

Analysis of Student Satisfaction with Administrative Services at Bina Nusantara University

Salsa Deswina Raihani, SDR, Salsa
Data Science Department, School of Computer Science
Bina Nusantara University
Banten, Indonesia 42316
salsa.raihani@binus.ac.id

Sekar Alisha Firdaus, SAF, Sekar
Data Science Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 12430
sekar.firdaus@binus.ac.id

Laksmi Dwi Nurmuthia, LDN, Laksmi
Data Science Department, School of Computer Science
Bina Nusantara University
Semarang, Indonesia 50216
laksmi.nurmuthia@binus.ac.id

Syarifah Diana Permai, SDP, Diana
Statistics Department, School of Computer Science
Bina Nusantara University
Jakarta, Indonesia 11480
syarifah.permai@binus.ac.id

Abstract— *Student satisfaction with administrative services is critical to university success. This study aims to analyze factors that significantly influence student satisfaction with academic services at Bina Nusantara University. Based on previous research and theory, several factors have been identified as significant in determining student satisfaction with administrative services. These factors include academic and financial services. Academic Services includes course registration, academic information, document submission, academic support, and access to course materials; Financial Services includes information about fees, payment processes, payment documents, and payment policies. This study was conducted at Bina Nusantara University with data collected from undergraduates using random sampling and analyzed using structural equation modeling (SEM). The results show that academic and financial services have a significant impact on student satisfaction with administrative services. Additionally, the study found that academic performance and economic status were substantial endogenous factors influencing student satisfaction with administrative services. This study shows that improving academic and financial services can increase student satisfaction with administrative services at Bina Nusantara University, and that academic performance and economic conditions should be taken into account when designing student administrative services.*

Keywords—*Student satisfaction, administrative services, academic services, financial services, Bina*

Nusantara University, structural equation modeling, academic performance, economic status.

I. INTRODUCTION

The Student Experience Survey (SES) measures how well students at a university, a college, or a school are learning. This survey aims to better understand, enrich, and identify areas where student learning can be improved. SES is an important action to do because it can raise educational standards and boost learning efficiency. Additionally, it can build relationships between students and institutions, enhance communication between institutions and students, and boost transparency with students [1].

Student administration services are critical to an institution's success. Student satisfaction with administrative services has become increasingly critical in recent years as universities compete to attract and retain students in an increasingly competitive higher education environment [2]. This is especially true in Indonesia. Colleges have increased significantly in recent years, giving students more options than ever before.

Bina Nusantara (BINUS) University has a solid reputation for teaching, research, and innovation. To meet the varied requirements and aspirations of its students, BINUS, like all universities, must overcome substantial obstacles. The administrative services provided by BINUS must be continually assessed and improved to satisfy the changing needs of its students if it is to continue to be a top-tier university. Also, BINUS can enhance the responsiveness and accessibility of some services and the timeliness of responses to inquiries and requests [3]. The part of student

administration that has already satisfied the students must strive to maintain its performance. But also, university must highlight the significance of improving performance in areas that were deemed important by the students but exhibited low satisfaction levels [4].

This paper analyzes student satisfaction with BINUS administrative services. It also identifies areas for improvement and provides recommendations for improving the student experience. Consider the following administrative services: academic advising, registration and enrollment, financial aid, and scholarships. By analyzing student perceptions of these services, we hope to provide insights into how BINUS can better meet student needs. We also hope to improve overall university satisfaction. To achieve this goal, we conducted a comprehensive survey of BINUS students using quantitative methods.

Overall, our results suggest that while BINUS students are generally satisfied with administrative services, the university can improve. In particular, students expressed concerns about the accessibility and responsiveness of certain services and the timeliness of responses to queries and requests. Based on these insights, we make recommendations for improving management services at BINUS. This aims to improve the overall student experience and increase student satisfaction with the university.

II. LITERATURE REVIEW

A. Student Satisfaction

Satisfaction is the degree of a person's perceived state that results from evaluating how well a product's perceived appearance or outcome matches one's expectations [5]. According to Elliot and Healy (2001), student satisfaction is a temporary mindset that results from assessing a student's educational experiences. It is a multifaceted process that is affected by many different things [6]. Student satisfaction has become a major concern for academic administrators as it is considered an important factor in the retention and success of students. Many studies have been done to gauge student satisfaction at the university level. Many variables have been found to have the capacity to influence how satisfied students are with the various educational services offered by universities [7]. A study by Wyat et al. (2014) investigated the relationship between student satisfaction and academic policies and procedure. Authors said that students who perceived academic policies and procedures as fair and transparent were more likely to report high levels of satisfaction with their college experience [8].

B. Administration

Administration is the process of managing or directing an organization, business, or institution. In context of higher education, academic administration involves managing the academic and support services of an institution, such as budgeting, student affairs, evaluation, and others. Based on study by Zhang and Katsomitros (2018), the authors identified that several factors had contributed to effective academic administration, such as clear communication, supportive leadership, and strong faculty support [9]. Another research in Indonesia, has found that there is significant influence in student satisfaction either its simultaneously or partially on administration service quality [10].

C. Academic Services

Academic services are a critical component of academic administration, as they play a key role in supporting the academic success of students. Every institution strives to deliver top-notch academic services in order to realize top-notch academic procedures and generate top-notch results [11]. According to Biddix et al. (2018) there are some several factors had contributed to effective academic services, including proactive outreach to students, customize support based on individual student needs, and strong collaboration between academic services and academic departments [12]. Some other research also agreed about how administrative services such as academic assistance and access through the course material was a main factor that needed to be focused on [13].

D. Finance Services

Finance services is one of the critical aspect in academic administration. Because finance is a serious problem that must be considered carefully. As mentioned in study by Kezar and Gehrke (2015) that managing finance services was one of some best practices for academic administration including promoting transparency and accountability, fostering a culture of financial responsibility, and aligning financial priorities with institutional mission and goals [14]. Also, based on study by Green and Friesen (2016) an institution with strong financial resources were better able to provide high-quality academic programs, support services, and facilities that contribute to student success and satisfaction [15].

E. Academic Achievement

Academic achievement includes academic accomplishment and performance in their studies, including grades, attendance, and active participation in academic activities. Study said that students that have good grades or achieving high academic performance are more likely to feel satisfied with the administration services [16]. It's because they think that universities have met their obligations towards students.

F. Economic Condition

What economic condition means here was about individual's financial situation, including factors such as income, affordability of education, and access to financial resources. Economic conditions can significantly impact their satisfaction with administrative services. There's some study that said students who have financial problems negatively affected student's satisfaction with administrative services [17]. It was the effect of any struggle to afford essential resources, such as textbooks.

III. SUPPORTING THEORY

A. Theory of Customer Satisfaction and Administrative Services

Customer satisfaction, which has strategic linkages to overall service performance (Truch, 2006) and is a major theoretical and practical concern for most marketers and consumer researchers (Goode, 2001), lies at the heart of the marketing concept [18]. The theory of customer satisfaction is a crucial framework for understanding and improving student satisfaction with administrative services at BINUS University. According to this theory, customer satisfaction is the result of the perceived quality of services provided by an organization relative to customer expectations [19]. To improve student satisfaction with administrative services, BINUS must first understand students' expectations and perceptions of these services [20]. Measuring customer satisfaction permits the identification of the critical element that influences customers' contentment or discontent with services. Once they are identified, one can take the necessary steps to get rid of the detrimental elements. In other words, BINUS can then effectively manage its resources [21]. In the context of higher education, administrative services refer to a range of activities and processes that support student learning, development, and achievement. These services include academic advising, registration and enrollment, financial aid and scholarships, and other related services [22]. Effective administration of these services is critical to the institution's success and student satisfaction.

Customer satisfaction theory emphasizes measuring and improving service quality. This can be done through reliable and valid measurement tools such as surveys and questionnaires [23]. These tools can help identify areas of strength and weakness in service delivery. They can also provide insights into how to improve services to better meet students' needs and expectations. Another significant aspect of customer satisfaction theory is the role of communication and responsiveness in shaping service quality perceptions. Students who feel that their concerns are heard and addressed in a timely manner are more likely to be satisfied with administrative services than those who do not. Therefore, BINUS must establish effective communication channels and responsive processes to ensure students' needs and concerns are addressed promptly and effectively.

Overall, the theory of customer satisfaction provides an effective framework for understanding and improving student satisfaction with administrative services at BINUS University. By measuring service quality, improving communication and responsiveness, and addressing areas of weakness, BINUS can enhance the student experience and maintain its position as a world-class institution.

B. Relationship between customer satisfaction and administrative services

Providing exceptional service is a crucial tactic for success and survival in today's highly competitive global environment [24]. These things happen too in higher education institutions. Customer satisfaction and administrative services are crucial in higher education institutions. In the case of BINUS University, the administration's ability to provide high-quality services to its students directly impacts their satisfaction with the institution [25]. High service quality is necessary to achieve high

customer satisfaction levels, which frequently results in positive behavioral intentions [26].

Research has shown that customer satisfaction correlates with organizational performance, loyalty, and retention. In the context of higher education institutions, this means that satisfied students are more likely to remain enrolled, recommend the institution to others, and contribute positively to the university's reputation [27]. Moreover, the quality of administrative services directly affects students' academic success, which in turn contributes to their overall satisfaction with the university. For example, students who have timely access to academic advising, course registration, and financial aid are more likely to succeed academically and report higher levels of satisfaction with the institution.

Therefore, BINUS University must maintain a high level of administrative service quality to meet the evolving needs and expectations of its students. As a result, the institution will be able to foster a positive relationship between customer satisfaction and administrative services, resulting in improved academic outcomes, student retention, and institutional success.

IV. METHODOLOGY

One of the primary techniques in statistical analysis is sampling. Knowing that a population has a limited number of units is one of a researcher's top priorities [28]. The sampling that we use in this research is the non-probability sampling. Non-probability sampling method is a type of sampling method which researcher select some units from the population. This selection is not based on any randomization or probability theory [29]. Non-probability sampling sometimes applied when it was difficult or impractical to obtain a random sample from the population. It involves some subjective judgement and selects the units that they believe are most relevant or representative for the study. One of disadvantages of this method is, it can cause some bias. As we know, some certain groups or perspectives may be overrepresented or underrepresented.

Although non-probability sampling methods have their own limitations, they can still provide valuable insights and generate meaningful data. We can maximize the data by utilizing appropriate data analysis techniques to help mitigate some of the potential biases and enhance the validity of the result.

This paper uses structural equation modeling (SEM) to analyze student satisfaction with administrative services at Bina Nusantara University (BINUS). SEM is a statistical technique that enables researchers to examine the relationships between latent variables (unobserved constructs) and observed indicators [30]. SEM is a generic structure that includes at the same time solving systems of linear equations and involves other techniques like regression, factor analysis, path analysis, and latent growth curve modeling [31]. The data for this study was collected through a comprehensive survey of BINUS students using

quantitative methods. The survey responses were then analyzed with SEM to determine the relationships between the latent variables and indicators.

1. Research question

This study focuses on understanding the impact of various factors on student satisfaction with administrative services at BINUS University. Specifically, the study seeks to answer questions related to the impact of academic and financial services, academic achievement indicators, and economic conditions on student satisfaction. Additionally, the study aims to explore how academic and financial services influence each other in affecting student satisfaction. It also aims to explore whether the proposed model can explain student satisfaction variations.

List of questions:

Academic

1. Registration for courses: How easy is the registration process?
2. Academic information: How adequate is the academic information provided by the faculty?
3. Document collection: How smooth is the process of collecting administrative files?
4. Academic assistance: How effective is the academic assistance provided by the faculty?
5. Access to course materials: How easily do you access course materials?

Finance

1. Billing information: How adequate is the billing information provided by the faculty?
2. Payment processes: How easy was the payment process that you experienced?
3. Payment documents: How adequate are the payment documents provided by the faculty?
4. Payment policies: How clear is the payment policy in place?

Academic achievement

1. Grade point average (GPA):
 - To what extent do you agree with the statement that factors other than intelligence, such as hard work and discipline, play a role in achieving a high GPA?
 - To what extent does your academic achievement index (GPA) reflect actual academic ability?
2. Course credit:
 - To what extent do you agree that the number of course credits awarded for a course reflects the level of difficulty and complexity of the material being taught?
 - To what extent do the course credits you receive meet your academic needs?

Economic condition

1. Family income:
 - To what extent do you agree that having adequate financial support from your family can help you focus on your education and reduce any financial pressures you may face?

- To what extent does your family's income level affect your ability to pay for college?

2. Scholarships:

- To what extent do you agree that scholarships can be a determining factor in enabling students' access to higher education?
- To what extent do you agree that scholarships can help reduce the financial burden and allow students to focus on their academic achievements?

To address these research questions, the study employs a measurement model to assess the validity and reliability of survey data collected from BINUS students.

2. Measurement Model

2.1 Measuring validity using Pearson correlation

Validity refers to the extent to which the measurement instrument used actually reflects what it is meant to do. To measure validity, the Pearson product-moment correlation formula can be used. This formula measures the linear relationship between two variables with a correlation coefficient r between -1 and 1. The correlation between the two variables is stronger when the correlation coefficient is close to 1 or -1. There is no significant linear link between the two variables if the correlation coefficient is close to zero.

Pearson formula:

$$R_{xy} = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{(n \sum X_i^2 - (\sum X_i)^2)(n \sum Y_i^2 - (\sum Y_i)^2)}}$$

N = The number of X and Y data pairs

$\sum X_i$ = Total amount of variable X

$\sum Y_i$ = Total amount of variable Y

$\sum X_i^2$ = Square of the total number of variable X

$\sum Y_i^2$ = Square of the total number of variable Y

$\sum X_i Y_i$ = The multiplication result of the total number of variable X and variable Y

To measure validity in this study, we can use the Pearson product moment correlation formula by connecting the variables to be measured. For example, student satisfaction with university administration performance. After obtaining the correlation coefficient, we can determine whether the measurement instrument used is valid or not.

2.2 Measuring reliability using Cronbach alpha

To measure reliability, the Cronbach alpha formula can be used. This formula calculates the consistency between several items in an instrument by calculating the alpha coefficient, which can be between 0 and 1. The closer the alpha coefficient is to 1, the more consistent the measuring instrument is at detecting the same variable at different times.

Cronbach alpha formula:

$$r_{kk} = \frac{k}{k-1} \left(1 - \frac{\sum s_i^2}{s_t^2} \right)$$

In which:

r_{kk}	= the computed Cronbach's alpha
K	= the number of items
s_i^2	= the variance of every item
s_t^2	= the variance of the total scale

To measure research reliability, we can use the Cronbach alpha formula to measure the reliability of a student satisfaction measurement instrument. This is done by calculating the alpha coefficient of several questions in the questionnaire.

3. SEM Model

In this study, two latent variables are used to represent the factors that affect student satisfaction with administrative services: academic and financial. The academic latent variable is measured by five indicators: registration for courses, academic information, document collection, academic assistance, and access to course materials. The finance latent variable is measured by four indicators: billing information, payment processes, payment documents, and payment policies. Two endogen latent variables are also included in the model to represent the factors that may influence student satisfaction with administrative services: academic achievement and economic condition. Academic achievement is measured by two indicators: grade point average (GPA) and course credit. Economic conditions are measured by two indicators: family income and scholarships received.

Figure 1 shows the SEM for student satisfaction with administrative services at BINUS. The model includes the latent variables of academics and finance, which are predicted by the endogen variables of academic achievement and economic condition. The indicators for each latent variable are also included in the model.

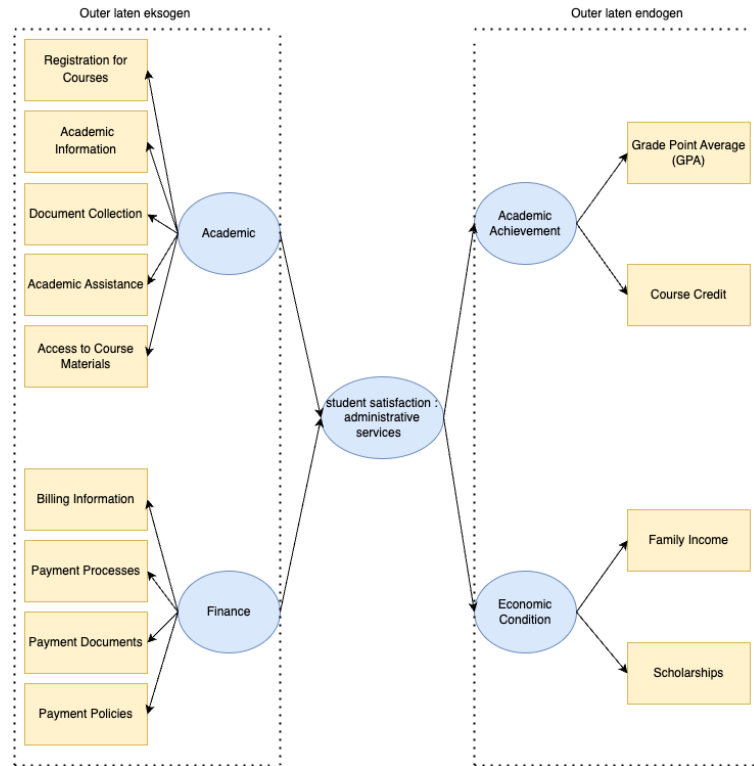


Figure 1: SEM diagram for student satisfaction with administrative services at BINUS University

The SEM approach used in this study provides an effective framework for analyzing student satisfaction with administrative services at BINUS. It enables researchers to examine the relationships between multiple factors that influence student satisfaction, including academic achievement and economic conditions. By identifying areas for improvement, this study can inform recommendations for improving management services at BINUS. This is to improve the overall student experience and increase student satisfaction with the university.

V. RESULT AND DISCUSSION

In this research, data are obtained through a questionnaire survey from 13 June 2023 until 14 June 2023. Participants for this research were students from Bina Nusantara University (BINUS) who had experienced the academic services in BINUS. The study focused on assessing student satisfaction with administrative services. A total of 53 valid responses were obtained from the questionnaire survey, which consisted of 18 questions.

Respondent Information

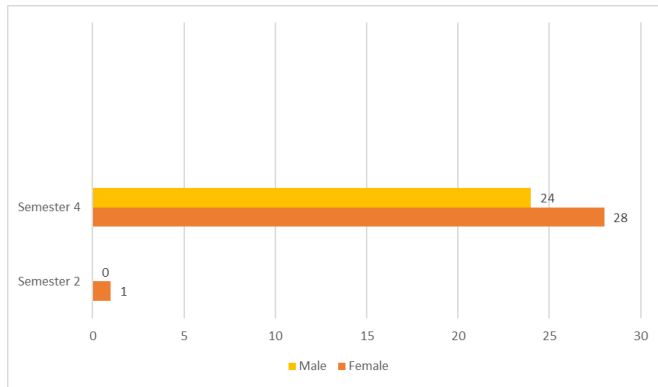


Figure 2: Respondent Demographic Chart

Respondents consisted of 24 men and 29 women. One woman is on the second semester while the others are on fourth semester.

Table 1 displays the Pearson values, providing insights into the validity assessment. Rtable that we used in this validity measurement is 0.2732. Based on the table, all of the indicators are valid.

TABLE I. VALIDITY TABLE WITH PEARSON FOR ACADEMIC LATENT

Indicator	Question	Score	Validity
Registration for courses	R1	0.7642	Valid
Academic information	A1	0.7285	Valid
Document collection	D1	0.7480	Valid
Academic assistance	AA1	0.7127	Valid
Access to course materials	AC1	0.5856	Valid

Table 2 displays the Pearson values, providing insights into the validity assessment. Rtable that we used in this validity measurement is 0.2732. Based on the table, all of the indicators are valid.

TABLE II. VALIDITY TABLE WITH PEARSON FOR FINANCE LATENT

Indicator	Question	Score	Validity
Billing information	B1	0.6150	Valid
Payment processes	P1	0.4477	Valid
Payment documents	PD1	0.7017	Valid
Payment policies	PP1	0.7181	Valid

Table 3 displays the Pearson values, providing insights into the validity assessment. Rtable that we used in this validity measurement is 0.2732. Based on the table, all of the indicators are valid.

TABLE III. VALIDITY TABLE WITH PEARSON FOR ACADEMIC ACHIEVEMENT LATENT

Indicator	Question	Score	Validity
Grade point average (GPA)	G1	0.4490	Valid
	G2	0.6669	Valid
Course credit	C1	0.6593	Valid
	C2	0.5665	Valid

Table 4 displays the Pearson values, providing insights into the validity assessment. Rtable that we used in this validity measurement is 0.2732. Based on the table, all of the indicators are valid.

TABLE IV. VALIDITY TABLE WITH PEARSON FOR ECONOMIC CONDITION LATENT

Indicator	Question	Score	Validity
Family income	F1	0.5863	Valid
	F2	0.6864	Valid
Scholarships	S1	0.6905	Valid
	S2	0.5364	Valid

Table 6 displays the Cronbach's Alpha values, providing insights into the reliability assessment. According to the table, both the latent factors of student satisfaction and academic surpass the threshold of 0.70, indicating satisfactory reliability. Both the latent factors of finance and economic condition have values above 0.40 indicating reliability at a moderate level. However, the academic achievement latent have values lower than 0.40 indicating reliability at low level. So, based on the Guilford reliability coefficient classification table, only four of five are considered reliable.

TABLE V. GUILFORD RELIABILITY COEFFICIENT CLASSIFICATION TABLE

Guilford reliability coefficient category		
1	$0,80 \leq r_{11} \leq 1,00$	Very high reliability
2	$0,60 \leq r_{11} \leq 0,80$	High reliability
3	$0,40 \leq r_{11} \leq 0,60$	Moderate reliability
4	$0,20 \leq r_{11} \leq 0,40$	Low reliability

TABLE VI. RELIABILITY TABLE WITH CRONBACH ALPHA

Variable	Cronbach's Alpha	Reliability
Student Satisfaction	0.765	High reliability
Academic	0.7549	High reliability
Finance	0.4733	Moderate reliability
Academic achievement	0.3721	Low reliability
Economic condition	0.4771	Moderate reliability

VI. CONCLUSION

The objective of this research is to identify the factors influencing student satisfaction with administrative services. Studies have indicated that finance services and academic services, encompassing registration for courses, academic information, document collection, academic assistance, access to course materials, billing information, payment processes, payment documents, and payment policies, significantly impact student satisfaction. The findings demonstrate a positive relationship between these factors and student satisfaction, emphasizing the need for universities/institutions to enhance their finance and academic services.

Regarding the validity assessment, all indicators for the academic, finance, academic achievement, and economic condition latent factors were found to be valid based on the Pearson correlation scores. This suggests that the selected indicators effectively measure their respective constructs. Furthermore, the reliability assessment revealed that both the student satisfaction and academic factors exhibited high reliability, as their Cronbach's Alpha values exceeded the threshold of 0.70. On the other hand, the finance and economic condition factors demonstrated moderate reliability, with Cronbach's Alpha values above 0.40. However, the academic achievement factor showed low reliability, with a Cronbach's Alpha value below the desirable threshold.

In conclusion, the findings of this study emphasize the importance of finance and academic services in influencing student satisfaction with administrative services. To enhance student satisfaction, universities and institutions should focus on improving the following aspects:

1. Academic Services: Streamline the registration process, provide comprehensive academic information, facilitate efficient document collection, and offer accessible academic assistance. Ensuring smooth access to course materials is also essential.
2. Finance Services: Optimize billing information, payment processes, payment documents, and

payment policies. These areas should be designed to meet student expectations and provide a seamless financial experience.

Overall, the results indicate that universities and institutions should prioritize improving finance and academic services to enhance student satisfaction with administrative services. By addressing these areas, universities can create a positive environment that supports student success and well-being.

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