



# Unveiling the Factors Impacting Student Study Completion: Insights from the Simple Multi-Attribute Rating Technique Exploiting Rank Method

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## ARTICLE INFO

### Article history:

Received August 03, 2024

Accepted October 11, 2024

Available online October 25, 2024

### Kata Kunci:

Penyelesaian Studi, Metode SMARTER, Pendidikan Tinggi, Faktor Internal, Dukungan Institusional

### Keywords:

Study Completion, SMARTER Method, Higher Education, Internal Factors, Institutional Support



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## ABSTRAK

Penelitian ini dilatarbelakangi oleh permasalahan tingginya jumlah mahasiswa program magister di pendidikan tinggi yang mengalami kendala dalam menyelesaikan studi tepat waktu. Fenomena ini tidak hanya berdampak pada individu mahasiswa, tetapi juga memengaruhi efisiensi manajemen institusi pendidikan tinggi secara keseluruhan. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang memengaruhi penyelesaian studi. Penelitian ini menggunakan pendekatan kuantitatif, penelitian ini menerapkan metode SMARTER (Simple Multi-Attribute Rating Technique Exploiting Rank). Faktor internal seperti kompetensi, motivasi belajar, kecerdasan, sikap, dan bakat, serta faktor eksternal seperti dukungan keluarga dan layanan institusi, dievaluasi melalui data kuesioner dan diberi bobot menggunakan teknik Rank Order Centroid (ROC). Temuan penelitian menunjukkan bahwa sikap (terutama inisiatif untuk belajar mandiri) merupakan faktor internal yang paling berpengaruh, sementara faktor institusional seperti layanan perkuliahan dan pembimbingan tesis juga berdampak signifikan pada tingkat penyelesaian studi. Penelitian ini menyimpulkan bahwa penguatan karakter pribadi, seperti inisiatif belajar mandiri, dan penguatan sistem dukungan institusional, termasuk layanan pembimbingan yang efektif, sangat penting untuk mengurangi durasi studi. Hasil penelitian ini memberikan kontribusi praktis dalam merancang intervensi strategis untuk meningkatkan keberhasilan mahasiswa dan mengoptimalkan manajemen program akademik di pendidikan tinggi.

## ABSTRACT

This study is motivated by the prevalent issue of a high number of postgraduate students in higher education struggling to complete their studies on time. This phenomenon not only impacts individual students but also affects the overall efficiency of institutional management in higher education. The study aims to analyze the factors influencing study completion. Employing a quantitative approach, this research applies the SMARTER (Simple Multi-Attribute Rating Technique Exploiting Rank) method. Internal factors, including competence, learning motivation, intelligence, attitude, and aptitude, as well as external factors such as family support and institutional services, were assessed through questionnaire data and weighted using the Rank Order Centroid (ROC) technique. The findings reveal that attitude (particularly the initiative for independent learning) is the most influential internal factor, while institutional factors such as coursework services and thesis supervision significantly impact study completion rates. The study concludes that strengthening personal attributes, such as the initiative for self-directed learning, and enhancing institutional support systems, including effective supervisory services, are critical in reducing study duration. These findings provide practical contributions for designing strategic interventions to improve student success and optimize academic program management in higher education.

## 1. INTRODUCTION

Higher education plays a crucial role in Indonesia's national education system. It enhances the nation's intellectual life, advances science and technology while integrating the humanities, and fosters sustainable development and empowerment of the Indonesian people (Cahyadi et al., 2021; Sutrisno, 2019).

Universities are expected to produce graduates who complete their studies within stipulated time frames, contributing to national advancement and meeting international standards of educational excellence. Accredited study programs with excellent ratings significantly enhance a university's reputation and attract prospective students (Ayubayeva et al., 2023; Suwardi & Kurniawan, 2020). Many are willing to invest more in programs with high accreditation, viewing it as a testament to quality. A key indicator for achieving such accreditation is the average duration of student studies. According to the Criteria and Procedures for Higher Education Accreditation by BAN-PT (2019), specifically under Section 2.3.9 on Outcomes, the average study duration over the past three years is critical for programs aiming for excellent accreditation status. Average study duration is a more crucial indicator than students' average GPA (Meyer & Thomsen, 2018; Yuyun, 2019). Further emphasize that shorter study durations reflect better program performance within a university.

However, the reality at Universitas Negeri Surabaya (Unesa) and Universitas Negeri Yogyakarta (UNY) deviates from these ideals. At Unesa, the Master's Program in Educational Management has an average study duration of 2.7 years, with only 38% of the 2019–2020 cohort completing their degrees within the ideal two-year timeframe. UNY faces a similar situation, with an average completion time of 2.81 years. These figures fall short of the targets set by accreditation bodies like BAN-PT, which emphasize timely completion as a critical performance indicator (Ruhana & Sulandjari, 2023; Sutrisno, 2019). While students at both institutions maintain commendable GPAs of  $\geq 3.50$ , strong academic performance doesn't offset the challenges posed by extended completion times. Prolonged study durations can lead to administrative backlogs, lower student throughput rates, and potentially deter prospective students who prioritize efficient program completion (Malhotra & Garcia, 2024; Prasetyo et al., 2022). Completing studies within or ahead of the set timeframe is seen as an academic achievement that positively reflects a program's effectiveness (Bal-Taştan et al., 2018; Lastri et al., 2020).

The gap between the ideal and actual study durations arises from various internal and external factors affecting students, supervisors, and institutional systems. These factors are categorized into internal and external (Mohammadi & Sharififar, 2016; Putri & Savira, 2013). Internally, students often struggle with thesis completion challenges like difficulties in topic selection, literature reviews, and maintaining momentum during writing (Putri & Savira, 2013; Usman & Hamid, 2022). Other internal factors include academic ability, writing skills, confidence levels, ability to handle feedback, and gender differences. These complexities can significantly extend completion times (DeLoach et al., 2021; Sutrisno, 2019). Confidence and motivation are critical; many students experience self-doubt and low confidence in handling demanding academic work, further delaying progress (Cahyadi et al., 2021; Gold & Gold, 2024). Time management issues are also prevalent, especially for those balancing studies with work (Aeon & Aguinis, 2017; Dewanti & Pramono, 2023). Personal factors related to students play a role as well (Felinto de Farias Aires et al., 2018; Huang et al., 2024).

External factors include the quality of supervisory guidance and the research environment (Sakurai et al., 2012; Zaaba et al., 2015). Institutional factors like organizational structure, resource availability, and administrative support significantly affect timely study completion (Harun et al., 2020; Rafiola et al., 2020). Access to research facilities—such as libraries and digital platforms—is crucial; institutions lacking adequate support often see prolonged durations (Dinsa et al., 2022; Hasanudin et al., 2022). Supervisory management factors are also important (Kjellstrand et al., 2021; Sulaiman et al., 2020; Zaaba et al., 2015). Administrative hurdles, including bureaucratic inefficiencies and unclear thesis submission procedures, can delay progress (Kosch et al., 2023; Pranitasari & Maulana, 2022). Moreover, institutions that provide a supportive environment—with psychological support and stress management programs—tend to have better student outcomes (García-Martínez et al., 2021; Sutrisno, 2019). E-learning readiness is another aspect; online courses can help students who are working while studying, but effectiveness depends on technology and staff readiness (Cahyadi et al., 2021; García-Martínez et al., 2021). Effective leadership and governance are essential for implementing policies and ensuring faculty and staff adhere to student-centric standards (Suyanto et al., 2021; William et al., 2022).

Another external factor is the workload of Indonesian lecturers, who often juggle teaching, research, administrative duties, and thesis supervision. This heavy workload affects their ability to build effective relationships with supervisees (Sakurai et al., 2012; Zaaba et al., 2015). Limited availability can lead to delays in providing timely feedback, extending students' study durations (Ahmed & Opoku, 2022; Oliveira et al., 2021). Administrative demands like accreditation reports consume significant time (Rawashdeh et al., 2021; Suyantiningasih et al., 2023). Lecturers may also experience mental and emotional strain, especially women balancing professional and domestic roles, which can reduce the quality of supervision (Harahap, 2021; Sutrisno, 2019). Limited supervisory resources exacerbate the issue, as supervisors may not be well-matched with students' research topics, making guidance more challenging and delaying thesis completion (Chang et al., 2022; Qureshi et al., 2023). Overburdened supervisors might

adopt hierarchical relationships rather than collaborative ones, leading to less engagement with students. Reports indicate that supervisors are less approachable when handling heavy workloads (Qureshi et al., 2023).

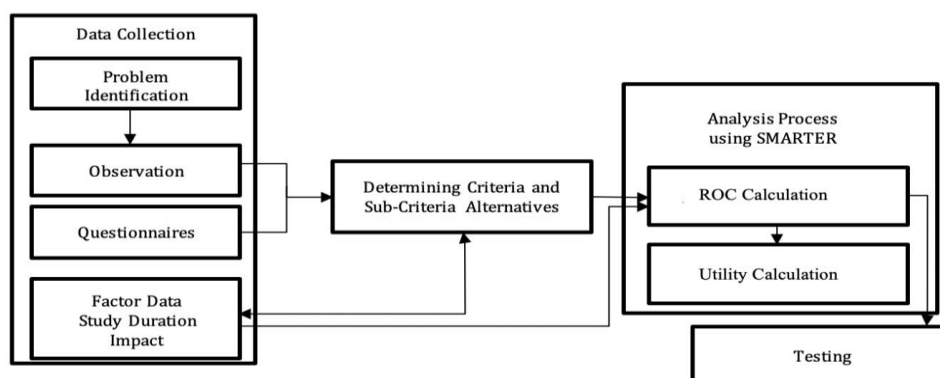
Given these factors affecting study duration, it's essential to conduct an in-depth analysis to identify the dominant issues influencing both programs and develop strategic measures to address them. Understanding these factors is crucial for creating interventions aimed at reducing average study durations, thereby enhancing program performance and accreditation outcomes. Aligning actual conditions with ideal expectations can improve accreditation status and attract more prospective students. Based on this context, this study aims to analyze the factors influencing the study completion of master's students in Educational Management at Universitas Negeri Surabaya and Universitas Negeri Yogyakarta. The novelty of this study seek to identify the dominant factors contributing to prolonged study durations and propose strategies to address these issues, ultimately improving the programs' effectiveness and accreditation outcomes.

## 2. METHOD

This study employed the SMARTER (Simple Multi-Attribute Rating Technique Exploiting Rank) method within a quantitative research framework using survey techniques (Tangkesalu & Suseno, 2018). The SMARTER method is a decision support model that utilizes various criteria and is widely applied to solve problems in decision-making processes. It is an extension of the SMART (Simple Multi-Attribute Rating Technique) approach, with a key development in the weighting of criteria based on the Rank Order Centroid (ROC) technique. In the SMART method, weights are assigned directly by the decision-maker, which can sometimes result in disproportional weighting where each assigned weight may not accurately reflect the distance and priority among the criteria. To address this issue, the SMARTER method incorporates ROC-based weighting, which assigns weights to each criterion according to their ranked levels, ensuring proportionality and consistency with the evaluated ranks.

Data were collected using questionnaires distributed to students of the Master's Program in Educational Management at Unesa and UNY, with measurements conducted using a Likert scale. The questionnaires were adapted and modified from the study by (Tangkesalu & Suseno, 2018). The factors considered to influence the duration of study were identified from credible research literature published within the last ten years. The data analysis involved selecting and organizing the data obtained from the initial raw data collected through the questionnaires. The identified criteria were then processed using the Rank Order Centroid (ROC) calculations.

The data calculations were performed using the SMARTER method, which involved several steps. First, identifying the Problem, Understanding the factors contributing to the duration of study completion. Second, Establishing the specific criteria and sub-criteria that influence study duration based on literature and expert opinions. Third, ranking each criterion and sub-criterion using ROC, assigning ranks to each criterion and sub-criterion to reflect their relative importance accurately. Lastly, using the ROC technique to calculate precise weights for each criterion and sub-criterion based on their ranks. Figure 1 illustrates the stages of the research process, including data collection through problem identification, observation, and questionnaires. The identified factors influencing study duration are processed by determining criteria and sub-criteria alternatives, followed by the analysis process using the SMARTER method, incorporating Rank Order Centroid (ROC) calculations and utility evaluations, culminating in testing to validate results.



**Figure 1.** Research Methodology Flowchart Depicting Data Collection, Criteria Determination, and Analysis Using the SMARTER Method with ROC and Utility Calculations

### 3. RESULT AND DISCUSSION

#### Result

The factors influencing the duration of students' studies were identified from various journal literature sources. There are two main factors affecting the length of study: internal and external factors. Internal factors include (1) competence, (2) learning motivation, (3) intelligence, (4) attitude, and (5) talent. External factors consist of (1) family influence and (2) institutional factors. The detailed criteria for each factor are presented in [Table 1](#).

**Table 1. Key Factors Affecting Student Study Duration**

No	Major Factor	Criterion
<b>Internal Factor</b>		
1	Competence	A. Ability to complete coursework and assignments B. Ability to interpret course outcomes C. Integrity in completing assignments and coursework
2	Learning motivation	A. Motivation to complete the thesis B. Influence of alumni on learning motivation
3	Intelligence	A. Ability to understand lecture materials presented by lecturers B. Ability to comprehend the thesis supervision process C. Ability to select a thesis title D. Understanding of the scope of the thesis being undertaken E. Ability to search for literature
4	Attitude	A. Initiative for independent learning B. Initiative to enrich course references C. Ability to create a study schedule D. Ability to consistently complete the thesis E. Time management skills
5	Aptitude	A. Mastery of preliminary knowledge in Educational Management B. Research experience C. Ability to formulate the focus/problem statement D. Quality of research experience
<b>External Factor</b>		
1	Family	A. Family economic condition B. Parents' educational background C. Family support
2	Institutional	A. Information and academic consultation services B. Academic administrative services C. Course services D. Final project supervision services

The analysis process of the key factors influencing the duration of students' studies began with the development of a list of criteria and sub-criteria, which were then used to create a questionnaire distributed to respondents. The respondents consisted of students from Universitas Negeri Surabaya and Universitas Negeri Yogyakarta from the 2020–2022 cohorts, with the questionnaires distributed randomly. The questionnaire was completed by 84 respondents using the scale: SS = Strongly Agree, S = Agree, C = Neutral, TS = Disagree, STS = Strongly Disagree. This stage involves ranking the position of each criterion and sub-criterion. Rankings based on the level of importance were determined by calculating the score for each response and then multiplying it by the number of respondents for each criterion. The calculations are presented in [Table 2](#).

**Table 2. Scoring Calculation of Respondents' Answers**

Classification	Number of Respondents	Total
Number of Strongly Agree Answers	n subject	nx5
Number of Agree Answers	n subject	nx4
Number of Moderate Answers	n subject	nx3
Number of Disagree Answers	n subject	nx2
Number of Strongly Disagree Answers	n subject	nx1

The scoring results of respondents' answers regarding the main factors and criteria influencing the study duration are shown in Table 3. From these tables, the importance level of each criterion within the main factors can be determined.

**Table 3. Questionnaire Results After Scoring**

Major Factor	Respondents					Score	Level of Importance
	SS	S	C	TS	TSS		
Competence	295	544	165	4	0	1008	5
Learning motivation	310	288	69	16	3	686	7
Intelligence	290	760	342	86	15	1493	2
Attitude	315	792	381	54	5	1547	1
Aptitude	135	520	405	82	3	1145	3
Family	20	300	315	122	7	764	6
Institution	145	480	441	72	4	1142	4

Based on the survey scoring results show in Table 3, the factor with the highest importance level is attitude, followed sequentially by intelligence, aptitude, institutional factors, competence, family, and learning motivation. Each factor was then analyzed according to the importance level of its respective sub-criteria. The Rank Order Centroid (ROC) method was used to perform the weighting calculations for criteria and sub-criteria. The ROC calculation is based on the most important need within the existing criteria or sub-criteria. An illustrative example of ROC weighting is as follows: if there are two attributes, X and Y, where Y is ranked first, the weight assigned falls between 0.5 and 1, with the midpoint of the interval being 0.75. This value is taken as the estimated weight, reflecting the principle of minimum commitment. The weight for Y would then be 0.25, derived from the midpoint of the interval from 0 to 0.5, which can be expressed as  $Cr_1 \geq Cr_2 \geq Cr_3 \geq \dots \geq Cr_k$ , and the weights follow a similar pattern:  $W_1 \geq W_2 \geq W_3 \geq \dots \geq W_k$ , where W represents the weights for criteria  $Cr_1$  to  $W_k$  for  $Cr_k$ . The ROC weighting results for the main factors, criteria, and sub-criteria are shown in Tables 4.

**Table 4. Weight Calculation Results on Main Factors**

Main Factor	Rank	ROC	Weight Calculation
Attitude	1	$(1+1/2+1/3+1/4+1/5+1/6+1/7)/7$	0.37
Intelligence	2	$(1/2+1/3+1/4+1/5+1/6+1/7)/7$	0.23
Aptitude	3	$(1/3+1/4+1/5+1/6+1/7)/7$	0.16
Institution	4	$(1/4+1/5+1/6+1/7)/7$	0.11
Competence	5	$(1/5+1/6+1/7)/7$	0.07
Family	6	$(1/6+1/7)/7$	0.04
Learning Motivation	7	$(1/7)/7$	0.02

The ROC weighting results for the main factors, criteria, and sub-criteria presented in Tables 4 are used as weights to multiply the scores for each criterion. The next step is to normalize the values obtained from the sub-criteria scores calculated with ROC. The sub-criteria values for each criterion are equal, resulting in the same ROC value for each sub-criterion. The normalization results for criteria A – Q are SS = 0.46; S = 0.26; C = 0.16; TS = 0.09; STS = 0.04. The following stage involves converting the data into utility values by multiplying the ROC values of the criteria with those of the sub-criteria. The final value is obtained by summing the total values of each criterion, which serves as a reference for identifying factors influencing the study duration of students. The detailed results can be seen in Table 5.

**Table 5. Alternative Transformation Results Based on ROC Values for Sub-Criteria**

Respondents	Criterion							
	A	B	C	D	E	F	∕	Z
1	0.26	0.16	0.26	0.46	0.46	0.26	∕	0.46
2	0.26	0.16	0.26	0.46	0.26	0.26	∕	0.26
3	0.16	0.16	0.09	0.16	0.16	0.16	∕	0.46
4	0.26	0.46	0.46	0.26	0.46	0.26	∕	0.16
5	0.26	0.16	0.26	0.46	0.26	0.26	∕	0.16
∕	∕	∕	∕	∕	∕	∕	∕	∕
84	0.26	0.26	0.26	0.26	0.16	0.26	∕	0.09

From the transformation of the questionnaire responses, utility calculations were performed by multiplying the ROC results of the main factors. The utility calculations are detailed in Table 6, with the overall results provided in Table 7.

**Table 6. Utility Results**

Respondent	Criterion							
	A	B	C	D	E	F	✓	Z
1	0.0051	0.0012	0.0111	0.0069	0.0023	0.0273	✓	0.0032
2	0.0051	0.0012	0.0111	0.0069	0.0013	0.0273	✓	0.0018
3	0.0031	0.0012	0.0039	0.0024	0.0008	0.0168	✓	0.0032
4	0.0051	0.0036	0.0197	0.0039	0.0023	0.0273	✓	0.0011
5	0.0051	0.0012	0.0111	0.0069	0.0013	0.0273	✓	0.0011
✓	✓	✓	✓	✓	✓	✓	✓	✓
84	0.0051	0.0020	0.0111	0.0039	0.0008	0.0273	✓	0.0006

**Table 7. Overall Calculation and Ranking Results**

Major Factor	Criterion	Total	Total Criterion	Major Factor Ranks
Competence	Ability to complete assignments and coursework	0.475	1.713	5
	Ability to interpret lecture outcomes	0.172		
	Integrity in completing assignments and coursework	1.065		
Learning motivation	Enthusiasm for completing the thesis	0.410	0.532	7
	Role of alumni in enhancing learning motivation	0.122		
Intelligence	Ability to understand lecture material delivered by lecturers	2.514	5.016	2
	Ability to understand the thesis supervision process	1.378		
	Ability to determine the thesis title	0.139		
	Understanding of the scope of the thesis being conducted	0.443		
Attitude	Ability to search for literature	0.541	8.249	1
	Initiative for independent learning	4.135		
	Initiative to enrich lecture references	2.064		
	Ability to create a study schedule	1.117		
Aptitude	Ability to maintain consistency in thesis completion	0.264	3.185	3
	Time management skills	0.669		
	Mastery of foundational knowledge in Educational Management	0.823		
	Research experience	0.398		
Family	Ability to formulate research focus/problem statements	1.574	0.640	6
	Quality of research experience	0.389		
	Family support	0.424		
Institution	Family economic condition	0.053	2.057	4
	Family educational background	0.163		
	Information and academic consultation services	0.576		
	Academic administration services	0.300		
	Faculty services in lectures	1.081		
	Faculty services in thesis supervision	0.100		

Based on the results of the calculations conducted in this study as show in Table 7, the attitude factor has the highest utility value (8.249), followed by intelligence (5.016), aptitude (3.185), institutional

factors (2.057), competence, family, and learning motivation. The higher the total value, the stronger the factor supports students in completing their studies; conversely, a lower total value indicates a weaker supportive factor or a potential barrier to study completion.

## Discussion

The attitude factor holds the highest total value, indicating that most indicators within this factor significantly contribute to supporting study completion. Among the five indicators of the attitude factor, the dominant indicator is the initiative for independent learning, with the highest value of 4.135, suggesting that students at Unesa and UNY possess strong self-regulation skills, particularly in taking the initiative to learn during lectures. The lowest indicator is the ability to maintain consistency in completing the thesis, with a value of 0.264. This result suggests that students struggle to maintain consistency in completing their thesis on time. This analysis aligns with interviews conducted with several students from Unesa and UNY who have taken more than two years to complete their studies. Students reported that during the thesis phase, the guidance process largely depends on the individual. Different backgrounds in employment and institutions mean that thesis supervision is often not conducted in groups. This situation, according to students, lowers their motivation to maintain consistency in thesis completion. The findings reveal that students exhibit high enthusiasm during coursework but experience a decline in motivation during the thesis process.

The second highest factor is intelligence. Among the five indicators within the intelligence factor, the ability to understand lecture materials ranks the highest in supporting study completion, with a score of 2.514. The lowest score is the ability to determine a thesis title, with a value of 0.139, highlighting it as one of the factors hindering thesis completion. Next is the aptitude factor. Among its four indicators, the ability to formulate research focus or problem statements has the highest total score of 1.574, while the quality of research experience scores the lowest at 0.389. This factor indicates that prior research experience supports students in completing their thesis, particularly in data collection and subsequent analysis. Most students did not find formulating a research focus or problem statement to be a significant barrier. Following this is the institutional factor. Of its four indicators, faculty support during coursework does not appear to be a barrier, as indicated by the highest score of 1.081. In contrast, faculty support during thesis supervision emerges as a significant hindrance, with a score of 0.100. This finding suggests that improvements are needed not only in student-related factors but also in institutional factors, particularly in the role of faculty members in the thesis supervision process.

The next factor is competence, which consists of three indicators. The highest score was obtained by the indicator of integrity in completing assignments and coursework, with a value of 1.065. The lowest score was observed in the indicator of the ability to interpret lecture results, with a value of 0.172. This factor indicates that students generally do not encounter difficulties in completing coursework and have effectively managed to balance work and academic responsibilities. Observations based on ICT systems that record assignment submissions and grades, along with interviews with program administrators at both Unesa and UNY, show that students consistently submit coursework, although the quality of submissions varies. The sixth factor is family. All three indicators fall into the low category, with scores of 0.053 for family economic conditions, 0.163 for family educational background, and 0.424 for family support. Many students perceive economic conditions as a barrier to thesis completion, particularly since a significant portion of students are fresh graduates who decide to work, thereby delaying their study completion. However, family support emerged as the dominant indicator within this factor, suggesting that despite the low scores, enhancing family support is crucial for facilitating study completion. The seventh factor is learning motivation. The two indicators of learning motivation—enthusiasm for completing the thesis and the influence of successful alumni—significantly hinder students' study completion. The indicator of enthusiasm for thesis completion scored 0.410, the highest within the learning motivation factor but still within the low category. This low value may be attributed to students' reluctance to complete their theses due to various unidentified factors. The presence of successful alumni also received a low score of 0.122.

Overall, the analysis suggests that learning motivation is the most significant barrier to students completing their studies. Motivation is critical to educational success, serving as a core element of individual aspiration and achievement. Motivation acts as a driving force, enabling individuals to face challenging circumstances (Gopalan et al., 2017; Sujadi, 2021). There is a direct correlation between learning motivation and academic achievement; the higher the motivation, the greater the academic success (Bakhtiarvand et al., 2011; Rafiola et al., 2020). This study's findings, showing that students across both study programs at different universities have low learning motivation, highlight a significant issue that needs immediate attention. Low motivation indicates a lack of will or desire among students to complete their studies, particularly their final projects.

Low learning motivation, especially during the completion of final projects, can be partly caused by academic stress (Putra et al., 2023; Sujadi, 2021). Stress arises from various internal and external expectations. Generally, individuals are highly susceptible to issues related to academic stress, making it essential to understand its sources and impacts to develop adequate and efficient intervention strategies (Reddy et al., 2018; Sujadi, 2018). Other studies have noted that students experience varying levels of stress influenced by different environmental factors (Whiting et al., 2021). Further research indicates that students balancing work and study face unique challenges, such as limited time to study and academic procrastination (Arumsari & Muzaqi, 2016; Elma & Ali, 2017). Academic procrastination occurs when working students struggle to allocate time effectively between work and study. This finding aligns with interviews conducted with students, who reported difficulty balancing work and final project preparation. Most students prioritize work over completing their final projects, leading many to take more than two years to graduate.

Interviews also revealed that some students experience stress due to work-related pressures that must be urgently addressed. These issues are often compounded by other work-related challenges, causing students to become stressed when encountering even minor difficulties in their final projects. This finding aligns with similar research, which found that student stress negatively impacts academic performance, including timely graduation rates, which were notably low in the two programs studied (Altaf et al., 2013; Mendari & Kewal, 2016).

The results of this and related studies conclude that students who study while working face various demands and challenges that require them to meet multiple obligations simultaneously (Gaedke et al., 2012; Rajeev, 2014). Solutions to the issue of extended study periods can originate from both internal and external factors. Internal solutions involve student self-adjustment. Self-adjustment reflects an individual's ability to modify behavior to better harmonize with their social environment and handle life's pressures (Harahap, 2021; Zee, M., & Koomen, 2016). Successful self-adjustment occurs when individuals align their needs with environmental demands. Characteristics of well-adjusted individuals include: (1) not overexpressing emotions, (2) avoiding self-defense mechanisms that blame others, (3) not feeling frustrated, (4) being rational in self-direction, (5) a willingness to learn, (6) the ability to use past experiences to address current issues, and (7) the capacity to accept reality without creating new conflicts while objectively assessing problems.

To help students graduate on time, study programs can implement external solutions like specific actions or policies that boost learning motivation. One practical approach is the "One Week One Progress" program. This program tracks students' weekly progress on their final projects and motivates them by letting them see how their peers are advancing. The goal of this policy is to help students overcome the obstacles they face in completing their studies. This study offers valuable insights into the challenges graduate students face when trying to complete their degrees, especially those who are also working professionals. By examining both internal factors—like attitude, intelligence, aptitude, competence, and learning motivation—and external factors such as institutional support and family background, we've gained a comprehensive understanding of the obstacles to timely graduation. Identifying low learning motivation as the most significant barrier highlights the crucial role of intrinsic motivation in academic success (Chang et al., 2022; Tan et al., 2007). Additionally, the study sheds light on the unique difficulties that working students encounter, including academic stress and time management issues, addressing a notable gap in the literature about non-traditional students and their specific needs in higher education (Hughes et al., 2020; Pranasari & Maulana, 2022).

One of the strengths of this research is its thorough approach to exploring both the internal and external factors that affect students' ability to finish their studies on time. By combining quantitative data with qualitative insights from interviews, we've developed a nuanced understanding of the challenges faced by graduate students balancing work and academics (Dewanti & Pramono, 2023; Urbancová & Fajčíková, 2020). This perspective not only enriches discussions on student motivation and performance but also offers practical suggestions for educational institutions aiming to improve student support services. Using real-world data from Unesa and UNY adds credibility to our findings, making them valuable for policymakers and educators looking for evidence-based strategies to enhance student outcomes.

However, it's important to acknowledge some limitations of our study. Focusing on just two universities may limit the applicability of our findings to other institutions with different cultures, resources, or student demographics (Berestova et al., 2022; Ishiwata et al., 2023). Our sample might not fully capture the diverse experiences of all working students, which could introduce some bias. Also, relying on self-reported data from interviews and surveys can lead to issues like participants giving answers they think are expected rather than their true feelings (Roy & Saha, 2023; Wilkesmann, 2021). Since our study captures a single point in time, it doesn't account for changes in motivation or external circumstances that could affect students over the course of their studies.



For future research, it would be beneficial to expand the study to include more institutions and a broader range of student populations to make the findings more widely applicable. Longitudinal studies that track students over time could provide deeper insights into how motivation and external factors evolve and impact study completion (Koyuncuoglu, 2020; Lastris et al., 2020). Using mixed-methods research with a greater emphasis on objective measures—like academic performance records and observations—could help reduce biases from self-reported data. Exploring the effectiveness of specific interventions like the "One Week One Progress" program in different settings would also be valuable (Chang et al., 2022). Comparative studies examining various support strategies across institutions could identify the best practices for helping working students balance their professional and academic commitments.

Finally, our research has practical implications for educational institutions aiming to boost student success and improve graduation rates. By proposing initiatives like the "One Week One Progress" program, we aim to bridge the gap between theory and practice, contributing to educational management and policy development (Bashir & Gani, 2020; Wiyono & Wu, 2022). This program shows how institutions can create a supportive environment that enhances learning motivation and encourages consistent progress. Emphasizing both self-adjustment strategies for students and improved institutional support highlights the need for a holistic approach to address these challenges (Cho et al., 2021; Pranitasari & Maulana, 2022). The insights from Unesa and UNY offer valuable perspectives that could be applied to similar educational settings worldwide, enriching the conversation on effective methods to help students who are balancing work and study to graduate on time.

This study has several significant implications. First, the findings can assist educational institutions in designing policies that support students in completing their studies, such as academic counseling programs or emotional support services. Additionally, the Simple Multi-Attribute Rating Technique Exploiting Rank (SMARTER) method used in the research provides a systematic framework for evaluating factors influencing academic success objectively, which can be applied to improve evaluation systems. These findings are also valuable for educators in developing learning strategies tailored to students' needs. Educational institutions can leverage the results to enhance student well-being through mentoring programs, stress management initiatives, or improved academic facilities. Furthermore, this study offers a model that serves as a reference for future research, particularly in applying similar methods in various educational contexts.

However, this study also has several limitations. The generalizability of the findings may be restricted, as the analyzed data is derived from specific environments or institutions, which may not be applicable to other contexts. The SMARTER method also has limitations due to its reliance on the subjective assessments of respondents, which can affect the accuracy of the results. Moreover, the quality of the findings heavily depends on the representativeness of the respondent data; if the sample does not adequately represent the population, the results may lack validity. The study's focus on specific factors may overlook other potentially significant aspects. These findings suggest that addressing both personal and institutional factors is crucial for helping students complete their studies on time. Key strategies include fostering better self-management skills among students, enhancing the quality of academic guidance and supervision, and providing stronger institutional support. By focusing on these areas, universities can help reduce study duration, support student success, and improve program accreditation outcomes.

#### 4. CONCLUSION

This study shows that several internal and external factors significantly influence the time it takes for Master's students at Universitas Negeri Surabaya and Universitas Negeri Yogyakarta to complete their studies. Using the SMARTER method, the analysis identified attitude—especially students' initiative for independent learning—as the most influential factor in supporting timely study completion. Other important internal factors include intelligence and aptitude, while external factors such as the quality of lecture and final project supervision services also play a critical role. In contrast, low learning motivation and limited family support were found to hinder students' progress, leading to extended study durations.

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