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THE EFFECT OF TEACHER COMPETENCE, LEARNING ENVIRONMENT AND STUDENT LEARNING MOTIVATION ON STUDENT LEARNING ACHIEVEMENTS AT STATE VOCATIONAL HIGH SCHOOL 40 JAKARTA

Ariyana Nafisyah
Faculty of Economics, State University of Jakarta, Indonesia
E-mail:ariyananfsyh08@gmail.com

Prof. Dr. Puji Wahono, SE., M.Si
Faculty of Economics, State University of Jakarta, Indonesia
E-mail:wahono@unj.ac.id

Rizki Firdausi Rachmadania, SE., M.SM
Faculty of Economics, State University of Jakarta, Indonesia
E-mail: rachmadania@unj.ac.id

ABSTRACT

The purpose of this study was to analyze how teacher competence, learning environment, and learning motivation affect student learning achievement at SMK Negeri 40 Jakarta. This study uses a quantitative method with primary data through questionnaire distribution. This study involved a population of 178 students of all grade X of SMK Negeri 40 Jakarta. In this study, the proportional random sampling technique was used, using a program of 123 respondents. The PLS-SEM data analysis technique was carried out using the SmartPLS version 4 program. The results of the hypothesis test from this study found that the teacher competence variable on learning achievement had a significant and positive effect. There is a significant and positive effect between the learning environment variable on student learning achievement. There is a significant and positive effect of the learning motivation variable on student learning achievement. There is a significant and positive indirect effect between the teacher competence variable, learning environment and learning motivation on student learning achievement at SMK Negeri 40 Jakarta.

Keyword: Teacher Competence, Learning Environment, Learning Motivation, Learning Achievement

ABSTRAK

Tujuan dari penelitian ini adalah untuk menganalisis bagaimana kompetensi guru, lingkungan belajar, dan motivasi belajar terhadap prestasi belajar siswa SMK Negeri 40 Jakarta. Penelitian ini menggunakan metode kuantitatif dengan data primer melalui penyebaran kuesioner. Penelitian ini melibatkan populasi sebanyak 178 siswa seluruh kelas X SMK Negeri 40 Jakarta. Dalam penelitian ini, teknik proporsional random sampling digunakan, menggunakan program sebanyak 123 responden. Teknik analisis data PLS-SEM dilakukan menggunakan program SmartPLS versi 4. Hasil uji hipotesis dari penelitian ini mendapati bahwa variabel kompetensi guru terhadap prestasi belajar berpengaruh signifikan dan posistif. Terdapat pengaruh signifikan dan positif antara varibel lingkungan belajar terhadap prestasi belajar siswa. Terdapat pengaruh signifikan dan positif variabel motivasi belajar terhadap prestasi belajar siswa. Terdapat pengaruh signifikan dan positif secara tidak langsung antara variabel kompetensi guru, lingkungan belajar dan motivasi belajar terhadap prestasi belajar siswa SMK Negeri 40 Jakarta.

Kata kunci: Kompetensi Guru, Lingkungan Belajar, Motivasi Belajar, Prestasi Belajar

INTRODUCTION

Achievement is an achievement obtained by an individual or group for a process that has been passed. So that achievement can be one of the benchmarks of a person's success. A person who is qualified is proof of success or maximum potential that has been achieved by someone after carrying out various efforts. Learning achievement is a benchmark for a person's success that cannot be separated from the role of quality education for each individual, because basically education is a conscious and planned effort in realizing a quality life. According to Law No. 20 of 2003 article 1 (paragraph 1) education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, as well as the skills needed by themselves, society, nation and state.

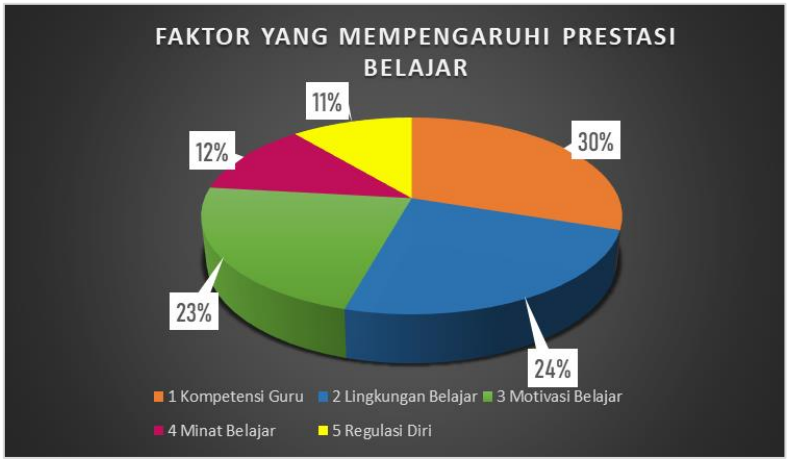
Prabasari and Subowo (2017) stated that the factors that influence learning achievement are: "that academic achievement is obtained from the learning process". This opinion contains the meaning that academic achievement is obtained from the learning process obtained by students. According to Azmi (2019) perception is a process of individuals organizing and interpreting sensory impressions in order to give meaning to their environment.

Heryyanti, Tanzeh, & Masroka (2021) stated thatThe family environment is the first environment that influences the formation of a child's character, attitude, and emotions. The school environment helps students so that they are able to develop their potential both in terms of spiritual, moral, emotional, intellectual and social aspects. Internal factors that affect learning achievement are learning motivation. Cleopatra (2015) in Sukor. et al. (2017) states that motivation to learn broadly is a key factor affecting the speed and success of learning. Student motivation can be seen from the enthusiasm in the teaching and learning process in the classroom. Students who have learning motivation will enjoy every learning process inside and outside the classroom.

The results of previous research by Sutadi (2016) showed a positive influence of teacher competence, learning motivation and learning environment on student learning achievement in economics subjects, but the difference between previous research and this research is the focus of the research, where previous research conducted research to determine student learning achievement in economics subjects, while this research examines the results of the overall report card scores of class XI students at the State Vocational High School level at State Vocational High School 40 Jakarta.

Forsee the actual conditions regarding student learning achievement at SMK Negeri 40 Jakarta. The researcher conducted pre-research by distributing a temporary questionnaire consisting of factors regarding learning achievement to 30 students. The researcher distributed the questionnaire to class X Office Management students at SMK Negeri 40 Jakarta in the 2023/2024 Academic Year.

Table 1. Results of Pre-Research on Student Learning Achievement Factors



Based on the results of preliminary research on students at SMK Negeri 40 Jakarta, factors were found that influence student learning achievement. There are three factors that have the highest percentage in influencing student learning achievement, namely teacher competence, learning environment and learning motivation. The data shows that the first factor, namely teacher competence with a percentage of 30%. The second factor, namely the learning environment with a percentage of 24%, then the third factor which has a percentage of 23% is learning motivation.

Rivai (2014, p.314) stated that competence is the main factor in determining to produce good performance. Therefore, the learning process will not run well without the role of the teacher, so it is expected that teachers are able to meet the competency qualifications expected in the world of education as learning agents.

According to Damanik (2019) the learning environment is a teaching and learning process that influences the success of learning achievement and improves student development. Furthermore, Slameto (2015) stated that the learning environment influences internal factors, there are 3 factors, including: physical factors, psychological factors and fatigue factors, while external factors include 3 factors, including family factors, school factors and community factors.

According to Zamsir & Padmi (2015) motivation is a conscious effort to influence a person's behavior so that they are moved to do something to achieve certain results and goals. The existence of strong learning motivation can make students enthusiastic about learning, diligent and focused so that it is realized in good and increasing learning achievements. Therefore, motivation should be instilled in students so that students feel happy and not burdened to carry out the learning process. Motivation can be in the form of basic or internal and intensive drives outside the individual or rewards. As a problem in the classroom, motivation is the process of generating, maintaining and controlling interests (Resi Tresnawati, 2019).

With the problems explained above, the researcher is interested in conducting research with the title "The Influence of Teacher Competence, Learning Environment, and Learning Motivation on Student Learning Achievement at SMK Negeri 40 Jakarta".

LITERATURE REVIEW

The Influence of Teacher Competence on Learning Achievement

According to Junaidi & Noor (2023), there is a significant influence of teacher competence on learning achievement. This shows that students' mastery of knowledge can increase along with the increasing mastery of teaching carried out by teachers at school.

In line with what Lestari (2023) said, the role of teachers is very influential in the learning process, good teacher competence greatly supports the learning process so that students are able to absorb the material presented well. This shows that teacher competence has a positive and significant effect on student learning achievement.

According to Sugiharsono & Sutardi (2016), it shows that partially teacher competence has a positive and significant effect on learning achievement. Teachers as a determining factor in the success or failure of learning must create normative, creative and enjoyable learning.

The Influence of Learning Environment on Learning Achievement

According to Zulfikar & Rauza (2023) a significant influence between the learning environment and learning achievement occurs if a healthy and conducive learning environment can be met properly at school. In line with Aminah (2022) the learning environment is a learning resource that is related to learning achievement, high learning achievement is a condition expected by every student, therefore to support high learning achievement, a comfortable, conducive and healthy environment is needed so that students can improve their achievements in every learning process. This shows that the learning environment has a very positive and significant influence on learning achievement.

According to Sugiharsono & Sutardi (2016) the family environment has a positive and significant influence on learning achievement. The learning environment is no less important than formal or non-formal institutions. Therefore, it is important to pay attention to the student's learning environment in order to see the development of students at school.

According to Hidayat (2015), students' success in achieving good learning achievement begins with a school environment that is orderly, regular, disciplined and conducive to student learning activities. This shows a positive and significant influence between the learning environment and learning achievement.

The Influence of Learning Motivation on Learning Achievement

According to Zulpadri & Safitri (2019) learning motivation has a positive effect on student learning achievement. This shows that good learning motivation will improve student learning achievement, student motivation is driven by a strong desire within the student.

Meanwhile, according to Nofianti (2018), motivation involves taking academic tasks seriously and trying to find appropriate learning strategies in the process. High motivation has a very positive and significant influence on student learning achievement.

The above opinion is supported by Mulyasih & Suryani (2016) who said that high motivation will make students more active in the learning process, whether it is motivation from outside the students themselves, such as teachers, parents and friends, so that students can improve their learning achievements.

The Influence of Teacher Competence, Learning Environment, and Learning Motivation on Student Learning Achievement at SMK Negeri 40 Jakarta

Ratnasari (2017) said that the higher the motivation to learn, the more positive the students' perception of teacher competence and the better the family environment, the higher

the learning achievement. The relationship between students and teachers will also produce students' perceptions of teacher competence which is a factor that influences students' learning achievement. Students' positive perceptions of teacher competence will encourage students to be able to improve their learning achievement.

METHOD

This study uses quantitative methodology. The population in this study were 178 students of class X of SMK Negeri 40 Jakarta. The sampling strategy in this study was proportional random sampling, namely using the Isaac and Michael table with an error rate of 5%. Thus, the number of samples in this study was 123 respondents. To measure data on teacher competency variables, learning environment, learning motivation, and learning achievement. The data needed was collected using a questionnaire via google form. The data analysis technique used in this study was PLS-SEM with SmartPLS software version 4. PLS-SEM uses two steps of measurement model evaluation, namely the outer model and the inner model. The outer model is known as the validity test and reliability test. The loading factor value> 0.7, AVE> 0.5, and the crossloading value on the variable construct> other variables indicate a validity test. While the reliability test is indicated by the composite reliability value and cronbach's alpha> 0.7. In addition, the inner model is used to examine the causal relationship between latent variables. There are several tests on the inner model in this study, namely the significance test, goodness of fit test, and multicollinearity test.

The significance test can be seen from the p value to measure the strength and significance of the relationship between one variable and another, and to test the hypothesis it can be said to be significant if the p value is <0.05. Furthermore, the goodness of fit test can be seen from the r-squared value (R2) to show the predictive power of the structural model in the PLS-SEM analysis. Multicollinearity is evaluated using the Variance Inflation Factor (VIF) and tolerance value. According to the multicollinearity test criteria, there is no multicollinearity between the independent variables in the regression model if the tolerance value is greater than 0.10 and the VIF value is less than 10. Meanwhile, multicollinearity exists between the independent variables in the regression model if the tolerance value is less than 0.10 and the VIF value is greater than 10. In addition, hypothesis testing is carried out to ensure and analyze the direct influence between variables. Hypothesis testing can be calculated using bootstrapping through path coefficients with p value criteria <0.5. Then, to determine and analyze the indirect effect using the intervening variable, it can be calculated using bootstrapping through a specific indirect effect test with p value criteria <0.5

RESULTS AND DISCUSSION

Respondent Profile

To obtain research data, as many as 123 grade X students from various study programs received questionnaires from researchers at SMK Negeri 40 Jakarta. Researchers divided student profiles based on gender and majors. Table 2 shows the results of the researcher's data processing regarding the respondent profile.

Table 2. Respondent Profile Based on Gender

Variabel Identitas Responden	Kategori	Jumlah Siswa	Persentase (%)
Jenis Kelamin	Laki-Laki	35	28
	Perempuan	88	72
Total		123	100

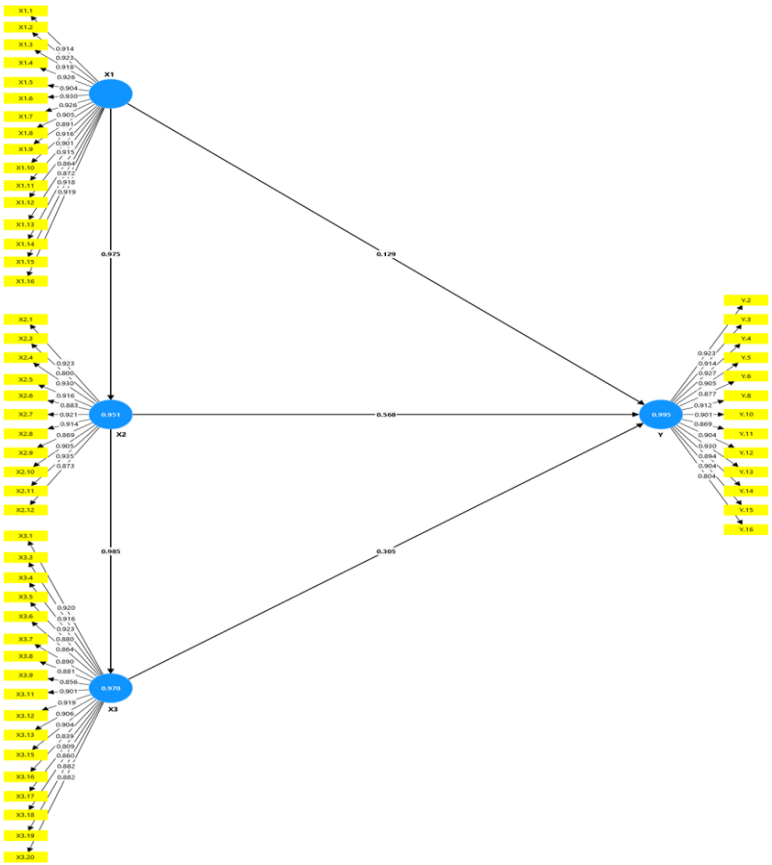
Based on the table above, it can be concluded that the characteristics of the respondents of students of SMK Negeri 40 Jakarta are seen from the gender of the respondents. The majority of respondents are dominated by women as many as 88 students with a percentage of 72% and male respondents as many as 35 students with a percentage of 28%. Furthermore, the profile of respondents based on majors can be seen in the table below.

Table 3. Respondent Profile Based on Study Program

Variabel Identitas Responden	Kategori	Jumlah Siswa	Persentase (%)
Jurusan	Akuntansi	24	20
	Bisnis Retail	24	20
	Desain komunikasi	50	40
	RPL	25	20
Total		123	100

Based on the table above, it can be concluded that the characteristics of the respondents of students of SMK Negeri 40 Jakarta are seen from the majors. Respondents from various majors at SMK Negeri 40 Jakarta were involved in this study. In the Accounting major, there were 24 respondents with a percentage of 19.5%, in the Retail Business major, there were 24 respondents with a percentage of 19.5%, in the Communication Design major, there were 50 respondents with a percentage of 41%, and in the Software Engineering major, there were 25 respondents with a percentage of 20%.

Outer Model Analysis



Tests on the outer model include convergent validity, discriminant validity, Average Extracted (AVE), composite reliability, and Cornbach's Alpha.

Convergent Validity: Loading Factor

Validity in this study can be seen from the loading factor for each statement. The statement is said to be valid if it obtains a value of 0.7 or more. The function of the loading factor value is to assist in the interpretation of the analysis results, a high loading factor value indicates that the statement makes a significant contribution and a low loading factor value below 0.7 indicates that the statement in this study is invalid. Invalid statements need to be dropped or removed. The following are the results of the loading factor assessment in this study.

Table 4 *Loading Factor*

Indicator	Statement	Learning Achievement (Y)	Teacher Competence (X1)	Learning Environment (X2)	Motivation to Learn (X3)
Mastery of Knowledge	Y2	0.923			
	Y3	0.914			
	Y4	0.927			
Ability	Y5	0.905			
	Y6	0.877			
	Y8	0.912			
Habit	Y10	0.901			
	Y11	0.869			
	Y12	0.904			
Test Results	Y13	0.930			
	Y14	0.894			
	Y15	0.904			
	Y16	0.804			
Professional Competence	X1.1		0.914		
	X1.2		0.923		
	X1.3		0.918		
	X1.4		0.926		
Pedagogical Competence	X1.5		0.904		
	X1.6		0.930		
	X1.7		0.926		
	X1.8		0.905		
Social Competence	X1.9		0.891		
	X1.10		0.916		
	X1.11		0.901		
	X1.12		0.915		
Personality Competence	X1.13		0.864		
	X1.14		0.872		
	X1.15		0.918		
	X1.16		0.919		
Family Environment	X2.1			0.923	
	X2.3			0.800	
	X2.4			0.930	
School environment	X2.5			0.916	
	X2.6			0.883	
	X2.7			0.921	
	X2.8			0.914	
	X2.9			0.869	

Community Environment	X2.10	0.905
	X2.11	0.935
	X2.12	0.873
Perseverance in Learning	X3.1	0.920
	X3.3	0.916
	X3.4	0.923
Persistence in the Face of Adversity	X3.5	0.880
	X3.6	0.864
	X3.7	0.890
	X3.8	0.881
Interest and Sharpness of Attention in Learning	X3.9	0.856
	X3.11	0.901
	X3.12	0.919
Achieving in Learning	X3.13	0.906
	X3.15	0.904
	X3.16	0.839
Independent in Learning	X3.17	0.809
	X3.18	0.860
	X3.19	0.882
	X3.20	0.882

Based on the loading factor results in the table above, it can be concluded that all indicators of the construct variables of Teacher Competence, Learning Environment, Learning Motivation and Learning Achievement have a value of > 0.7, which means that the indicators of all variables meet the validity requirements.

***Discriminant Validity*: Cross Loading Factor**

Discriminant validity measures the extent to which a construct can be empirically distinguished from other constructs. The cross loading factor value plays a very important role in assessing whether a construct has adequate discrimination, by comparing the loading value on other constructs. A higher loading value indicates that the indicator is more suitable for explaining the intended construct than explaining other constructs.

Table 5. Results Cross Loading

	Prestasi Belajar (Y)	Kompetensi Guru (X1)	Lingkungan Belajar (X2)	Motivasi Belajar (X3)
Y2	**0,923**	0,914	0,923	0,920
Y3	**0,914**	0,898	0,896	0,905
Y4	**0,927**	0,918	0,930	0,923
Y5	**0,905**	0,861	0,916	0,880
Y6	**0,877**	0,854	0,883	0,864
Y8	**0,912**	0,864	0,921	0,890
Y10	**0,901**	0,868	0,914	0,881
Y11	**0,869**	0,841	0,869	0,856
Y12	**0,904**	0,910	0,905	0,901
Y13	**0,930**	0,916	0,935	0,919
Y14	**0,894**	0,901	0,873	0,906
Y15	**0,904**	0,915	0,869	0,904
Y16	**0,804**	0,835	0,760	0,830
X1.1	0,923	**0,914**	0,923	0,920
X1.2	0,925	**0,923**	0,924	0,922
X1.3	0,927	**0,918**	0,930	0,923
X1.4	0,920	**0,926**	0,927	0,906
X1.5	0,888	**0,904**	0,885	0,887
X1.6	0,914	**0,930**	0,911	0,910
X1.7	0,910	**0,926**	0,913	0,906
X1.8	0,884	**0,905**	0,882	0,880
X1.9	0,871	**0,891**	0,869	0,870
X1.10	0,930	**0,916**	0,935	0,919
X1.11	0,894	**0,901**	0,873	0,906
X1.12	0,904	**0,915**	0,869	0,904
X1.13	0,825	**0,864**	0,789	0,851
X1.14	0,836	**0,872**	0,798	0,866
X1.15	0,883	**0,918**	0,865	0,912
X1.16	0,885	**0,919**	0,869	0,916

X2.1	0,923	0,914	**0,923**	0,920
X2.3	0,770	0,771	**0,800**	0,773
X2.4	0,927	0,918	**0,930**	0,923
X2.5	0,905	0,861	**0,916**	0,880
X2.6	0,877	0,854	**0,883**	0,864
X2.7	0,912	0,864	**0,921**	0,890
X2.8	0,901	0,868	**0,914**	0,881
X2.9	0,869	0,841	**0,869**	0,856
X2.10	0,904	0,910	**0,905**	0,901
X2.11	0,930	0,916	**0,935**	0,919
X2.12	0,894	0,901	**0,873**	0,906
X3.1	0,923	0,914	0,923	**0,920**
X3.3	0,902	0,908	0,894	**0,916**
X3.4	0,927	0,918	0,930	**0,923**
X3.5	0,905	0,861	0,916	**0,880**
X3.6	0,877	0,854	0,883	**0,864**
X3.7	0,912	0,864	0,921	**0,890**
X3.8	0,901	0,868	0,914	**0,881**
X3.9	0,869	0,841	0,869	**0,856**
X3.11	0,904	0,910	0,905	**0,901**
X3.12	0,930	0,916	0,935	**0,919**
X3.13	0,894	0,901	0,873	**0,906**
X3.15	0,904	0,915	0,869	**0,904**
X3.16	0,813	0,839	0,765	**0,839**
X3.17	0,765	0,794	0,742	**0,809**
X3.18	0,810	0,843	0,784	**0,860**
X3.19	0,831	0,869	0,823	**0,882**
X3.20	0,831	0,869	0,823	**0,882**

Based on the results of the discriminant validity test in the table above, it can be seen that the construct value has a greater value when compared to the cross loading value on other constructs. Furthermore, discriminant validity can be strengthened by looking at the AVE value. The AVE value shows the variance value obtained from each variable. The function of the AVE value is to measure how well a construct is represented by its indicators. The AVE value measures how much variance from the construct is successfully extracted by its indicators. The testing requirements in using AVE can be said to be valid if the value is> 0.5. The higher the AVE value obtained indicates a strong indicator diversity. The following are the results of the AVE values that have been tested.

Table 6. *Average Extracted Value (AVE)*

	Average Variance Extracted (AVE)
Kompetensi Guru	0.826
Lingkungan Belajar	0.806
Motivasi Belajar	0.807
Prestasi Belajar	0.806

Based on the table above, it can be seen that the AVE value for each existing variable, namely teacher competence 0.826, learning environment 0.806, learning motivation 0.807, and

learning achievement 0.806, which means that all AVE values are >0.5. So, it can be concluded that all constructs in this research variable are valid.

Composite Reliability: Cornbach's Alpha

Composite reliability testing aims to prove that the variables are accurate, consistent and the accuracy of the research instrument in measuring the construct. Composite reliability is a measurement if the reliability value is >0.7, then the construct value has a high reliability value. The following are the results of the composite reliability test.

Table 7. Composite Reliability

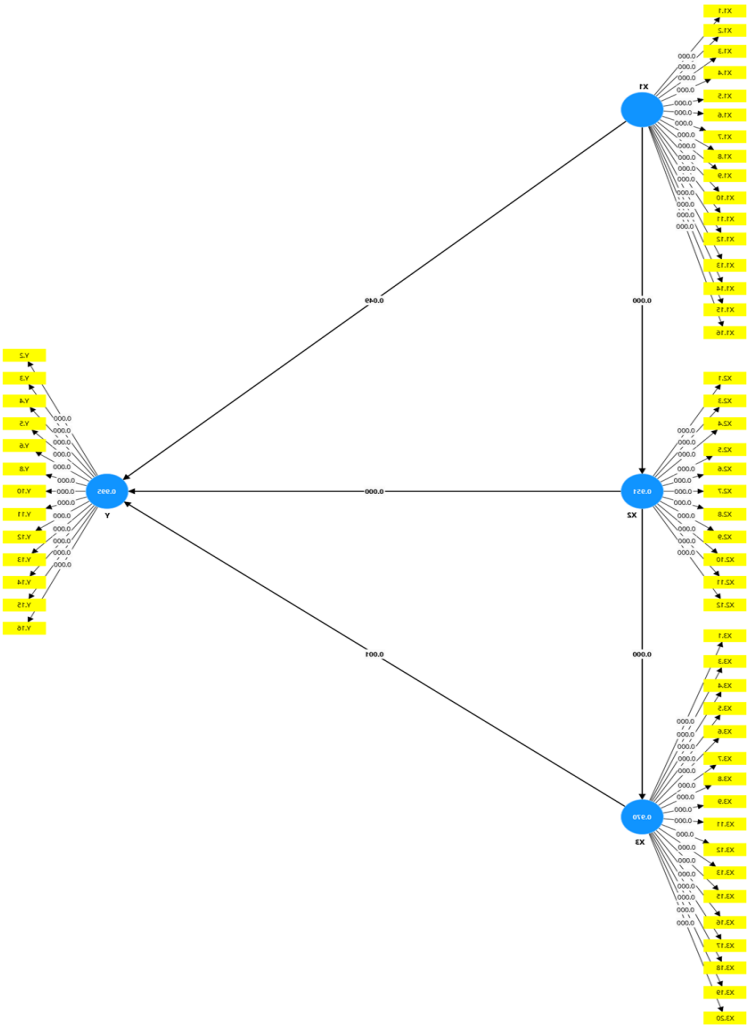
	Composite reliability (rho_c)
Kompetensi Guru	0,982
Lingkungan Belajar	0,987
Motivasi Belajar	0,979
Prestasi Belajar	0,984

In addition to looking at the acquisition of composite reliability values, a construct is declared reliable if it has a Cornbach's Alpha value of >0.7. This means that the construct has good reliability. The results of reliability testing based on Cornbach's Alpha are as follows.

Table 8. *Cornbach's Alpha*

	Cronbach's Alpha
Kompetensi Guru	0,980
Lingkungan Belajar	0,986
Motivasi Belajar	0,976
Prestasi Belajar	0,983

Inner Model Analysis



The purpose of the structural measurement model or inner model in this study is to measure the extent to which the variables studied influence each other. The results observed in this inner model are based on the percentage of variance obtained through several assessments. Some of the inner model tests conducted in this study include:

R-Square

The R-Square (R) value is a percentage value that shows how much correlation there is between the independent variables that together influence the dependent variable. This value aims to see how much of the ratio of the dependent latent variable can be explained by the independent latent variable.

Table 9. R-Square

	R-Square	*R-Square Adjusted*	Keterangan
Lingkungan Belajar	0.951	0.950	
Motivasi Belajar	0.970	0.969	
Prestasi Belajar	0.995	0.995	

F-Square

F-Square testing can measure the effect of latent variables on other variables. F-Square is a value for determining the magnitude of direct influence on dependent latent variables. The f-square value is 0.35 (large), 0.15 (medium) and 0.2 (small). The following are the results of the F-Square test obtained in this study.

Table 10. F-Square

	Kompetensi Guru (X1)	**Lingkungan Belajar (X2)**	**Motivasi Belajar (X3)**	**Prestasi Belajar (Y)**
Kompetensi Guru		19.228		0.066
Lingkungan Belajar			31.913	2.003
Motivasi Belajar				0.228
Prestasi Belajar				

VIF

VIF is a test used to evaluate how strong the correlation level is between one variable and another. This measurement is done by observing the VIF value.

Table 11. Variance Inflation Factor (VIF) Values

	Kompetensi Guru	Lingkungan Belajar	Motivasi Belajar	Prestasi Belajar
Kompetensi Guru		1,000		51,274
Lingkungan Belajar			1,000	32,913
Motivasi Belajar				83,428
Prestasi Belajar				

Hypothesis Testing

Direct Effect Analysis

Path coefficient analysis to test the hypothesis of direct influence between independent constructs on dependent constructs. In hypothesis testing, it can be known through the T-Statistic value obtained from the path coefficients test, where in the t test it can be known from the T-statistic value and P Value. If the T-statistic> T-table or P <0.05, with an error rate on the T-table of 5% of 1.96.

Table 12. Path Coefficients Test Results

	Original Sample (O)	***Sample Mean (M)***	***Standard Deviation (STDEV)***	***T statistics (O/STDEV)***	***P values***
Teacher Competence→ Learning Achievement	0.129	0.128	0.065	1,971	0.049
Learning Environment→ Learning Achievement	0.568	0.575	0.046	12,276	0,000
Learning Motivation→	0.305	0.299	0.089	3,432	0.001

Learning Achievement					

H1: Teacher Competence has a significant and positive direct influence on Learning Achievement.

Based on the results of the path coefficient calculation in the table above, the variable of teacher competence on learning achievement obtained an original sample result of 0.129, while for the t-statistic it was 1.971> 1.96. Then, for the p-value it obtained a value of 0.049 <0.05. So, it can be said that teacher competence has a significant and positive direct effect on learning achievement.

H2: Learning Environment has a significant and positive direct influence on Learning Achievement

Based on the results of the path coefficient calculation in the table above, the learning environment variable on learning achievement obtained an original sample result of 0.568, while for the t-statistic it was 12.276> 1.96. Then, for the p-value it obtained a value of 0.000 <0.05. So it can be said that the learning environment has a significant and positive direct effect on learning achievement.

H3: Learning motivation has a significant and positive direct influence on learning achievement.

Based on the results of the path coefficient calculation in the table above, the learning motivation variable on learning achievement obtained an original sample result of 0.305, while for the t-statistic it was 3.432> 1.96. Then, for the p-value it obtained a value of 0.001 <0.05. So, it can be said that learning motivation has a significant and positive direct effect on learning achievement.

Indirect Effect Analysis

Indirect effect analysis aims to test the hypothesis of the indirect influence of an influencing variable (independent) on the influenced variable (dependent).

Table 13. Indirect Effect Test Results

	Original Sampel (O)	***Sampel Mean (M)***	***Standard Deviation (STDEV)***	***T statistics (O/STDEV)***	***P values***
Kompetensi Guru →Lingkungan Belajar →Motivasi Belajar →Prestasi Belajar	0,293	0,287	0,085	3,434	0,001

H4: Teacher Competence, Learning Environment, and Learning Motivation have an indirect and significant influence on Learning Achievement.

Based on the results of the path coefficient calculation in the table above, on the variables of teacher competence, learning environment and learning motivation on learning

achievement obtained the original sample results of 0.293 while for t-statistics it was 3.434> 1.96. Then for the p-values obtained a value of 0.001 <0.05. Thus, it can be said that teacher competence, learning environment and learning motivation indirectly have a significant effect on learning achievement.

Discussion

Based on the calculations that have been carried out previously, the following is a discussion of each hypothesis, as follows:

H1: Teacher Competence has a significant and positive direct influence on Learning Achievement.

Based on the results of the path coefficient calculation in the table above, the variable of teacher competence on learning achievement obtained an original sample result of 0.129, while for the t-statistic it was 1.971> 1.96. Then, for the p-value it obtained a value of 0.049 <0.05. So, it can be said that teacher competence has a significant and positive direct effect on learning achievement, so H1 in this study is accepted.

The results of this study indicate that teacher competence has a positive influence on student learning achievement at SMK Negeri 40 Jakarta. The more teachers are willing to improve the competence of teachers who are lacking, maintain and improve the competence they already have, the higher the student learning achievement at SMK Negeri 40 Jakarta. The results of research conducted by Inayah, R., Martono, T., & Sawiji, H. (2013) stated that the teacher competence variable has a positive and significant influence on learning achievement. The results of this study are proven by a significance value of 0.000> 0.5. This is in line with research conducted by Sugiharsono and Sutardi (2016) which states that the teacher competence variable has a positive and significant influence on learning achievement. The results of this study are proven by a t-statistic value of 2.873> t-table 1.671 and an effective contribution(R^2) of 0.078 or 7.8% with probability (p>0.05). Strengthened by research by Nugroho, RS (2018) which states that the teacher competency variable has a positive and significant influence on learning achievement with a significance value of 0.441> 0.05 and t-statistics of 4.497> t-table 1.99.

H2: Learning Environment has a significant and positive direct influence on Learning Achievement

Based on the results of the path coefficient calculation in the table above, the learning environment variable on learning achievement obtained an original sample result of 0.568, while for the t-statistic it was 12.276> 1.96. Then, for the p-value it obtained a value of 0.000 <0.05. So it can be said that the learning environment has a significant and positive direct effect on learning achievement, so H2 in this study is accepted.

The results of this study indicate that the learning environment has a positive influence on the learning achievement of students at SMK Negeri 40 Jakarta. The better, healthier and more conducive the learning environment created at school, at home and in the community, the higher the students' learning achievement will be. The results of research conducted by Sugiharsono and Sutardi (2016) stated that the learning environment variable has a positive and significant effect on learning achievement. The results of this study are proven by the t-statistic value of 2.585> t-table 1.671 and the effective contribution(R^2) of 0.041 or 41% with probability (p>0.05). Strengthened by research by Nurdin & Munzir (2019) which states that the learning environment variable has a positive and significant influence on learning achievement with a significance value of 0.000>0.05 and a t-statistics value of 2.956.

Strengthened by research conducted byWidiastuty, RD, Ferdian, A., & Mansur, DM (2021) stated that the learning environment has a positive and significant influence on learning achievement with a significance value of 0.000> 0.05 and a t-statistics value of 7.740> from the t-table value of 1.973.

H3: Learning motivation has a significant and positive direct influence on learning achievement.

Based on the results of the path coefficient calculation in the table above, the variable of learning motivation on learning achievement obtained an original sample result of 0.305, while for the t-statistic of 3.432> 1.96. Then, for the p-value obtained a value of 0.001 <0.05. So it can be said that learning motivation has a significant and positive effect directly on learning achievement, then H3 in this study can be accepted. The results of this study indicate that the variable of learning motivation has a positive effect on the learning achievement of students of SMK Negeri 40 Jakarta. The more, good and appropriate direction and encouragement from teachers to students, the high motivation will grow well in students, if the motivation in students increases, the student's learning achievement will also be good. The results of this study are supported by research conducted by Widiastuty, RD, Ferdian, A., & Mansur, DM (2021) which states that learning motivation has a positive and significant effect with a significance value of 0.000> 0.05, a t-statistics value of 7.450> from the t-table value of 1.973. Also supported by research by Sugiharsono and Sutardi (2016) which states that learning motivation has a positive and significant effect of 0.000> 0.05 and a t-statistics value of 8.452> from the t-table of 1.671 and an effective contribution(R^2) of 0.368 or 36.8%. Strengthened by previous research byInayah, R., Martono, T., & Sawiji, H. (2013) stated that the learning motivation variable has a positive and significant influence on learning achievement with a significance value of 0.000 < 0.05 and a t-statistics value of 0.399.

H4: Teacher Competence, Learning Environment, and Learning Motivation have an indirect and significant influence on Learning Achievement.

Based on the results of the path coefficient calculation in the table above, on the variables of teacher competence, learning environment and learning motivation on learning achievement, the original sample results were 0.293 while for t-statistics it was 3.434> 1.96. Then for the p-values, the value was 0.001 <0.05. Thus, it can be said that teacher competence, learning environment and learning motivation indirectly have a significant effect on learning achievement, so H4 in this study can be accepted.

The results of this study indicate that the variables of teacher competence, learning environment and learning motivation have a positive influence on the learning achievement of students at SMK Negeri 40 Jakarta. The better the teacher competence, learning environment and learning motivation in the educational life of students, the better the learning achievement of students at SMK Negeri 40 Jakarta. This study is supported by Sugiharsono & Sutardi (2016) who stated that the variables of teacher competence, learning environment and learning motivation have a positive influence on learning achievement with an F-count value of 31.607> F-table 2.70 and an effective contribution(R^2) of 0.431 or 43.1%.

CONCLUSION AND RECOMMENDATION

Conclusion

After analyzing the research data on "The Effect of Teacher Competence, Learning Environment and Learning Motivation on Learning Achievement at SMK Negeri 40 Jakarta", the following conclusions can be drawn: (1) There is a significant and positive direct influence between teacher competence and learning achievement. Thus, it can be stated that H1 is

accepted. It can be interpreted that the stronger the teacher's desire to improve the competence of teachers who are lacking in maintaining and improving the competence they already have, the higher the learning achievement of students at SMK Negeri 40 Jakarta. (2) There is a significant and positive direct influence between the learning environment and student learning achievement. Thus, it can be stated that H2 is accepted. It can be interpreted that the better, healthier and more conducive the learning environment created at school, at home and in the community, the higher the learning achievement of students at SMK Negeri 40 Jakarta. (3) There is a significant and positive direct influence between learning motivation and student learning achievement. Thus, it can be stated that H3 is accepted. The more, good and appropriate direction and encouragement from teachers to students, the higher the motivation will grow in students, if the motivation in students increases, the student's learning achievement will also be good. (4) There is a significant and positive indirect influence between teacher competence, learning environment and learning motivation on student learning achievement. Thus, it can be stated that H4 is accepted. The better the teacher competence, learning environment and learning motivation in the educational life of students, the better the learning achievement of students at SMK Negeri 40 Jakarta.

Recommendation

Based on the conclusions, implications, and limitations of the research that have been explained above. The researcher provides suggestions that are expected to be used as reference material for further research, namely as follows: (1) For the Faculty of Economics, UNJ, this research is expected to provide benefits for updating knowledge for lecturers and academics, especially in the Faculty of Economics, Jakarta State University based on related topics, namely teacher competence, learning environment, learning motivation and learning achievement. (2) For SMK Negeri 40 Jakarta, it is hoped that this research can be useful for schools, especially in improving student learning achievement through the competence of teachers, the role of teachers in improving student learning motivation and the role of schools in maintaining a conducive environment and creating a comfortable school environment for students.

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