



Multivariable Analysis of Thesis Completion Procrastination: Evaluating Personal Traits, Campus Services, and Academic Stress

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ABSTRACT

This study investigates the complex determinants of academic procrastination in thesis completion, specifically examining the roles of academic stress, campus services, perfectionism, and self-regulation, with gender as a moderating variable. While university support is traditionally viewed as a mitigating factor in procrastination, empirical evidence on its interaction with gender-specific psychological traits remains underdeveloped. This study employs a quantitative research design utilizing Moderated Regression Analysis (MRA) to examine the hypothesized relationships. Data analysis was conducted using the R statistical software with the *lm* package for linear modeling. The target population consisted of undergraduate students currently in the final phase of their thesis completion. A total of 115 respondents participated in the study, comprising the primary data set for the analysis. Bootstrapped regression analysis revealed that academic stress was the sole robust positive predictor of thesis procrastination [EQ:($B = 0.556$, $p = .008$)]. Gender emerged as a pivotal moderator, with a significant interaction confirmed between perfectionism and gender [EQ:($B = 0.568$, $p = .048$)]. Perfectionism operates as an adaptive motivational force for male students but shifts into a maladaptive trait among females. Furthermore, a marginally significant interaction was observed between self-regulation and gender [EQ:($B = -0.468$, $p = .068$)] suggesting a tendency for self-regulation to mitigate procrastination more pronouncedly among female students. Conversely, the direct effects of campus services proved statistically unreliable under the bootstrap framework. Thesis procrastination is not merely a reflection of time-management deficits or direct environmental influences, but a situational emotional response to chronic academic stress bounded by gender-specific psychological mechanisms. In practice, the findings imply that higher education institutions must move beyond generic academic support or physical facility enhancements. Universities and thesis advisors should prioritize dismantling structural stressors in the supervision workflow while implementing gender-aware psychological interventions to mitigate maladaptive perfectionism and foster self-compassion among female students.

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■ INTRODUCTION

Student delays in graduation are a common issue in higher education (Nieto Fernández et al., 2024). This problem can become serious because it affects multiple aspects related to universities, students, and parents. For higher education institutions, timely graduation reflects efficiency and the quality of campus services. The higher the proportion of students graduating on time, the better the university's operational processes. This also indicates that the campus services provided, including teaching, mentoring, and

thesis supervision, are functioning properly. In fact, the accreditation system established by the National Accreditation Board for Higher Education (BAN-PT) includes the timely graduation rate as a key indicator of institutional quality. Consequently, the percentage of students graduating on time influences public trust and the confidence of prospective students and stakeholders in the institution.

The issue of delayed graduation also occurs at a public Islamic university in Indonesia. According to data recorded in the

academic information system during the 2024/2025 odd semester, 1,636 students in the 11th and 13th semesters were in the process of completing their theses. These students came from various study programs. According to existing regulations, students are considered to have graduated on time if they complete their thesis defense no later than the 10th semester (Basri, 2018). The relatively large number of students who do not graduate on time has become a serious challenge to achieving the university's performance target of obtaining "Excellent Accreditation."

Delayed graduation is often an implication of academic procrastination (Sakti et al., 2020). Academic procrastination refers to students' tendency to postpone academic tasks or responsibilities, which, in the context of thesis completion, may manifest as delays in consultation, data collection, analysis, and thesis writing (Jamila, 2020). Such behavior has been shown to negatively affect learning outcomes (Ramadhan & Winata, 2020; Nigam & Srivastava, 2024; Kooren et al., 2024). Academic procrastination has been documented across educational levels in Indonesia, including among upper-grade elementary students during the COVID-19 pandemic (Rahmadani et al., 2022). In higher education, this behavior becomes more complex because thesis completion requires students to independently manage consultation, data collection, analysis, and manuscript writing.

Procrastination in thesis completion is influenced by various internal and external factors. Internal factors originate within the students, such as self-concept, self-regulation, personality traits, perfectionism, and intrinsic motivation. External factors include parenting styles, peer environment, campus academic climate, and similar contextual conditions (Kunti Mu'alima, 2021; Rosário et al., 2009; Saini & Singh, 2024; Zhou et al., 2021).

Obenza et al. (2024) examined the effect of fear of failure on thesis procrastination, with academic stress serving as a mediating variable, and found both direct and indirect effects across all pathways. Nigam & Srivastava (2024) explored the relationship between the Big Five personality traits and academic procrastination, revealing that only extraversion significantly predicted procrastination, and the relationship was negative. Putra & Affandi (2023) reported a negative relationship between self-monitoring and thesis procrastination. Steinert et al. (2021) investigated the influence of self-concept on procrastination with cautiousness as a moderating variable.

Other studies, such as those by Kurtovic et al. (2019) and Berinšterová et al. (2021), examined the role of perfectionism, suggesting that maladaptive perfectionism often leads to analysis paralysis. In the context of a thesis, the excessive fear of producing a flawed draft or failing to meet unrealistic standards serves as a psychological barrier that triggers avoidant behavior and chronic procrastination.

Campus service quality is a critical external factor and a primary determinant of student academic success (Dangaiso & Tsvere, 2025; Peña-Lang et al., 2022). Within the framework of thesis completion, these institutional services specifically encompass faculty mentorship (academic services) and administrative support (non-academic services). Theoretically, the quality of such services directly shapes students' institutional satisfaction (Htang, 2021) and sustains their motivation to learn (Zakirullah et al., 2025). Consequently, when these services function poorly—exemplified by the inaccessibility of thesis advisors or sluggish administrative responsiveness—both student satisfaction and intrinsic motivation diminish sharply. Ultimately, this resulting dissatisfaction and frustration are utilized as a psychological justification or a maladaptive coping mechanism to evade academic stress by delaying thesis completion (Klingsieck et al., 2012; Nagpal, 2023; Pollack, 2023).

Research regarding gender differences has yielded inconsistent results. Several studies report that male students tend to exhibit higher levels of procrastination than their female counterparts (Huda, 2015; Lubis & Meliala, 2022; Marković et al., 2021; Novirson & Putri, 2024; Yar'adua & Zakariya, 2021), whereas other studies have found no significant differences. This suggests that gender may not function as a direct predictor but rather operates in context or through specific psychological mechanisms.

Diverging from the majority of prior research, which positions academic procrastination as a direct outcome of academic stress, perfectionism, self-regulation, or the quality of academic support, this study offers a theoretical contribution by examining psychological mechanisms in explaining procrastination in thesis completion. Empirical findings demonstrate that while various personal and contextual factors appear to have a partial influence, these effects do not persist when analyzed simultaneously, as their variance converges into the construct of academic stress. Consequently, this research enriches the literature by shifting from a multi-

predictor approach toward a mechanism-based understanding. In this framework, procrastination is understood not merely as a character deficit or a failure of self-regulation, but as a situational emotional response to chronic and excessive academic pressure during the final stage of undergraduate studies.

This study seeks to explore the influence of self-regulation, academic stress, perfectionism, and satisfaction with campus services on thesis procrastination, with gender serving as a moderating variable. This research incorporates more variables and more complex relationships than previous studies. In particular, satisfaction with campus services is identified as a potential contributing factor to procrastination in thesis completion. Based on the theoretical framework and the problems identified above, the following hypotheses are proposed for this study:

- H1:* Self-regulation has a significant negative effect on thesis procrastination.
- H2:* Academic stress has a significant positive effect on thesis procrastination.
- H3:* Perfectionism has a significant positive effect on thesis procrastination.
- H4:* Campus services quality significantly reduces thesis procrastination.
- H5:* Gender significantly moderates the relationship between self-regulation, academic stress, perfectionism, and perceptions of academic services toward thesis procrastination

The findings of this study will provide both practical and theoretical benefits. Understanding the factors that influence procrastination allows universities to formulate effective strategies to prevent procrastinator behavior early on. As such, the results can serve as a basis for lecturers and policymakers in designing interventions to improve students' learning behaviors (Bhatt, 2023). Ultimately, this may help minimize delayed graduation among students. Theoretically, the conclusions of this study will enrich the body of knowledge in psychology and educational measurement.

■ METHOD

This quantitative study employs an explanatory correlational design to identify the primary psychological mechanisms underlying thesis procrastination using moderated regression analysis. The target population consisted of undergraduate students currently in the final phase of their thesis completion. Following the established rules of thumb: (1) a minimum of 50 samples is required for regression analysis (Vanvoorhis & Morgan,

2007), and (2) the sample-to-variable ratio should be 15–20:1 for each independent variable (Chuah & Cham, 2020). The study incorporates four independent variables and examines four interaction terms between these predictors and gender. Consequently, the sample size of 115 respondents is considered adequate to maintain sufficient statistical power for this moderated regression model.

Data were collected through questionnaires. The self-regulation questionnaire was developed based Zimmerman (2000) self-regulation framework, which includes the following aspects: Task Analysis (students' ability to analyze tasks), Goal Setting (students' ability to set learning goals), Self-Motivation Beliefs (students' motivation and efficacy beliefs), Self-Control (students' ability to manage attention and behavior), Self-Observation (students' ability to monitor learning progress), Self-Judgment (students' evaluation of their performance), and Self-Reaction (students' response to learning outcomes).

The academic stress scale was constructed using Busari's conceptual framework, which includes four dimensions: physiological, cognitive, affective, and behavioral. Meanwhile, the perfectionism scale was based on Hewitt & Flett (1991), consisting of six dimensions: (1) Concern over Mistakes, (2) Doubts about Actions, (3) Parental Expectations, (4) Parental Criticism, (5) Personal Standards, and (6) Organization. The campus service questionnaire adopts the Higher Education Performance (HEdPERF) framework developed by Abdullah (2006). In this study, the HEdPERF concept was adapted to the context of undergraduate thesis completion. The dimensions of campus services encompass campus services (Academic supervision by lecturers), non-campus services (administrative and infrastructure services), and service accessibility (ease of obtaining services). Gender is defined in this research based on sexual differences, distinguishing between male (reference group, code: 1) and female respondents (group 2, code: 2)

Before the instruments were used in the study, they underwent validity and reliability testing. Content validity was assessed by four experts: three psychometricians and one language expert. Content validity was evaluated across three dimensions: the alignment of items with indicators, linguistic clarity, and the absence of ambiguity. Expert validators provided assessments using a four-point scale, ranging from 'highly appropriate' to 'highly inappropriate'. These evaluations were then quantified using the Content Validity Index

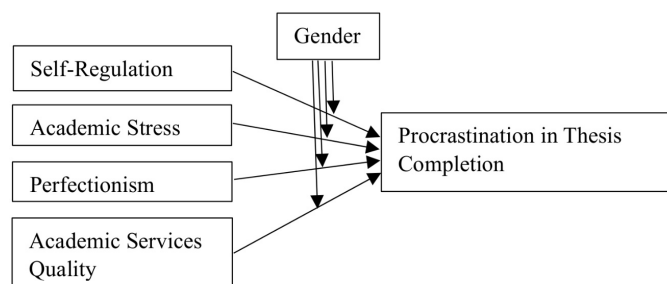


Figure 1. Conceptual model of the relationships among self-regulation, academic stress, perfectionism, academic services quality with gender as a moderating variable

(CVI). The results yielded CVI scores of 3.796 for self-regulation, 3.830 for academic stress, 3.737 for perfectionism, 3.810 for perceptions of campus services, and 3.750 for procrastination. Based on these expert evaluations, the instrument was deemed valid and suitable for research application. Instrument reliability was examined using Cronbach's alpha.

Data analysis was conducted using Multiple Linear Regression and Moderated Regression Analysis (MRA). Moderated Regression Analysis (MRA) was employed to examine whether the relationships among self-regulation, academic stress, perfectionism, perceptions of campus services, and procrastination vary by gender. This analysis was conducted not to assert gender differences deterministically, but rather to evaluate whether the stress mechanism functions consistently across gender groups. This approach aligns with the study's objective, which emphasizes understanding psychological mechanisms rather than mere demographic disparities. Data analysis was conducted using the R statistical software for linear modeling.

■ RESULTS AND DISCUSSION

Data collection in this study was conducted using a questionnaire that had been validated by experts and tested for internal validity using contingency analysis, as well as for reliability using Cronbach's alpha. As presented in Table 1, the normality test using the Shapiro-Wilk method yielded a W statistic of 0.996 with a p-value of 0.986 ($p > .05$), indicating that the residuals are normally distributed. To address the variance of residuals, the Breusch-Pagan test was employed, resulting of 6.209 ($p = .719$), which confirms the absence of heteroscedasticity. Furthermore, multicollinearity was assessed through the Variance Inflation Factor (VIF). Despite the inclusion of interaction terms, all VIF values remained below the critical threshold of 10, confirming that the model is free of significant multicollinearity.

Consequently, the model fulfills the criteria for the Best Linear Unbiased Estimator (BLUE).

All diagnostic tests confirmed that the data met the necessary assumptions. Therefore, a moderated regression analysis can be conducted to examine the relationship between the predictors and academic procrastination across genders. The results of the multiple regression analysis, including the interaction effects, are summarized in Table 2. The model yielded an Adjusted R-squared value of .412, indicating that approximately 41.2 % of the variance in academic procrastination is explained by the independent variables (Academic Stress, Campus Service, Perfectionism, and Self-Regulation) and their interactions with Gender. The remaining 58.77% is attributable to other factors not accounted for in this study. Furthermore, the F-statistic of 9.885 with a $p < .001$ demonstrates that the overall regression model is statistically significant and provides a robust fit for the data.

Based on the empirical data in Table 3, the bootstrapping procedure (with 1,000 iterations) provides a more rigorous depiction of the significance of each variable. Academic Stress proved to be the most potent and fully significant positive predictor of academic procrastination ($B = 0.577$; $beta = 0.556$; $CI\ 95\% [0.167, 1.095]$; $p = .008$). Because the Confidence Interval (CI) range does not include zero, these results robustly confirm that high academic stress compels students to employ avoidance-based coping mechanisms.

Interestingly, while Campus Service ($B = 0.365$, $p = .030$) and Perfectionism ($B = -0.439$, $p = .036$) appeared to be significant predictors in the initial original model, their significance vanished under the rigorous bootstrapping resampling. The bootstrap confidence intervals for both Campus service ($95\%CI[-0.092, 0.629]$; $p = .098$) and Perfectionism ($95\%CI[-0.779, 0.185]$; $p = .146$) crossed zero. Therefore, relying on the more robust bootstrap framework, these two main effects cannot be considered statistically

Table 1. Summary of Classical Assumption Tests

| No | Assumption Test | Method | Statistical Value | Sig. | Conclusion |
|--------------------------|--------------------|--|----------------------|-------|----------------------|
| 1 | Normality | Shapiro-Wilk | W=0.996 | 0.986 | Normally Distributed |
| 2 | Heteroscedasticity | Breusch-Pagan | BP=6.209 | 0.719 | Homoscedasticity |
| 3 | Multicollinearity | Variance Inflation Factor (VIF) | | | |
| | | Academic Stress | VIF=8.151 | - | No Multicollinearity |
| | | Campus Service | VIF=4.712 | - | No Multicollinearity |
| | | Perfectionism | VIF=7.093 | - | No Multicollinearity |
| | | Self-Regulation | VIF=4.664 | - | No Multicollinearity |
| | | Gender | VIF=1.351 | - | No Multicollinearity |
| | | Stress x Gender | VIF=6.554 | - | No Multicollinearity |
| | | Campus Service x Gender | VIF=4.510 | - | No Multicollinearity |
| | | Perfectionism x Gender | VIF=6.127 | - | No Multicollinearity |
| Self-Regulation x Gender | VIF=4.494 | - | No Multicollinearity | | |

reliable predictors. Self-Regulation was found to be directly non-significant ($B=-0.252$; $beta = -.264$; $95CI[-0.703,0.598]$; $p = .296$)

The primary focus of this model was to examine whether gender moderates the hypothesized relationships. Based on the bootstrapping analysis, the interaction between academic stress and gender ($B=-0.317$; $beta = -.304$; $95CI[-0.911,0.134]$; $p = .128$.) and interaction between campus services and gender ($B=-0.307$; $beta = -.291$; $95CI[-0.642,0.160]$; $p = .190$;) were statistically non-significant. This implies that the impacts of academic stress and the campus services paradox do not differ between male and female students, indicating no distinct interpretive pathways.

On the other hand, highly compelling findings emerged regarding the interaction between perfectionism and gender ($B = 0.639$;

$p-value = .008$ $beta = .568$; $95 CI [0.003, 1.050]$; $p = .048$.) This statistical consistency between the original parametric model and the robust bootstrap framework underscores that the moderating role of gender on the relationship between perfectionism and the outcome variable is highly reliable and not an artifact of sampling bias. In other words, a student's gender dictates the severity to which perfectionistic tendencies paralyze their motivation, ultimately driving thesis procrastination. Consequently, gender functions as a critical boundary condition, meaning that the psychological pressure to produce a flawless undergraduate thesis does not affect male and female students equally

Interaction between self-regulation and gender ($B = -0.494$; $beta = -.468$; $95 CI [-1.270, 0.038]$; $p = .068$.) fell into the marginally significant category. This phenomenon—

Table 2. Model summary and global statistics

| Model Statistic | Value | Description |
|-------------------------|-------|---------------------------------------|
| Multiple R-squared | 0.459 | Coefficient of Determination |
| Adjusted R-squared | 0.412 | Adjusted Coefficient of Determination |
| Residual Standard Error | 3.995 | Standard Deviation of Residuals |
| F-statistic | 9.885 | Overall Model Significance |
| p-value | <.001 | Significance Level |

commonly encountered insocial and psychological research—typically manifests when the p-value closely approaches .05, or when the confidence intervals (CI), such as those derived from bootstrapping, marginally cross or encompass zero (Olsson-collentine et al., 2019; Pritschet et al., 2016) The moderating effects of gender on perfectionism and self-regulation must be interpreted with caution due to the relatively high data variability within the sample.

The results indicate that academic stress is the sole significant predictor of procrastination in thesis completion. This finding aligns with the research of Eka et al. (2026) and Labiro et al. (2022), which identifies academic stress as a primary driver of procrastination. Muliani et al. (2020) further demonstrate that high stress levels diminish students' capacity for complex tasks and erode motivation, thereby increasing the likelihood of procrastination. Similarly, Frazier et al. (2019) show that stress impairs academic performance by disrupting cognitive functioning, self-regulation, and emotional well-being. Under such pressure, students tend to adopt avoidance strategies as a coping mechanism, manifesting in behaviors such as delaying consultations, data collection, and report writing. Furthermore, Deng et al. (2022) argue that academic stress contributes to increased depression, which subsequently impairs self-regulation and learning persistence.

Stress emerges when individuals perceive situational demands as exceeding their available resources, prompting avoidance-based coping to alleviate emotional tension in the short term (Knapp & Sweeny, 2022). This is consistent with Cognitive Load Theory in Evans et al. (2024), which posits that academic stress not only results from extraneous cognitive load but also exacerbates its impact by limiting cognitive engagement. Consequently, procrastination serves as a maladaptive response—not necessarily due to a lack of will, but as a temporary adaptive strategy to mitigate overwhelming psychological pressure. The fear of failing to meet expectations—both internal and external—often intensifies academic stress and perpetuates procrastination cycles. Therefore, interventions must simultaneously reduce stress and bolster individual coping resources (Alajaili & Barella, 2023). Approaches such as self-compassion have proven effective in reducing vulnerability to stress and procrastination (Alqahtani & Al-Momen, 2025; Sirois, 2023).

Perfectionism is found to have a bidirectional impact on procrastination, yielding both positive and negative effects (Sirois et al., 2017). The findings of this study demonstrate a significant gender disparity regarding the influence of perfectionism on academic procrastination. Regression analysis reveals that, among male students,

Table 3. Regression Coefficients and Interaction Effects

| No | Predictor Parameter | Unstandardized Coefficients (Original Model) | | | Standardized Coefficients (Bootstrap) | | | |
|----|--------------------------|--|-------|---------|---------------------------------------|--------|---------|------|
| | | B | SE | p-value | Beta (β) | CI_low | CI_high | p |
| 1 | (Intercept) | 0.196 | 0.102 | .056 | .210 | 0.030 | 0.401 | .028 |
| 2 | Academic Stress | 0.577 | 0.184 | .002 | .556 | 0.167 | 1.095 | .008 |
| 3 | Campus Service | 0.365 | 0.166 | .030 | .358 | -0.092 | 0.629 | .098 |
| 4 | Perfectionism | -0.439 | 0.206 | .036 | -.387 | -0.779 | 0.185 | .146 |
| 5 | Self-Regulation | -0.252 | 0.204 | .221 | -.264 | -0.703 | 0.598 | .296 |
| 6 | Gender | -0.242 | 0.110 | .030 | -.250 | -0.453 | -0.069 | .016 |
| 7 | Academic Stress × Gender | -0.317 | 0.208 | .131 | -.304 | -0.911 | 0.134 | .128 |
| 8 | Campus Service × Gender | -0.307 | 0.191 | .111 | -.291 | -0.642 | 0.160 | .190 |
| 9 | Perfectionism × Gender | 0.639 | 0.237 | .008 | .568 | 0.003 | 1.050 | .048 |
| 10 | Self-Regulation × Gender | -0.494 | 2.453 | .047 | -.468 | -1.270 | 0.038 | .068 |

perfectionism has a significant negative effect on procrastination. In this context, perfectionism functions as adaptive striving that mitigates procrastinatory behavior. This aligns with the findings of Kurtovic et al. (2019) and Akpur (2019), suggesting that high personal standards can be a primary motivator for students to complete tasks promptly and achieve optimal outcomes. Conversely, among female students (Group 2), there is a tendency toward maladaptive perfectionism. This suggests that for females, the pressure to produce a flawless undergraduate thesis creates psychological distress that triggers avoidance behaviors or procrastination, stemming from a heightened fear of failing to meet internalized high standards (Khadija & Azim, 2023; Smith et al., 2017).

The findings of this study demonstrate that gender marginally significantly moderates the relationship between self-regulation and academic procrastination. These results corroborate the findings of Haider et al. (2022) and Jan & Parveen (2025), which identify gender as a pivotal moderator of the self-regulatory processes that influence student procrastination. In the present study, the impact of self-regulation on mitigating procrastination was considerably more pronounced among female students ($B = -0.494$). This suggests that female students tend to rely more heavily on internal control mechanisms and self-discipline to navigate academic hurdles. In contrast, for male students, self-regulation does not emerge as the dominant singular predictor of procrastinatory behavior.

This finding extends previous research in Indonesian Islamic higher education, which showed that emotion regulation and self-efficacy were related to students' academic procrastination during thesis completion but did not fully explain the issue (Wulandari et al., 2025). The present study adds that academic stress may function as a central psychological mechanism in thesis procrastination.

While traditional interventions often focus on study skills, this study emphasizes the need for comprehensive psychological support, including stress management and mental health enhancement (Salguero-Pazos & Reyes-de-Cózar, 2023). Evidence suggests that Solution-Focused Brief Counseling (SFBC) and Motivational Interviewing are effective in reducing stress and procrastination (Ardi et al., 2022; Sulistiyana et al., 2022). However, this study suggests that efforts are most effective when addressing the structural sources of academic stress within the thesis completion process itself. Interventions should shift from purely individual self-regulation to reducing

structural academic stressors, such as clarifying supervision workflows, ensuring consistent consultation schedules, and maintaining transparency in assessment standards.

Based on these findings, higher education institutions should move beyond generic academic support and implement gender-aware intervention strategies. This view is consistent with Surur et al. (2023), who emphasized that well-managed academic resources can reduce students' academic stress when systematically designed to support learning. For female students, counseling and mentorship should prioritize mitigating maladaptive perfectionism by fostering self-compassion and strengthening internal self-regulatory mechanisms. Conversely, for the broader student body, the perceived paradox in which high institutional support coexists with high procrastination rates suggests that campus services must be balanced by clear structural accountability. Furthermore, these results underscore that while external environmental influences such as campus services do not directly predict procrastination, their impact is bounded by internal factors, emphasizing that the primary determinants remain the student's internal psychological states.

Universities should not only provide resources but also implement structured milestones, such as transparent supervision timelines and mandatory progress check-ins, to prevent the 'safety net' effect. Ultimately, reducing academic procrastination requires a dual approach: deconstructing structural stressors within the thesis process while simultaneously empowering students' internal psychological resilience through targeted mental health support.

■ CONCLUSION

This study provides a nuanced understanding of the determinants of academic procrastination during the thesis completion phase, emphasizing that institutional support is insufficient without robust internal psychological mechanisms. The results conclude that academic stress is the primary driver of procrastination, reinforcing the view that the thesis process is a high-pressure endeavor that frequently triggers avoidance-based coping mechanisms.

Academic procrastination in thesis completion is a complex behavioral phenomenon that cannot be attributed solely to time-management deficits or direct environmental factors. Rather, procrastination operates as a situational emotional response and a maladaptive coping mechanism triggered by chronic academic stress. While theoretical

models suggest that external campus services and institutional support play a baseline role in student success, their direct influence on mitigating procrastination vanishes when evaluated simultaneously under a rigorous bootstrapping framework. Instead, the effects of these environmental variables are bounded and mediated by internal psychological states and gender-specific mechanisms.

Notably, gender functions as a critical boundary condition in this dynamic. Perfectionism serves as an adaptive, motivational driver for male students, whereas it becomes a paralyzing, maladaptive trait driven by fear of failure among female students. Additionally, self-regulation remains a more pronounced internal defense against procrastination for females than for males.

Ultimately, addressing academic procrastination requires more than pedagogical skill-building; it demands a holistic approach that includes structural reforms in supervision to reduce stress and gender-aware psychological interventions. By fostering environmental transparency and individual resilience, higher education institutions can effectively support students in overcoming procrastination and ensuring timely academic progression.

Despite its contributions, this study has several limitations that should be acknowledged. First, the sample size of 115 respondents, while statistically sufficient for the analysis employed, is relatively small and limited to a specific university context, which may affect the generalizability of the findings to a broader student population across different regions or types of institutions. Second, the use of self-reported measures to assess procrastination and psychological traits may introduce social desirability bias, where students might underreport their procrastination levels. Third, the cross-sectional nature of the data limits the ability to draw definitive causal inferences; hence, longitudinal studies would be beneficial to observe how the perceived "safety-net paradox" of campus services evolves over the entire duration of the thesis process.

■ **DECLARATION OF GENERATIVE AI USAGE IN THE WRITING PROCESS**

During the writing of this manuscript, the authors employed Gemini AI and ChatGPT to assist with extensive language refinement and grammatical proofreading. The authors have reviewed and edited the content generated by these tools and assume full responsibility for

the academic integrity and final content of the published article.

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