



## Regular article

# The Effect of Study Balance, Career Balance, and Personal Life Balance on Academic Achievement in Master's and Doctoral Program Students of FEB USU is Mediated by Academic Motivation Plantation

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## ARTICLE INFO

*Article history:*

Received 17 March 2026

Accepted 23 April 2026

Available online 28 April 2026

*Keywords:*

Study Balance

Career Balance

Personal Life Balance

Academic Motivation

Academic Achievement

## ABSTRACT

This study aims to analyze the influence of study balance, career balance, and personal life balance on academic achievement in married Master's and Doctoral Program students of the Faculty of Economics and Business, University of North Sumatra (FEB USU), with academic motivation as a mediating variable. The research population is all students of the Master of Management Science Program FEB USU in 2025, which totals 349 students. This study is focused on 141 married students with a sampling technique using total sampling. The research method used is a quantitative approach with the type of associative research. Data were collected through questionnaire distribution and analyzed using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method. The results of the study showed that study balance had a positive but not significant effect on academic achievement. On the other hand, career balance and personal life balance have a positive and significant effect on academic achievement. These three dimensions of balance have also been shown to have a positive and significant effect on academic motivation. Academic motivation then has a positive and significant effect on academic achievement and is able to mediate the influence of study balance, career balance, and personal life balance on academic achievement. Academic motivation fully mediates the influence of study balance on academic achievement because its direct influence is not significant, but becomes significant through indirect channels.

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## Introduction

Entering the modern era, married graduate students face unique challenges in managing various dimensions of their lives. They must balance academic demands, professional career responsibilities, and the needs of personal and family life. Previous studies have shown that imbalances in these three aspects can negatively impact academic achievement. Therefore, this study aims to analyze the influence of study balance, career balance, and personal life balance on academic

achievement, with academic motivation as a mediating variable.

## Method

*Research Design*

This study uses a quantitative approach with the type of associative research to identify the relationship between independent variables (study balance, career balance, personal life balance), mediating variables (academic motivation), and dependent variables (academic achievement).

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Population and Sample

The research population is all students of the Master of Management Science Program FEB USU in 2025, which totals 349 students. This study focused on 141 married students using total sampling techniques. This was chosen because the number of married students is limited, and to obtain more comprehensive data.

Data Collection

Data was collected through the distribution of online and offline questionnaires to respondents over three months. The questionnaire was designed using a Likert scale of 1-5 for all research variables. The validity

and reliability test was carried out first before the distribution of the questionnaire to all respondents.

Data Analysis

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. Model evaluation includes the outer model (validity and reliability), the inner model (path coefficient), and hypothesis testing. Mediation analysis was conducted to test the indirect influence of academic motivation on academic achievement.

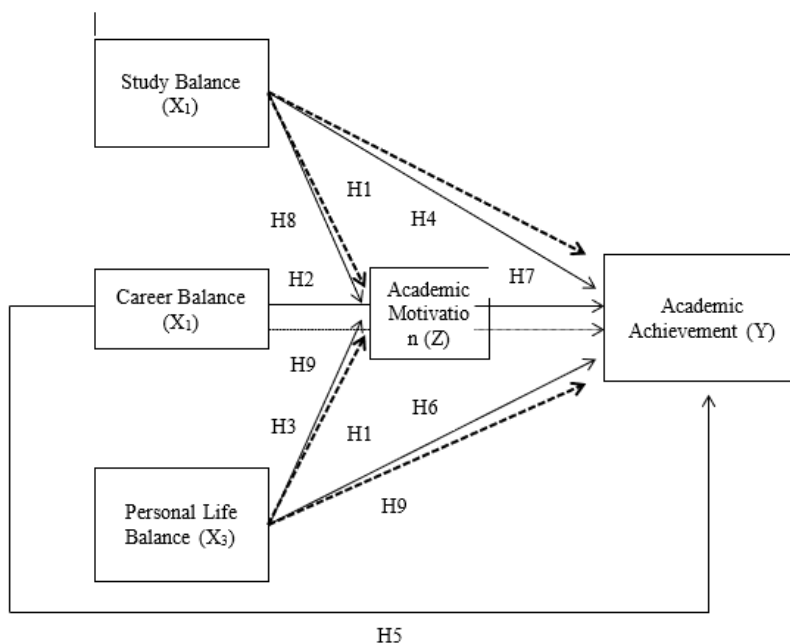


Figure 1 Conceptual framework

Results

Respondent Characteristics

The majority of respondents were women (62%), private employees (55%), aged 26-35 years (71%), and on average they had been married for more than 3 years (64%). This distribution shows that respondents have considerable experience in balancing academic, career, and family life.

Descriptive Analysis

The results of the descriptive analysis show the statistics of each research variable:

Table 1. Descriptive Analysis

Variable	Red (SD)	Range
Study Balance	3.82 (0.675)	1-5
Career Balance	3.91 (0.642)	1-5
Personal Life Balance	3.76 (0.658)	1-5
Academic Motivation	4.02 (0.681)	1-5
Academic Achievement	3.89 (0.574)	1-5

Table 1 shows that career balance has the highest average score (3.91), followed by study balance (3.82) and personal life balance (3.76). Academic motivation achieved an average score of 4.02, which is quite high, while academic achievement scored 3.89. All variables showed varying standard deviations, indicating that there was considerable variation in respondents' perceptions of each variable.

Evaluation of Measurement Models (Outer Model)

An evaluation of the outer model was conducted to assess the construct's validity and internal consistency reliability. The test results showed that all indicators had a loading factor value above 0.70 and an Average Variance Extracted (AVE) value above 0.50, indicating good convergent validity. The Composite Reliability (CR) value of all constructs is above 0.80, and Cronbach's Alpha value is above 0.70, indicating satisfactory internal reliability.

Table 2. Outer Model

Construct	CR	AVE	Cronbach's $\alpha$
Study Balance	0.872	0.625	0.827
Career Balance	0.885	0.659	0.842
Personal Life Balance	0.879	0.648	0.835
Academic Motivation	0.901	0.705	0.861
Academic Achievement	0.867	0.617	0.820

#### Structural Model Evaluation (Inner Model) and Hypothesis Test

The internal evaluation of the model tested the influence of variables using the path coefficient and significance value. The test results showed a determination coefficient ( $R^2$ ) of academic achievement of 0.582, which means that study balance, career balance, personal life balance, and academic motivation were able to explain 58.2% of the variation in academic achievement, while the remaining 41.8% were influenced by other factors.

Table 3. Hypothesis Testing Results

Hypothesis	Pathway	Coefficient	t-statistics	Sig.
H1	Balance of Study → Academic Achievement	0.128	1.245	No, Sig.
H2	Career Balance → Academic Achievement	0.289	2.856	Sig.**
H3	Balance of Personal Life → Academic Achievement	0.267	2.512	Sig.*
H4	Balance of Study → Academic Motivation	0.324	3.125	Sig.**
H5	Career Balance → Academic Motivation	0.315	3.045	Sig.**
H6	Personal Life Balance → Academic Motivation	0.302	2.876	Sig.**
H7	Academic Motivation → Academic Achievement	0.294	2.954	Sig.**

\*\*  $p < 0.01$ ; \*  $p < 0.05$ ; No Sig. = insignificant

## Discussion

### The Effect of Study Balance on Academic Achievement

The results showed that the balance of study had a positive but insignificant effect on academic achievement ( $\beta = 0.128$ ,  $t = 1.245$ ,  $p > 0.05$ ). This means that while there is a positive relationship between study balance and academic achievement, this influence is not strong

enough to produce a statistically significant difference. These findings indicate that in the context of married graduate students, study balance factors alone may not be enough to improve academic achievement without being supported by other factors. However, when mediated by academic motivation, this influence becomes significant, which will be further explained in the analysis of the effects of mediation.

### The Effect of Career Balance on Academic Achievement

The results showed that career balance had a positive and significant effect on academic achievement ( $\beta = 0.289$ ,  $t = 2.856$ ,  $p < 0.01$ ). This means that the better students can balance the demands of their career with the demands of academics, the higher their academic achievement will be. A positive coefficient of 0.289 indicates that every one-unit increase in career balance will increase academic achievement by 0.289 units. These findings are consistent with previous theories and research that show that the ability to balance dual roles (as students and professionals) allows individuals to manage time and energy more efficiently, thus being able to give enough attention to achieve good academic performance. Mature work experience can also provide a broader perspective in understanding the lecture material and applying it in a practical context.

### The Effect of Personal Life Balance on Academic Achievement

The results showed that personal life balance had a positive and significant effect on academic achievement ( $\beta = 0.267$ ,  $t = 2.512$ ,  $p < 0.05$ ). This means that students' ability to balance personal and family life with academic demands has a significant impact on their academic achievement. A coefficient of 0.267 indicates that every one-unit increase in personal life balance will increase academic achievement by 0.267 units. These findings indicate that when students are able to manage their personal and family lives well – such as having quality time with family, managing stress, and maintaining mental health – they will have better energy and focus on learning. Strong family support and healthy personal relationships create an environment that supports academic achievement. Conversely, conflicts between family and academic demands can reduce concentration and motivation in studies, thereby lowering academic achievement.

### The Influence of Balance on Academic Motivation

Research shows that all three dimensions of balance – study balance ( $\beta = 0.324$ ,  $p < 0.01$ ), career balance ( $\beta = 0.315$ ,  $p < 0.01$ ), and personal life balance ( $\beta = 0.302$ ,  $p < 0.01$ ) – all have a positive and significant effect on academic motivation. This indicates that when students can balance various aspects of their lives well, their level of motivation to study will increase. Study balance had the strongest influence (0.324) on academic motivation, followed by career balance (0.315) and personal life balance (0.302). Psychologically, when individuals feel able to manage demands in various domains of life without feeling overwhelmed, they will develop a higher sense of control and self-efficacy. This condition

encourages intrinsic motivation to achieve academic goals. Conversely, imbalance can lead to stress, fatigue, and feelings of helplessness, which directly reduce motivation to learn. Thus, life balance is an important prerequisite for developing strong academic motivation.

#### *The Effect of Academic Motivation on Academic Achievement*

The results showed that academic motivation had a positive and significant effect on academic achievement ( $\beta = 0.294$ ,  $t = 2.954$ ,  $p < 0.01$ ). This means that the higher the academic motivation of students, the higher their academic achievements. A coefficient of 0.294 indicates that every one-unit increase in academic motivation will increase academic achievement by 0.294 units. These findings are in line with motivation theory, which emphasizes that motivation is a major driver in learning and academic achievement. Students with high academic motivation will be more enthusiastic in attending lectures, more diligent in doing assignments, and more active in the learning process. They tend to set clear academic goals, use effective study strategies, and endure learning difficulties. Intrinsic motivation, in particular, encourages students to learn out of a passion for science, not just to earn grades or degrees. Thus, high academic motivation is the key to achieving optimal academic achievement.

#### *Mediation Effect Analysis*

To test the mediation effect, an indirect effect analysis approach was used using bootstrapping with 5000 resamples. The results of the analysis show that academic motivation significantly mediates the influence of the three dimensions of balance on academic achievement. Here is a detailed explanation for each mediation path:

Table 4. Mediating Effect Analysis

Mediation Pathway	Indirect Effect	t-Statistics	Conclusion
Case. Study → Mot. Academic → Pres. Academic	0.095	2.156	Full Mediation
Case. Career → Mot. Academic → Pres. Academic	0.093	2.284	Partial Mediation
Case. Personal Life → Mot. Academic → Pres. Academic	0.089	2.045	Partial Mediation

The results of the analysis showed that academic motivation mediated the influence of study balance on full academic achievement. This means that the influence of study balance on academic achievement is entirely through academic motivation. In other words, study balance does not have a significant direct influence on academic achievement, but it does have a significant effect when mediated by academic motivation. On the other hand, academic motivation mediates the

influence of career balance and personal life balance partially (partial mediation). This indicates that both variables have a significant direct influence on academic achievement, but the influence is strengthened or strengthened again through the mediation pathway of academic motivation.

Overall, the results of this mediation analysis show that academic motivation plays an important role as a mechanism that links life balance to academic achievement. Students who can balance different aspects of their lives will develop higher academic motivation, which in turn will improve their academic achievement. This finding provides important implications that efforts to improve academic achievement should focus not only on increasing motivation directly, but also on creating conditions that allow students to achieve a better life balance.

#### **Conclusion**

This study provides strong empirical evidence that life balance (in the dimensions of study, career, and personal) has a significant influence on the academic achievement of FEB USU Master's Program students, both directly and indirectly through academic motivation. Specifically, career balance and personal life balance have a significant direct influence on academic achievement, while study balance shows an influence that is mediated entirely by academic motivation. Academic motivation has proven to be a powerful mediator in connecting life balance with academic achievement. The practical implication of this research is that universities need to develop comprehensive programs that support graduate students in achieving a healthy life balance. Such programs may include: (1) effective time management training; (2) counseling and mentoring to help students manage stress and role conflicts; (3) flexibility in lecture and assessment schedules to accommodate career and family responsibilities; and (4) academic motivation-strengthening programs through peer mentoring tutorials and study groups. In addition, further research is recommended to explore other factors that may affect academic achievement, such as teaching quality, learning environment, and institutional support. Longitudinal research can also provide insight into how changes in life balance affect changes in academic achievement over time.

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