The Influence of Learning Motivation, Discipline, and Time Management on the Academic Achievement of Students in the Faculty of Economics at Universitas Negeri Jakarta

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Abstract

Academic achievement is the result of learning obtained through cognitive educational activities, measured through evaluation and assessment. This study explores the influence of learning motivation, discipline, and time management on the academic achievement of students in the Faculty of Economics at Universitas Negeri Jakarta. Using a qualitative approach, data from 100 students in the Faculty of Economics at Universitas Negeri Jakarta were analyzed with Structural Equation Modeling Partial Least Squares (SEM-PLS). The findings show that discipline has a significant effect on time management (p-value = 0.000), and learning motivation also significantly affects time management (p-value = 0.001). Time management was found to have a direct and significant impact on academic achievement (p-value = 0.014). Learning motivation (p-value = 0.044) and discipline (p-value = 0.037) also have significant direct effects on academic achievement. Additionally, it was found that discipline has a positive indirect effect on academic achievement through time management (p-value = 0.032), while learning motivation does not have a significant indirect effect on academic achievement through time management (p-value = 0.059). These findings emphasize the importance of enhancing motivation, discipline, and time management among students to achieve optimal academic performance.

Keyword: Academic achievement; learning motivation; discipline; time management; student

1. Introduction

Education is a crucial element in shaping a high-quality generation. It serves as one of the main avenues to improve the quality of human resources, which is essential for achieving national development goals in education. One of the primary factors for the success of educational development is the effectiveness of the education system itself (Sidabutar, et. al. 2020). At the university level, academic achievement is one of the main benchmarks reflecting the success of students' learning processes. Students' academic performance is influenced by various factors, both internal and external (Jaya, 2019). Learning motivation, discipline, and time management are significant internal factors that contribute greatly to helping students achieve optimal academic performance.

Learning motivation is the internal drive that encourages students to reach their academic goals. In the learning process, increasing motivation is essential to support students' academic achievement. When students' learning motivation is high, their performance tends to be high as well (Karningsih, 2022). However, motivation alone is not enough without discipline, which is the ability to consistently carry out academic tasks according to established rules and schedules. Discipline helps students avoid procrastination and maintain focus on their academic responsibilities. It is a key factor for students to achieve optimal performance (Saetban, 2022).

Additionally, effective time management skills are essential for meeting the demands of academic life. Time management is the ability to organize oneself to use time efficiently and effectively by planning, scheduling, controlling time, prioritizing based on needs, and maintaining a desire to stay organized (Macan, 1994). Students who can manage their time effectively are generally better able to balance lectures, assignments, and extracurricular activities, ultimately increasing their likelihood of achieving higher academic performance.

Although these three factors are considered important, not all students are able to apply them to their fullest potential, resulting in varying academic achievements. Therefore, this study aims to analyze the influence of learning motivation, discipline, and time management on the academic performance of students in the Faculty of Economics at Universitas Negeri Jakarta.

2. Literature Review

2.1 Learning Motivation

Learning motivation is a condition within an individual where there is a drive to take action to achieve a specific goal. According to Kompri (2016), motivation is a change in energy within a person, marked by the emergence of feelings (affective) and reactions to reach a goal. Therefore, motivation is identified through a change in energy within the individual, whether consciously or unconsciously.

Learning motivation can arise from intrinsic factors, such as the desire for success, the drive to fulfill learning needs, and personal hopes and aspirations. External factors, on the other hand, include rewards, a supportive environment, and enjoyable and engaging activities. This learning motivation serves as both an internal and external drive for students to encourage behavioral changes throughout the learning process (Hidayah & Hermansyah, 2016).

2.2 Discipline

Discipline is any form of influence aimed at helping individuals to do what is desired and guiding them to meet others' expectations to a certain extent, in line with their abilities (Nahrowi & Maulida, 2018).

Discipline is a set of rules that governs personal and group life. The enforcement of discipline is not intended to restrict students' freedom; rather, it provides students with broader freedom within their capabilities, helping to develop character so they can practice self-control and act orderly and efficiently (Djamarah, 2002). Discipline can be defined as the attitudes, behaviors, and actions of individuals that align with applicable regulations, whether written or unwritten (Ramadhan, 2020).

2.3 Time Management

According to Forsyth (2009), time management can be defined as a method for controlling time, thereby creating effectiveness, efficiency, and productivity. It includes the process of organizing how to manage the available time. Additionally, according to Nurhidayati (2016), time management is the ability to manage time, complete tasks, plan schedules, and use time effectively and efficiently, thus benefiting oneself. Time management also involves the skills to allocate time and resources to achieve goals while creating a balance between work and personal life.

Time management is the planning of activities to optimize the use of time. Leman (2007) states that time management is the best use of time through well-organized and thorough activity planning. With time management, an individual can plan and use time efficiently and effectively, ensuring that time is not wasted in their life.

2.4 Academic Achievement

Academic achievement is the learning outcome obtained from educational activities in schools or universities, which is cognitive in nature and is usually measured through evaluations and assessments (Purnama, 2013). This assessment is carried out by evaluating students' academic performance through the Grade Point Average (GPA). A student's GPA serves as an indicator of their success in completing the courses they have taken. One of the factors influencing the achievement of a high GPA is the improvement of students' learning behaviors.

Academic achievement is the result of learning obtained by students during their education. This achievement is also understood as the success attained by students through the classroom learning system, marked by mastery of knowledge, skills, expertise, and competence. Success in academic achievement is achieved through hard study efforts, which result in satisfaction and can be used as a foundation for building a career in the chosen field of study (York, Gibson, & Rankin, 2015).

3. Material and Method

3.1 Design Study

This research adopts a quantitative design focusing on the influence of learning motivation, discipline, and time management on students' academic achievement. The sample consists of 100 respondents from the Faculty of Economics at Universitas Negeri Jakarta. Data collection was conducted from October to November 2024 through an online survey using Google Forms.

3.2 Operational Variables

Variable	**Indicators**	**Statement**
X1: Learning Motivation	1. Interest in learning	1. I am interested in the subjects I study. 2. I feel enthusiastic about learning every day.
	2. Perseverance in completing tasks	1. I always try to complete assignments on time. 2. I don't give up easily when facing difficulties in college assignments.
	3. Clear academic goals	1. I have goals to achieve in my academic achievement. 2. I set certain targets for my academic achievements.
	4. Confidence in learning abilities	1. I am confident that I will be able to understand every material given in the lecture. 2. I feel confident in my ability to face the exam.
	5. The desire to achieve achievement	1. I always try to get the best grades in every subject. 2. I am motivated to beat my academic achievements in the previous semester.
X2: Discipline	1. Compliance with academic rules	1. I always follow the regulations that apply at the university. 2. I have never violated the rules set by the university.
	2. Punctual attendance at lectures	1. I always arrive on time for every class. 2. I am rarely late for lectures.
	3. Consistency in carrying out tasks	1. I do my coursework according to a predetermined schedule. 2. I always complete the assigned tasks without delay.
	4. Effective use of time	1. I use my study time well without delaying assignments.

		2. I am able to manage my study time efficiently every day.
	5. Commitment to completing responsibilities	1. I always complete academic assignments with full responsibility. 2. I am committed to completing every lecture project given by the lecturer.
Y1: Time management	1. Plan learning activities	1. I always make a study schedule for every week. 2. I set a specific time to study every day.
	2. Good task prioritization	1. I always prioritize the most important tasks before doing other activities. 2. I prioritize tasks based on difficulty level and deadline.
	3. Effective time distribution	1. I can divide my time well between studying and other activities. 2. I feel that I have no difficulty in managing time for studying and activities outside of academics.
	4. Consistency in following the schedule made	1. I always try to follow the schedule that I have made. 2. I rarely miss the study schedule that I have set.
	5. Completion of tasks on time	1. I always complete my coursework before the specified deadline. 2. I am never late in submitting assignments to lecturers.
Z: Academic achievement	1. Average value obtained	1. I am satisfied with the average score I got this semester. 2. Discipline in studying and following academic rules contributed to my average grade.
	2. Achievement of the desired GPA	1. My GPA reflects my efforts and hard work in college. 2. My motivation in studying drives me to achieve a better GPA every semester.
	3. Participation in academic activities	1. I am actively involved in academic activities outside of lectures such as seminars and workshops. 2. Effective time management allows me to be actively involved in various academic activities.

	4. Completion of academic assignments on time	1. I always complete academic assignments and projects before the specified deadlines. 2. Good time management allows me to complete academic assignments without procrastinating.
	5. Development of academic skills	1. I feel that I have developed the skills needed in college during this semester. 2. My motivation in studying influences the improvement of my academic skills every semester.

3.3 Data Analysis

After collecting responses, data analysis is conducted using the Structural Equation Model (SEM) with SmartPLS 4.0 software. This method allows for a complex examination of the relationships between variables and assesses both the direct and indirect effects of study motivation, discipline, and time management on academic achievement.

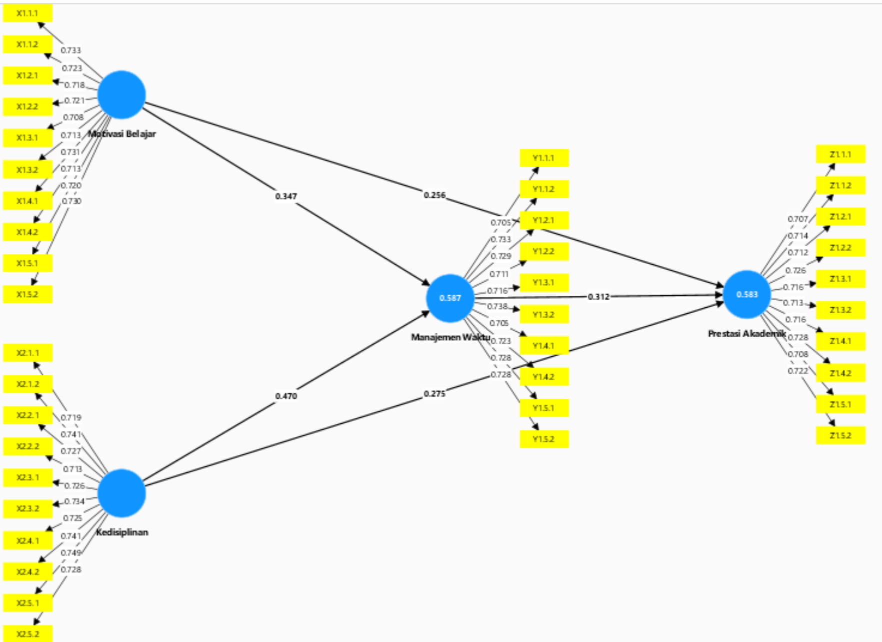

Figure 1. Research Model
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4. Result

4.1 Descriptive Respondent Analysis

This respondent description includes a description of the characteristics of the respondent based on gender, age, study program, as well as the number of responses on each variable. This research collected data from 100 respondents through distributing questionnaires.

Description	Number
Questionnaires distributed	100
Questionnaires returned	100
Damaged/incomplete questionnaires	-
Total respondents	100

Table 1. Questionnaire Distribution

In the following table calculation, a total of 100 research samples are set, so 100 questionnaires were distributed for this study. The results of the questionnaire distribution show that 100 questionnaires were returned without any damaged questionnaires.

To calculate the scale range and assign scores to the responses from respondents, it can be explained as follows:

RS = $\frac{m-n}{b}$

Explanation:

RS = Scale Range

m = Highest score on the scale

n = Lowest score on the scale

b = Number of categories created

Calculation:

RS = $\frac{5-1}{5}$ = 0,8

Based on the scale category results, the scale range can be determined as follows:

1.00 – 1.80 = Very Low

1.81 – 2.60 = Low

2.61 – 3.40 = Medium

3.41 – 4.20 = High

4.21 – 5.00 = Very High

The scores given for each variable statement are as follows:

STS or “Strongly Disagree” is scored = 1

TS or “Disagree” is scored = 2

N or “Neutral” is scored = 3

S or “Agree” is scored = 4

SS or “Strongly Agree” is scored = 5

4.1.1 Respondent Gender

Based on the respondent count in Table 4.1, it can be seen that 66 respondents are male and 34 respondents are female. This indicates that the majority of respondents are male. According to the research, the respondent gender distribution is shown in the following table:

Gender	Number	Percentage (%)
Male	66	66
Female	34	34
Total	100	100

Table 2. Respondent Gender

4.1.2 Respondent Age

In this study, four respondent age groups were identified, ranging from 19 to 22 years old. Age 20 dominates the respondents, while ages 19 and 22 are the least represented. According to the research results, the age distribution of respondents is as follows:

Age	Number	Percentage (%)
19	5	5
20	61	61
21	29	29
22	5	5
Total	100	100

Table 3. Respondent Age

4.1.3 Respondent Major Study

The majority of respondents are from the Digital Business undergraduate program. Meanwhile, the least represented programs are the Digital Office Administration (D4) and Accounting Education (S1) programs. Based on this data, the distribution of respondents by study program is as follows:

Major Study	Number	Percentage (%)
S1 Manajemen	15	15
S1 Bisnis Digital	30	30
D4 Pemasaran Digital	10	10
S1 Pendidikan Administrasi Perkantoran	6	6

S1 Pendidikan Bisnis	6	6
S1 Pendidikan Ekonomi	5	5
D4 Administrasi Perkantoran Digital	4	4
S1 Akuntansi	15	15
S1 Pendidikan Akuntansi	4	4
D4 Akuntansi Sektor Publik	5	5
Total	100	100

Table 4. Respondent Major Study

4.1.4 Respondents' Responses to Learning Motivation

To find out respondents' responses regarding learning motivation, see the following table:

Indicator	STS		TS		N		S		SS		Avg
	F	Skor	F	Skor	F	Skor	F	Skor	F	Skor	
Interest in learning	-	-	-	-	8	24	55	220	37	185	4,29
	-	-	-	-	8	24	45	180	47	235	4,39
Perseverance in completing tasks	-	-	-	-	7	21	36	144	57	285	4,50
	-	-	-	-	7	21	45	180	48	240	4,41
Clear academic goals	-	-	-	-	8	24	42	168	50	250	4,42
	-	-	-	-	7	21	36	144	57	285	4,50
Confidence in learning abilities	-	-	-	-	6	18	39	156	55	275	4,49
	-	-	-	-	6	18	41	164	53	265	4,47
The desire to achieve achievement	-	-	-	-	5	15	36	144	59	295	4,54
	-	-	-	-	4	12	36	144	60	300	4,56

Average value of the learning motivation variable	4,457

Based on the data from the respondent table above, it was found that almost all indicators had a good scale with the highest scale being the indicator of the desire to achieve. These results mean that learning motivation is strongly influenced by the desire to achieve achievement. The lowest scale is the indicator of interest in learning. Overall, this indicator has a very high scale of 4.457.

4.1.5 Respondents' Responses to Discipline

To find out respondents' responses regarding discipline can be seen in the following table:

Indicator	STS		TS		N		S		SS		Avg
	F	Skor	F	Skor	F	Skor	F	Skor	F	Skor	
Compliance with academic rules	-	-	-	-	5	15	50	200	45	225	4,40
	-	-	-	-	4	12	35	140	61	305	4,57
Punctual attendance at lectures	-	-	-	-	5	15	36	144	59	295	4,54
	-	-	-	-	5	15	51	204	44	220	4,39
Consistency in carrying out tasks	-	-	-	-	6	18	38	152	56	280	4,50
	-	-	-	-	4	12	43	172	53	265	4,49
Effective use of time	-	-	-	-	5	15	40	160	55	275	4,50
	-	-	-	-	7	21	42	168	51	255	4,44
Commitment to completing responsibilities	-	-	-	-	5	15	43	172	52	260	4,47
	-	-	-	-	4	12	36	144	60	300	4,56
The average value of the discipline variable											4,486

Based on the table above, the highest scale value is found in the commitment indicator in completing responsibilities with a value of 4.56. This means that discipline really prioritizes commitment in carrying out a task. From these five indicators, a high value was obtained, namely 4.486.

4.1.6 Respondents' Responses to Time Management

To find out respondents' responses regarding time management, see the following table:

Indicator	STS		TS		N		S		SS		Avg
	F	Skor	F	Skor	F	Skor	F	Skor	F	Skor	

Plan learning activities	-	-	-	-	8	24	55	220	37	185	4,29
	-	-	-	-	8	24	45	180	47	235	4,39
Good task prioritization	-	-	-	-	7	21	36	144	57	285	4,50
	-	-	-	-	7	21	45	180	48	240	4,41
Effective time distribution	-	-	-	-	8	24	42	168	50	250	4,42
	-	-	-	-	7	21	36	144	57	285	4,50
Consistency in following the schedule made	-	-	-	-	6	18	39	156	55	275	4,49
	-	-	-	-	6	18	41	164	53	265	4,47
Completion of tasks on time	-	-	-	-	5	15	37	148	58	290	4,53
	-	-	-	-	4	12	36	144	60	300	4,56
The average value of the time management variable											4,456

Based on the respondent table above, the largest value is found in the indicator for completing tasks on time with a value of 4.56. Student time management is determined by completing assignments on time. The more precise you are in completing assignments, the better your time management. Overall all indicators have a high scale.

4.1.7 Respondents' Responses to Academic Achievement

To find out respondents' responses regarding academic achievement, see the following table:

Indicator	STS		TS		N		S		SS		Avg
	F	Skor	F	Skor	F	Skor	F	Skor	F	Skor	
Average value obtained	-	-	-	-	8	24	55	220	37	185	4,29
	-	-	-	-	8	24	45	180	47	235	4,39
Achievement of the desired GPA	-	-	-	-	7	21	36 3	144	57	285	4,50
	-	-	-	-	7	21	45	180	48	240	4,41

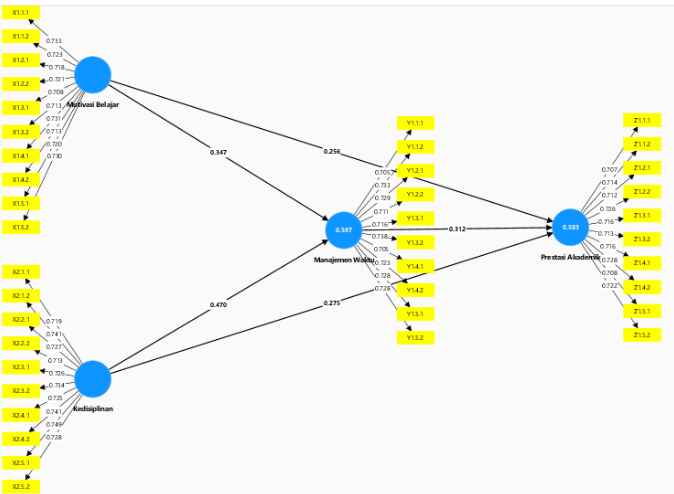
Participation in academic activities	-	-	-	-	8	24	41	164	51	255	4,43
	-	-	-	-	7	21	35	140	58	290	4,51
Completion of academic assignments on time	-	-	-	-	6	18	39	156	55	275	4,49
	-	-	-	-	6	18	41	164	53	265	4,47
Development of academic skills	-	-	-	-	5	15	36	144	59	295	4,54
	-	-	-	-	4	12	36	144	60	300	4,56
Average variable score											4,459

Based on the table above, the greatest indicator is the development of academic skills at 4.56. This means, to improve student academic achievement, it is necessary to develop good academic skills. Overall, all indicators have a high scale, which means that these indicators really influence students to improve academic achievement

4.2 Validity & Reliability

4.2.1 Measurement Model Test

1. **Convergent Validity**



Based on the picture above, it can be seen that the outer loading value of all variable indicators is greater than 0.5 so it is said to be valid.

2. **Discriminant Validity**

1) AVE Value

Variables	Average variance extracted (AVE)
Discipline	0.533
Time management	0.521
Learning motivation	0.520
Academic achievement	0.513

Average Variance Extracted (AVE) > 0.5
Based on the results above, it can be seen that the AVE value for each variable is greater than 0.5 so that discriminant validity is met.

2) AVE root value (Formell Larcker Criterion)

	Kedisiplinan	Manajemen Waktu	Motivasi Belajar	Prestasi Akademik
Kedisiplinan	0.730			
Manajemen Waktu	0.732	0.722		
Motivasi Belajar	0.756	0.702	0.721	
Prestasi Akademik	0.697	0.693	0.683	0.716

	Discipline	Time managemen t	Learning motivation	Academic achievement
Discipline	0.730			
Time managemen t	0.732	0.722		
Learning motivation	0.756	0.702	0.721	
Academic achievement	0.697	0.693	0.683	0.716

The AVE root value of each variable is greater than the AVE root of its correlation with other variables so that discriminant validity is fulfilled.

4.2.2 Model Collinearity Test

The value used to analyze is by looking at the Variance Inflation Factor (VIF)

1) VIF value > 5.00: there is a collinearity problem.
2) VIF value < 5.00: There are no collinearity problems.

	VIF		VIF

X1.1.1	1.996	**Y1.1.1**	1.728
X1.1.2	1.764	**Y1.1.2**	1.861
X1.2.1	1.839	**Y1.2.1**	1.964
X1.2.2	1.807	**Y1.2.2**	1.899
X1.3.1	1.776	**Y1.3.1**	1.846
X1.3.2	1.787	**Y1.3.2**	1.910
X1.4.1	1.854	**Y1.4.1**	1.898
X1.4.2	1.868	**Y1.4.2**	1.908
X1.5.1	1.970	**Y1.5.1**	1.782
X1.5.2	1.833	**Y1.5.2**	1.808
X2.1.1	1.842	**Z1.1.1**	1.951
X2.1.2	1.921	**Z1.1.2**	2.015
X2.2.1	1.819	**Z1.2.1**	1.840
X2.2.2	1.816	**Z1.2.2**	2.005
X2.3.1	1.959	**Z1.3.1**	1.761
X2..3.2	1.989	**Z1.3.2**	1.969
X2.4.1	1.992	**Z1.4.1**	1.996
X2..4.2	1.807	**Z1.4.2**	2.536
X2.5.1	2.055	**Z1.5.1**	2.299
X2.5.2	1.915	**Z1.5.2**	2.068

It can be seen that the VIF value of all variable indicators is <5, so there is no collinearity between each variable indicator being measured.

4.2.3 Reliability

1. Cronbach Alpha: > 0,7
2. Rho_A: > 0,7
3. Composite reliability: > 0,6

	Cronbach Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)
Discipline	0.903	0.903	0.920

Time management	0.898	0.899	0.916
Learning motivation	0.897	0.898	0.915
Academic achievement	0.895	0.896	0.913

Based on the data above, it can be seen that the Cronbach Alpha, rho_A, and Composite reliability values for each variable have met the requirements to be said to be reliable.

4.2.4 Structural Model/Inner Model Test

1. **R-Square**

R-Square is a measure of the proportion of variation in the value of a variable that is influenced (endogenous) that can be explained by the variable that influences it (exogenous).

The criteria:

1) If the R2 value = 0.75 it means substantial (large/strong)
2) If the R2 value = 0.50 it means moderate (medium)
3) If the R2 value = 0.25, it means weak (small)

	R-Square	R-Square adjusted
Time Management	0.587	0.578
Learning Achievement	0.583	0.570

R-Square Model path I = 0.587. This means that the ability of variables X1 and X2 to explain Y is 58.7% (Medium).

R-Square Model path II = 0.583. This means that the ability of variables X1 and X2 through Y to explain Z is 58.3% (Medium).

2. **F-Square**

F2 effect size (F-Square) is a measure used to evaluate the relative impact of the independent (exogenous) variable on the dependent (endogenous) variable.

The criteria:

1) If the F2 value = 0.02, it means it is small/bad
2) If the F2 value = 0.15 it means medium
3) If the F2 value = 0.35 it means it is great/good

	Discipline	Time Management	Learning Motivation	Academic Achievement
Discipline		0.228		0.063
Time Management				0.097

Learning Motivation		0.125		0.060
Academic Achievement				

Based on the table above, it can be concluded as follows:

1) Learning Motivation (X1) with Academic Achievement (Z) = 0.060 (small)
2) Learning Motivation (X1) on Time Management (Y) = 0.125 (small)
3) Time Management (Y) with Academic Achievement (Z) = 0.097 (small)
4) Discipline (X2) with Academic Achievement (Z) = 0.063 (small)
5) Discipline (X2) with Time Management (Y) = 0.228 (medium)

4.2.5 Hypothesis Testing

1. **Direct Effect (Path Coefficient):** Direct effect analysis functions to test hypotheses regarding the direct influence between exogenous variables that influence the endogenous variables that are influenced.

   The criteria:

   1) Path coefficient (path coefficient):

      If the value of the path coefficient (Path Coefficient) is positive, then the influence of one variable on other variables is unidirectional, if the value of the exogenous variable increases, the value of the endogenous variable will also increase.

      If the value of the path coefficient (Path Coefficient) is negative, then the influence between the variables is in the opposite direction, if the value of the exogenous variable increases, the value of the endogenous variable actually decreases.

   2) Probability/significance value (P-Value):
      - If the P – Value <0.05, then it is significant
      - If the P – Value > 0.05, then it is not significant

   Path Coefficient

	Original sample (O)	Sample mean (M)	Standard Deviation (STDEV)	T Statistic (|O/STDEV|)	P values
Discipline -> Time management	0.470	0.470	0.105	4.466	0.000
Discipline -> Academic achievement	0.275	0.276	0.132	2.084	0.037
Time	0.312	0.307	0.127	2.451	0.014

management -> Academic achievement					
Motivation learning -> Time management	0.347	0.347	0.107	3.248	0.001
Motivation learning -> Academic achievement	0.256	0.261	0.127	2.015	0.044

Based on the table above, it can be concluded as follows:

1) X1 – Y = 0.347 (positive), P-Value 0.001 < 0.05 (significant) (H1)
2) X1 – Z = 0.256 (positive), P-Value 0.044 < 0.05 (significant) (H4)
3) Y – Z = 0.312 (positive), P-Value 0.014 < 0.05 (significant) (H3)
4) X2 – Y = 0.470 (positive), P-Value 0.000 < 0.05 (significant) (H2)
5) X2 – Z = 0.275 (positive), P-Value 0.037 < 0.05 (significant) (H5)

2. **Indirect Effect**

Indirect effect analysis functions to test hypotheses regarding the indirect influence of exogenous variables on endogenous variables which are mediated by intervening variables or mediators.

The criteria:

1) If the P - Value <0.05, then it is significant (the influence is indirect), which means that the intervening variable plays a role in mediating the relationship between exogenous variables and endogenous variables.
2) If the P - Value > 0.05, then it is not significant (the influence is direct), meaning that the intervening variable does not play a role in mediating the relationship between exogenous variables and endogenous variables.

Specific Indirect Effect

	Original sample (O)	Sample mean (M)	Standard Deviation (STDEV)	T Statistic (|O/STDEV|)	P values
Discipline -> Time management ->Academic achievement	0.147	0.144	0.068	2.142	0.032

Learning motivation -> Time management -> Academic achievement	0.108	0.106	0.057	1.887	0.059

Conclusion:

1) The indirect effect of X1 – Y – Z is 0.108 (positive) with a P-Value of 0.059 > 0.05 (not significant)
   This means that the time management variable does not play a role in mediating the influence of learning motivation on academic achievement.
2) The indirect effect of X2 – Y – Z is 0.147 (positive) with a P-Value of 0.032 < 0.05 (significant)
   This means that the time management variable plays a role in mediating the influence of discipline on academic achievement.

4.3 Interpretation

- Hypothesis 1 (H1): Learning motivation has a positive and significant relationship with time management.
- Hypothesis 2 (H2): Discipline has a significant and positive effect on time management.
- Hypothesis 3 (H3): Time management has a significant and positive relationship with academic achievement.
- Hypothesis 4 (H4): Learning motivation has a significant and positive relationship with academic achievement.
- Hypothesis 5 (H5): Discipline has a significant and positive effect on academic achievement.
- Hypothesis 6 (H6): Learning motivation has an indirect positive but not significant effect on academic achievement through time management.
- Hypothesis 7 (H7): Discipline has an indirect positive and significant effect on academic achievement through time management.

5. Discussion

Based on previous research, it is explained that each variable such as learning motivation, discipline, and time management has a big influence on academic achievement. However, in this study, learning motivation indirectly influenced academic achievement through time management which was not very significant, this indicates that there are other factors besides time management which may play a more important role in strengthening the influence of learning motivation on academic achievement. However, in general, all variables have a positive effect, which means that changes that occur in each variable will influence the final result.

6. Conclusion, Implication, and Recommendation

Based on the research results, the researcher concludes the effects of study motivation, discipline, and time management on students' academic achievement as follows:

1) Study motivation has a positive and significant effect on students' time management. This indicates that students with high study motivation tend to manage their time well.
2) Discipline has a positive and significant effect on time management, where disciplined students tend to be more structured in their time management.
3) Time management has a positive and significant effect on academic achievement, indicating that students who manage their time effectively tend to have better academic performance.
4) Study motivation has a positive but not significant relationship with academic achievement through time management, suggesting that there may be other factors besides time management that play a greater role in strengthening the influence of study motivation on academic achievement.
5) Discipline has an indirect effect on academic achievement through time management, highlighting the importance of discipline in supporting optimal time management for better academic results.

Suggestion

The recommendations from this research are as follows:

1) For readers, this study is expected to enhance insight and knowledge about the factors influencing academic achievement among students.
2) For students, it is hoped that they can improve their study motivation, discipline, and time management in their academic pursuits to boost their academic performance.
3) Furthermore, for higher education institutions, it is recommended to provide more intensive training programs on time management and discipline so that students can maximize their academic productivity.

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