



The Influence of Time Management, Academic Stress, *Locus of Control* Mediated by Family Support on Student Procrastination in Semarang City

Bayu Saputro¹, Qristin Violinda², Ira Setiawati³

^{1,2,3} Universitas PGRI Semarang, Fakultas Ekonomi dan Bisnis, Indonesia

Correspondence Autor : bayus9746@gmail.com

Abstract . This study aimed to assess the impact of time management, academic stress, and locus of control , mediated by family support, on student procrastination in Semarang. This study employed a quantitative methodology via a survey conducted among the student population in Semarang, employing random sampling to get a sample size of 399 respondents. The data were evaluated using validity assessments, discriminant validity, reliability evaluations, and hypothesis testing via Smart-PLS version 4.0. The test results indicated that time management, academic stress, locus of control , and family support significantly influenced procrastination. However, time management and academic stress did not exert a mediated effect through family support on procrastination. Additionally, academic stress was mediated by support for procrastination, while locus of control , mediated by family support, significantly affected procrastination. According to the test results, it is advisable for students to focus on time management and locus of control to mitigate procrastination tendencies. Families and universities offer enhanced support for emotional well-being and self-healing to assist students in managing academic stress.

Keywords : Procastination, Time Management, Academic Stress, Locus of Control , Family Support

1. BACKGROUND

Students are increasingly experiencing procrastination, especially those who are facing academic demands and pressures. Ferrari (1995) describes procrastination as the tendency to postpone tasks that must be completed, which often leads to feelings of discomfort and poor academic performance. According to Solomon and Rothblum (1984), procrastination is when people put off their work until the last minute, which often leads to stress and anxiety.

One of the causes of procrastination is academic stress. According to Misra and McKean (2000), when students believe their academic responsibilities are too heavy, they experience academic stress. Students often postpone assignments because they are under pressure. In another study by Heiman and Kariv (2005), it was found that students who experienced a lot of academic stress experienced procrastination more often.

Locus of control also impacts procrastination. Students who feel they have control over their academic outcomes, or who have an internal locus of control, tend to be more responsible and less likely to procrastinate, according to Rotter (1966). In contrast, children who have an external locus of control believe that external factors can affect how well they do in school.

Family support is an important mediating factor that can influence the relationship between procrastination, academic stress, and time management. Students can reduce the tendency to procrastinate because family support, both emotional and practical, can help them manage stress and become more productive (Friedman, 2010).

This study aims to determine how academic stress, family support, and time management affect student recruitment in Semarang City. Therefore, it is expected that this study will provide a new perspective on the variables that influence procrastination and the important role played by family support in solving this problem. The researcher is interested in conducting a study on "The effect of time management, academic stress, *locus of control* mediated by family support on procrastination" based on the existing background.

2. THEORETICAL STUDY

Some basic concepts and relevant previous research are incorporated into the theoretical investigation. The theoretical examination of this thesis mainly focuses on the following areas:

Postponing a task is known as procrastination, and is often associated with feelings of discomfort (Solomon and Rothblum, 1984) . There are two types of factors: internal factors such as a person's motivation and physical condition, and external factors such as environment and upbringing.

Time Management to test a person's ability to plan, organize, and track their time usage effectively is called time management (Macan, 1990) . Students who are able to manage their time tend to be more effective in completing academic tasks, while students who face difficulties tend to procrastinate. Age, gender, and outlook on life are some of the factors that influence time management.

Academic stress occurs when students experience pressure due to the many tasks and academic demands (Sarafino & Smith, 2012). Mindset, personality, and external demands, such as study load and pressure to achieve, are some of the causes of academic stress. Biological, psychological, cognitive, and behavioral are some forms of academic stress.

locus of control is their belief in their own ability to influence the consequences of life events (Rotter, 1966). Students who place their locus of control internally are more

likely to attribute their success in school to their own efforts, whereas those who place their *locus of control* externally are more likely to blame other forces.

Family Support: Family support can help with academic stress, time management, and procrastination. This support includes emotional, instrumental, and informational support that helps students cope with academic stress and reduce procrastination.

3. RESEARCH METHODS

In this study, a survey of the student population in Semarang City was conducted using quantitative methods. A total of 399 people participated in the survey. Sampling was done using random sampling. Smart-PLS version 4.0 was used to process and analyze data obtained from the questionnaire to assess validity, reliability, and hypothesis testing.

4. RESULTS AND DISCUSSION

It is possible to evaluate the validity of SmartPLS 4.0 using convergent and discriminant validity analysis. Convergent validity is assessed by calculating the outer loading value and Average Variance Extracted (AVE). When the outer loading value of an indication is more than 0.7, it is considered authentic. Furthermore, an indication is considered valid when the AVE score exceeds 0.5. For the purpose of determining discriminant validity, one can use the Fornell-Larcker criterion.

The following table presents Convergent Validity using the outer loading of each research indicator:

Table 1
outer loading

	FAMILY SUPPORT (Z)	LOCUS OF CONTROL (X3)	TIME MANAGEMENT (X1)	PROCASTINATION (Y)	ACADEMIC STRESS (X2)
X1.1.1			0.843		
X1.1.2			0.854		
X1.2.1			0.837		
X1.2.2			0.815		
X1.3.1			0.799		
X1.3.2			0.814		
X1.4.1			0.916		

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X1.4.2			0.908		
X2.1.1					0.836
X2.1.2					0.915
X2.2.1					0.930
X2.2.2					0.881
X2.3.1					0.925
X2.3.2					0.907
X2.4.1					0.820
X2.4.2					0.770
X3.1.1		0.789			
X3.1.2		0.788			
X3.2.1		0.742			
X3.2.2		0.907			
X3.3.1		0.878			
X3.3.2		0.927			
X3.4.1		0.893			
X3.4.2		0.797			
Y.1.1				0.884	
Y.1.2				0.845	
Y.2.1				0.869	
Y.2.2				0.825	
Y.3.1				0.757	
Y.3.2				0.844	
Y.4.1				0.764	
Y.4.2				0.758	
Z.1.1	0.778				
Z.1.2	0.758				
Z.2.1	0.835				
Z.2.2	0.829				
Z.3.1	0.849				
Z.3.2	0.874				
Z.4.1	0.872				
Z.4.2	0.813				

Source : processed primary data (2024)

If the correlation coefficient between the construct and the average variable is more than 0.7 and there are additional components involved, the external value of the

model is considered valid. The table above shows the results of processing using SmartPLS 4.0.

The Fornell-Larcker approach can be used to determine discriminant validity, because each indicator must meet the criteria >0.7 to be considered valid.

Table 2
Discriminant validity with method Fornell Larcker

Variables	Support Family (Z)	<i>Locus of control</i> (X3)	Management Time (X1)	<i>Procrastination</i> (Y)	Stres Academic (X2)
Support Family (Z)	0.827				
<i>Locus of control</i> (X3)	-0.079	0.843			
Management Time (X1)	-0.001	-0.037	0.849		
<i>Procrastination</i> (Y)	0.037	0.143	0.071	0.820	
Stres Academic (X2)	0.051	-0.019	-0.015	0.053	0.875

Source : processed primary data (2024)

Based on these data , the variables management time own mark Fornell Larcker of 0.849, variable stress academic own mark of 0.875, variable *locus of control* own mark of 0.843, variable support family own mark of 0.827, and variable procrastination own mark of 0.820. This is show strong validity discriminant every variable .

Table 3
Variance Extranted (AVE)

Variables	AVE
Management Time (X1)	0.721
Stres Academic (X2)	0.765
<i>Locus of control</i> (X3)	0.710
Support Family (Z)	0.684
<i>Procrastination</i> (Y)	0.672

source : processed primary data (2024)

Time management (0.721), academic stress (0.765), locus of control (0.710), family support (0.684), procrastination (0.672), and locus of control (0.710) all had variance extracted (AVE) values greater than 0.5.

Table 4
Reliability test

Variables	Cronbach's alpha	Composite reliability (rho_a)
FAMILY SUPPORT (Z)	0.937	1.009
LOCUS OF CONTROL (X3)	0.941	0.961
TIME MANAGEMENT (X1)	0.952	0.929
PROCASTINATION (Y)	0.931	0.945
ACADEMIC STRESS (X2)	0.957	1,095

source : processed primary data (2024)

All variables are considered reliable if the Cronbach's Alpha and Composite Reliability values exceed 0.70.

The inner model is also called as structural model evaluation. The impact of R-square value and various other evaluations can be observed in the inner model version.

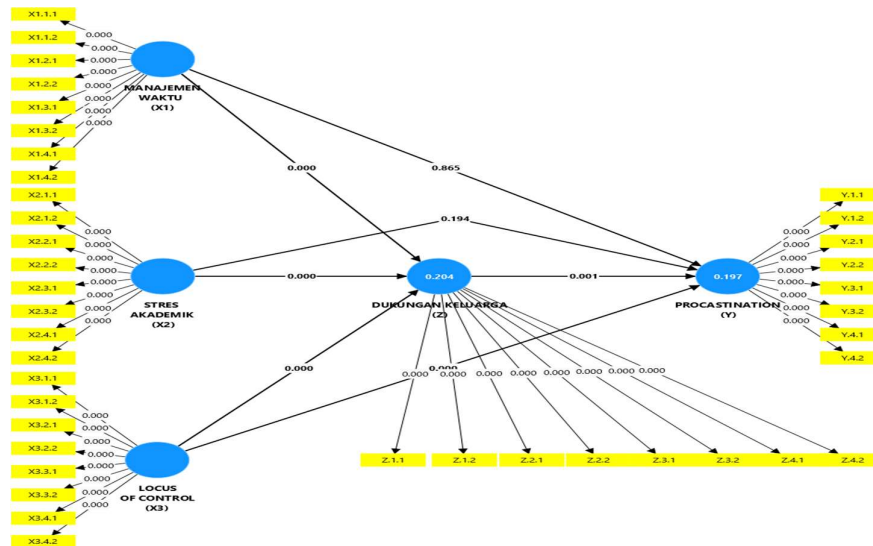


Figure 1 Inner model

The purpose of this evaluation stage is to evaluate the potential relationship between the variables that have been entered into the hypothesis. Changes in the R-square value can be used to determine whether the endogenous and exogenous latent variables have a substantial impact. The following are the results of the R-square test conducted in this study:

Table 5R-Square

	R-square	R-square adjusted
Support Family (Z)	0.204	0.198
<i>Procrastination</i> (Y)	0.197	0.189

source : processed primary data (2024)

R-Square measures the extent of the impact of the family support variable (Z), producing a value of 0.204, which is classified as moderate. This figure can be explained by contributing factors: Time management (X1), Academic stress (X2), and *Locus of control* (X3). The R-Square value of 0.197 indicates a moderate effect of the time management, academic stress, and *locus of control variables* on procrastination, which can be explained by the components in the Family Support variable (Z). The coefficient test measures the level of effect given by exogenous factors on endogenous variables. The hypothesis is considered supported if the p-value is less than 0.05, with a significance threshold of 0.05.

Table 6path coefficient

Variables	Hypothesis	direction	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Information
Management Time (X1) → <i>Procastination</i> n	H1	+	0.224	0.231	0.056	4.013	0.000	Hypothesis Accepted
Stres Academic (X2) → <i>Procastination</i> n	H2	+	0.232	0.237	0.051	4,512	0.000	Hypothesis Accepted
<i>Locus of control</i> (X3) → <i>Procastination</i> n	H3	+	0.186	0.189	0.051	3,677	0.000	Hypothesis Accepted
Support Family (Z) → <i>Procastination</i> n (Y)	H4	+	0.183	0.184	0.057	3.221	0.001	Hypothesis Accepted

Management Time (X1) → Support Family (Z) → Procastination (Y)	H5	-	-0.009	0.331	0.169	1,967	0.865	Hypothesis Rejected
Stres Academic (X2) → Support Family (Z) → Procastination (Y)	H6	+	0.084	-0.007	1,299	1,967	0.194	Hypothesis Rejected
<i>Locus of control</i> (X3) → Support Family (Z) → Procastination (Y)	H7	+	0.325	0.089	6.193	1,967	0.000	Hypothesis Accepted

source : processed primary data (2024)

The table above can be explained as follows:

- a. Time management on procrastination with the results of the T-statistic test value of 4.013 and P-value $0.000 < 0.05$. Therefore, it states that time management has a significant effect on procrastination.
- b. Academic stress on procrastination with the results of the T-statistic test value of 4.512 and P-value $0.000 < 0.05$. Therefore, it states that academic stress has a significant effect on procrastination.
- c. *Locus of control* on procrastination with the results of the T-statistic test of 3.677 and P-value $0.000 < 0.05$. Therefore, it states that *locus of control* has a significant effect on procrastination.
- d. Family support for procrastination with the results of the T-statistic test of 3.221 and P-value $0.001 < 0.05$. Therefore, it states that family support has a significant effect on procrastination.
- e. Time management is mediated by family support towards procrastination with the results of the T-statistic test of 0.169 and P-value $0.865 > 0.05$. Therefore, it states that time management has no effect mediated by family support towards procrastination.

- f. Academic stress is mediated by family support towards procrastination with test results of 1.299 and a P-value of $0.194 > 0.05$. Therefore, it states that academic stress has no effect mediated by family support towards procrastination.
- g. *Locus of control* is mediated by family support towards procrastination with the result of T-statistic test of 6.193 and P-value of $0.000 < 0.05$. Therefore, it states that *locus of control* has a significant influence mediated by family support towards procrastination.

To determine how much influence one variable has on another, or how strongly one variable influences another, researchers use the F-square statistic. The following are the F-Square results from this study:

Table 7F-Square

Variables	FAMILY SUPPORT (Z)	LOCUS OF CONTROL (X3)	TIME MANAGEMENT (X1)	PROCASTINATION (Y)	ACADEMIC STRESS (X2)
Family Support (Z)				0.033	
<i>Locus of control</i> (X3)	0.039			0.115	
Time Management (X1)	0.055			0.000	
<i>Procrastination</i> (Y)					
Academic Stress (X2)	0.062			0.008	

source : processed primary data (2024)

After controlling for procrastination, the F-Square analysis revealed a relationship of 0.062 between academic stress and the value of the family support variable (Z). There appears to be a strong positive relationship between academic stress and family support, indicating that having greater family support leads to less academic stress.

There was a weak and practically insignificant relationship between locus of control and academic stress ($r = 0.039$). However, there was a stronger correlation between locus of control and procrastination (0.115), indicating that a more balanced locus of control may reduce procrastination.

The correlation coefficient indicating the relationship between effective time management and academic stress is 0.055. This relationship indicates that better time management results in greater outcomes. The less academic stress experienced. This relationship is very relevant to reducing procrastination.

5. DISCUSSION

The purpose of this study was to see how the influence of time management, academic stress, and *locus of control* mediated by family support on procrastination of students in the city of Semarang. A number of dimensions and indicators, consisting of several statement items, were used to measure and evaluate the relationship between variables. The researcher processed and explained the data from the questionnaire to produce conclusions or research results. The results of the study that have been processed and explained by the researcher are presented below:

a. Time Management Against Procrastination

The test results show that time management has a positive effect on procrastination has been proven significant. The better the ability to manage time management owned by students, the better the students will be in managing procrastination, namely reducing delays in completing academic tasks. The results of the T-statistic test value of 4.013 and P-value 0.000, which shows that the effect of time management on procrastination is significant at the 95% confidence level, so the better someone manages their time, the lower their tendency to procrastinate. H1 is accepted, This result is in line with research (Arif, 2014) which found that good time management skills, the better the ability in procrastination (Claessens, 2007) also supports this finding by stating that effective time management plays a role in learning efficiency and reducing delays in completing academic tasks.

b. Academic Stress on Procrastination

The test results show that academic stress has a positive effect on procrastination which has been proven significant. The better the ability to manage academic stress that students have, the better the students will be in managing procrastination, namely reducing delays in completing academic tasks. with a p-value of 0.000 and a T-statistic of 4.512. H2 is accepted. This confirms what previous research has shown (Sagita et.al., 2017): that student procrastination is a direct result of academic stress. Academic stress

and procrastination are positively correlated, according to A'yunina (2021), student procrastination increases as their stress levels increase.

c. *Locus of control* against procrastination

According to the test results, procrastination is highly influenced by *Locus of control*. Students' procrastination management skills are directly related to their *Locus of control management skills*. The T-statistic test value is 3.677, and the corresponding P-value is 0.000. We accept H3 because our results are consistent with those of Shafaruddin (2018), who found that students who scored higher on the Internal *Locus of Control subtest* were better able to manage their time and avoid procrastination because they were more disciplined and responsible for their actions. *Locus of control* is a key component in exercising self-control over procrastination, as stated by Ferrari (1995).

d. Family Support for Procrastination

The test results show that family support has a positive effect on procrastination. The more family support students receive, the better they manage procrastination. The results of the T-statistic test value are 3.221 and P-value 0.001. H4 is accepted, This is in accordance with Fitriani's research (2018) which shows that emotional support from family can help students cope with academic stress and reduce the tendency to procrastinate. (Friedman, 2010) also said that support from family, especially emotional and informational support, helps students manage stress and increase their focus on academic tasks.

e. Time management is mediated by family support for procrastination

The results of this test state that time management has no effect mediated by family support on procrastination. The results of the T-statistic test value are 0.169 and P-value 0.865. Time management is not mediated by family support on procrastination. H5 is rejected. This is different from several previous studies such as (Bela, 2021) which stated that family support can strengthen the relationship between time management and procrastination behavior. This study provides a new perspective that family support may not always be effective in mediating time management factors on procrastination behavior.

f. Academic stress is mediated by family support for procrastination

The test results show that academic stress has no effect mediated by family support on procrastination. The T-statistic test result is 1.299 and the P-value is 0.194. This shows that family support is not significant enough in reducing the impact of

academic stress on procrastination. H6 is rejected. This study also shows that family support does not significantly mediate the relationship between academic stress and procrastination, which is contrary to research (Cristopen, 2021) which found that family support can help reduce the effects of academic stress on procrastination behavior. This result may be due to the unique characteristics of the respondents involved in this study or other components that were not studied, such as peer support or a person's self-care strategies. And the same researcher according to research (Richard, 2016) who found that his research also revealed that academic stress can cause someone to fail to have an abortion, even though he has received support from his family.

g. *Locus of control* is mediated by family support for procrastination

The test results show that *Locus of control* mediated by family support has a positive effect on procrastination which has been proven significant. The better you are at managing *Locus of control*, the better the role of family support, the better it can be in carrying out procrastination to manage academic tasks. With the results of the T-statistic test of 6.193 and a P-value of 0.000. Family support plays a significant role in mediating the effect of *Locus of control* on procrastination. H7 is accepted, the results of this study found that family support plays an important role in mediating the effect of *Locus of control* on procrastination. This finding is consistent with the research of Iskandar & (Iskandar & Anggraeni, 2022) which states that social support, including family support, can strengthen students' *Locus of control*, help them manage academic behavior and manage procrastination.

6. CONCLUSION AND SUGGESTIONS

Time management has a significant effect on procrastination, academic stress has a significant effect on procrastination, *locus of control* has a significant effect on procrastination, Family support has a significant effect on student procrastination, Time management has no effect mediated by family support on procrastination and has not been proven significant, Academic stress has no effect mediated by support on procrastination and has not been proven significant, *Locus of control* is mediated by family support has a significant effect on procrastination. Students are advised must increase *locus of control* And management time they And utilise support family For reduce procrastination. University must provides self-healing programs and management stress for students, but family must Keep going give support emotional.

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