

## **The Influence of Process Ease and Service Satisfaction on Student Payment Compliance: Evidence from a Private University in Surabaya**

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### **Abstract :**

Student decisions in higher education are influenced not only by academic quality but also by how smooth administrative services are and how simple admission procedures feel. Although many students report that services are satisfactory and registration is convenient, it is unclear whether these perceptions directly affect their willingness to pay tuition fees. This research explores how service satisfaction and process ease relate to payment compliance at a private university in Surabaya, Indonesia. The institution enrolls about 6,157 students and charges an average tuition fee of thirty million rupiah per semester. Data were obtained from 2,646 survey responses and analyzed using chi-square tests and logistic regression to examine the link between perceptions and payment outcomes. Results show that even though most respondents evaluated services and processes positively, neither factor demonstrated a significant statistical effect on tuition compliance. These findings suggest that financial ability and external economic pressures may play a stronger role than service perceptions. The study contributes by distinguishing between satisfaction with enrollment procedures and actual financial commitment, offering both theoretical insights and managerial implications for higher education institutions.

Keywords: service satisfaction; process ease; payment compliance; higher education; student behavior

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## **INTRODUCTION**

Higher education plays a central role in producing qualified human resources, which in turn supports national development. In Indonesia, growing competition between public and private universities has pushed institutions to enhance not only their academic programs but also the overall quality of services offered to students. This means that the value of higher education is judged not only by academic outcomes but also by the efficiency of administrative systems and support services provided.

Previous research highlights that service quality and marketing strategies are important factors in shaping students' choice of institution (Onsardi, Pratama, & Asmawan, 2021). Service satisfaction reflects the extent to which administrative staff provide timely, professional, and helpful assistance during the admission process. When students perceive staff as responsive and reliable, they tend to form a positive impression of the institution. Likewise, the ease of process refers to how simple, transparent, and understandable the registration procedure is. Empirical studies confirm that clarity and convenience during registration strongly influence enrollment decisions (Ifanni, Azhmy, & Pasaribu, 2022).

These findings indicate that service and process are not merely operational details but strategic factors in attracting students.

However, most studies focus on prospective students' intention to enroll or their choice of institution, rather than on actual tuition payment. For example, research has shown that word-of-mouth significantly shapes enrollment decisions (Fakhrudin, Yudianto, & Melly, 2021), while marketing mix elements such as product, price, and process contribute to enrollment growth (Rahim, Hasanuddin, Anfas, Syafiuddin, & Wahyuddin, 2023). Yet, it is still unclear whether these positive perceptions directly translate into tuition payment compliance. This gap is important, since even when students are satisfied with services and processes, external financial pressures or limited household resources may prevent them from paying tuition.

A private university in Surabaya provides a useful case to examine this issue. The institution, which serves approximately 6,157 students and charges around thirty million rupiah per semester, is known for adopting efficient admission systems and modern marketing approaches. Despite these strengths, not all students who report positive experiences with service and registration processes ultimately complete tuition payments. This raises an important managerial question: are favorable service interactions and streamlined processes sufficient to guarantee payment compliance, or are financial and contextual factors more decisive?

To address this gap, this study investigates the impact of service satisfaction and process ease on student payment compliance. Using survey data from 2,646 respondents, the study applies chi-square tests and logistic regression to examine these relationships. The contribution of this research lies in clarifying the gap between perceived satisfaction and actual financial behavior. The findings are expected to enrich higher education marketing literature and provide practical insights for private universities seeking to integrate service quality with strategies that improve financial accessibility.

Service satisfaction refers to how effectively front-office or admission staff respond to applicants' needs in a professional and supportive manner. In the Indonesian higher education context, studies confirm that service quality strongly influences students' choice of institution (Onsardi, Pratama, & Asmawan, 2021). Positive service encounters often generate favorable word-of-mouth, which plays a significant role in guiding prospective students' decision-making (Fakhrudin, Yudianto, & Melly, 2021). Beyond the education sector, broader marketing research has also shown that responsive service and quick problem resolution increase customer conversion rates in different industries (Ma, 2022; Yuan, 2024). Similarly, digital interaction studies report that supportive engagement and responsiveness enhance users' intention to continue or finalize a transaction. These findings suggest that service satisfaction may contribute to students' willingness to complete tuition payment.

**H1:** Service satisfaction has a significant influence on student payment compliance.

Process ease describes the degree of simplicity, transparency, and clarity that applicants experience during registration. Prior studies highlight that straightforward procedures and clear instructions make enrollment easier and more appealing to students (Ifanni, Azhmy, & Pasaribu, 2022; Rahim, Hasanuddin, Anfas, Syafiuddin, & Wahyuddin, 2023). In higher education marketing via social

media, well-structured content and transparent processes are also linked with increased student engagement (Altamira, Putri, & Samudra, 2023). On a broader scale, international research demonstrates that streamlined online journeys and user-friendly systems reduce friction and enhance the likelihood of completing transactions (Shi, Cao, & Yao, 2025; Wei & Pan, 2025). Based on this evidence, a positive relationship between process ease and tuition payment compliance is expected.

**H2:** Process ease has a significant influence on student payment compliance.

Tuition payment represents the final and most crucial stage of the student decision process. While positive perceptions of service and registration processes may create trust and satisfaction, affordability and financial readiness often determine whether payments are actually made. Prior studies in Indonesia emphasize that pricing strategies and process clarity affect students' enrollment choices (Rahim et al., 2023; Nuriadi, 2021). Similarly, evidence from digital commerce shows that even when experiences are positive, transactions may fail if financial enablers or risk-reduction mechanisms are absent (Wei & Pan, 2025; Shi et al., 2025). This distinction highlights the importance of testing whether satisfaction and convenience directly influence payment behavior, or whether financial capacity serves as the dominant driver.

Drawing from the literature, it is reasonable to propose that positive experiences with university staff and administrative procedures encourage students to proceed with payment. Satisfaction with services and convenience in process create favorable perceptions that may influence financial behavior. Accordingly, the following hypotheses are proposed:

H1: Service satisfaction has a significant influence on student payment compliance.

H2: Process ease has a significant influence on student payment compliance.

## RESEARCH METHODS

This study adopts a quantitative-descriptive design, using institutional records obtained from the university's admissions and marketing database. The dataset consists of 2,646 complete responses, each containing three key fields: (i) payment status (coded 1 for paid and 0 for unpaid), (ii) service satisfaction score (ordinal scale from 1 = not helpful to 5 = very helpful), and (iii) process ease score (ordinal scale from 1 = very difficult to 5 = very easy). The primary analytical method is binary logistic regression, appropriate for a binary dependent variable. To meet conventional reporting standards, an auxiliary Ordinary Least Squares (OLS) Linear Probability Model (LPM) was also estimated, and standard diagnostic tests were applied to its residuals. The significance threshold for all tests was set at  $\alpha = 0.05$ .

a) Normality test. Residuals from the auxiliary OLS were examined using Kolmogorov-Smirnov and Jarque-Bera tests. A p-value greater than 0.05 indicates residuals are not significantly different from a normal distribution, while  $p \leq 0.05$  indicates non-normality. Because binary outcomes typically produce non-Gaussian errors, logistic regression was used as the main model.

b) Linearity and functional form test. For the OLS model, the Ramsey RESET test was conducted to evaluate misspecification. For the logistic regression, monotonicity checks similar to the Box-Tidwell approach were conceptually applied. A non-significant result suggests no major misspecification.

c) Autocorrelation test. The Durbin-Watson statistic and Breusch-Godfrey LM test were used on OLS residuals. Values near 2 (for Durbin-Watson) or  $p > 0.05$  (for Breusch-Godfrey) suggest no autocorrelation.

- d) Multicollinearity test. Variance Inflation Factors (VIFs) were calculated for the two predictors. VIF values below 10 indicate no multicollinearity problem.
- e) Heteroscedasticity test. Breusch–Pagan, White, and Glejser tests were applied to OLS residuals. A p-value above 0.05 indicates homoscedasticity. Where heteroscedasticity was indicated, robust HC3 standard errors were reported.
- f) Regression significance tests. In the logistic regression, Wald z-tests were used to assess the effect of service satisfaction and process ease on payment status. In the auxiliary OLS, t-tests were applied, with robust errors when necessary.
- g) Model fit and explanatory power. Overall model significance was tested using the Likelihood Ratio chi-square in the logistic regression and the F-test in OLS. Pseudo R<sup>2</sup> (e.g., McFadden or Nagelkerke) and classification accuracy were reported to summarize explanatory strength.

### 3.2. Population, sample, and setting

The research was conducted at a private university in Surabaya, Indonesia. To maintain confidentiality, the institution's name is not disclosed. The university has approximately 6,157 students, with tuition averaging IDR 30,000,000 per semester. Admissions are conducted through both online and offline channels, with student feedback collected at registration touchpoints.

The target population consists of prospective students who engaged in the admission process and completed feedback forms on service satisfaction and process ease. From 2,646 records available, listwise deletion was applied for missing values, resulting in an analytic sample of 2,621 respondents. The dependent variable (payment status) was balanced, with 1,316 students recorded as paid and 1,305 as unpaid. This balance supports stable estimation in logistic regression. Each observation corresponds to one applicant interaction recorded in the admission system.

Responses to service satisfaction were recorded on a five-point Likert scale from “not helpful” to “very helpful.” Process ease was also measured on a five-point scale ranging from “very difficult” to “very easy.” Both items were collected during registration, either online or at the admission desk. All data were anonymized prior to analysis to ensure confidentiality.

## RESULTS AND DISCUSSION

### 3.3.1 Classic Assumption Tests

This subsection evaluates whether the regression specification is adequate for inference. Because the dependent variable in this study is binary (Paid\_Status: 1 = paid; 0 = not paid), the primary model is binary logistic regression. Nevertheless, to comply with conventional reporting standards for classical diagnostics, we also estimate an auxiliary OLS Linear Probability Model (LPM) on the same predictors and apply the five standard OLS assumption tests to its residuals. The BLUE conditions (Best Linear Unbiased Estimator) strictly apply to OLS, not to logistic regression; therefore, any violations observed in the LPM do not invalidate the logistic results. Where OLS assumptions are breached (as often occurs with 0/1 outcomes), we report heteroscedasticity-robust (HC3) standard errors for descriptive OLS tables and rely on the logit model for substantive conclusions.

- a) Normality test assess whether OLS residuals are approximately normally distributed. Using Kolmogorov–Smirnov or Jarque–Bera tests on LPM residuals. Decision rule:  $p > 0.05$  indicates residuals are not significantly different from normal;  $p \leq 0.05$  indicates non-normality (expected with binary outcomes; handled by emphasizing the logistic model).

- b) Linearity (functional form) test verify that a linear-in-parameters form is adequate for the auxiliary OLS and that predictors relate monotonically to the logit in the primary model. Using Ramsey RESET (adding polynomial terms of fitted values) for OLS; monotonicity checks (e.g., Box–Tidwell concept) for the logit. Decision rule:  $p > 0.05$  (RESET) indicates no strong misspecification; otherwise consider alternative codings (e.g., dummy categories, interactions).
- c) Autocorrelation test detect serial correlation in residuals (rare in cross-sectional surveys but reported for completeness). Using Durbin–Watson statistic and Breusch–Godfrey LM test (lag 1) on OLS residuals. Decision rule: Durbin–Watson near 2 and/or Breusch–Godfrey  $p > 0.05$  indicate no autocorrelation.
- d) Multicollinearity test ensure predictors are not excessively redundant. With Variance Inflation Factor (VIF) using the OLS design matrix. Decision rule:  $VIF < 10$  indicates no multicollinearity concern (in this study, VIFs are approximately 1).
- e) Heteroscedasticity test whether residual variance is constant across fitted values (LPMs typically exhibit heteroscedasticity). Procedure: Breusch–Pagan and White tests on OLS residuals (a Glejser test may be reported as robustness). Decision rule:  $p > 0.05$  indicates homoscedasticity;  $p \leq 0.05$  indicates heteroscedasticity. When heteroscedasticity is detected, report HC3-robust standard errors for any OLS table and retain logistic regression as the inferential model.

### 3.3.2. Results For Classic Assumption Tests

Although the dependent variable in this study is binary (paid = 1, unpaid = 0) and logistic regression serves as the main model, an auxiliary OLS Linear Probability Model was also estimated to document standard regression diagnostics.

- a) Normality test. The Jarque–Bera test on OLS residuals produced  $JB = 435.523$  with  $p = 0.0000$ , rejecting normality. This outcome is common when the dependent variable is binary. It does not affect inference since logistic regression does not assume normally distributed errors.
- b) Linearity test. The Ramsey RESET test ( $F = 2.508$ ,  $p = 0.1134$ ) indicated no significant misspecification, suggesting that treating service and process scores as ordinal predictors is appropriate.
- c) Autocorrelation test. The Durbin–Watson statistic was 1.887, close to the ideal value of 2, but the Breusch–Godfrey test ( $LM = 7.601$ ,  $p = 0.0058$ ) flagged some dependence. This likely reflects minor clustering among responses rather than true serial correlation. Robust standard errors were therefore reported for the OLS model.
- d) Multicollinearity test. Variance Inflation Factors were low (Service Score = 1.062; Process Score = 1.062), well below the threshold of concern, indicating no collinearity problem.
- e) Heteroscedasticity test. Both the Breusch–Pagan ( $p = 0.4228$ ) and White tests ( $p = 0.2341$ ) were non-significant, showing no strong evidence of heteroscedasticity.

Overall, diagnostic checks confirmed that the logistic regression model is valid. The violations observed in the OLS specification are expected for binary outcomes and do not undermine the main results.

## Descriptive Findings

Survey responses revealed a highly positive evaluation of services and registration processes. For service satisfaction, around 90 percent of respondents chose “helpful” or “very helpful,” while negative ratings were rare. Process ease was also viewed favorably, with most responses falling in the “easy” or “very easy” categories. By contrast, payment outcomes were nearly evenly split, with 1,316 students completing tuition payments and 1,305 not doing so. This suggests that favorable perceptions of service and process did not guarantee tuition compliance.

## Regression Results

Logistic regression results showed that neither service satisfaction nor process ease had a statistically significant effect on payment status. Coefficients were small, and pseudo  $R^2$  was close to zero (approximately 0.0005), indicating negligible explanatory power. Chi-square tests across different response categories also confirmed the lack of significant association.

The findings highlight an important distinction: while positive service experiences and streamlined processes shape satisfaction and intention to enroll, they do not necessarily influence whether tuition is paid. At the payment stage, financial factors such as affordability, liquidity constraints, scholarships, discounts, and fee framing appear to play a more decisive role.

This result is consistent with earlier Indonesian studies that emphasize service quality and marketing strategies in influencing institutional choice (Onsardi et al., 2021; Fakhruddin et al., 2021; Ifanni et al., 2022; Rahim et al., 2023). It also aligns with international research in digital commerce, which shows that customer experiences affect preference, but actual transactions depend largely on financial enablers and risk-reduction mechanisms (Ma, 2022; Shi et al., 2025; Wei & Pan, 2025).

The present study therefore extends the literature by focusing not on student intentions but on actual financial commitment. It suggests that universities should treat service quality and process ease as necessary conditions for satisfaction, but not sufficient levers for ensuring payment compliance.

## CONCLUSION

This study examined whether satisfaction with administrative services and the ease of the registration process influence tuition payment compliance among applicants to a private university in Surabaya, Indonesia. Using institutional data from 2,646 records (final analytic sample = 2,621), the dependent variable was measured as a binary indicator of payment completion. Service satisfaction and process ease were captured on five-point scales.

Descriptive analysis showed that most applicants reported highly positive evaluations of staff helpfulness and the simplicity of registration. However, payment outcomes were almost evenly split between those who paid and those who did not. Inferential tests, including chi-square comparisons and logistic regression, revealed no significant effect of service satisfaction or process ease on payment compliance. Coefficients were small, and the pseudo  $R^2$  value was negligible.

Diagnostic checks using an auxiliary linear probability model supported the validity of the logistic model. Although normality was rejected (as expected for binary data) and mild dependence was detected, these issues did not affect the main inference. Multicollinearity was absent, and no strong evidence of heteroscedasticity was found.

Substantively, the results indicate that while good service and efficient procedures are appreciated, they do not determine whether students actually pay tuition. In this context—where tuition is approximately IDR 30 million per semester—financial considerations such

as affordability, liquidity, scholarships, and payment schedules likely exert stronger influence.

By highlighting the difference between drivers of satisfaction and actual financial behavior, this study contributes to the literature on higher education management. It shows that service quality and process ease are important but insufficient for securing payment compliance without complementary financial strategies.

#### 5. Managerial Implications

The findings suggest that applicants generally view the university's service quality and registration procedures positively, yet these favorable perceptions do not translate into higher rates of tuition payment. For managers, this indicates that additional improvements in staff responsiveness or procedural simplicity may no longer produce significant gains at the payment stage. The real challenge lies in financial capacity rather than administrative experience.

For this reason, strategies should focus on creating financial arrangements that reduce perceived cost and align better with household cash flow. One option is to redesign tuition payment schemes so that students are not faced with a single large semester bill. Instead, smaller and more predictable installment options—such as three, six, or twelve months—should be made available and communicated clearly. Early-payment incentives, targeted discounts, and transparent cost breakdowns can also reduce uncertainty and help students plan more effectively.

Communication should emphasize financial manageability rather than admission procedures. Outreach can be personalized toward applicants showing signs of hesitation, such as long delays in settling invoices or repeated questions about tuition. For these students, counselors can provide simple comparisons of payment plans, highlight scholarship opportunities, and explain relief options if circumstances change. Staff should be supported with scripts and tools that translate semester fees into manageable monthly figures, making affordability more concrete.

Timing is also important. Payment reminders should coincide with periods when families are most likely to have liquidity, such as after salary dates. Messages can be framed differently for specific segments—for instance, stressing savings for early payment in some cases or promoting installment flexibility in others. Simple experiments with message content, timing, and delivery channels can be conducted each admission cycle, with successful approaches adopted into standard procedures.

In addition, payment infrastructure should be as broad and user-friendly as possible. Students should be able to pay through bank transfers, virtual accounts, credit cards, or e-wallets without hidden costs or unnecessary complications. Where appropriate, collaboration with installment providers may be considered, provided that transparency and student protection are maintained.

Finally, universities need to monitor not only satisfaction indicators but also payment conversion rates across programs, channels, and cohorts. Routine tracking of outliers can help managers quickly identify problem areas, whether in program-specific conversion, weak uptake of certain payment plans, or frequent technical errors. Clear rules regarding refunds, plan adjustments, and late fees should be consistently communicated to build trust and reduce perceived risk.

By combining price framing, installment design, targeted outreach, reliable infrastructure, and transparent policies, universities can address the financial barriers highlighted by this study and improve tuition payment compliance without significantly increasing operational costs.

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