

Effects of Job Stress, Work Culture and Against the Performance of Lecturers and Work Associations as Intervening Variables at the University of Ibnu Sina

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Abstract

The purpose of this study is to determine the causality of work stress relationships, work ties to the performance of lecturers and payments at Ibnu Sina University. The research was carried out using quantitative methods and statistical package analysis tools for Social Sciences (SPSS) 25 with respondents surveyed 99 samples from 132 lecturer populations and research using questionnaires. The results of the study that (1) work stress directly does not significantly influence the performance of lecturers at the University of Ibnu Sina; (2) work culture directly has a significant effect on lecturer performance at Ibnu Sina University; (3) work ties directly have insignificant effect on the performance of lecturers at Ibnu Sina University; (4) work stress does not have a significant effect on lecturers' performance through work ties at Ibnu Sina University; (5) work culture has no significant effect on the performance of lecturers through work ties at the Ibnu Sina University.

Keywords: Job Stress, Work Culture, Work Ties and Lecturer Performance.

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1. Introduction

Human resources are one of the assets of the organization, so human resources are very important to be a concern for the future of the organization. Widiyanti, Airlangga (2018) that human resources are a factor that influences company performance and value. Quality human resources will improve organizational performance. The University of Ibnu Sina (UIS) Batam is a private university that continues to grow but there are several phenomena that occur and have implications for lecturers' performance. Acceptance of new students at UIS continues to increase, especially in the faculties of economics and engineering, this requires the campus to improve the service and performance of the tri dharma of the university as a whole [1].

The performance of lecturers in the field of teaching has been better in line with this institution becoming a university in 2019, but in the field of research and community service needs to be a concern because some lecturers have activities outside the campus, so the lecturers have the potential to experience work pressure due to excessive workload, not just as a capacity as a lecturer but also other business activities outside of campus, so that it has the potential to experience work stress and have an impact on the performance of lecturers in the UIS environment. This is in line with the results of research Noor, Hidayati, Syaharuddin (2017) that work stress has a significant effect on employee performance. The relatively extensive activity of the lecturers resulted in a number of lecturers who were only active in teaching and lacked interaction with the campus environment, so this could potentially degrade culture and work ties within the UIS Batam lecturer environment, thus impacting on the behaviour and performance of lecturers [2].

This statement is supported by Siagian (2018) that organizational culture significantly influences employee performance. Liu (2018) that work ties affect employee performance. The urgency of this research is the result of Dewi's research (2017) that lecturer performance in class (lecturer performance) partially negatively affects the quality of education (quality education). It is necessary to prove empirically the causal relationship between lecturers' performance at UIS Batam with work stress variables and work culture as an independent variable, work ties as an intervening variable [3].

2. Literatur e Review

2.1 Work Stress

Suprawa, Brahmasari, Brahmaratih (2018) work stress is a condition that arises because of the interaction between humans and their work, which forces them to be marked by changes that have an impact that deviates from their normal functioning. Hasan, Fathoni, Malik (2018) variables derived from work stress characteristics or indicators, namely: (1) role conflict; (2) workload; (3) career development [4].

2.2 Work Culture

Siagian (2018) that organizational culture is a repetitive habit and becomes the value and lifestyle of a group of individuals in an organization, or agreed norms in determining individual organizational behavior. Cultural Indicators of Organization according to Malini (2017), namely: (1) leadership (*Pemimpin*); (2) communication; (3) motivation [5].

2.3 Job Embeddedness

Zakaria, Astuti (2017) that job embeddedness is the attachment between employees and work and is a factor in considering their desire to leave the organization. Özçelik and Cenkci (2014) indicators of work ties are as follows: (1) links; (2) Fit; (3) sacrifice; (4) organization [6].

2.4 Performance

Irawati (2018) that performance is the result of quality and quantity of work achieved by employees in carrying out tasks according to the responsibilities given. Retnowati, dkk (2017) that lecturer performance is assessed through four aspects namely: (1) performance in teaching; (2) performance in research; (3) performance in the Community Service Program; (4) lecturer capacity [7].

3. Research Method

Research using quantitative research. Quantitative research methods emphasize the existence of research object variables and must be defined in the operational form on each variable. The relationship of this research variable uses an associative approach. The study determined the independent variables consisted of Work Stress (X1), Work Culture (X2), lecturer performance (Y) dependent variable and Work Association (X3) as intervening variables on the object of research at Ibnu Sina University, Jalan Teuku Umar, Lubuk Baja Batam. Population and sample according to Sugiyono (2011) is a generalization area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn [8].

The sample is part of the amount and characteristics possessed by the population. Samples taken from the population must be representative because the analysis of research is based on sample data while the conclusions will be applied to the population. Samples that are representative are obtained by using a sampling technique. The population of this research is 132 permanent and non-permanent lecturers of UIS, the number and adequacy of the sample is determined through slovin calculation, which is 99 samples. The conceptual framework of the study is as follows [9].

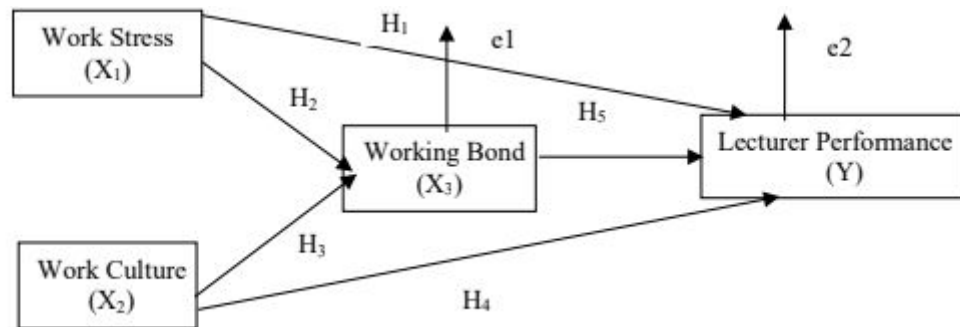


Figure 1. Conceptual Framework

The conceptual framework, this study sets the following research hypotheses:

- 1) Job stress has a significant effect on lecturer performance
- 2) Work culture has a significant effect on lecturer performance
- 3) Work ties have a significant effect on lecturer performance.
- 4) Job stress has a significant effect on the performance of lecturers through work ties
- 5) Work culture has a significant effect on the performance of lecturers through work ties

Data processing with SPSS 25 tools uses the steps of data analysis techniques through:

- (1) validity test;
- (2) reliability testing;
- (3) normality test;
- (4) Hypothesis test, consisting of the coefficient of determination test, the statistical test F (F-test), the statistical test t (t-test), path analysis. To analyze the results of data processing with the formulation of hypotheses and acceptance / rejection hypothesis criteria are as follows:
 - 1) H₀ is rejected if the probability value $r \leq$ significant level is 0.05 (Sig.2-tailed $\leq \alpha$ 005): H₁ is accepted.
 - 2) H₀ is accepted if the probability value $r >$ significant level is 0.05 (Sig.2-tailed $> \alpha$ 005), H₁ is rejected.

4. Results and Analysis

4.1 Data Quality Test

a. Test Validity, Reliability and Normality

Validity test is the accuracy between the data collected and the data that actually occurs on the object under study. The decision on testing the validity of the respondent's items is as follows: (1) r table value with $dk = n-2$ and a significance level of 5%; (2) statement items examined are said to be valid if $r_{\text{Calculate}} > r_{\text{Table}}$; (3) statement items are said to be invalid if $r_{\text{Calculate}} < r_{\text{Table}}$. An instrument is declared reliable if the reliability coefficient is at least 0.60 or alpha value > 0.60 [10].

The results of the validity test on the instrument against the 99 samples above obtained by Pearson items correlated to all items of the statement on the questionnaire above the significance level of 5% and $r_{\text{Calculate}} > r_{\text{Table}}$, then declared valid. The instrument was declared reliable because the reliability coefficient > 0.60 or alpha value > 0.60 . The normality test with histograms forms a bell image and is normally distributed. The P-P plot results show that the points are scattered and follow a diagonal line so the instrument is declared normal [11].

4.2 Hypothesis Test

Table 1. Results of Multiple Linear Regression Analysis of Sub-Structure Paths 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.050	1.849		4.894	.000
	Work Stress (X1)	.237	.092	.258	2.565	.012
	Work Culture (X2)	.264	.064	.413	4.107	.000

a. Dependent Variable: Work Bonds (X3)

(Source: Data Processing Results with SPSS Version 25)

The results of the multiple linear regression test in table 1 are known to structure equation 1 as follows:

Structure Equation 1: $X_3 = p_{yx1} X_1 + p_{yx2} X_2 + e_1$

Structural Equation 1: $0,237 + 0,264 + e_1$

Tabel 2. Coefficient Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637 ^a	.405	.387	3.05371

a. Predictors: (Constant), Work Ties, Work Stress, Work Culture

b. (Source: Data Processing Results with SPSS Version 25)

Table 3. Results of Multiple Linear Regression Analysis of Sub-Structure Paths 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.811	3.192		2.134	.035
	Work Stress	.234	.147	.160	1.591	.115
	Work Culture	.411	.108	.403	3.812	.000
	Work Bond	.284	.158	.178	1.802	.075

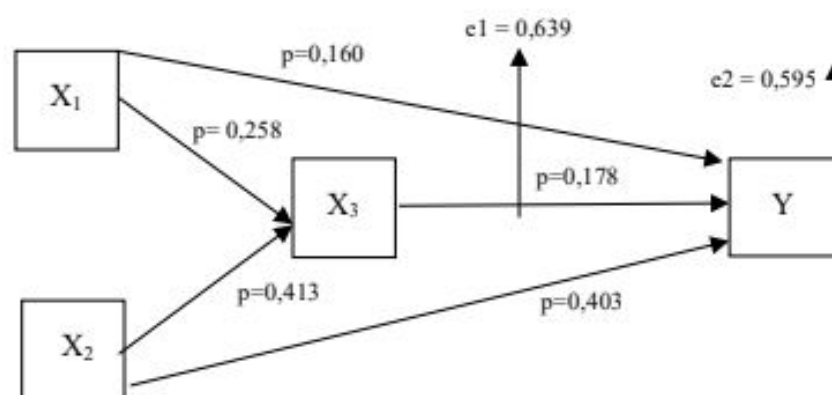
a. Dependent Variable: Lecturer Performance (Y)

(Source: Data Processing Results with SPSS Version 25)

The results of the multiple linear regression test in table 2 note the structure equation 2 as follows: Structure Equation 2: : $Y = p_{yx1} X_1 + p_{yx2} X_2 + p_{yx3} X_3 + e_1$

Structural Equation 2: $0,234 + 0,411 + 0,284 + e_1$

The relationship of variables X_1 , X_2 , X_3 to Y based on the calculation of the coefficient as follows: 1) The significance value of X_1 to Y is $0.115 > 0.005$, then X_1 directly has no significant effect on Y . 2) The significance value of X_2 to Y is $0,000 < 0.005$, then X_2 directly has a significant effect on Y . 3) The significance value of X_3 to Y is $0.075 < 0.005$, so X_3 has no significant effect on Y . Based on the calculation of the path coefficient, the calculation results can be described as shown in the following model [12, 13]:

**Figure 2.** Results of the Path Analysis Mode

The relationship of variables X_1 to Y through X_3 and X_2 to Y through X_3 is interpreted as follows:

- 1) The direct effect of X_1 on Y is 0.160 and the indirect effect of X_1 on Y through X_3 is $0.258 \times \text{beta value of } 0.178 = 0.046$. It is known that $0.160 > 0.046$, indirectly, work stress does not significantly influence the performance of lecturers through work ties.
- 2) The direct effect of X_2 on Y is 0.403 and the indirect effect of X_1 on Y through X_3 is $0.413 \times \text{beta value of } 0.178 = 0.074$. It is known that $0.403 > 0.074$, indirectly the work culture does not significantly influence the performance of lecturers through work ties.

5. DISCUSSION

Based on the test results of the causal relationship between variables from the analysis, obtained a significance value of X_1 to Y of $0.115 > 0.005$. The first hypothesis (H1) was rejected because work stress directly had insignificant effect on the performance of lecturers at the University of Ibnu Sina. The relationship was not significant because some lecturers had high workloads because they actively worked off campus other than teaching, so it was difficult to meet lecturer work demands in the field of research. Another thing is because it is not yet optimal in stimulating lecturers through research training activities so that it affects lecturers' performance. The significance value of X_2 to Y of $0.000 < 0.005$, then the second hypothesis (H2) is accepted and work culture directly influences the performance of lecturers at Ibnu Sina University in Batam. Significant influence of work culture directly on the performance of lecturers because the lecturers are able to adapt to the work environment such as communication and good relations between lecturers at each faculty level, so there is no conflict and the function of lecturers towards teaching runs optimally.

The significance value of X_3 against Y was $0.075 < 0.005$, then the third hypothesis (H3) was rejected, so the work ties did not have a significant effect on the performance of lecturers at Ibnu Sina University, Batam. The insignificant relationship is because this university institution was previously a high school and in 2019 became a University, so it was not optimal to form lecturers Work patterns in a wider work environment and not yet optimally integrated, thereby affecting lecturers' performance in the research and community service sectors. The value of the direct relationship X_1 to Y produced that $0.160 > 0.046$ and the fourth hypothesis (H4) was rejected. Indirectly, work stress does not significantly affect the performance of lecturers through work ties at the University of Ibnu Sina. The influence is not significant because there are several lecturers who have excessive workloads that affect productivity in the field of research and community service and career development as a lecturer. Another thing is still not the maximum implementation of competition-based research training to stimulate lecturer performance.

The direct effect of X_2 on Y is known that $0.403 > 0.074$ then the fifth hypothesis (H5) is rejected. Indirectly, work culture does not significantly influence the performance of lecturers through work ties at the University of Ibnu Sina. The relationship is not significant because some lecturers have not adapted themselves to build a more optimal relationship in a university institutional community, so that it has not maximally increased productivity and innovation in teaching, research and community service systems. The coefficient of determination obtained a value of 0.405 means that the variables of work stress, work culture and work ties contribute to the performance of lecturers by 40.5% and 59.5% contributed by other variables not examined in this study.

6. Conclusion

Based on the results of the analysis and discussion, this research can be concluded as follows:

- 1) Job stress directly has an insignificant effect on the performance of lecturers at Ibnu Sina University. Lecturer performance can be improved through limiting and managing workloads and stimulating lecturers to improve research activities.
- 2) Work culture directly has a significant effect on lecturer performance at Ibnu Sina University in Batam. The performance of lecturers can be improved through work culture by maintaining and even increasing communication and relationships between lecturers who are already established at the faculty level.
- 3) Work ties directly have an insignificant effect on the performance of lecturers at Ibnu Sina University. Lecturer performance can be improved through work ties by further optimizing cross-faculty activities so as to stimulate cooperation in the field of research and community service.

4) Job stress has no significant effect on the performance of lecturers through work ties at the Ibnu Sina University. This relationship can improve the performance of lecturers through cross-faculty community service collaboration and competition-based research training.

5) Work culture has no significant effect on the performance of lecturers through work ties at the University of Ibnu Sina. This relationship can be enhanced by organizing collaborations across faculties to produce innovations in teaching, research and community service systems.

THANK-YOU NOTE

Thank you to: (1) Chancellor of Batam University; (2) Dean of the Faculty of Economics, Batam University; (3) Chair of the Management Study Program of the University of Batam; (4) The academic community of Ibnu Sina University, Batam.

References

- [1] Dewi, Purnamasari, Ariya. Pengaruh Kinerja Dosen dan Kualitas Layanan Terhadap Kualitas Pendidikan Dan Kepuasan Mahasiswa Fakultas Teknik Universitas Muhammadiyah Jakarta. *jurnal.umj: Prosiding SEMNASTEK* (2017).
- [2] Hasan, A., Fathoni, A., & Malik, D. Pengaruh Stres Kerja (Individu, Kelompok, Dan Organisasi) Terhadap Kinerja Karyawan Pt. Graha Candi Golf Semarang. *Journal of Management*, 4(4), 1–11(2 018).
- [3] Irawati, A. Pengaruh Stres Kerja, Motivasi Kerja, Kompensasi terhadap Kinerja Karyawan Dengan Lama Kerja Sebagai Variabel Moderating. *Jurnal Ilmu Akuntansi*, 11(1), 117–134. <https://doi.org/10.15408/akt.v11i1.8789> (2018).
- [4] Liu, R. The Impact of Job Embeddedness on Employee's Performance—The Regulation Study of Relational Embeddedness. *Journal of Human Resource and Sustainability Studies*, 06 (01), 8–23 2018.
- [5] Malini, H. Pengaruh Budaya Organisasi Dan Pelatihan Kerja Terhadap Kinerja Karyawan Pt Pos Indonesia (Persero) Kantor Pos Baturaja 32100. *Kolegial*, 3(1), 20–35. <https://doi.org/2088-5644> (2017).
- [6] Noor, H., Hidayati, T., & Syaharuddin, Y. Pengaruh Emotional Intelligence dan Stres Kerja terhadap Kinerja Karyawan Bank Pembangunan Daerah Kaltim Cabang Penajam Paser Utara . *Prosiding Seminar Nasional Manajemen Dan Ekonomi Bisnis*, 1(May), 493–501 (2017).
- [7] Retnowati, Hartiti, Trie dkk. Model Evaluasi Kinerja Dosen: Pengembangan Instrumen Untuk Mengevaluasi Kinerja Dosen. *Jurnal Penelitian dan Evaluasi Pendidikan Volume 21*, No 2 (2017).
- [8] Siagian, M. Pengaruh disiplin kerja, budaya organisasi, kompetensi, dan motivasi kerja terhadap kinerja karyawan pada pt. sat nusapersada tbk batam. *Jurnal Akrab Juara*, 3(1), 1–18 (2018).
- [9] Özçelik, G., & Cenkci, T. Moderating Effects of Job Embeddedness on the Relationship between Paternalistic Leadership and In-role Job Performance. *Procedia - Social and Behavioral Sciences*, 150, 872–880. <https://doi.org/10.1016/j.sbspro.2014.09.096> (2014).
- [10] Siregar, S. *Statistika Deskriptif untuk Penelitian*. Depok: PT RajaGrafindo Persada (2016). 11] Sugiyono. *Metode Penelitian Kombinasi (Mix Method)*. Bandung: R&D Alfabeta (2011).
- [11] Suprawa, T. A., Brahmasari, I. B., & Brahmaratih, I. A. Effect Of Competence, Leader-Member Exchange And Teamwork On Work Discipline, Job Stress And Their Impact On Employee Performance Of Construction Company In East Java, Indonesia. *Russian Journal of Agricultural and Socio-Economic Sciences*, 74(2), 67–78 (2018).
- [12] Widiyanti, N. W., & Airlangga, A. J. Pengungkapan Sumber Daya Manusia dan Pengaruhnya Terhadap Citra Perusahaan (2017).
- [13] Zakaria, R., & Astuty, I. Pengaruh Kompensasi Terhadap Turnover Intention Dengan Job Embeddedness Sebagai Variabel Intervening, 8(1), 82–97 (2017).