

 Research Article

Aligning Academic Programs, Support, and Technology with First-Year Student Expectations: Determinants of Satisfaction

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Abstract

Student satisfaction during the first year of university plays a crucial role in shaping students' academic experiences, engagement, and decisions to persist in their studies. This study investigated the factors influencing first-year students' satisfaction at South East European University (SEEU), focusing on program alignment with student expectations, professional development opportunities, workload and class scheduling, and the use of digital learning technologies. A quantitative cross-sectional design was employed, and data were collected from 380 first-year undergraduate students across seven faculties using a structured online questionnaire. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among the study variables. The findings revealed that students generally reported high satisfaction with their chosen programs, particularly with instructor support, curriculum relevance, learning resources, and digital learning platforms. Among the factors examined, the alignment of academic programs with students' expectations and interests emerged as the strongest predictor of overall satisfaction. Students who perceived their programs as relevant to their personal and professional goals were significantly more satisfied with their university experience. In contrast, professional development opportunities, workload and class scheduling, and the use of digital technologies did not have significant direct effects on overall satisfaction. Furthermore, overall student satisfaction strongly influenced students' intention to continue in their chosen programs. The study highlights the importance of ensuring that academic programs reflect students' expectations, interests, and aspirations from the beginning of their university journey. These findings provide valuable insights for educators, curriculum developers, and university administrators seeking to improve student experiences, strengthen retention, and promote long-term academic success through student-centered educational practices.

Keywords: Student Satisfaction, Digital Learning, Curriculum Quality, Instructional Support, Workload Management, Higher Education

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1. INTRODUCTION

The alignment between academic programs and student expectations is widely recognized as a key determinant of student satisfaction, retention, and overall academic success (Tinto, 1993; Kuh et al., 2005). This is particularly salient for first-year students, whose initial experiences at university shape their motivation, engagement, and long-term commitment to their chosen field of study (Yorke & Longden, 2004). The transition from high school to higher education is often marked by uncertainty, as students must make informed choices among multiple academic programs and institutions, each offering distinct curricula, pedagogical approaches, and future career prospects. For many students entering the South East European University (SEEU), this decision is further influenced by the university's reputation, multilingual

environment, and regional prominence, with first-year satisfaction serving as a critical lens through which to assess both program effectiveness and institutional impact.

Universities that proactively design curricula aligned with both student interests and labor market needs are better positioned to ensure academic fulfillment and professional preparedness (Harvey, 2001; Biggs & Tang, 2011). Early alignment between student expectations and program content fosters intrinsic motivation, promotes engagement in learning activities, and reduces the risk of early attrition (Thomas, 2012; Richardson et al., 2012). Furthermore, integrating student perspectives into curriculum planning and quality assurance processes is increasingly recognized as a strategic approach to improving the student experience and achieving institutional goals (Harvey & Green, 1993; Kuh et al., 2011).

The South East European University (SEEU), located in North Macedonia, was established with a mission to provide high-quality, inclusive, and innovative education, preparing students to contribute meaningfully to their communities and the broader world. As a multilingual institution attracting students from diverse ethnic, cultural, and linguistic backgrounds, SEEU emphasizes the development of both academic competencies and digital literacy skills. This effort is supported by a robust portfolio of online student services, including e-learning platforms, digital libraries, and virtual academic advising. The campus infrastructure, comprising smart classrooms, collaborative workspaces, and integrated digital tools, fosters active learning, innovation, and cross-disciplinary engagement. Together, these features enhance first-year students' satisfaction and ease their transition into higher education.

SEEU offers a wide spectrum of academic programs across faculties such as Business and Economics, Contemporary Sciences and Technologies, Law, Languages, Cultures and Communication, Social Sciences, Health Sciences, and Technical Sciences. To better understand and enhance the student experience, SEEU implemented a First-Year Student Satisfaction Survey, targeting students who had recently navigated multiple program offers and made their enrollment decisions. This survey investigates dimensions such as curriculum relevance, instructional quality, workload balance, use of digital tools, academic support, and perceived career readiness, providing actionable insights into early student perceptions and satisfaction.

Given the complexity of factors influencing student satisfaction, this study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS to examine the relationships among latent constructs. PLS-SEM is particularly suitable for exploratory and predictive analyses in educational research contexts, allowing for the estimation of complex models with multiple indicators while accommodating measurement error and modest sample sizes (Hair et al., 2019). The approach enables the evaluation of how perceived program alignment, professional development opportunities, instructional quality, workload organization, and technological integration collectively influence first-year students' overall satisfaction and intention to continue studies at SEEU. Importantly, the study also situates student satisfaction within the broader mission of SEEU as a model regional institution, highlighting how early positive academic experiences contribute to long-term retention, student engagement, and institutional reputation.

1.1. Literature Review

1.1.1. Alignment of the Program with Expectations and Interests (ASP_SEI)

Student satisfaction in higher education is widely recognized as a multidimensional construct, encompassing students' perceptions of curriculum relevance, teaching quality, and personal fulfillment (Santini et al., 2017). These factors are critical for engagement, persistence, and long-term academic success. Alignment between academic programs and students' expectations plays a pivotal role in shaping satisfaction and commitment. Program alignment involves coherent curriculum design, responsiveness to labor market needs, and balanced workloads that reflect students' personal and professional goals (Chen et al., 2025). Pre-enrollment information about program content supports informed decision-making, reduces uncertainty, and promotes engagement. Studies indicate that students whose academic choices align with their interests and career aspirations report higher motivation and commitment, which in turn positively affects overall satisfaction and retention.

1.1.2. Professional Development and Connection to the Labor Market (PDLMA)

PDLMA integrates professional development opportunities and labor market relevance within academic programs, increasingly recognized as essential for student satisfaction and employability. Experiential components - such as internships, work-integrated learning, and professional skill-building workshops - help bridge theory and practice, enhancing students' readiness for post-graduation careers (Tomlinson, 2012; Bridgstock, 2009). When students perceive a clear link between their academic experience and career opportunities, their confidence in program choice and overall satisfaction increases. This relationship also contributes to the institution's reputation and graduates' long-term employability outcomes.

1.1.3. Workload and Class Schedule (WMCS)

WMCS highlights the critical role of academic workload distribution and class schedule flexibility in shaping students' academic experiences and overall satisfaction. Excessive or unevenly distributed workloads can contribute to stress, anxiety, and reduced academic performance, particularly among first-year students adjusting to university life (Misra & McKean, 2000). Flexible scheduling enables students - especially those balancing work, family, or other commitments - to manage their time more effectively, thereby enhancing engagement and satisfaction with the learning process. Institutional support mechanisms that help students navigate academic demands have been shown to positively influence well-being and retention (Eisenberg, Golberstein, & Gollust, 2007). Collectively, these findings underscore that balanced workloads, flexible scheduling, and effective institutional support are key factors in fostering a positive, sustainable, and student-centered educational experience.

1.1.4. Use of Tools and Technology in the Learning Process (DTET)

DTET emphasizes the integration of digital tools and learning technologies in contemporary higher education, significantly influencing student engagement and satisfaction. Learning management systems, interactive platforms, and digital learning resources enhance access, communication, and collaboration (Getenet et al., 2024). Students' attitudes toward technology, digital literacy, and self-efficacy affect how effectively these tools support engagement and perceived learning outcomes. Research suggests that technology should be pedagogically integrated rather than merely present to enhance learning experiences. User-friendly interfaces and meaningful interaction facilitated by digital tools support motivation, satisfaction, and autonomous learning.

1.1.5. Service Quality and Student Satisfaction

Beyond academic and technological dimensions, service quality - including administrative support, academic services, and institutional infrastructure - plays a pivotal role in shaping student satisfaction in higher education. Empirical evidence indicates that perceptions of service quality across these dimensions significantly influence students' overall evaluation of institutional effectiveness and satisfaction (Amoako et al., 2023). Students derive value not only from classroom instruction but also from responsive administrative processes and high-quality institutional services, which together foster a holistic and positive educational experience.

1.2. Research Questions and Hypothesis Development

In recent years, student satisfaction has emerged as a central indicator of higher education quality, institutional effectiveness, and long-term student engagement. This is particularly relevant for first-year students, whose initial experiences shape their perceptions of value, academic commitment, and intention to persist. As higher education institutions emphasize student-centered learning, employability, and digital transformation, understanding the multidimensional drivers of student satisfaction is both a scholarly and strategic imperative.

SEEU represents a relevant empirical context, given its diverse academic offerings, multilingual learning environment, and explicit orientation toward labor market relevance and quality assurance. By analyzing first-year students' perceptions, this study generates evidence-based insights for continuous academic improvement and contributes to broader literature on student satisfaction in contemporary higher education systems.

1.2.1. Research Questions

This study investigates the factors influencing first-year student satisfaction at South East European University (SEEU) by addressing several key research questions:

- R1. What is the overall level of satisfaction among first-year students with their chosen study programs at SEEU?
- R2. To what extent does the alignment of academic programs, particularly curriculum relevance, responsiveness to labor market needs, and workload organization, affect first-year students' overall satisfaction?
- R3. How do the quality of instruction and academic support, including student motivation and availability of learning resources, influence first-year student satisfaction?
- R4. What role does the effective use of digital tools and educational technologies play in shaping first-year students' learning experience and satisfaction?
- R5. How does overall student satisfaction influence first-year students' intention to continue their studies in the same academic program?

Addressing these questions allows the identification of key determinants of satisfaction and persistence, providing actionable insights for curriculum design, teaching practices, and quality assurance mechanisms at SEEU and comparable higher education institutions.

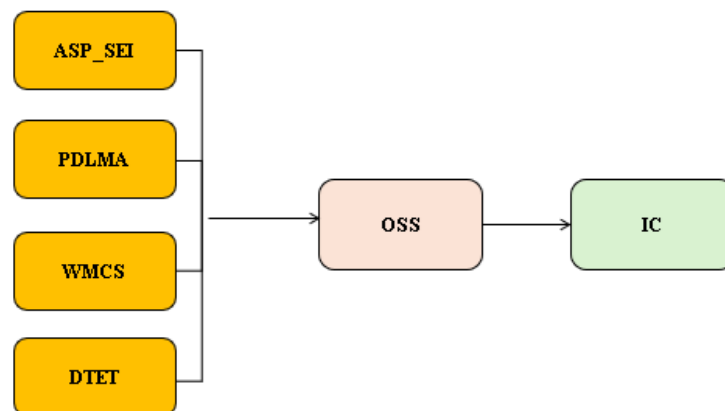


Figure 1. Conceptual Framework of the Study (Source: Authors' Creation, 2025)

1.2.2. Hypothesis Development

Literature consistently highlights the multidimensional nature of student satisfaction, emphasizing the combined influence of academic content, instructional quality, organizational structure, and learning technologies. Program alignment (ASP_SEI), including relevant curricula, balanced workloads, and labor market responsiveness, enhances perceptions of educational value and institutional credibility. Instructional quality and academic support (PDLMA) foster student motivation, engagement, and positive learning experiences. Effective use of digital tools (DTET) is increasingly recognized as a critical factor in shaping satisfaction. Finally, overall satisfaction (OSS) is closely linked to students' intention to persist (IC), making it a key predictor of retention and academic success.

- H.1. The overall alignment of the academic program (curriculum relevance, labor market responsiveness, balanced workload) has a positive and statistically significant effect on first-year students' overall satisfaction.

- H.2. Higher perceived quality of instruction and academic support positively influences first-year students' overall satisfaction.
- H.3. The effective use of digital tools and educational technologies significantly enhances first-year students' learning experience and overall satisfaction.
- H.4. Higher levels of overall satisfaction are positively associated with a stronger intention among first-year students to continue their studies in the chosen program.

This conceptual framework is depicted in Figure 1, which shows the six latent constructs (ASP_SEI, PDLMA, WMCS, DTET, OSS, and IC) and the hypothesized paths among them. Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS will assess both the measurement and structural models, evaluating the strength and direction of these hypothesized relationships.

2. METHODOLOGY

2.1. Research Design

This study employed a quantitative, cross-sectional design to investigate the determinants of first-year student satisfaction at the South East European University (SEEU). Guided by the conceptual framework in Figure 1, the research examined how program alignment, instructional quality, academic support, workload management, and the use of technological tools influenced overall satisfaction and students' intention to continue their studies. Data collection took place in December 2025, approximately 2.5 months after first-year students had enrolled, ensuring that respondents had sufficient exposure to the university environment to provide informed and reflective evaluations of both academic programs and institutional services. The cross-sectional design enabled data collection at a single point in time, providing a clear snapshot of student experiences and facilitating rigorous empirical analysis of relationships among multiple latent constructs.

2.2. Participants and Sampling

The study involved 450 first-year undergraduate students from all faculties at SEEU. The participants were between 19 and 35 years of age and were selected from the Faculties of Business and Economics, Contemporary Sciences and Technologies, Law, Languages, Cultures and Communication, Contemporary Social Sciences, Health Sciences, and Technical Sciences. A total of 380 students completed the online survey, which resulted in a response rate of $84\% \left[\frac{380}{450} \times 100 = 84.44\% \approx 84\% \right]$. A purposive sampling strategy was employed to achieve representation across faculties, campuses (Tetovo and Skopje), and key demographic characteristics, such as gender, living arrangements, place of origin, and receipt of financial support. This approach ensured that the sample accurately reflected the diversity of the first-year student cohort and provided robust insights into the determinants of satisfaction.

2.3. Instrumentation

Data were collected via a structured online questionnaire developed based on the conceptual framework and prior literature. The instrument comprised two sections: the first captured demographic information, including gender, faculty, campus, prior education, language of instruction, living arrangements, and financial support, while the second measured students' perceptions and satisfaction across four dimensions: alignment of the program with expectations and interests, professional development and connection to the labor market, workload and class schedule, and the use of technological tools in the learning process. All items were rated on a five-point Likert scale. The measurement items measuring professional development and connection to the labor market were adapted from the work of Huang et al. (2011). Moreover, items for Workload and Class Schedule were also adapted from the work of Chen (2019). Furthermore, items for measuring the use of tools and technology in the learning process were also adapted from the work of Shahid et al. (2019). In addition, the alignment of the program with expectations and interests items was adapted from the work of Chen et al. (2022). Overall, students' satisfaction items were also adapted from the work of Gibson (2010), and that of intention to persist was also adapted from the work of Ilyas and Zaman (2026). Ten measurement items were adapted from each

source. All the statements were measured using a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The questionnaire was first tested with 30 first-year students to make sure the items were clear, relevant, and reliable. The reliability results from this pilot test showed acceptable levels for all the constructs: ASP_SEI (0.861), PDLMA (0.805), WMCS (0.722), DTET (0.787), OSS (0.759), and IC (0.822). Using an already validated instrument made the process easier and saved time that would have been spent developing a new one, while also improving the overall quality of the study. Cronbach's alpha was used to check internal consistency for each construct, and the results confirmed that the measures were reliable enough to support further structural analysis.

2.4. Data Collection Procedure

The online survey was administered to facilitate accessibility and ensure respondent anonymity. Invitations were disseminated via official SEEU email lists and student forums, with follow-up reminders to enhance response rates. Participation was voluntary, and informed consent was obtained from all respondents in accordance with established ethical standards for research involving human subjects. This procedure ensured that the data reflected genuine student experiences and perceptions of academic and institutional quality.

2.5. Data Analysis

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS (ver. 4.1.1.8), enabling simultaneous evaluation of the measurement and structural models. The measurement model was assessed to verify the reliability, convergent validity, and discriminant validity of all latent constructs. The structural model was subsequently examined to evaluate the hypothesized relationships among program alignment, instructional quality and academic support, workload management, and technological integration, with overall student satisfaction as the primary outcome and intention to continue studies as the dependent variable. This integrative approach provided a rigorous and systematic assessment of the conceptual framework (Figure 1), yielding robust evidence on the key determinants of first-year student satisfaction at SEEU.

3. RESULTS

3.1. Demographic Characteristics of Participants

A total of 380 first-year undergraduate students at South East European University (SEEU) participated in the survey. The descriptive analysis of demographic characteristics provides a comprehensive overview of the study population.

3.1.1. Basic Student Characteristics

As shown in Table 1, the sample consisted of 68.2% female and 31.8% male students. Most participants reported high school grade averages in the range of 4.00-4.99, reflecting a generally strong academic background. Students were enrolled across seven faculties, with the largest representation from the Faculty of Business and Economics (22.4%) and the Faculty of Technical Sciences (19.7%), while the other faculties had a more balanced distribution.

3.1.2. Study and Living Characteristics

Table 2 presents the descriptive statistics of study-related and living arrangement variables. The majority of students reported Albanian as their language of instruction (70%), followed by Macedonian (22.6%) and English (7.4%). Most students resided with their family during studies (88.9%), while smaller proportions lived in dormitories (5.3%) or rented accommodations (5.8%). Urban-origin students comprised 61.8% of the sample, and rural-origin students 38.2%. The Tetovo campus accounted for 67.9% of respondents, whereas 32.1% attended the Skopje campus.

Table 1. Basic Student Characteristics

Variable	Category	Frequency	Percent
Gender	Male	121	31.8
	Female	259	68.2
Average grade in high school	5.00	93	24.5
	4.50-4.99	111	29.2
	4.00-4.49	113	29.7
	3.50-3.99	49	12.9
	3.00-3.49	13	3.4
	Less than 3.00	1	.3
Faculty	Faculty of Business and Economics	85	22.4
	Faculty of Contemporary Sciences and Technologies	66	17.4
	Faculty of Law	45	11.8
	Faculty of Languages, Cultures and Communication	30	7.9
	Faculty of Contemporary Social Sciences	39	10.3
	Faculty of Health Sciences	40	10.5
	Faculty of Technical Sciences	75	19.7
Total		380	100.0

Table 2. Study and Living Characteristics

Variable	Category	Frequency	Percent
Language of studies	Albanian	266	70.0
	Macedonian	86	22.6
	English	28	7.4
Living arrangements	With family	338	88.9
	In a student dormitory	20	5.3
	In rented accommodation (alone or with other students)	22	5.8
Place of origin	Urban area	235	61.8
	Rural area	145	38.2
Campus Study	Tetovo	258	67.9
	Skopje	122	32.1
Total		380	100.0

3.1.3. Financial Support

Table 3 illustrates the financial support received by the students. Merit-based scholarships (MBS) were the most common form of support (42.1%), while over half of the respondents reported receiving no financial assistance from the university (55%). Other forms of support, including need-based scholarships (NBS), “Work & Study” programs, and sibling-based financial relief, were relatively rare.

Table 3. Financial Support

Variable	Category	Frequency	Percent
Financial support	Merit-based scholarship (MBS)	160	42.1
	Need-based scholarship (NBS)	4	1.1
	Work & Study program	6	1.6
	Financial relief (second or third sibling from the same family)	1	.3
	None of the above	209	55.0
Total		380	100.0

3.2. Student Satisfaction with the Study Program

Students’ overall satisfaction with their chosen study program, along with their willingness to select the same program again, was assessed using a five-point Likert scale. The results indicate that the vast majority of first-year students reported high levels of satisfaction. Specifically, 42.1% of respondents indicated being “satisfied” and 43.2% “very satisfied,” collectively representing 85.3% of the sample.

Neutral responses were reported by 14.2%, while only 0.6% of students expressed dissatisfaction, either as “dissatisfied” or “very dissatisfied.”

When examining students’ willingness to choose the same program again, 60.0% indicated “yes, definitely,” and an additional 25.8% responded “probably yes,” demonstrating a strong commitment to their academic path. Only 12.4% of students were uncertain, and a small minority of 1.8% reported “probably not” or “no.” These findings suggest that first-year students at SEEU exhibit not only high overall satisfaction with their study programs but also a strong intention to continue in their chosen field of study, reflecting positive engagement and commitment during their initial months at the university.

Table 4. Distribution of Responses: Satisfaction with Study Program

Variable	Category	Frequency	Percent
Overall, how satisfied are you with the study program you have chosen?	Very dissatisfied	1	.3
	Dissatisfied	1	.3
	Neutral	54	14.2
	Satisfied	160	42.1
	Very satisfied	164	43.2
If you had to choose again, would you choose the same program?	Yes, definitely	228	60.0
	Probably yes	98	25.8
	Not sure	47	12.4
	Not sure	7	1.8
Total		380	100.0

3.3. Alignment of the Program with Student Expectations and Interests (ASP_SEI)

Students’ perceptions of program alignment were evaluated across multiple dimensions, including pre-enrollment information, relevance of courses, curriculum organization, schedule and workload balance, instructor support, availability of learning materials, motivation to continue, and satisfaction with the academic environment. Table 5 summarizes the descriptive statistics.

Overall, perceptions were positive, with the highest mean scores for instructor preparedness and support ($M = 4.36$, $SD = 0.86$) and motivation to continue in the program ($M = 4.27$, $SD = 0.89$). Slightly lower ratings were observed for the balance of schedule and workload ($M = 3.93$, $SD = 1.02$), suggesting areas for further academic planning improvements.

Table 5. Alignment of the Program with Student Expectations and Interests

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Sufficient information before enrollment	380	1	5	3.88	0.9	0.81
Program aligns with personal and professional interests	380	1	5	4.12	0.93	0.87
Courses are useful and relevant	380	1	5	4.13	0.88	0.78
Curriculum is well organized	380	1	5	4.24	0.9	0.81
Schedule and workload are well balanced	380	1	5	3.93	1.02	1.05
Instructors are well-prepared and supportive	380	1	5	4.36	0.86	0.74
Learning materials and resources are clear and sufficient	380	1	5	4.18	0.89	0.79
Motivation to continue studies in this program	380	1	5	4.27	0.89	0.79
Academic environment and infrastructure are satisfactory	380	1	5	4.16	0.91	0.83

3.4. Professional Development and Connection to the Job Market (PDLMA)

Students’ perceptions of professional development and labor market relevance are summarized in Table 6. Ratings were generally positive, with the highest mean scores for practical knowledge acquisition ($M = 4.14$, $SD = 0.83$) and participation in career-oriented activities ($M = 4.09$, $SD = 0.95$). The alignment

of the program with labor market needs received a slightly lower score ($M = 3.98$, $SD = 0.89$), indicating room for strengthening explicit connections to professional trajectories.

Table 6. Professional Development and Connection to the Job Market

Variable	N	Mini mum	Maxi mum	Mean	Std. Deviation	Variance
Program aligned with labor market needs	380	1	5	3.98	0.89	0.79
Courses provide practical knowledge	380	1	5	4.14	0.83	0.68
Opportunities for career-preparation activities	380	1	5	4.09	0.95	0.91

3.5. Workload and Class Schedule (WMCS)

Students' perceptions of workload and schedule flexibility are presented in *Table 7*. While workload was generally perceived as fairly distributed ($M = 3.90$, $SD = 0.95$), lower ratings were observed for preparation time ($M = 3.59$, $SD = 1.13$) and class schedule flexibility ($M = 3.78$, $SD = 1.05$). Support for managing workload also received moderate scores ($M = 3.74$, $SD = 0.98$), highlighting potential areas for institutional improvement.

Table 7. Workload and Class Schedule

Variable	N	Mini mum	Maxi mum	Mean	Std. Deviation	Variance
Academic workload is distributed fairly	380	1	5	3.9	0.95	0.91
Enough time to prepare for each course	380	1	5	3.59	1.13	1.28
The class schedule is flexible and convenient	380	1	5	3.78	1.05	1.1
Received support to manage academic workload	380	1	5	3.74	0.98	0.95

3.6. Use of Tools and Technology in Learning (DTET)

Students' perceptions of digital tools and learning materials are summarized in *Table 8*. Online platforms received the highest mean score ($M = 4.54$, $SD = 0.77$), highlighting their importance for engagement and learning. Visual materials ($M = 4.34$, $SD = 0.90$) and accessibility of digital resources ($M = 4.13$, $SD = 0.89$) were also positively rated, demonstrating effective integration of technology in the learning process.

Table 8. Use of Tools and Technology in Learning

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Use of online platforms (Google Classroom, Moodle)	380	1	5	4.54	0.77	0.59
Accessibility of digital resources (e-books, articles)	380	1	5	4.13	0.89	0.8
Visual materials (videos, presentations)	380	1	5	4.34	0.9	0.82

Overall, the descriptive analysis indicates that first-year students at SEEU report high levels of satisfaction with their programs, particularly regarding instructor support, motivation to continue, practical course relevance, and use of digital tools. Slightly lower satisfaction was observed for preparation time, schedule flexibility, and workload balance, highlighting areas for potential program enhancement. These findings provide a robust foundation for subsequent reliability, factor, and PLS-SEM analyses to empirically examine determinants of student satisfaction.

3.7. Assessment of the Measurement Model

The measurement model was assessed for reliability and validity to ensure a robust evaluation of structural relationships. Table 9 presents Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) for all constructs. All constructs exceeded the recommended threshold of 0.70 for both Cronbach's alpha and composite reliability, indicating satisfactory internal consistency (Nunnally &

Bernstein, 1994). Specifically, Alignment of the Program with Expectations and Interests (ASP_SEI) demonstrated the highest reliability (CR = 0.944), while Workload and Class Schedule (WMCS) showed acceptable reliability (CR = 0.883).

Convergent validity, assessed via AVE, showed that most constructs exceeded the 0.50 threshold, with Use of Tools and Technology in the Learning Process (DTET) having the highest AVE (AVE = 0.749). ASP_SEI had an AVE value of 0.641, which is still considered acceptable, indicating sufficient representation of the construct (Hair et al., 2017).

Table 9. Measurement Model Reliability and Convergent Validity

Construct	Items	Cronbach's alpha	Composite reliability	AVE
ASP_SEI	9	0.93	0.944	0.641
DTET	3	0.837	0.884	0.749
PDLMA	3	0.816	0.853	0.73
WMCS	4	0.853	0.883	0.69

Discriminant validity was evaluated using both the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio to ensure that the latent constructs measure distinct concepts. According to the Fornell–Larcker criterion, the square root of the AVE for each construct should be greater than its correlations with all other constructs. *Table 10* presents the Fornell–Larcker results. Most constructs satisfy this requirement, indicating acceptable discriminant validity.

Some constructs, including ASP_SEI, DTET, and PDLMA, exhibit moderately high correlations (0.803–0.834), reflecting their conceptual relatedness, particularly in areas related to student engagement and academic support. However, despite these correlations, the square roots of their AVE values remain higher than the correlations with other constructs, confirming that each latent variable captures a distinct concept. Therefore, while some conceptual overlap exists, it does not compromise the discriminant validity of the measurement model.

Table 10. Fornell–Larcker Criterion (Discriminant Validity)

Construct	ASP_SEI	DTET	IC	OSS	PDLMA	WMCS
ASP_SEI	0.8					
DTET	0.803	0.865				
IC	0.486	0.313	1			
OSS	0.446	0.358	0.552	1		
PDLMA	0.834	0.766	0.403	0.4	0.854	
WMCS	0.694	0.595	0.33	0.298	0.675	0.831

The HTMT ratios are presented in *Table 11*. Most ratios are below the conventional threshold of 0.85, confirming discriminant validity. However, the ratios between ASP_SEI and DTET (0.901) and PDLMA and DTET (0.931) exceed 0.85, suggesting conceptual overlap. This is expected as these constructs relate to student engagement and academic support, including professional development and technology use.

Table 11. HTMT Ratios

Construct	ASP_SEI	DTET	IC	OSS	PDLMA	WMCS
ASP_SEI	1					
DTET	0.901	1				
IC	0.496	0.329	1			
OSS	0.446	0.377	0.552	1		
PDLMA	0.95	0.931	0.442	0.434	1	
WMCS	0.785	0.706	0.351	0.309	0.801	1

While some constructs, such as Professional Development and Connection to the Labor Market (PDLMA), Workload and Class Schedule (WMCS), and Use of Tools and Technology (DTET), did not show strong direct effects on satisfaction in the subsequent structural model, this should be interpreted in context. First-year students at SEEU are in the early stages of their academic journey and are primarily

focused on adapting to the university environment. Many had multiple academic offers before enrollment and were still forming perceptions about their chosen program and university. Therefore, the primary objective of this study - to assess first-year students' satisfaction with their choice of program and university - remains valid and central, with ASP_SEI emerging as the most influential factor.

Overall, the measurement model demonstrates sufficient reliability, convergent validity, and discriminant validity, providing a solid foundation for further structural analysis and hypothesis testing. These results confirm that the constructs adequately capture key dimensions of first-year student satisfaction at SEEU, while minor conceptual overlaps are acknowledged and appropriately contextualized.

3.8. Structural Model Assessment and Hypothesis Testing

The structural model was tested using PLS-SEM with 5,000 bootstrapped resamples, as used in similar studies like Alija et al. (2026), Asare (2026), Asare et al. (2026), Asare (2026a), Bright et al. (2024), and Edo et al. (2024). Figure 2 presents the estimated path coefficients and highlights the strength and direction of the relationships. The model accounted for 20.3% of the variance in Overall Student Satisfaction (OSS) ($R^2 = 0.203$) and 30.5% of the variance in Intention to Continue (IC) ($R^2 = 0.305$), demonstrating the relevance of academic program alignment and organizational factors in shaping first-year students' satisfaction and continuation intentions.

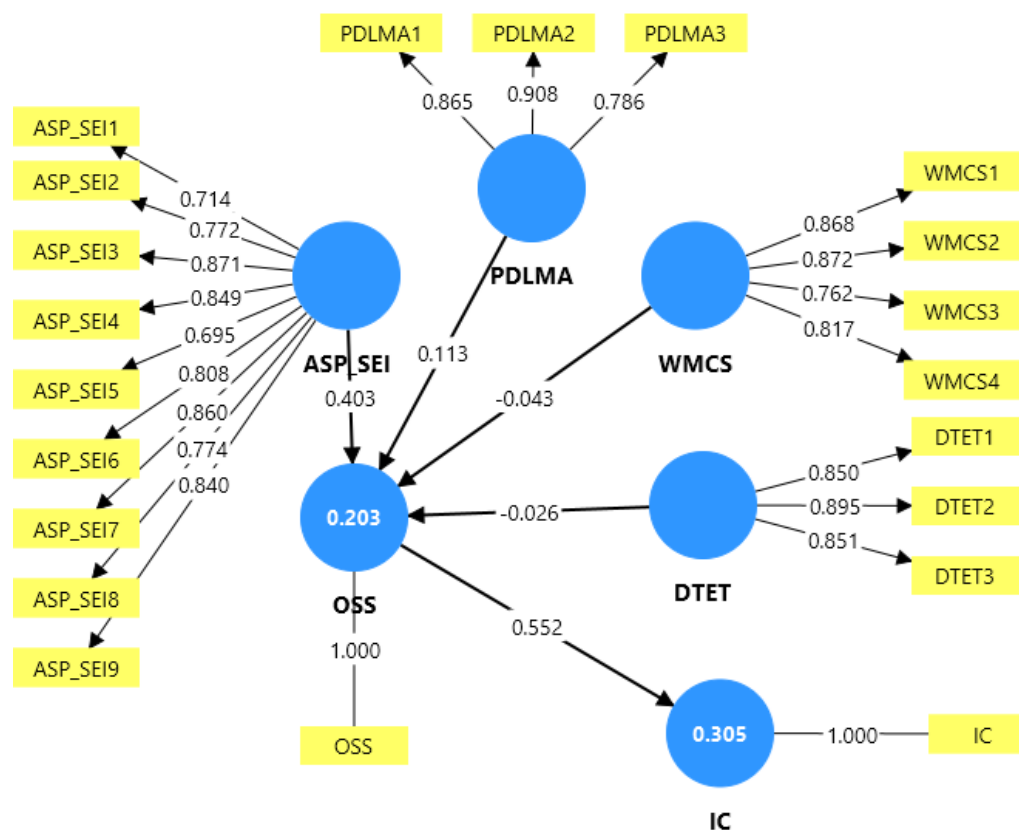


Figure 2. Structural Model Results (PLS-SEM) (Source: Authors' Creation, 2025)

Alignment of the academic program with students' expectations and interests (ASP_SEI) emerged as the strongest predictor of OSS ($\beta = 0.403$, $t = 3.436$, $p = 0.001$), indicating that curriculum relevance, program coherence, and alignment with students' academic interests are central to first-year satisfaction. These findings provide strong support for H1.

Professional development and connection to the labor market (PDLMA) exhibited a positive but non-significant effect on OSS ($\beta = 0.113$, $t = 1.124$, $p = 0.261$). This suggests that first-year students have limited exposure to career-oriented experiences, which may explain the modest impact at this early stage. Consequently, H2 was not supported.

Workload and class schedule (WMCS) had a small negative and non-significant effect on OSS ($\beta = -0.043$, $t = 0.646$, $p = 0.518$), while the use of digital tools and educational technologies (DTET) also showed a negligible and non-significant relationship with OSS ($\beta = -0.026$, $t = 0.271$, $p = 0.787$). These results indicate that workload organization and digital technologies are perceived as standard aspects of the learning environment by first-year students and do not yet significantly influence overall satisfaction, leading to the rejection of H3.

In contrast, OSS strongly predicted students' intention to continue in the same program (IC) ($\beta = 0.552$, $t = 11.004$, $p < 0.001$), confirming that higher satisfaction directly enhances continuation intentions. These results fully support H4 and highlight the strategic importance of early student engagement and program alignment for retention at SEEU.

Overall, the findings indicate that alignment of the academic program with students' expectations is the decisive factor in shaping first-year satisfaction, whereas instructional quality, workload, and technology use play more limited roles at this stage. Satisfaction itself is a key determinant of students' continuation intentions, emphasizing the value of supporting students' academic choices and early engagement to foster long-term persistence.

The structural model was assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with 5,000 bootstrapped resamples. Figure 2 presents the estimated path coefficients and the variance explained for each endogenous construct. The model accounted for 20.3% of the variance in Overall Student Satisfaction (OSS) ($R^2 = 0.203$), indicating moderate explanatory power of academic and organizational factors in shaping first-year students' satisfaction. OSS, in turn, explained 30.5% of the variance in Intention to Continue (IC) ($R^2 = 0.305$), highlighting satisfaction as a key determinant of students' continuation intentions.

Alignment of the academic program with students' expectations and interests (ASP_SEI) emerged as the strongest predictor of OSS, exerting a positive and statistically significant effect ($\beta = 0.403$, $t = 3.436$, $p = 0.001$), supporting H1. This finding underscores the central role of curriculum relevance, coherence of program design, and alignment with students' academic and professional interests in shaping early satisfaction (Kuh, 2005; Santini et al., 2017).

Professional Development and Connection to the Labor Market (PDLMA) showed a positive but non-significant effect on OSS ($\beta = 0.113$, $t = 1.124$, $p = 0.261$), leading to rejection of H2. This result reflects that first-year students have limited exposure to career-oriented activities at this stage, suggesting that labor market relevance may become more salient in later years (Tomlinson, 2012; Bridgstock, 2009).

Workload and Class Schedule (WMCS) also had a negative and non-significant effect on OSS ($\beta = -0.043$, $t = 0.646$, $p = 0.518$), and the use of digital tools and educational technologies (DTET) had a negative and non-significant effect ($\beta = -0.026$, $t = 0.271$, $p = 0.787$), resulting in the rejection of H3a and H3b. These findings suggest that, for first-year students, workload distribution, scheduling flexibility, and technology use are perceived as standard components of the learning environment rather than differentiating factors in overall satisfaction (Saddique, Khan, & Ali, 2025; Getenet, Cantele, & Redmond, 2024).

In contrast, OSS had a strong and positive effect on IC ($\beta = 0.552$, $t = 11.004$, $p < 0.001$), confirming H4. Students reporting higher satisfaction with their academic experience were significantly more likely to continue in their chosen program, emphasizing the importance of student-centered program alignment for retention and long-term engagement (Kuh et al., 2010; Santini et al., 2017).

Overall, the results indicate that program alignment with student expectations is the decisive factor in shaping first-year satisfaction, while instructional quality, workload, and technology have more limited direct effects at this early stage. Satisfaction itself is a strong driver of continuation intentions, highlighting the strategic value of supporting students' academic choices, early engagement, and coherent program design to foster long-term persistence. These findings align with prior research on student satisfaction, program alignment, and retention (Kuh, 2005, 2010; Santini et al., 2017; Saddique et al., 2025).

Table 12. Direct Effects with Standardized Estimates

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
ASP_SEI -> OSS	0.403	0.408	0.117	3.436	0.001
DTET -> OSS	-0.026	-0.026	0.096	0.271	0.787
OSS -> IC	0.552	0.553	0.05	11.004	0.000
PDLMA -> OSS	0.113	0.113	0.1	1.124	0.261
WMCS -> OSS	-0.043	-0.04	0.066	0.646	0.518

4. DISCUSSION AND CONCLUSIONS

The results show that when students feel their academic program matches their expectations and interests, they tend to be more satisfied with their overall university experience. In fact, this was the strongest factor influencing satisfaction. This makes sense because first-year students are still adjusting to university life, so whether the program feels “right” for them plays a big role in how they feel about their studies. When there is a good fit between what students expect and what they actually experience, satisfaction increases. This supports earlier research showing that students are more engaged and satisfied when their programs are relevant and well-aligned with their goals (AlMamari, 2026; Gorges, 2017; Xin et al., 2026).

Moreover, professional development and labour market connection did not have a significant effect on student satisfaction. This suggests that, for first-year students, career-related issues are not yet a major concern. At this stage, most students are still focused on adjusting to academic life rather than thinking about jobs or career opportunities. Because of this, exposure to employability or career development activities may not strongly influence how satisfied they feel. This aligns with previous studies, which show that career concerns usually become more important in the later years of university (Akkerman & Torenvlied, 2013; James & Casidy, 2018; James & Yun, 2026).

In addition, workload, class scheduling, and the use of digital learning tools did not significantly affect student satisfaction, although their effects were slightly negative. This suggests that students may see these factors as normal parts of university life rather than things that strongly shape their satisfaction. In other words, how much work they have, how classes are scheduled, or the use of technology does not really stand out as something that changes how they feel overall. These factors may only become important if they are poorly managed or overly demanding. Similar studies have also shown that such structural aspects of learning environments often have a limited impact on satisfaction when students already expect them. (Elshami et al., 2021; Nadia & Aziz, 2026; Zhang & Yang, 2025).

Finally, the results clearly show that overall student satisfaction has a strong influence on students’ intention to continue their program. Simply put, students who are happy with their academic experience are much more likely to stay in the program. This highlights how important it is to create a positive learning environment, especially in the first year. When students feel satisfied, they are more confident, more committed, and less likely to consider leaving. This finding is supported by earlier research showing that satisfaction plays a key role in student retention and persistence in higher education (Bae et al., 2023; Kineber et al., 2026; Rajeh et al., 2021).

Theoretically, these results contribute to the literature on student satisfaction and retention by highlighting the critical influence of curriculum alignment and expectation management over other structural or resource-related factors. This insight enriches current models of student engagement and satisfaction, emphasizing that the quality of the academic experience is determined not only by available resources but also by the degree to which programs reflect student needs and aspirations.

From a practical perspective, the findings provide important implications for SEEU. By maintaining a focus on curriculum coherence, relevance to student interests, and alignment with labor market needs, the university reinforces its commitment to student satisfaction and professional readiness. While aspects such as professional development connections, workload, and digital tool utilization were not immediate drivers of satisfaction in the first semester, these factors are likely to gain importance as students progress through their studies and engage more directly with professional and technological components of their programs. The strong link between satisfaction and continuation intention suggests that SEEU’s investment

in student-centered program design, academic guidance, and engaging first-year experiences directly supports retention and long-term academic success. These results also affirm the university's position as a forward-looking institution, responsive to both educational and professional development demands.

Despite the valuable insights, the study has some limitations. The sample was restricted to first-year students, which may limit generalizability across other cohorts. Additionally, the cross-sectional design captures perceptions at a single point in time, making it difficult to assess changes in satisfaction or retention intentions over the course of the study. Future research could adopt a longitudinal approach to track evolving perceptions, incorporate qualitative insights into program experiences, and compare different faculties or study programs to provide a more nuanced understanding of discipline-specific factors influencing student satisfaction.

In conclusion, this study shows that when academic programs match students' expectations, first-year students are more satisfied with their university experience, and this satisfaction significantly increases their intention to continue their studies at SEEU. These findings offer valuable insights for several stakeholders in higher education. Educators should focus on adopting student-centered teaching practices and ensuring that learning activities meet students' academic and career aspirations. Curriculum developers should continuously review and update academic programs so that they remain relevant, coherent, and responsive to students' needs and changes in the job market. Academic administrators and institutional policymakers can use these findings to develop strategies that improve student satisfaction, strengthen retention, and enhance the overall quality of education. Similarly, student support units should provide effective orientation, academic advising, mentoring, and counseling services that help students successfully adjust to university life, particularly during their first year. For researchers, the study contributes empirical evidence that can support further investigations into the factors influencing student satisfaction, persistence, and success in higher education across different institutional contexts. Overall, by placing students' expectations at the center of academic planning and support services, universities can create a more engaging learning environment, improve student retention, and better prepare graduates for future professional success while sustaining institutional excellence.

5. LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES

Like any empirical study, this research has some limitations that should be acknowledged. The study focused only on first-year undergraduate students at South East European University (SEEU), so the findings may not fully reflect the experiences of students in later years or those at other universities or in different countries. Although the sample was sufficiently large, the use of purposive sampling may have limited its representativeness. In addition, the cross-sectional design captured students' views only once, approximately 2.5 months after enrolment, and therefore could not examine how students' satisfaction and intention to continue their studies change over time. The findings are also based on self-reported questionnaire responses, which may have been influenced by respondents' personal perceptions or their desire to provide socially acceptable answers. Future studies should consider using longitudinal research designs to examine how student satisfaction develops throughout the university experience. Expanding the study to include multiple universities and different national contexts would also improve the generalizability of the findings. Furthermore, combining quantitative surveys with qualitative methods, such as interviews or focus group discussions, would provide a richer understanding of students' experiences and help identify additional academic, institutional, and personal factors that influence student satisfaction, engagement, and retention in higher education.

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Research Ethics. This study was conducted in accordance with the ethical standards of South East European University and received approval from the Institutional Review Board (IRB) of South East European University (Approval No. SEEU/IERC/2025/011). All participants were fully informed about the purpose, procedures, potential risks, and benefits of the research before data collection. Participation was entirely voluntary, and participants were assured of their right to withdraw from the study at any time without penalty. Written informed consent was obtained from all participants, and their responses were treated with strict confidentiality and anonymity throughout

the study. The research procedures adhered to the principles outlined in the Declaration of Helsinki and relevant national ethical guidelines for research involving human participants.

Data Availability Statement. Data supporting the findings and conclusions of this study are available from the corresponding author upon request.

Conflicts of Interest. The author affirms that there were no conflicts of interest associated with the study.

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