

Confirmatory Factor Analysis of Satisfaction, Commitment and Performance of Lecturers in Higher Education Institutions

Pauzi, Putu Rani Susanthi, Hazriyanto, Asih Purwana Sari and Vincentius Ade Arianto Ciptoputro
STAIN Sultan Abdurrahman, Management Study Program, Galileo College of Economics Batam, Indonesia

Keywords: CFA, Job Satisfaction, Lecturer Performance, Higher Education Institutions.

Abstract: Higher education institutions are a place for increasing quality human resources. Education at this time, development attention is more towards developing and developing human resources in the tertiary environment. The process involves various stakeholders: lecturers, universities, the community, industry, and other educational organizations. The importance of job satisfaction and the commitment of lecturers in tertiary institutions deserves greater attention. There still needs to be more research on job satisfaction, commitment, and lecturer performance in higher education institutions because the existing research tends to be carried out only in the industrial sector, so this study needs to be carried out among higher education institutions. This study aims to confirm the item indicators of job satisfaction, commitment, and performance of lecturer educators. The data was collected through a questionnaire that involved 76 lecturers from tertiary institutions, particularly near the Riau Islands, Indonesia. The data were reviewed and analyzed with the Amos SEM tool. The study found that satisfaction indicator items confirmed 11 indicator items, commitment 13 indicator items, and performance 11 indicator items that measure satisfaction, commitment, and performance with acceptable good of fit. Institutions, academics, and practitioners can use the study's results in making standards and evaluating job satisfaction, commitment, and performance. In addition, higher education institutions should consider these indicator items and pay attention to other factors outside the studies, such as demographic factors, higher education management, culture, and other factors.

1 INTRODUCTION

The demands of the world of education today cannot be denied that, like it or not, national tertiary institutions must be able and able to compete in responding to progress and changes according to the demands of the times. The Indonesian Ministry, specifically the Ministry of Education, Research and Technology, is serious about addressing education issues. This attention has led to various programs designed to accelerate the growth and progress of education, which is in line with the development of national education discussed previously. The attention of the Ministry of Research and Technology to universities goes beyond just implementing the national education program. However, more than that, every university is encouraged to receive support in the education system with clear goals to achieve high performance. Furthermore, lecturers in tertiary institutions are granted support and freedom to work independently in the learning process, research, and

community service. The integrated program based on the tri dharma of higher education has started to run. This program can help tertiary institutions integrate and synergize their available human resources.

Teachers who receive knowledge from research and service can encourage academics in higher education to think scientifically. It is beneficial in creating a highly competitive national education at the international level. Higher education performance measurement indicators serve as indicators for thinking and improving to meet progressive national education standards. Likewise, with the measurement of lecturer performance, apart from the tri dharma measure, several additional indicators deserve to be considered by making various adjustments and local wisdom where the tertiary institution is located. Studies are necessary to synchronize these performance measures for this reason.

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2 LITERATURE REVIEW

2.1 Performance

Performance evaluation is a procedure or activity used by individuals or groups within an organization to evaluate and communicate how employees carry out their duties by comparing results. (Syamsuriansyah, 2021). Performance is a factor that is connected to the tasks assigned. Performance is the overall state that starts with input activities, output processes, and even results, not just the culmination of various work processes (Amir, Mohammad Faisal, 2015). To enhance a company or organization's performance, performance management is a complete process that includes the performance of each employee and work group. The performance of an employee is determined by their skill, interest, understanding, acceptance of assigned duties, and degree of motivation.

2.2 Commitment

A commitment is a promise to complete a task for oneself, another person, a team, or an organization. The degree to which a person acknowledges and is dedicated to an organization's objectives is described as organizational commitment. The indicators of organizational commitment (Yüzbaşıoğlu, N. and Dogan, O, 2018) can include both the level of participation and willingness of the employee to stay with the organization. The idea of organizational commitment involves loyalty to the organization and mobilization to achieve organizational goals, as well as the desire and willingness of an employee to contribute to the success of the company (Redondo, R., Sparrow, P. and Hernandez-Lechuga, 2021).

2.3 Job Satisfaction

Each employee's performance reflects their level of job satisfaction. When they do well, it shows that they are happy with the work they are doing (Tanjung, H, 2019). Psychological, social, physical, and financial aspects all have an impact on job satisfaction (Mangkunegara, 2014). The generalization of job satisfaction stems from attitudes toward work, which are of course expressed on a job-by-job basis (Aulia, V., & Trianasari, N, 2021).

2.4 Relationship Between Commitment, Job Satisfaction and Performance

Previous results show that satisfaction and performance have a clear and significant relationship. The results of other studies also show that organizational culture and work stress indirectly significantly affect performance through job satisfaction. The study's findings suggest that organizational commitment to positive performance is not crucial, but job satisfaction with positive performance is significant, and commitment and pride in positive performance are crucial. If organizational commitment and job satisfaction are high, performance will be high; that is what increases lecturer performance correlates with their dedication and pride.

The description related to this study can be simulated based on the information found above. This study aims to obtain item indicators that can explain the variables referred to in the study. In addition, this study analyzes the relationship between commitment, satisfaction, and performance variables. Following is the conceptual framework of the study.

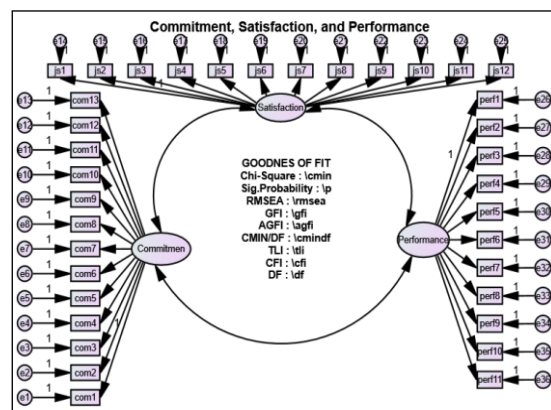


Figure 1: Concept Framework.

The Hypothesis of this Study:

H1: There is a relationship between commitment and performance

H2: There is a relationship between commitment and satisfaction

H3: There is a relationship between job satisfaction and performance.

3 RESEARCH METHODS

This research has involved lecturers from several universities. The variables in this study are commitment, job satisfaction, and performance. Scope of study in the college environment. The sample in this study was 76 lecturers from various tertiary institutions who responded to returning the questionnaires that had been distributed. Data was collected using a questionnaire distributed to lecturers in tertiary institutions, and an analysis tool was used with Amos SEM tools. The questionnaire indicator items used were adopted and adapted from previous research that had been conducted, which resulted in 13 items (Commitment), 12 items (Job Satisfaction), and 11 items (Performance), the results of a study with EFA (Hazriyanto, & Ibrahim, B, 2019). This study analyzes the instrument items with CFA and the relationship between the variables studied. This study is a follow-up study of previous studies. Following are the results of the study.

Table 1: Regression Weights: Performance.

Items	Estimate	S.E.	C.R.	P	Label
perf1 <--- Performance	1.000				
perf2 <--- Performance	1.277	.231	5.533	***	
perf3 <--- Performance	.949	.211	4.507	***	
perf4 <--- Performance	1.150	.240	4.789	***	
perf5 <--- Performance	1.145	.224	5.121	***	
perf6 <--- Performance	1.148	.225	5.105	***	Valid
perf7 <--- Performance	1.268	.261	4.863	***	
perf8 <--- Performance	1.495	.267	5.595	***	
perf9 <--- Performance	1.420	.256	5.536	***	
perf10 <--- Performance	1.563	.282	5.548	***	
perf11 <--- Performance	1.476	.292	5.047	***	

The picture and table above show that all instrument items from the performance are in the valid category, which includes 11 articles from the concert—furthermore, the results of the commitment CFA can be observed in the following figure and table.

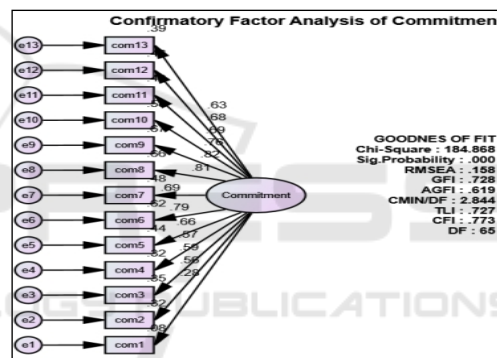


Figure 3: CFA Commitment.

4 RESULTS AND DISCUSSION

4.1 Results

In this section, the results of the confirmatory factor analysis study of each variable are presented. CFA results can be seen in the figure and table below.

Table 2: Regression Weights: Commitment.

Items	P	Label
com1 <--- Commitment		Valid
com2 <--- Commitment	.029	
com3 <--- Commitment	.026	
com4 <--- Commitment	.031	
com5 <--- Commitment	.025	
com6 <--- Commitment	.022	
com7 <--- Commitment	.025	
com8 <--- Commitment	.020	
com9 <--- Commitment	.021	
com10 <--- Commitment	.021	
com11 <--- Commitment	.023	
com12 <--- Commitment	.025	
com13 <--- Commitment	.027	

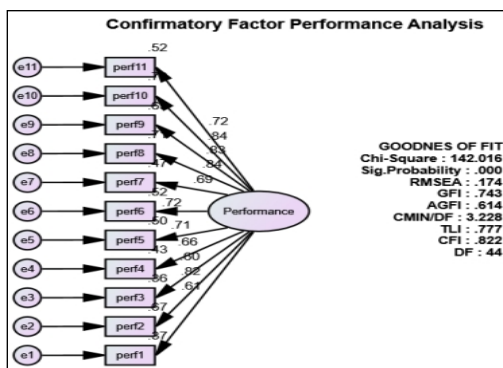


Figure 2: CFA Performance.

The results of the CFA test in the figure and table above indicate that each commitment item is also valid. All items of commitment (11 items) are

accurate. Next, the results of the CFA of job satisfaction are shown in the table and figure below.

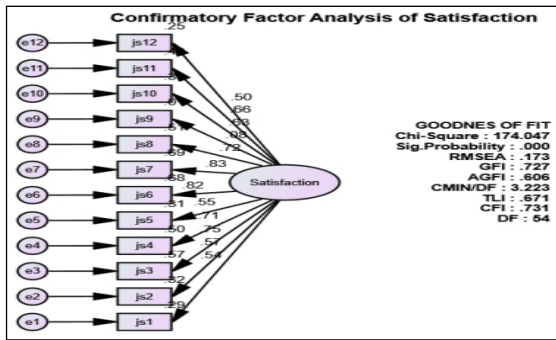


Figure 4: CFA of Job Satisfaction.

Table 3: Regression Weights: Job Satisfaction.

Items	Estimate	S.E.	C.R.	P	Label
js1 ←- Satisfaction	1.000				
js2 ←- Satisfaction	1.012	.253	3.995	***	
js3 ←- Satisfaction	1.361	.298	4.561	***	
js4 ←- Satisfaction	1.377	.311	4.431	***	
js5 ←- Satisfaction	.837	.229	3.652	***	Valid
js6 ←- Satisfaction	1.589	.356	4.458	***	
js7 ←- Satisfaction	1.599	.357	4.481	***	
js8 ←- Satisfaction	1.100	.256	4.294	***	
js9 ←- Satisfaction	.153	.242	.633	.527	Invalid
js10 ←- Satisfaction	1.408	.352	3.997	***	
js11 ←- Satisfaction	1.144	.280	4.092	***	Valid
js12 ←- Satisfaction	.737	.207	3.558	***	

The results of the CFA test in the figure and table above provide information that out of 12 job satisfaction items, one (js9) is invalid. Thus, the results of the test indicate that the job satisfaction items, which used to be 12 items, are only 11 items. The overall results of objects and variables can be seen in the following figures and tables, which include all component and variable items.

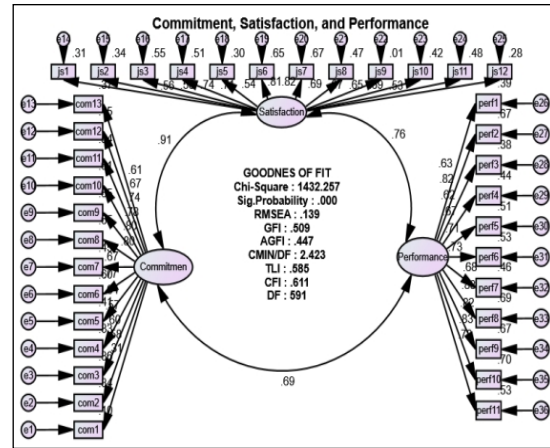


Figure 5: Full Model of Commitment, Job Satisfaction, Performance.

Table 4: Regression Weights: Commitment, Job Satisfaction, and Performance.

Items	Estimate	S.E.	C.R.	P	Label
com1 <--- Commitmen	1.000				
com2 <--- Commitmen	2.115	.859	2.461	.014	
com3 <--- Commitmen	2.216	.888	2.496	.013	
com4 <--- Commitmen	1.926	.795	2.423	.015	
com5 <--- Commitmen	2.105	.843	2.496	.013	
com6 <--- Commitmen	2.944	1.136	2.591	.010	
com7 <--- Commitmen	2.510	.999	2.513	.012	Valid
com8 <--- Commitmen	2.759	1.048	2.633	.008	
com9 <--- Commitmen	2.745	1.049	2.617	.009	
com10 <--- Commitmen	3.352	1.282	2.616	.009	
com11 <--- Commitmen	2.033	.784	2.592	.010	
com12 <--- Commitmen	2.756	1.090	2.528	.011	
com13 <--- Commitmen	2.161	.875	2.471	.013	
js1 <--- Satisfaction	1.000				
js2 <--- Satisfaction	.994	.237	4.189	***	
js3 <--- Satisfaction	1.288	.269	4.790	***	
js4 <--- Satisfaction	1.328	.284	4.683	***	Valid
js5 <--- Satisfaction	.792	.206	3.842	***	
js6 <--- Satisfaction	1.501	.307	4.892	***	
js7 <--- Satisfaction	1.513	.307	4.928	***	
js8 <--- Satisfaction	1.011	.225	4.489	***	
js9 <--- Satisfaction	.136	.229	.593	.553	InValid
js10 <--- Satisfaction	1.401	.322	4.355	***	
js11 <--- Satisfaction	1.159	.257	4.515	***	Valid
js12 <--- Satisfaction	.749	.195	3.840	***	
perf1 <--- Performance	1.000				
perf2 <--- Performance	1.239	.215	5.755	***	
perf3 <--- Performance	.950	.200	4.743	***	
perf4 <--- Performance	1.130	.227	4.984	***	
perf5 <--- Performance	1.119	.210	5.323	***	
perf6 <--- Performance	1.117	.211	5.292	***	Valid
perf7 <--- Performance	1.217	.245	4.978	***	
perf8 <--- Performance	1.425	.247	5.763	***	
perf9 <--- Performance	1.355	.238	5.701	***	
perf10 <--- Performance	1.506	.262	5.758	***	
perf11 <--- Performance	1.451	.275	5.276	***	

The results of the overall model test show that of the total items consisting of 36 items, there is one

invalid item (js9). So that the variable objects in the study totaled 35 items which were the results of the CFA. Meanwhile, the results of Standardized Regression Weights can be seen in the table below.

Table 5: Standardized Regression Weights: Commitment, Job Satisfaction, and Performance.

Items	Estimate	Label	
com1 <--- Commitmen	.309	In Valid	
com2 <--- Commitmen	.579	Valid	
com3 <--- Commitmen	.600		
com4 <--- Commitmen	.571		
com5 <--- Commitmen	.640		
com6 <--- Commitmen	.773		
com7 <--- Commitmen	.673		
com8 <--- Commitmen	.805		
com9 <--- Commitmen	.805		
com10 <--- Commitmen	.780		
com11 <--- Commitmen	.737		
com12 <--- Commitmen	.674		
com13 <--- Commitmen	.610		
js1 <--- Satisfaction	.560		Valid
js2 <--- Satisfaction	.580		
js3 <--- Satisfaction	.742		
js4 <--- Satisfaction	.711		
js5 <--- Satisfaction	.544		
js6 <--- Satisfaction	.809		
js7 <--- Satisfaction	.820		
js8 <--- Satisfaction	.685		
js9 <--- Satisfaction	.072	In Valid	
js10 <--- Satisfaction	.648	Valid	
js11 <--- Satisfaction	.693		
js12 <--- Satisfaction	.533		
perf1 <--- Performance	.626		
perf2 <--- Performance	.818		
perf3 <--- Performance	.619		
perf4 <--- Performance	.667		
perf5 <--- Performance	.714		
perf6 <--- Performance	.727		
perf7 <--- Performance	.681		
perf8 <--- Performance	.831		
perf9 <--- Performance	.821		
perf10 <--- Performance	.834		
perf11 <--- Performance	.728		

The results of the Standardized Regression Weights indicate two invalid items, which are < 0.5 (com1, js9). The effects can be observed in the following table to answer the study hypothesis and the relationship between variables.

Table 6: Correlations: Commitment, Job Satisfaction, and Performance.

Variables	Estimate
Commitmen ↔ Satisfaction	.907
Satisfaction ↔ Performance	.763
Commitmen ↔ Performance	.686

Table 6 provides information that the relationship between commitment and job satisfaction is 0.907 (90.7%), job satisfaction and performance are 0.763 (76.3%), and commitment to performance is 0.686 (68.6%). The correlation results indicate that the relationship between positive variables is in the medium and high categories.

5 CONCLUSION

In this section, the review of the study results can be divided into multiple sections after they are obtained. Confirmation of the commitment review items contained 13 items, 11 items of job satisfaction, and 11 items of performance. The results of this study still strengthen the results of previous studies carried out with the EFA test. Differences that are not too significant can be seen in job satisfaction items, where previously, 12 articles were found in the EFA study. In contrast, in this CFA study, 11 valid items were found. (Hazriyanto & Badar, 2019). In the analysis of the relationship between the variables in this study, it was found that commitment has a relationship with job satisfaction, job satisfaction has a connection with performance, and dedication has a relationship with performance. The correlation between the variables is both positive and significant. This finding is in line with previous studies that have been and have been carried out by [12, 13, 14].

The relationship between commitment and performance is 90.7%, job satisfaction is 76.3%, and commitment is 68.6%. The relationship between the variables is quite strong; for this reason, higher education institutions are more focused and severe in responding, responding, and paying attention to job satisfaction and lecturer commitment, as well as lecturer performance in the tertiary environment. Job satisfaction, commitment, and lecturer performance are related to the contribution to university performance achievement.

The results of the existing study variable instrument items can be further strengthened by researchers and academics to continue this study. And survey with a broader scope. This study still needs several repeated examinations to ensure that the built

instrument items can represent the study variables. In the long term, researchers will continue to carry out this study in stages and continuously adjust to the demands of the times.

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