|---|------|------|-------|-------|-------|---------|
| | 1 | 2 | 3 | 4 | 5 | Total | |
| Y31 | 0,00 | 0,00 | 0,00 | 5,00 | 95,00 | 100,0 | 4,95 |
| Y32 | 0,00 | 0,00 | 0,00 | 1,67 | 98,33 | 100,0 | 4,98 |
| Y33 | 0,00 | 0,00 | 0,00 | 66,67 | 33,33 | 100,0 | 4,33 |
| Y34 | 0,00 | 0,00 | 0,00 | 9,44 | 90,56 | 100,0 | 4,91 |
| Y35 | 0,00 | 0,00 | 0,00 | 8,89 | 91,11 | 100,0 | 4,91 |
| Y36 | 0,00 | 0,00 | 0,00 | 15,56 | 84,44 | 100,0 | 4,84 |
| Y37 | 0,00 | 0,00 | 0,00 | 89,44 | 10,56 | 100,0 | 4,11 |
| Average | 0,00 | 0,00 | 0,00 | 28,10 | 71,90 | 100,0 | 4,72 |

Description: Performance variables include the following 7 indicators (1) Responsibility, (2) Competence, (3) Motivation, (4) Coaching, (5) Work results, (6) Quality, and (7) Quantity

Structural Equation Model (SEM) Analysis

Based on the results of data analysis with the SEM application, the relationship between indicators and their constructs, and the relationship between constructs are presented in Figure 1.

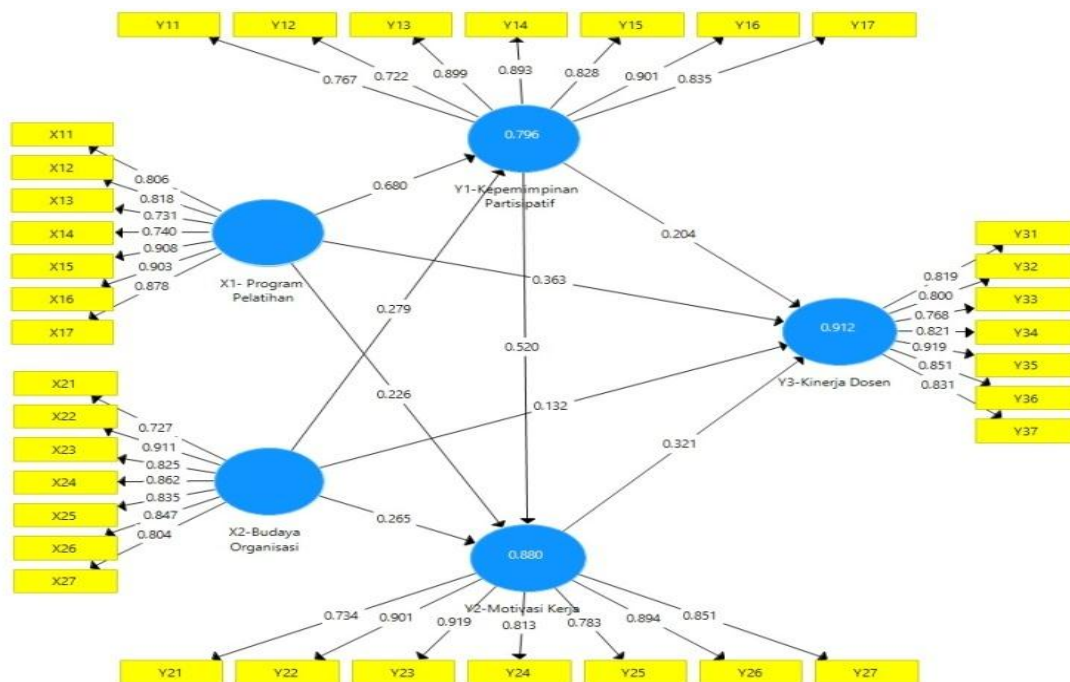


Figure1. Results of SEM analysis of the effect of training, organizational culture, leadership, and motivation on lecturer performance at ITB STIKOM Bali

Based on Figure 1, further evaluation of the outer model and inner model will be carried out.

1. Outer Model Evaluation

To find out whether the indicators used to form the constructs or latent variables are valid, the following analysis is carried out.

2. Convergent Validity

Based on Table IX, it can be seen that all indicators of the training program construct (X1), organizational culture (X2), participatory leadership (Y1), work motivation (Y2), and lecturer performance (Y3).

Table 9
Outer Loading of Each Indicator Against X1, X2, Y1, Y2, and Y3

| Variable against Indicators | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P-Values |
|------------------------------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| X11 <- X1- Training Program | 0,806 | 0,804 | 0,031 | 26,384 | 0,000 |
| X12 <- X1- Training Program | 0,818 | 0,817 | 0,027 | 30,132 | 0,000 |
| X13 <- X1- Training Program | 0,731 | 0,728 | 0,036 | 20,101 | 0,000 |
| X14 <- X1- Training Program | 0,740 | 0,741 | 0,036 | 20,733 | 0,000 |
| X15 <- X1- Training Program | 0,908 | 0,908 | 0,018 | 51,273 | 0,000 |
| X16 <- X1- Training Program | 0,903 | 0,905 | 0,016 | 54,773 | 0,000 |
| X17 <- X1- Training Program | 0,878 | 0,878 | 0,025 | 34,627 | 0,000 |
| X21 <- X2-Organizational Culture | 0,727 | 0,726 | 0,039 | 18,673 | 0,000 |
| X22 <- X2-Organizational Culture | 0,911 | 0,909 | 0,018 | 50,385 | 0,000 |
| X23 <- X2-Organizational Culture | 0,825 | 0,822 | 0,030 | 27,844 | 0,000 |
| X24 <- X2-Organizational Culture | 0,862 | 0,859 | 0,023 | 37,283 | 0,000 |
| X25 <- X2-Organizational Culture | 0,835 | 0,835 | 0,026 | 31,763 | 0,000 |
| X26 <- X2-Organizational Culture | 0,847 | 0,848 | 0,022 | 38,830 | 0,000 |
| X27 <- X2-Organizational Culture | 0,804 | 0,801 | 0,030 | 27,201 | 0,000 |
| Y11 <- Y1-Participatory Leadership | 0,767 | 0,760 | 0,042 | 18,308 | 0,000 |
| Y12 <- Y1-Participatory Leadership | 0,722 | 0,719 | 0,040 | 17,916 | 0,000 |
| Y13 <- Y1-Participatory Leadership | 0,899 | 0,900 | 0,014 | 63,142 | 0,000 |
| Y14 <- Y1-Participatory Leadership | 0,893 | 0,893 | 0,015 | 59,134 | 0,000 |
| Y15 <- Y1-Participatory Leadership | 0,828 | 0,827 | 0,028 | 29,228 | 0,000 |
| Y16 <- Y1-Participatory Leadership | 0,901 | 0,900 | 0,016 | 57,150 | 0,000 |
| Y17 <- Y1-Participatory Leadership | 0,835 | 0,834 | 0,028 | 29,526 | 0,000 |
| Y21 <- Y2-Work Motivation | 0,734 | 0,730 | 0,043 | 17,198 | 0,000 |
| Y22 <- Y2-Work Motivation | 0,901 | 0,898 | 0,016 | 57,285 | 0,000 |
| Y23 <- Y2-Work Motivation | 0,919 | 0,919 | 0,011 | 84,082 | 0,000 |
| Y24 <- Y2-Work Motivation | 0,813 | 0,810 | 0,030 | 26,976 | 0,000 |
| Y25 <- Y2-Work Motivation | 0,783 | 0,781 | 0,033 | 23,926 | 0,000 |
| Y26 <- Y2-Work Motivation | 0,894 | 0,892 | 0,020 | 45,731 | 0,000 |
| Y27 <- Y2-Work Motivation | 0,851 | 0,848 | 0,024 | 35,565 | 0,000 |
| Y31 <- Y3-Lecturer Performance | 0,819 | 0,817 | 0,029 | 28,653 | 0,000 |
| Y32 <- Y3-Lecturer Performance | 0,800 | 0,797 | 0,027 | 29,188 | 0,000 |
| Y33 <- Y3-Lecturer Performance | 0,768 | 0,766 | 0,037 | 20,913 | 0,000 |
| Y34 <- Y3-Lecturer Performance | 0,821 | 0,819 | 0,028 | 29,097 | 0,000 |
| Y35 <- Y3-Lecturer Performance | 0,919 | 0,920 | 0,015 | 62,383 | 0,000 |
| Y36 <- Y3-Lecturer Performance | 0,851 | 0,850 | 0,028 | 30,280 | 0,000 |
| Y37 <- Y3-Lecturer Performance | 0,831 | 0,830 | 0,025 | 33,513 | 0,000 |

Discriminant validity

Determining the validity of a construct can also be seen from the discriminant validity. Discriminant validity on reflective indicators is by looking at the cross-loading of indicators on the constructor latent. Discriminant Validity is good, that is, the indicator has a greater cross-loading on the constructor the highest value (Alfa et al., 2017) compared to other constructs. The results of the cross-loading of indicators for each variable can be seen in Table 10.

Table 10
Cross Loading of Each Indicator on Variables X1, X2, Y1, Y2, and Y3

| Latent Variable | Indicator | Variable | | | | |
|-------------------------------|-----------|--------------|--------------|--------------|--------------|--------------|
| | | X1 | X2 | Y1 | Y2 | Y3 |
| Training Program (X1) | X11 | 0.806 | 0.496 | 0.646 | 0.722 | 0.721 |
| | X12 | 0.818 | 0.514 | 0.653 | 0.728 | 0.724 |
| | X13 | 0.731 | 0.530 | 0.632 | 0.631 | 0.662 |
| | X14 | 0.740 | 0.485 | 0.727 | 0.621 | 0.626 |
| | X15 | 0.908 | 0.623 | 0.864 | 0.774 | 0.812 |
| | X16 | 0.903 | 0.623 | 0.783 | 0.748 | 0.855 |
| | X17 | 0.878 | 0.624 | 0.713 | 0.736 | 0.817 |
| Organizational Culture (X2) | X21 | 0.756 | 0.727 | 0.754 | 0.768 | 0.768 |
| | X22 | 0.516 | 0.911 | 0.648 | 0.691 | 0.650 |
| | X23 | 0.351 | 0.825 | 0.433 | 0.537 | 0.482 |
| | X24 | 0.509 | 0.862 | 0.595 | 0.643 | 0.639 |
| | X25 | 0.406 | 0.835 | 0.550 | 0.598 | 0.554 |
| | X26 | 0.787 | 0.847 | 0.718 | 0.772 | 0.817 |
| | X27 | 0.400 | 0.804 | 0.442 | 0.526 | 0.494 |
| Participatory Leadership (Y1) | Y11 | 0.661 | 0.537 | 0.767 | 0.718 | 0.698 |
| | Y12 | 0.485 | 0.590 | 0.722 | 0.734 | 0.735 |
| | Y13 | 0.867 | 0.731 | 0.899 | 0.854 | 0.831 |
| | Y14 | 0.762 | 0.643 | 0.893 | 0.828 | 0.785 |
| | Y15 | 0.823 | 0.580 | 0.828 | 0.708 | 0.710 |
| | Y16 | 0.748 | 0.599 | 0.901 | 0.742 | 0.725 |
| | Y17 | 0.702 | 0.625 | 0.835 | 0.748 | 0.830 |
| Work Motivation (Y2) | Y21 | 0.671 | 0.588 | 0.731 | 0.734 | 0.690 |
| | Y22 | 0.728 | 0.639 | 0.750 | 0.901 | 0.782 |
| | Y23 | 0.837 | 0.656 | 0.846 | 0.919 | 0.842 |
| | Y24 | 0.501 | 0.739 | 0.672 | 0.813 | 0.651 |
| | Y25 | 0.609 | 0.671 | 0.674 | 0.783 | 0.746 |
| | Y26 | 0.775 | 0.731 | 0.863 | 0.894 | 0.791 |
| | Y27 | 0.875 | 0.714 | 0.823 | 0.851 | 0.914 |
| Lecturer Performance (Y3) | Y31 | 0.889 | 0.624 | 0.780 | 0.801 | 0.819 |
| | Y32 | 0.692 | 0.592 | 0.691 | 0.757 | 0.800 |
| | Y33 | 0.650 | 0.598 | 0.802 | 0.756 | 0.768 |
| | Y34 | 0.764 | 0.838 | 0.777 | 0.781 | 0.821 |
| | Y35 | 0.847 | 0.688 | 0.780 | 0.799 | 0.919 |
| | Y36 | 0.723 | 0.610 | 0.742 | 0.732 | 0.851 |
| | Y37 | 0.653 | 0.586 | 0.701 | 0.733 | 0.831 |

Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha

Srinadi, N. L. P., Agung, A. A. G., Yudana, I. M., & Ratnaya, I. G. (2022). E-testing in determining the direct and indirect effects between training, organizational culture, leadership and motivation on lecturer performance. *International Journal of Health Sciences*, 6(2), 639–660. <https://doi.org/10.53730/ijhs.v6n2.7577>

The feasibility of the constructs made can also be seen from the discriminant validity (DV) through Average Variance Extracted (AVE), composite reliability is generally used for reflective indicators that aim to measure the internal consistency of a construct and Cronbach Alpha. The results of the data processing are presented in Table 11.

Table 11
Cronbach's Alpha and composite reliability values, average variance extracted (AVE) variables of training construct, organizational culture, leadership, motivation, and lecturer performance

| Variables | Cronbach's Alpha | Rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|-----------------------------|------------------|-------|-----------------------|----------------------------------|
| X1- Training Program | 0.923 | 0.929 | 0.939 | 0.688 |
| X2-Organizational Culture | 0.926 | 0.935 | 0.940 | 0.692 |
| Y1-Participatory Leadership | 0.928 | 0.932 | 0.942 | 0.702 |
| Y2-Work Motivation | 0.932 | 0.937 | 0.945 | 0.713 |
| Y3-Lecturer Performance | 0.925 | 0.927 | 0.940 | 0.691 |

Root square correlation between variables

Furthermore, the correlation between variables can be seen in Table 12.

Table 12
Root Square Correlation Between Variables X1, X2, Y1, Y2, and Y3

| Variables | X1 | X2 | Y1 | Y2 | Y3 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| X1- Training Program | 0.829 | | | | |
| X2-Organizational Culture | 0.674 | 0.832 | | | |
| Y1-Participatory Leadership | 0.868 | 0.737 | 0.838 | | |
| Y2-Work Motivation | 0.856 | 0.801 | 0.912 | 0.844 | |
| Y3-Lecturer Performance | 0.903 | 0.784 | 0.909 | 0.923 | 0.831 |

Inner model evaluation

Evaluation of Goodness of Fit

The evaluation of the inner model is first carried out by evaluating the goodness of fit, namely by looking at R square or R². For R² in this study, there are two dependent variables, namely participatory leadership (Y1), work motivation (Y2), and lecturer performance (Y3) as presented in Table 13.

Table 13
Value of R-Square Dependent Variable Leadership, Work Motivation, and Lecturer Performance at ITB Stikom Bali

| Dependent Variables | R-Square | R Square Adjusted | Description |
|-----------------------------|----------|-------------------|-------------|
| Y1-Participatory Leadership | 0.796 | 0.793 | Strong |
| Y2-Work Motivation | 0.880 | 0.878 | Strong |
| Y3-Lecturer Performance | 0.912 | 0.910 | Strong |

Direct effect test

The results of testing the significant influence between variable training programs, organizational culture, participatory leadership, and work motivation on lecturer performance at ITB STIKOM Bali are presented in Figure 2.

E-Testing Lecturer Performance at ITB STIKOM Bali

COEFFICIENT VALUE OF DIRECT EFFECT OF TRAINING, ORGANIZATIONAL CULTURE, LEADERSHIP, AND MOTIVATION ON LECTURER PERFORMANCE AT ITB STIKOM BALI

| Relationship between Variables | Loading | Standard Deviation | T-Statistics | P-Values | Description |
|--------------------------------|---------|--------------------|--------------|----------|-------------|
| X1 -> Y1 | 0.680 | 0.037 | 18.171 | 0.000 | Significant |
| X1 -> Y2 | 0.226 | 0.050 | 4.515 | 0.000 | Significant |
| X1 -> Y3 | 0.363 | 0.043 | 8.351 | 0.000 | Significant |
| X2 -> Y1 | 0.279 | 0.045 | 6.255 | 0.000 | Significant |
| X2 -> Y2 | 0.265 | 0.041 | 6.483 | 0.000 | Significant |
| X2 -> Y3 | 0.132 | 0.037 | 3.530 | 0.000 | Significant |
| Y1 -> Y2 | 0.520 | 0.052 | 9.972 | 0.000 | Significant |
| Y1 -> Y3 | 0.204 | 0.057 | 3.575 | 0.000 | Significant |
| Y2 -> Y3 | 0.321 | 0.066 | 4.879 | 0.000 | Significant |

Process Save

Figure 2. Results of e-testing in determining the value of the coefficient of direct effects of training, organizational culture, leadership, and motivation on lecturer performance at ITB STIKOM Bali

The relationship between latent variables and those presented in Table 14 can also be shown in the column coefficients as shown in Figure 1. Based on Figure 1, it can be explained that the variable that has more influence on lecturer performance is the training program with a coefficient of 0.363, the second variable is work motivation with a coefficient of 0.321, the third variable is participatory leadership with a coefficient of 0.204, and the fourth variable is the organizational culture of 0.132. More details can be seen in Figure 3.

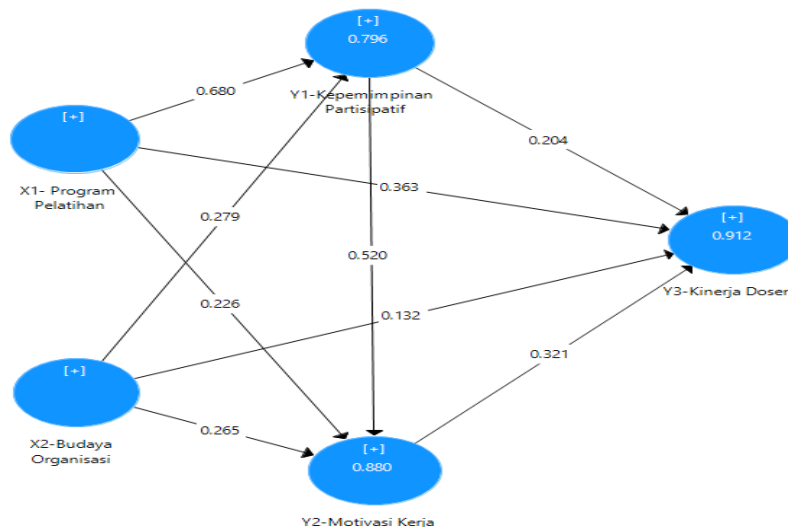


Figure 3. Coefficient of Direct Effect Between Variables

Indirect effect test

The mediating role of participatory leadership (Y1) and work motivation (Y2) on the influence of training programs (X1) and organizational culture (X2) on lecturer performance (Y3) is obtained from the indirect effect as presented in Figure 4.

| Indirect Influence Through Mediation | Original Sample | Standard Deviation | T-Statistics | P-Values | Description |
|--------------------------------------|-----------------|--------------------|--------------|----------|-------------|
| X1 -> Y1 -> Y3 | 0.139 | 0.040 | 3.427 | 0.001 | Significant |
| X2 -> Y1 -> Y2 | 0.145 | 0.025 | 5.811 | 0.000 | Significant |
| Y1 -> Y2 -> Y3 | 0.167 | 0.039 | 4.263 | 0.000 | Significant |
| X1 -> Y2 -> Y3 | 0.073 | 0.022 | 3.279 | 0.001 | Significant |
| X2 -> Y1 -> Y3 | 0.057 | 0.018 | 3.234 | 0.001 | Significant |
| X2 -> Y1 -> Y2 -> Y3 | 0.047 | 0.012 | 3.748 | 0.000 | Significant |
| X1 -> Y1 -> Y2 | 0.354 | 0.044 | 8.027 | 0.000 | Significant |
| X1 -> Y1 -> Y2 -> Y3 | 0.113 | 0.028 | 4.032 | 0.000 | Significant |
| X2 -> Y2 -> Y3 | 0.085 | 0.021 | 4.070 | 0.000 | Significant |

Figure 4. Results of e-testing in determining the value of the indirect effect of training, organizational culture, leadership, and motivation on lecturer performance at ITB STIKOM Bali

3.2 Discussions

From Table 2, it can be seen that the training variable (X1) with seven indicators and 30 questions in the research instrument is declared valid. The most significant correlation value is 0.775 on the indicator (X1.3) with the 11th item number. For lecturer performance variables with seven indicators and 39 questions in the research, the instrument is declared valid. The most significant correlation value is 0.743 on the indicator (Y3.5) with the 26th item number and the indicator (Y3.6) with the 35th item number. Based on the reliability criteria above, if adjusted with the research instrument reliability test results, the results are shown in Table 3 as follows.

Based on Table 3, it can be seen that the value of Cronbach's Alpha on the training variable obtained a value of 0.669 with the Reliable Hight category. Therefore, all research instruments from each variable can be said to be Reliable with a high level of reliability for the variables of training, organizational culture, and lecturer performance, and very high reliability for the variables of participatory leadership and work motivation (Rogiest et al., 2018; Lee & Chan, 2015). With the acquisition of reliability values ranging from 0.6 to 0.9, the reliability of an instrument can be accepted in a good category (Adianto & Sugiyanto, 2019).

Based on Table 4, it can be seen that the average respondent's perception of the training program variable is classified as high with an average of 4.82. With the acquisition, the respondent's perception of the training program variable gets very good quality, so that it can provide real change results (Lizzio et al., 2002; Lizzio et al., 2002).

Based on Table 5, it can be seen that the average respondent's perception of the organizational culture variable is classified as high with an average of 4.47. With the acquisition of these values, in addition to

obtaining good quality and providing good changes, the acquisition of these values can be accepted for its application, or the hypothesis can be accepted and applied.

Based on Table 6, it can be seen that the average respondent's perception of the participatory leadership variable is classified as high with an average of 4.40. With the acquisition, the respondent's perception of the participatory leadership variable got very good quality, so based on the category the score interpretation was said to be very strong (Munawar et al., 2019; Tomlinson, 2017).

Based on Table 7, it can be seen that the average respondent's perception of the work motivation variable is classified as high with an average of 4.20 (Hilton et al., 2013).

Based on Table 8, it can be seen that the average respondent's perception of the lecturer performance variable is classified as high with an average of 4.72. With the acquisition of these values, in addition to obtaining good quality and providing good changes, the acquisition of these values can be accepted for its application, or the hypothesis can be accepted and applied (Toanoglou et al., 2021).

Based on Table 9, it can be seen that all indicators of the training program construct (X1), organizational culture (X2), participatory leadership (Y1), work motivation (Y2), and lecturer performance (Y3) are statistically significant with an at-count value greater than 0.148 with p-value is less than 0.05 and 0.01. It is also said to be substantial for values of 0.05 and less than 0.05 (Nuryanti & Soebagjio, 2021). Likewise, all loading values are above 0.50, which means that the constructs made have met the convergent validity requirements and can be said to be positive and significant. With the acquisition of this value, there is no need to re-estimate (Andreas et al., 2021).

Based on Table 10, it can be seen that discriminant validity has been met by looking at the cross-loading that has been fulfilled properly because the indicator has more cross-loading on the construct than on other constructs. For example, the Training Program (X1) construct has a minimum cross-loading of 0.806, while in other constructs the indicator has a smaller cross-loading than that value, which is the largest of 0.722 to the right (Kruijver et al., 2000; Warhadpande et al., 2020).

Based on Table 11, the reliability of each variable is very high because Cronbach's Alpha is more than 0.8. With the acquisition of scores of more than 0.8 and 0.9, it can be concluded that the composite reliability criteria are very satisfactory (Faizah et al., 2021).

Based on the evaluation (Table 12) of the outer loading above, it can be said that the research instrument consisting of 5 variables is valid and reliable, even at a high level. Thus, it can be continued to conduct further analysis to determine the direct and indirect effects and to test the hypothesis of this research. With this, it shows that this research is said to be valid (Rizqiah et al., 2020). Based on R^2 in Table 13, it can be calculated Q^2 or Stone Geiser Q-square test, namely:

$$Q^2 = 1 - \{(1 - R_1^2)(1 - R_2^2)(1 - R_3^2)\} \quad (2)$$

$$Q^2 = 1 - \{(1 - 0.796)(1 - 0.880)(1 - 0.912)\}$$

$$Q^2 = 1 - 0.002$$

$$Q^2 = 0.998$$

The calculation result of the Q^2 or Stone-Geiser Q Square test is 0.998. This value is classified as very large and can be said to have a high predictive prevalence, so the resulting model is suitable for predicting. The value of Q^2 or Stone-Geiser Q Square test of 0.998 means that 99.8 percent of the variation of Lecturer Performance can be explained by the Training Program, Organizational Culture, Participatory Leadership, and Work Motivation while the remaining 0.2 percent is explained by Variable others that are not in the model (Green Jr et al., 2017; Dwivedula & Bredillet, 2010). The obtained R-Square shows that the structural model indicates that the model is very good (Fauzan & Novianti, 2020; Setiorini et al., 2021).

From Figure 2, it can be seen that there are variables that have a direct positive and significant effect with a probability of less than 5 percent. Based on this, the research hypothesis can be proven: Organizational Culture (X2) has a direct positive effect on Lecturer Performance (Y3) with a path coefficient or loading of 0.132, the better the Organizational Culture, the better Lecturer Performance; With a P-value of 0.001 it shows a positive and significant effect so that it can be accepted (Sofha & Machmuddah, 2019) and the hypothesis can be obtained with the value of T statistic > 1.96 and P-value < 0.05 (Darwin & Umam, 2020).

From Figure 4, it can be seen that there are indirect and significant related constructs with a probability of less than 5 percent. Based on this, the indirect hypothesis can be proven: Organizational Culture (X2)

through Participatory Leadership (Y1) has an indirect positive effect on Lecturer Performance (Y3) with a P. Value of 0.001, so a better Organizational Culture leads to increased Participatory Leadership and ultimately lead to increased Lecturer Performance. Therefore, the obtained values in the table indicate that the hypothesis can be accepted with T statistic > 1.96 and P-value < 0.05 (Mudiono et al., 2018).

4 Conclusion

Based on the results of hypothesis testing using E-Testing as presented in the previous discussion, it was found that of the 18 research hypotheses tested, all hypotheses were accepted at the 5% significance level. The results of the research findings in testing the hypothesis that organizational culture (X2) has a direct positive effect on lecturer performance (Y3) are proven. Organizational culture (X2) through participatory leadership (Y1) has an indirect positive impact on lecturer performance (Y3), with the results of the hypothesis being proven.

Acknowledgments

The authors would like to thank the Principals and teachers of Elementary Schools in West Denpasar who have helped the smooth running of this research. In addition, the authors would like to thank the supervisor for their input in writing this article. Hopefully, this article can be useful to improve teacher performance in Denpasar.

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