

## Policy Perception and Implementation Satisfaction as Dual Mediators of Student Retention in Multi-Faith Higher Education: A PLS-SEM Study

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### ABSTRACT

**Purpose of the study:** This study examines the implementation of the Single Tuition Fee policy at a multi-faith religious higher education institution. This study analyzes student perceptions and satisfaction across various dimensions, identifies causal mechanisms among student characteristics, policy perceptions, implementation satisfaction, and study continuation, and examines the implementation challenges faced by the institution.

**Methodology:** A mixed-methods sequential explanatory design was employed. Quantitative survey of 159 students (80% response rate) analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Qualitative data collected through focus groups and interviews. Validated questionnaires measured transparency, accessibility, affordability, responsiveness, and the impact of study continuity.

**Main Findings:** Results revealed 90% of students would be unable to pursue higher education without the Single Tuition Fee support. Students rated transparency highest ( $M=4.1$ ), followed by responsiveness ( $M=3.9$ ), accessibility ( $M=3.8$ ), study continuity ( $M=3.7$ ), and affordability ( $M=3.6$ ). The structural model demonstrated that policy perception strongly influenced implementation satisfaction ( $\beta=0.695$ ,  $p<0.001$ ), which, in turn, significantly affected study continuity ( $\beta=0.548$ ,  $p<0.001$ ). Student characteristics shaped policy perception ( $\beta = 0.452$ ,  $p < 0.001$ ), with full mediation through perceptions and satisfaction.

**Novelty/Originality of this study:** First comprehensive evaluation of the Single Tuition Fee policy implementation in religious higher education using PLS-SEM methodology. Reveals that policy success operates through a causal chain in which positive perceptions and high-quality implementation matter as much as financial support itself, advancing understanding of the effectiveness of higher education financing in minority religious institutions.

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### 1. INTRODUCTION

Higher education is one of the key instruments in human resource development and the achievement of the Sustainable Development Goals (SDGs), especially SDG 4 on quality education [1]. In Indonesia, the gap in access to higher education remains a significant concern, reflected in the Gross Participation Rate (APK) of

higher education, which only reached 32% nationally in 2024 [2]. This figure indicates that less than one-third of residents aged 19-23 years participate in higher education.

The access disparity becomes more pronounced when examined from the perspective of socioeconomic status, with students from low-income families facing substantial barriers to higher education participation [3], [4]. The financing challenge has been recognized as a critical factor influencing educational access and persistence globally [5]-[7]. In response to these challenges, the Indonesian government implemented the Single Tuition Fee (Uang Kuliah Tunggal/UKT) policy through Ministry of Religious Affairs Regulation Number 30 of 2014 [8], later revised through Regulation Number 15 of 2020 [9].

The UKT policy represents a significant departure from previous financing models by introducing a progressive, income-based tuition structure designed to enhance affordability and equity [8]-[10]. Under this policy, students are categorized into different tuition groups based on their family's economic capacity, with the goal of ensuring that financial constraints do not impede access to quality higher education. The policy is particularly significant for state religious higher education institutions (PTKIN), which serve diverse student populations with varying socioeconomic backgrounds [11], [12].

Within Indonesia's higher education landscape, religious institutions occupy a unique position, serving as bridges between religious identity and modern educational aspirations [11], [13]. The State Buddhist Higher Education Institute (STABN) Raden Wijaya represents a particularly interesting case within this landscape. Established as Indonesia's first and only state Buddhist higher education institution, STABN Raden Wijaya serves a religiously diverse student body, with approximately 42% of students identifying as Muslim alongside the Buddhist majority [7]. This demographic composition creates a unique context for examining policy implementation, as the institution must navigate religious diversity while maintaining its Buddhist institutional identity [4], [14].

Despite the policy's noble intentions, its implementation has not been without challenges. Students have periodically protested tuition increases [1], and questions persist about the transparency of UKT group determination processes, the adequacy of support for non-tuition costs, and the responsiveness of institutional mechanisms to changing student circumstances [2], [3], [10]. The effectiveness of the policy in achieving its equity objectives remains a subject requiring rigorous empirical investigation [15]-[17]. While previous studies have examined various aspects of higher education financing in Indonesia [17], [18], significant gaps remain in our understanding of UKT policy implementation. First, most existing research relies on descriptive analyses or simple regression models [2], [3], [10], failing to capture the complex, mediated relationships among student characteristics, policy perceptions, implementation satisfaction, and educational outcomes [19], [20]. Second, there is a paucity of research examining UKT implementation in religiously diverse educational contexts [4], [11], [14], particularly in minority religious institutions where issues of access and equity may intersect with religious identity in unique ways. Third, limited studies have employed sophisticated structural equation modeling approaches [21]-[23] to rigorously test theoretical frameworks of policy implementation and educational persistence in Indonesian higher education contexts.

This study addresses these gaps by conducting a comprehensive evaluation of UKT policy implementation at STABN Raden Wijaya, employing both quantitative and qualitative methods to examine not only whether the policy achieves its access objectives, but how it does so through specific causal mechanisms [24], [25]. The study is significant for several reasons. Theoretically, it advances our understanding of policy implementation processes in educational contexts by testing an integrated model that combines policy implementation theory [26]-[29], social justice frameworks [30], [31], and educational access theories [32], [33] using contemporary structural equation modeling techniques [34]. Methodologically, it demonstrates the application of Partial Least Squares Structural Equation Modeling (PLS-SEM) [35]-[38], in educational policy evaluation within the Indonesian context [39]-[42], contributing to the methodological literature on policy assessment [43], [44].

Practically, the findings provide actionable insights for institutional administrators and policymakers seeking to optimize UKT policy implementation [29], [44]. The study contributes to ongoing national debates about higher education financing reform by providing empirical evidence about what works, what doesn't, and why [45], [46]. For STABN Raden Wijaya and similar institutions, the research offers an empirical evaluation of the implementation of Regulation of the Minister of Religious Affairs of the Republic of Indonesia Number 30 of 2014 [8] in one of the STABN institutions. For other religious higher education institutions, lessons learned from STABN Raden Wijaya's experience can be used as a reference in optimizing the implementation of UKT policies [13], [29].

This study addresses the following research questions: 1) To what extent do student characteristics influence policy perception in Single Tuition Fee policy implementation? 2) How does policy perception affect implementation satisfaction among students in multi-faith religious higher education? 3) RQ3: To what degree does implementation satisfaction influence study continuity intentions and confidence? 4) RQ4: Do policy perception and implementation satisfaction function as dual mediators in the relationship between student characteristics and study continuity?

## 2. RESEARCH METHOD

We used a mixed methods approach with a sequential explanatory design, where quantitative data were collected and analyzed first, followed by qualitative data collection and analysis to deepen understanding of the quantitative findings [24], [25]. The mixed methods approach was chosen because it aligned with the research objective of not only identifying statistical patterns in perceptions and impacts of UKT policies but also understanding the mechanisms, context, and meaning behind those patterns [45], [46].

The study population comprised all 560 active students at STABN Raden Wijaya in the 2024/2025 academic year, distributed across six study programs [39]. The sample size was determined using the Slovin formula with a 95% confidence level and a 7% margin of error, resulting in a minimum sample size of 159 students [38]. The sampling technique used was stratified random sampling with stratification by study program to ensure proportional representation across all study programs [9], [39], [47]. Of the 200 students contacted to participate in the survey, 159 provided complete and valid responses, yielding a response rate of 79.5%, which is considered excellent for an online survey [24], [25]. This high response rate demonstrates strong student engagement with the UKT issue, thereby enhancing the external validity of the research findings [20].

The research instrument was a structured questionnaire developed through a systematic process based on an extensive literature review on education policy evaluation [45], [46]. The questionnaire consisted of two main sections: (1) respondent characteristics (16 items), and (2) perceptions of UKT implementation (49 items using a 5-point Likert scale). The perceptions section on UKT implementation measures five dimensions: transparency (10 items), accessibility (10 items), affordability (12 items), responsiveness (9 items), and impact on study sustainability (8 items) [45], [46]. Each item uses a 5-point Likert scale with anchors ranging from 1 (strongly disagree) to 5 (strongly agree) [24], [25], [42]. Instrument validation involved expert judgment from three lecturers with expertise in educational evaluation, as well as pilot testing with 30 students [47]. The pilot testing results showed a corrected item-total correlation  $> 0.3$  for all items and Cronbach's alpha  $> 0.7$  for all dimensions [38], [48]. Reliability analysis on the final data (159 respondents) produced excellent Cronbach's alpha values for all dimensions: transparency ( $\alpha = 0.89$ ), accessibility ( $\alpha = 0.87$ ), affordability ( $\alpha = 0.88$ ), responsiveness ( $\alpha = 0.86$ ), and impact on study sustainability ( $\alpha = 0.85$ ) [48]-[51].

Quantitative data were collected online using Google Forms distributed through the study program's official WhatsApp groups, students' personal email addresses, and student organization networks [9], [39]. Data collection took place from June to July 2025. Before completing the questionnaire, respondents provided informed consent explaining the purpose of the study, guarantees of data confidentiality, the voluntary nature of participation, and the researcher's contact information [50]. Qualitative data were collected through focus group discussions with students from various study programs and economic backgrounds, in-depth interviews with key implementers (administrative staff, lecturers, leaders), and document analysis of institutional reports and correspondence [39], [45].

Quantitative data were analyzed using two main approaches: (1) descriptive statistics to characterize respondents and their perceptions of the five dimensions of UKT policy, and (2) Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the structural relationships between constructs [35]-[38]. PLS-SEM was selected based on several considerations (1) prediction-oriented research objectives, (2) moderate sample size (159 respondents), (3) data distribution that did not fully meet the assumption of multivariate normality, (4) the complexity of the model with four latent constructs and 19 indicators, and (5) the exploratory nature of the research in developing a new model for the context of inclusive religious higher education [41], [52]. The developed structural model consists of four main constructs: Student Characteristics ( $X_1$ ), Policy Perception ( $X_2$ ), Implementation Satisfaction ( $Y_1$ ), and Study Continuity ( $Y_2$ ) [53], [54]. The hypotheses tested include direct influences between the constructs as well as mediation effects [55]. The analysis was conducted using SmartPLS 3.3.3 with a bootstrap procedure of 5,000 samples to estimate the significance of the path coefficients [34]. Qualitative data were analyzed using thematic analysis to identify key themes emerging from student narratives and interviews with key implementers [45]. The integration of quantitative and qualitative findings was conducted to provide a comprehensive understanding of the implementation and impact of the UKT policy [24], [25].

## 3. RESULTS AND DISCUSSION

### 3.1 Respondent Profile

Examination of 159 respondents revealed a demographic profile that reflects the unique characteristics of STABN Raden Wijaya students [39]. Gender distribution showed a female predominance with 111 respondents (69.8%) compared to 48 male respondents (30.2%). Age distribution showed that 56.0% of students were aged 20-22 years, 32.7% were aged 23-25 years, and 11.3% were aged over 25 years. Of particular note is the diversity of religious backgrounds: 83 students (52.2%) are Buddhist, 67 students (42.1%) are Muslim, 6 students (3.8%) are Christian, 2 students (1.3%) are Catholic, and 1 student (0.6%) is Hindu [4], [11], [14]. This

composition indicates that this Buddhist institution has succeeded in attracting a significant number of Muslim students, creating a unique multireligious educational dynamic [56].

A thorough analysis of the students' socioeconomic backgrounds confirms that the majority of students come from families with limited financial means [45], [54]. Data shows that 70.4% of students come from families with a total monthly income below Rp 1,500,000, placing them well below the national poverty threshold. A total of 38.4% of students' parents work as farmers or fishermen, 24.5% as laborers, 19.5% as private employees, 11.3% as entrepreneurs/traders, and only 4.4% are civil servants/military/police officers. The distribution of respondents based on tuition group and scholarship status reflects the socio-economic conditions described. The data shows that 137 students (86.2%) received the Smart Indonesia Program (PIP) scholarship with a tuition fee of Rp 2,400,000 per semester, fully covered by the government [39]. Of the 22 students (13.8%) who paid regular tuition fees, the distribution was: 10 students (6.3%) in UKT Group I (Rp 300,000), 6 students (3.8%) in UKT Group II (Rp 600,000), 6 students (3.7%) in UKT Group III (Rp 900,000).

**Table 1.** Demographic Characteristics of Respondents (N=159)

Characteristics	n	%
Gender		
Man	48	30.2
Woman	111	69.8
Age		
20-22 years old	89	56
23-25 years old	52	32.7
>25 years	18	11.3
Religion		
Buddha	83	52.2
Islam	67	42.1
Christian	6	3.8
Catholic	2	1.3
Hindu	1	0.6
Income Family (per month)		
<Rp 1,500,000	112	70.4
Rp. 1,500,000 - 3,000,000	35	22
>Rp 3,000,000	12	7.6
Parents' job		
Farmers / Fishermen	61	38.4
Laborer	39	24.5
Employee Private	31	19.5
Entrepreneur / Trader	18	11.3
Civil Servants/TNI/POLRI	7	4.4
Other	3	1.9
UKT Group		
PIP Scholarship	137	86.2
UKT Group I (Rp. 300,000)	10	6.3
UKT Group II (Rp. 600,000)	6	3.8
UKT Group III (Rp. 900,000)	6	3.7
Total	159	100

### 3.2 Student Perceptions of the Implementation of UKT Policy

Evaluation of student perceptions of the implementation of the UKT policy revealed nuanced patterns across the five dimensions measured [45], [46], [25]. The Transparency dimension ( $M=4.1$ ,  $SD=0.68$ ) received the highest rating among all dimensions, placing it in the "high" category. The highest-rated item was "Information about UKT policies at STABN Raden Wijaya is easily accessible" with a mean of 4.3, reflecting the success of institutional efforts in maintaining open communication channels [57], [58]. However, the lowest-rated item was "The process of verifying economic data for determining UKT groups is carried out transparently" with a mean of 3.8, revealing that students desire greater clarity about how their specific UKT groups are determined [27], [28]. The Accessibility dimension ( $M=3.8$ ,  $SD=0.71$ ) also received a high score. Approximately 81.1% of students stated that information about the UKT reduction application procedure was

easily accessible [23]. The highest-scoring item was “Staff handling UKT matters are easy to contact” with a mean of 4.0. However, the lowest-scoring item was “The procedure for applying for a UKT group transfer is clearly available” with a mean of 3.4, indicating a gap in the accessibility of more complex procedures [29], [44].

The Affordability dimension ( $M=3.6$ ,  $SD=0.85$ ) received the lowest rating, indicating a need for a deeper understanding of the complexity of policy implementation [53], [54]. Although 69.2% of students stated that the UKT amount was in accordance with their family’s economic capabilities, the items with the lowest ratings were “I do not need to earn additional income to pay UKT” with a mean of 3.2, and “The burden of UKT payments does not interfere with meeting my family’s basic needs” with a mean of 3.3 [4]-[7]. The Responsiveness dimension ( $M=3.9$ ,  $SD=0.74$ ) was rated highly. The highest-scoring item was “Staff handling tuition fees are responsive to student inquiries and complaints” with a mean of 4.1 [23]. An interesting finding was that 67.9% of students acknowledged that STABN Raden Wijaya provided tuition fee relief during the COVID-19 pandemic [59], demonstrating institutional adaptability in times of crisis. However, the lowest-scoring item was “The tuition fee policy is responsive to changes in students’ economic conditions” with a mean of 3.4.

The Impact on Study Sustainability dimension ( $M=3.7$ ,  $SD=0.79$ ) showed the most significant finding: 89.3% of students agreed with the statement “Without the UKT policy, I might not be able to continue my higher education” [54]. This statistic powerfully demonstrates the fundamental importance of the policy for educational access [33]. The highest-rated item was “The UKT policy makes it easier for me to pursue higher education at STABN Raden Wijaya,” with a mean score of 4.4.

**Table 2.** Descriptive Statistics of UKT Policy Perception Dimensions

Dimension	Mean	SD	95% CI	Category
Transparency	4.1	0.68	[3.99, 4.21]	High
Accessibility	3.8	0.71	[3.69, 3.91]	High
Affordability	3.6	0.85	[3.47, 3.73]	Moderate
Responsiveness	3.9	0.74	[3.78, 4.02]	
Impact on Study Sustainability	3.7	0.79	[3.58, 3.82]	High
Overall	3.8	0.63	[3.70, 3.90]	High

### 3.3 Results of Structural Analysis with PLS-SEM

#### 3.3.1 Evaluation of Measurement Model

The evaluation of the measurement model showed very satisfactory results for all constructs [34]. Convergent validity was confirmed through outer loadings which were all  $\geq 0.73$  (exceeding the threshold of 0.70) and Average Variance Extracted (AVE) which were all  $\geq 0.61$  (exceeding the threshold of 0.50) [48], [49]. For the construct of Student Characteristics ( $X_1$ ), outer loadings ranged from 0.73 to 0.82 with AVE = 0.61. For Policy Perception ( $X_2$ ), outer loadings ranged from 0.76 to 0.85 with AVE = 0.64. For Implementation Satisfaction ( $Y_1$ ), outer loadings ranged from 0.78 to 0.86 with the highest AVE = 0.67 [50], [51]. For Study Sustainability ( $Y_2$ ), outer loadings ranged from 0.79 to 0.82 with AVE = 0.65.

Discriminant validity was confirmed through the Fornell-Larcker criteria, cross-loadings, and HTMT ratio, all of which met the established criteria [55]. The highest HTMT value was between Implementation Satisfaction and Study Sustainability at 0.79, still clearly below the threshold of 0.85 [55]. Internal reliability was confirmed through Cronbach’s Alpha (0.81-0.90) and Composite Reliability (0.86-0.92), all of which exceeded the threshold of 0.70 [50], [51].

**Table 3.** Results of Measurement Model Evaluation

Construct	Indicator	Outer Loading	AVE	CR	Cronbach’s $\alpha$
Characteristics Students ( $X_1$ )	X1.1	0.73			
	X1.2	0.78			
	X1.3	0.82	0.61	0.86	0.81
	X1.4	0.79			
	X2.1	0.76			
Perception Policy ( $X_2$ )	X2.2	0.81			
	X2.3	0.85	0.64	0.9	0.87
	X2.4	0.79			
	X2.5	0.8			
Satisfaction Implementation ( $Y_1$ )	Y1.1	0.78			
	Y1.2	0.82	0.67	0.92	0.9

Construct	Indicator	Outer Loading	AVE	CR	Cronbach's $\alpha$
Sustainability of Study (Y <sub>2</sub> )	Y1.3	0.86			
	Y1.4	0.84			
	Y1.5	0.81			
	Y2.1	0.79			
	Y2.2	0.82			
	Y2.3	0.81	0.65	0.88	0.83
	Y2.4	0.8			

### 3.3.2 Structural Model Evaluation

Collinearity evaluation showed no problematic issues, with all Variance Inflation Factor (VIF) values below 3 [35]-[37]. The structural model showed satisfactory predictive power [19], [21], [22]. For Policy Perception (X<sub>2</sub>),  $R^2 = 0.204$ , indicating that Student Characteristics explained 20.4% of the variance. For Implementation Satisfaction (Y<sub>1</sub>),  $R^2 = 0.521$ , indicating good predictive power with Student Characteristics and Policy Perception together explaining 52.1% of the variance [23]. For Study Sustainability (Y<sub>2</sub>),  $R^2 = 0.412$ , indicating acceptable predictive power [20], [43].

**Table 4.** Structural Model Evaluation Results

Endogenous Construct	$R^2$	$R^2$ Adjusted	$Q^2$	Interpretation
Perception Policy (X <sub>2</sub> )	0.204	0.199	0.127	Weak
Satisfaction Implementation (Y <sub>1</sub> )	0.191	0.515	0.342	Moderate
Sustainability of Study (Y <sub>2</sub> )	0.412	0.401	0.268	Moderate

Effect size ( $f^2$ ) evaluation reveals the relative importance of various paths [19], [21], [22]. For the prediction of Policy Perception, the path from Student Characteristics has  $f^2 = 0.256$  (medium to large effect) [50], [51]. For the prediction of Implementation Satisfaction, Student Characteristics has  $f^2 = 0.032$  (small effect), while Policy Perception has  $f^2 = 0.485$  (large effect) [57], [58]. For the prediction of Study Continuation, Student Characteristics has  $f^2 = 0.018$  (small effect), Policy Perception has  $f^2 = 0.073$  (small to medium effect), and Implementation Satisfaction has  $f^2 = 0.328$  (approaching a large effect) [43]. The blindfolding procedure showed positive and substantial predictive relevance ( $Q^2$ ) for all endogenous constructs: Policy Perception ( $Q^2 = 0.127$ ), Implementation Satisfaction ( $Q^2 = 0.342$ ), and Study Sustainability ( $Q^2 = 0.268$ ) [34]. The overall model fit evaluation showed satisfactory quality with SRMR = 0.061 (below the threshold of 0.08) and NFI = 0.918 (above the threshold of 0.90) [22].

### 3.3.3 Hypothesis Testing

Bootstrap results with 5,000 samples revealed strong support for all formulated direct effect hypotheses [34]-[37], H<sub>1</sub>: Student Characteristics → Policy Perception:  $\beta = 0.452$ ,  $t = 6.234$ ,  $p < 0.001$ , 95% CI [0.307; 0.589]. This result strongly supports H<sub>1</sub> [50],[51]. H<sub>2</sub>: Policy Perception → Implementation Satisfaction:  $\beta = 0.695$ ,  $t = 11.532$ ,  $p < 0.001$ , 95% CI [0.581; 0.793]. This is the highest path coefficient in the model [57],[58]. H<sub>3</sub>: Implementation Satisfaction → Study Sustainability:  $\beta = 0.548$ ,  $t = 8.267$ ,  $p < 0.001$ , 95% CI [0.418; 0.671]. This result strongly supports H<sub>3</sub> [43].

Additional direct paths show: Student Characteristics → Study Continuity:  $\beta = 0.098$ ,  $t = 1.423$ ,  $p = 0.155$  (not significant), supporting full mediation [46]. Policy Perception → Study Sustainability:  $\beta = 0.187$ ,  $t = 2.134$ ,  $p = 0.033$  (significant), supporting partial mediation [43].

**Table 5.** Results of Hypothesis Testing and Mediation Analysis

Hypothesis	Track	$\beta$	t-value	p-value	CI 95%	Decision
H <sub>1</sub>	X <sub>1</sub> → X <sub>2</sub>	0.452	6,234	<0.001	[0.307; 0.589]	Supported
H <sub>2</sub>	X <sub>2</sub> → Y <sub>1</sub>	0.695	11,532	<0.001	[0.581; 0.793]	Supported
H <sub>3</sub>	Y <sub>1</sub> → Y <sub>2</sub>	0.548	8,267	<0.001	[0.418; 0.671]	Supported
	X <sub>1</sub> → Y <sub>1</sub>	0.142	1,892	0.067	[-0.011; 0.289]	Not Significant
	X <sub>1</sub> → Y <sub>2</sub>	0.098	1,423	0.155	[-0.038; 0.232]	Not Significant
	X <sub>2</sub> → Y <sub>2</sub>	0.187	2,134	0.033	[0.015; 0.351]	Significant
H <sub>4</sub>	X <sub>1</sub> → X <sub>2</sub> → Y <sub>1</sub>	0.314	5,876	<0.001	[0.211; 0.425]	Mediation Full
H <sub>5</sub>	X <sub>1</sub> →	0.172	4,532	<0.001	[0.098; 0.254]	Serial Mediation
H <sub>6</sub>	X <sub>2</sub> → Y <sub>1</sub> → Y <sub>2</sub>	0.381	7,234	<0.001	[0.278; 0.491]	Mediation Partial

### 3.3.4 Mediation Analysis

Mediation analysis reveals sophisticated causal mechanisms [46]. H<sub>4</sub>: Policy Perception mediates Student Characteristics → Implementation Satisfaction: Indirect effect = 0.314,  $t = 5.876$ ,  $p < 0.001$ , 95% CI [0.211; 0.425]. Direct effect not significant ( $\beta = 0.142$ ,  $p = 0.067$ ), indicating full mediation,[46],[43]. H<sub>6</sub>: Implementation Satisfaction mediates Policy Perception → Study Sustainability: Indirect effect = 0.381,  $t = 7.234$ ,  $p < 0.001$ , 95% CI [0.278; 0.491]. The direct effect is also significant ( $\beta = 0.187$ ,  $p = 0.033$ ), indicating partial mediation with a mediation proportion of 67% [46],[43]. H<sub>5</sub>: Policy Perception and Implementation Satisfaction serially mediate Student Characteristics → Study Continuity: Serial indirect effect = 0.172,  $t = 4.532$ ,  $p < 0.001$ , 95% CI [0.098; 0.254]. Total indirect effect from Student Characteristics on Study Continuity = 0.257 ( $p < 0.001$ ), with direct effect not significant ( $\beta = 0.098$ ,  $p = 0.155$ ), confirming full mediation [43].

### 3.4 Qualitative Findings

Qualitative data from focus group discussions and open-ended questions reveal several dominant themes [24], [25]. Theme 1: Gratitude for Educational Opportunities. Students consistently expressed deep gratitude for the higher education opportunities facilitated by the UKT policy [54]. A Buddhist PGSD student stated, “I am the child of a farmer. When I graduated from high school, I thought higher education was an impossible dream. But when I learned about STABN Raden Wijaya and the PIP program, I felt there was hope.”

Theme 2: Financial Pressure Beyond Tuition Costs. Although gratitude was a dominant theme, students also shared about the financial pressures they face beyond tuition costs [60]. A student of Buddhist Communications explained: “While tuition is covered by PIP, living expenses in Wonogiri remain a significant challenge. I must pay Rp 400,000 per month for rent, Rp 30,000 per day for food, plus costs for books and internet access.”

Theme 3: Appreciation for Personal Attention from Staff. Students consistently expressed appreciation for the personal attention they received from administrative staff [57], [58]. “What I appreciate about this campus is that the staff are very friendly and helpful. If I have a problem with a payment or need a certificate, I can go directly to the staff member on duty, and they are always willing to help.”

Theme 4: Desire for Clarity in the Verification Process. Many students expressed a desire for more clarity about how their specific UKT groups are determined [61]. “I have submitted all required documents, but I do not understand the decision-making process for UKT group assignment. The process lacks transparency.”

Theme 5: Solidarity Between Students. “We all know that almost all of our friends on campus come from economically disadvantaged families. So no one is arrogant or feels superior. We help each other. If a friend is having financial difficulties, we contribute to help.” [56].

Theme 6: Navigating Religious Diversity. A Muslim student from the Buddhist PGSD program stated: “Initially, I was hesitant to enroll in a Buddhist institution as a Muslim student. However, upon arrival, I felt welcomed and accepted by both faculty and peers. The lecturers and friends are very respectful of my religion.”

### 3.5 Challenges and Barriers to Implementation

The analysis of implementation barriers identified challenges at various levels [61]. Systemic and Structural Barriers include: (1) rigidity of the regulatory framework that limits institutional flexibility [8], [9]; (2) delays and uncertainty in the disbursement of PIP funds that create cash flow problems [39]; (3) the complexity of coordination with the Ministry of Religious Affairs [8], [9]; and (4) fragmentation of student databases across various government systems [47]. Administrative and Operational Challenges include: (1) the complexity of the economic data verification process, particularly for informal sector workers [61]; (2) variability in asset valuation; (3) limited resources for home visits; (4) limited staffing resulting in heavy workloads [62]; and (5) technical competency. Resource Barriers include: (1) high dependence on government funding [8],[9],[39]; (2) limitations to investment in systems and infrastructure [41], [52]; (3) limited capacity for financial aid beyond tuition [5]-[7]; and (4) lack of specialized expertise in data analysis and policy evaluation [41]. Context-Based Challenges include: (1) the complexity of serving a religiously diverse student body; (2) the geographic dispersion of students complicating communication and verification [39]; (3) variations in academic readiness; and (4) economic volatility and changing family circumstances.

Based on comprehensive analysis, this study concludes that the implementation of the UKT policy at STABN Raden Wijaya has been substantially successful in achieving its primary goal of expanding access to higher education for individuals from economically disadvantaged backgrounds [60]. With 89.3% of students indicating that they would be unable to pursue higher education without UKT support, the policy demonstrably serves as a critical mechanism for educational access and social mobility [62]. The success in creating an inclusive environment that serves students from diverse religious backgrounds (52% Buddhist, 42% Muslim) without compromising the Buddhist institutional identity demonstrates the viability of an inclusive religious education model [56]. Additional analysis comparing perceptions between Buddhist and Muslim students revealed no significant difference ( $t = 0.847$ ,  $p > 0.05$ ), providing empirical evidence that inclusive religious education can effectively serve a diverse student population [56].

Structural analysis reveals that the success of the UKT policy operates through sophisticated mechanisms involving not only the provision of financial support, but also the formation of positive perceptions and ensuring a high-quality implementation process [57], [58]. The finding that Policy Perception has the largest path coefficient ( $\beta = 0.695$ ) on Implementation Satisfaction highlights the critical importance of effective policy communication [51]. In the context of a religiously and socioeconomically diverse institution, the ability to create positive perceptions across diverse student groups requires culturally sensitive communication, transparent processes, and a demonstrated commitment to equity [56]. Implementation Satisfaction emerged as the strongest proximal predictor of Study Sustainability ( $\beta = 0.548$ ,  $f^2 = 0.328$ ), underscoring that the quality of implementation is as important as policy design [32], [23].

The full mediation of Student Characteristics on outcomes through Perceptions and Satisfaction provides an optimistic message from an equity perspective: socioeconomic background is not destiny [46]. Students from disadvantaged backgrounds can achieve positive outcomes when they develop positive perceptions of policies and have satisfying experiences with their implementation [32], [43]. Within the broader context of inclusive religious education in Indonesia, the findings of this study provide an empirical basis for arguing that religious higher education institutions can successfully serve diverse student populations without compromising their religious identity [56]. The model tested and confirmed in this study can serve as a framework for other religious higher education institutions seeking to expand access while maintaining their religious character [29].

For Institutional Level: (1) Enhance Policy Communication Strategy: Given the central role of policy perception ( $\beta = 0.695$ ), institutions must invest in a comprehensive communication strategy that includes developing clear informational materials, holding regular information sessions for prospective and current students, and ensuring culturally sensitive communication approaches. This should include multilingual materials for diverse student populations and peer-to-peer communication channels to enhance message credibility and accessibility. (2) Improve Verification Process Transparency: Develop and disseminate clear documentation of the UKT group determination process, including the criteria used, the weighting of different factors, and the appeal mechanisms available. Consider implementing information sessions where students can understand how their UKT group was determined. (3) Address Non-Tuition Cost Challenges: While the UKT policy successfully addresses tuition barriers, the institution should explore complementary programs to address living costs, such as on-campus housing subsidies, meal programs, or textbook lending libraries. (4) Strengthen Implementation Quality: Provide regular training for administrative staff on customer service, cultural sensitivity, and policy knowledge. Implement quality assurance mechanisms to ensure consistent implementation across all touchpoints. (5) Develop Responsive Adjustment Mechanisms: Create more flexible procedures for UKT group adjustments when students experience significant changes in family economic circumstances, such as job loss, health emergencies, or natural disasters.

For National Policy Level: (1) Reform Regulatory Framework: The Ministry of Religion should provide greater flexibility to institutions in designing UKT structures that reflect their specific contexts and student populations. This includes improving the predictability of fund disbursements through multi-year budget commitments and integrating fragmented government information systems to reduce administrative burden and improve data accuracy for need-based assessments. (2) Expand Financial Support Beyond Tuition: Develop complementary scholarship programs that address living costs, books, transportation, and other non-tuition expenses that constitute significant barriers to educational access. (3) Strengthen Verification Systems: Invest in more sophisticated and accurate systems for verifying family economic status, particularly for informal sector workers and families with volatile incomes. (4) Support Institutional Capacity Building: Provide resources and training for institutions to develop their capacity for policy implementation, data management, and continuous improvement.

The findings from STABN Raden Wijaya have significant implications for higher education policy in developing countries, particularly those with diverse populations and resource constraints. The success of the UKT policy in serving a religiously diverse student body (42% non-Buddhist students) demonstrates that inclusive, merit-based financial aid policies can transcend sectarian boundaries while maintaining institutional identity. This model is particularly relevant for countries in Southeast Asia, South Asia, and Sub-Saharan Africa where religious and ethnic diversity intersect with educational access challenges.

The structural model's finding that policy perception mediates the relationship between student characteristics and outcomes offers important insights for policy communication strategies globally. Countries implementing similar cost-sharing reforms should invest not only in financial infrastructure but also in building positive policy perceptions through transparent, culturally appropriate communication. The full mediation effect ( $\beta = 0.257$  indirect, no significant direct effect) suggests that well-implemented policies can overcome initial disadvantages associated with low socioeconomic status. Furthermore, the persistent challenge of non-tuition costs (affordability M=3.6) highlights a universal limitation of tuition-focused financial aid policies. This finding aligns with international evidence showing that comprehensive support addressing living costs, books, and transportation is essential for genuine educational access. Countries designing or reforming higher education

financing policies should learn from this experience and consider holistic support models from the outset rather than as afterthoughts. This study has several limitations that should be acknowledged. First, the cross-sectional design cannot establish causal sequences with the same certainty as a longitudinal design. Second, the sample size, while adequate (159 respondents), is still relatively modest for certain subgroup analyses. Third, reliance on self-report measures may be subject to various response biases, including social desirability and recall bias. Fourth, the study focused on a single institution, limiting the generalizability of the findings to other contexts.

For future research, several directions can be proposed: (1) Longitudinal studies of long-term outcomes: Track cohorts of UKT beneficiaries over time to examine effects on graduation rates, time to degree, academic performance, and post-graduation outcomes such as employment and earnings. (2) Multi-institutional comparative studies: Extend the research to other religious higher education institutions (Islamic, Christian, Hindu) and public universities to test the generalizability of the structural model and identify context-specific success factors. (3) Cost-effectiveness and return-on-investment analyses: Conduct economic analyses to quantify the costs and benefits of the UKT policy from multiple stakeholder perspectives, including government, institutions, students, and society. (4) Experimental or quasi-experimental evaluations: Where feasible, design studies that can establish stronger causal inferences about policy impacts through randomized controlled trials or natural experiments. (5) Research into implementation processes using ethnographic methods: Conduct in-depth qualitative research to understand the micro-level processes and interactions that shape implementation quality and student experiences. (6) Studies of alternative policy designs: Compare the UKT model with other financing approaches, such as income-contingent loans, universal free tuition, or hybrid models, to identify optimal design features for different contexts.

#### 4. CONCLUSION

This study has explored in depth the implementation of the Single Tuition Fee policy at STABN Raden Wijaya, uncovering the complexities, challenges, and successes in efforts to achieve equitable access to higher education. Based on comprehensive analysis of various perspectives and data sources, several key conclusions can be formulated. First, the UKT policy has been substantially successful in expanding access to higher education for individuals from economically disadvantaged backgrounds. The finding that 89.3% of students would not have been able to pursue higher education without the UKT policy is strong evidence of this policy's fundamental role in opening access to education for historically underserved communities. Second, policy success operates through a sophisticated causal mechanism involving the formation of positive perceptions of the policy ( $\beta = 0.452$  from student characteristics) and ensuring a high-quality implementation process ( $\beta = 0.695$  from perception to satisfaction), which then has a substantial effect on the sustainability of studies ( $\beta = 0.548$ ). The developed structural model demonstrates full mediation of student characteristics through perception and satisfaction, indicating that socioeconomic background does not determine outcomes directly but through psychological and evaluative mechanisms. Third, despite significant achievements, several persistent challenges remain. The gap between tuition support and total educational costs (with the affordability dimension scoring the lowest at  $M=3.6$ ) indicates that students still face financial pressure from living costs even though tuition is fully subsidized. Systemic constraints, resource constraints, and variability in implementation quality require continued attention. Fourth, the success of STABN Raden Wijaya in serving students from diverse religious backgrounds (52% Buddhist, 42% Muslim) with comparable levels of satisfaction demonstrates the viability of an inclusive religious education model that other institutions can adapt.

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#### AUTHOR CONTRIBUTIONS

HS was responsible for the research design, data collection, data analysis, and manuscript preparation. SP, contributed to conceptual development, research methodology guidance, and critical review of the manuscript. All authors have read and approved the final version of the manuscript.

#### CONFLICTS OF INTEREST

The author(s) declare no conflict of interest.

#### USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY

The authors declare that no artificial intelligence (AI) tools were used in the generation, analysis, or writing of this manuscript. All aspects of the research, including data collection, interpretation, and manuscript preparation, were carried out entirely by the authors without the assistance of AI-based technologies.

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