BUILDING STUDENT CONFIDENCE THROUGH SATISFACTION : THE ROLE OF SERVICE QUALITY, EDUCATION COSTS AND INSTITUTIONAL IMAGE IN A-ACREDITATED MUHAMMADIYAH SENIOR HIGH SCHOOL

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ABSTRACT

Competition among private secondary education institutions in metropolitan areas requires schools to improve service quality to build student satisfaction and trust. This study aims to analyze the influence of service quality, tuition fees, and institutional image on student satisfaction and their impact on student trust at A-accredited Muhammadiyah Senior High Schools in the Bandung Metropolitan area. This study uses a quantitative approach with an *explanatory survey method* . The study population was all 4,674 A-accredited Muhammadiyah Senior High School students in the Bandung Metropolitan area, with a sample of 223 grade XII students determined through a *two-stage sampling technique* . Data collection was carried out using a Likert-scale questionnaire, interviews, and observations. Data analysis used *Structural Equation Modeling* (SEM). The results showed that service quality, tuition fees, and institutional image had a positive and significant effect on student satisfaction. Furthermore, student satisfaction had a positive and significant effect on student trust. Student satisfaction was also proven to mediate the influence of service quality, tuition fees, and institutional image on student trust. These findings confirm that improving service quality, proportional management of education costs, and strengthening the institution's image are strategic factors in building student satisfaction and trust at Muhammadiyah Senior High Schools accredited A in the Bandung Metropolitan area.

Keywords : Service Quality; Education Costs; Institutional Image; Student Satisfaction; Student Trust

INTRODUCTION

Research Background

Education is a basic human need that functions to shape independence, intelligence, personality, and individual skills so that they can play an optimal role in social, national, and state life. Education also trains individuals to have good adaptation skills in interacting with the social and natural environment. In the national context, Law Number 20 of 2003 emphasizes that education is a conscious and planned effort to develop the potential of students to have spiritual religious strength, self-control, intelligence, noble character, and the skills necessary for themselves and society.

At the secondary education level, Senior High Schools (SMA) play a strategic role in preparing students to become members of society with academic and social skills, as well as the readiness to continue on to higher education. However, data shows that the Gross Enrollment Rate (APK) for senior high schools/equivalent in West Java Province in 2023 only reached 79.07%, still below the Yogyakarta Special Region (DIY) (90.82%), Central Java (87.84%), and East Java (89.26%). This condition is paradoxical considering that West Java is the most populous province on the island of Java.

Furthermore, in the Bandung Metropolitan area, the high school enrollment rate (GER) fluctuates and tends to be unstable. Bandung City experienced a decline in APK, while a

similar phenomenon also occurred in West Bandung Regency and Sumedang Regency. This low enrollment is reinforced by pre-survey results, which showed that public interest in continuing to vocational high schools (SMK) (49.4%) was higher than that of senior high schools (43%).

Amidst these dynamics, private high schools, including Muhammadiyah high schools, face fierce competition to attract students. There are 10 Muhammadiyah high schools in the Bandung Metropolitan area, but only six are accredited A. Despite their superior accreditation status, data shows that most of the Muhammadiyah high schools accredited A have experienced a decline or relatively low growth in student numbers over the past three years.

Preliminary survey results indicate that student satisfaction and trust in A-accredited Muhammadiyah high schools are in the "fair" category, with an average score of 3.16–3.39, while student interest is in the good category. This indicates a gap between initial interest and actual student experience, which is thought to be influenced by service quality, perceptions of educational costs, and the institution's image.

Based on Expectation Confirmation Theory (ECT), satisfaction arises from the comparison between expectations and actual service performance. Achieved satisfaction will form the basis for the formation of trust, which in turn plays a crucial role in the sustainability of long-term relationships between students and educational institutions. Therefore, a study of the influence of service quality, tuition fees, and institutional image on satisfaction and their impact on student trust is highly relevant, particularly in the context of A-accredited Muhammadiyah Senior High Schools in the Bandung Metropolitan area.

Research Phenomenon

The main phenomena underlying this research are:

1. The student absorption rate of Muhammadiyah Senior High Schools accredited A in Bandung Metropolitan is still low , even though they have superior accreditation status.
2. Student satisfaction and confidence are in the sufficient category , not yet reaching the good or very good category.
3. The quality of service is considered less than optimal , especially in terms of timeliness of service, responsiveness to complaints, and availability of infrastructure.
4. The perception of education costs is considered quite affordable , but not yet fully commensurate with the facilities received by students.
5. The institution's image is in the fairly good category , with the main weakness in the learning innovation dimension.

This phenomenon shows an urgent need to identify factors that influence student satisfaction and trust, so that Muhammadiyah High Schools are able to strengthen their competitiveness amidst the dominance of favorite private high schools in the Bandung Metropolitan area.

Research purposes

This research aims to:

1. Analyzing the quality of service, education costs, and institutional image at Muhammadiyah high schools accredited A in the Bandung Metropolitan area.
2. Analyzing the level of satisfaction of students of Muhammadiyah Senior High Schools accredited A in the Bandung Metropolitan area.
3. Analyzing the level of confidence of students at Muhammadiyah High Schools accredited A in the Bandung Metropolitan area.
4. Analyzing the influence of service quality, education costs, and institutional image on student satisfaction.

5. Analyzing the influence of student satisfaction on student confidence.

Gap Research

Based on literature reviews and previous empirical findings, there are several research gaps as follows:

1. Most previous studies place service quality, education costs, and institutional image as direct determinants of interest or decisions to choose a school , while the role of satisfaction as a mediating variable towards student trust is still relatively limited.

2. Research that specifically examines A-accredited Muhammadiyah high schools in the context of metropolitan areas is still very minimal, even though the characteristics of competition and public perceptions are different from other areas.

3. Previous research results show mixed findings regarding the influence of education costs on satisfaction and trust, so re-examination is needed in the context of Islamic and social value-based educational institutions such as Muhammadiyah.

Thus, this study fills this gap by integrating service quality, tuition fees, and institutional image as antecedents of satisfaction, and testing the impact of satisfaction on student trust in one integrated empirical model.

LITERATURE REVIEW

Quality of Service in Educational Services

Service quality is a customer's perception of the level of excellence of a service compared to their expectations. Service quality is also understood as the difference between customer perceptions and expectations of the service received, known as *the perception–expectation gap* . In the context of education, service quality is defined as the difference between what students expect and the educational service experience they experience.

The quality of educational services is measured through five main dimensions: reliability, responsiveness, assurance, empathy, and tangibles . These five dimensions determine how students assess the quality of school services and influence their decisions and attitudes toward educational institutions.

Research in the field of education shows that service quality has a significant influence on student satisfaction, and further contributes to student loyalty and trust in educational institutions.

Cost of education

Education costs are the total sacrifice of resources in the form of money, goods, and opportunities expended to obtain educational services. Education costs are an important variable because they are often directly compared to the quality of services students receive.

In educational services marketing, cost is understood as the most flexible element of the marketing mix and plays a significant role in shaping perceived value. Setting appropriate educational costs can increase student satisfaction, while a mismatch between cost and service quality can decrease satisfaction.

The relevant dimensions of education costs include : tuition fees, development costs, re-registration fees, activity/study tour costs, extracurricular costs, and scholarships .

Institutional Image

An institution's image is the public's impressions, perceptions, and beliefs about an organization based on their experiences and the information they receive. This image is formed through the institution's operational activities, particularly the quality of the services provided.

In the context of education, a positive school image will increase students' confidence in the school's ability to provide quality educational services, thereby increasing student satisfaction and trust. Institutional image is also seen as a crucial strategy for winning competition among educational institutions.

Student Satisfaction

Satisfaction is a student's evaluation after comparing expectations with the actual performance of the service received. Satisfaction reflects the extent to which school services meet or exceed student expectations.

Student satisfaction is influenced by various factors, particularly service quality, tuition costs, and the institution's image. High levels of satisfaction will foster long-term relationships between students and the school.

Student Confidence

Trust is students' confidence in an educational institution's ability to fulfill promises, provide quality services, and act honestly and consistently. Trust is considered the primary foundation for building long-term relationships.

Trust is formed through repeated positive experiences, especially through students' perceived satisfaction with educational services.

Framework of thinking

Conceptually, service quality, tuition costs, and institutional image are strategic factors that shape students' perceptions of a school's value. These three variables influence student satisfaction as an evaluation of the service experience. Student satisfaction, in turn, becomes a key determinant in building student trust in an educational institution.

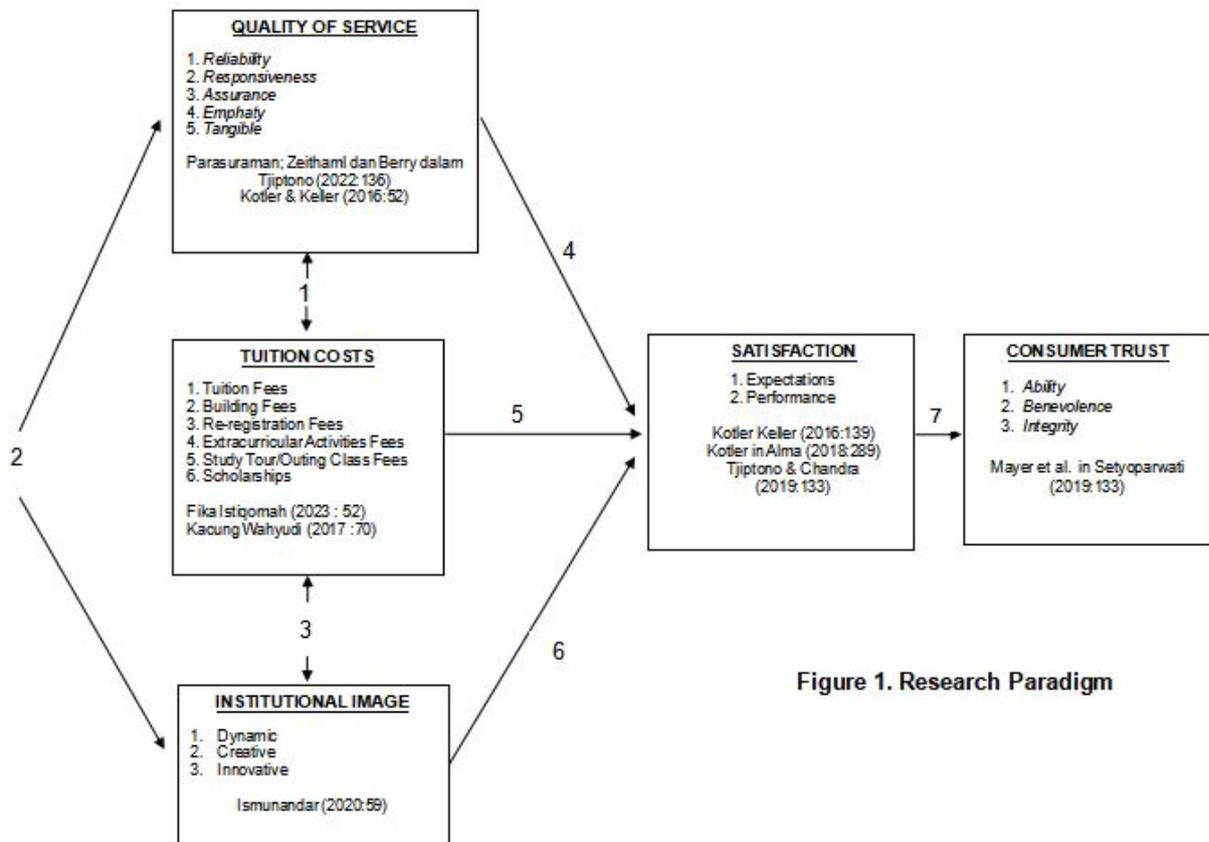The flow of relationships between variables can be described as follows:

Figure 1. Research Paradigm

Thus, student satisfaction acts as a mediating variable between service quality, education costs, and institutional image on student trust.

Based on theoretical studies and previous research results, the hypothesis proposed is:
H1: Service quality has a positive effect on student satisfaction.
H2: Tuition fees have a positive effect on student satisfaction.
H3: Institutional image has a positive effect on student satisfaction.
H4: Student satisfaction has a positive effect on student trust.
H5: Service quality has a positive effect on student trust through student satisfaction.
H6: Tuition fees have a positive effect on student trust through student satisfaction.
H7: Institutional image has a positive effect on student trust through student satisfaction.

RESEARCH METHODS

Types and Approaches of Research
This study uses a quantitative approach with an explanatory survey method , a research method that aims to explain the causal relationship between variables through data collection from respondents using questionnaires, interviews, and observations. Data were collected cross-sectionally , namely at a single point in time (snapshot). This study is descriptive-verification , where descriptive analysis is used to describe the condition of each variable, while verification analysis is used to test hypotheses regarding the influence between variables.

Location and Time of Research
The research was conducted at A-accredited Muhammadiyah high schools in the Bandung Metropolitan area , encompassing Bandung City, Bandung Regency, Cimahi City,

West Bandung Regency, and Sumedang Regency. The research period was from October 2023 to October 2024 .

Population, Sample, and Sampling Techniques
       The population in this study was all **4,674 students of Muhammadiyah Senior High Schools Accredited A in the Bandung Metropolitan area** . The sampling technique used was **probability sampling** with a **two-stage sampling method** , namely:
1. Purposive sampling , with the criteria being grade XII students, because they are considered to have experienced the quality of service for a long time, understand the appropriateness of education costs, and are able to assess the image of the institution.
2. Proportionate stratified random sampling based on school clusters.

       Based on calculations using the Slovin formula with an error rate of 5%, a sample size of 223 students was obtained , which was distributed proportionally to six A-Accredited Muhammadiyah Senior High Schools in the Bandung Metropolitan area .

Types, Sources and Techniques of Data Collection
       Data types consist of:
1. Primary data , obtained through questionnaires, interviews and observations.
2. Secondary data , obtained from school documents, the PP Muhammadiyah website, the West Java Dikdasmen website, and Dapodik.

       Data collection techniques include:
1. Closed questionnaire with a five-point Likert scale.
2. Interviews with principals , teachers, staff, and students.
3. Direct observation of school conditions .

Operationalization of Variables
       The research variables consist of:
1. **Exogenous variables** :
   a. Service Quality (reliability, responsiveness, assurance, empathy, tangible)
   b. Education Fees (SPP, construction fees, re-registration, study tours, extracurricular activities, scholarships)
   c. Institutional Image (dynamic, creative, innovative)
2. **Endogenous variables** :
   a. Student Satisfaction (performance and expectations)
   b. Student Trust (ability, benevolence, integrity)
All variables were measured using an ordinal Likert scale .

Data Analysis Techniques
Data analysis was carried out in two stages:
1. Descriptive analysis **,** using the average value (mean) and standard deviation to describe the condition of the variable.
2. Verification Analysis , using Structural Equation Modeling (SEM) with LISREL software, to test the causal relationship between variables.
       The use of SEM was chosen because it is able to test simultaneous relationships between latent variables, reduce measurement errors through Confirmatory Factor Analysis (CFA), and test the feasibility of the model as a whole.

Research Instrument Testing

The research instruments were tested through:
1. Validity test , using product moment correlation, with criteria r > 0.30.
2. Reliability test , using Cronbach's Alpha, with criteria α ≥ 0.70.
3. Normality test , using Kolmogorov–Smirnov at a significance level of 0.05.

SEM Model Feasibility Test

Model feasibility was assessed using several goodness of fit indices, including: Chi-square, Probability, GFI, RMSEA, TLI/NNFI, NFI, AGFI, IFI, CFI, PGFI, and PNFI. The model was declared fit if the index value met the recommended cut-off criteria.

RESEARCH RESULTS AND DISCUSSION

Research result
Respondent Characteristics

The study involved 223 12th-grade students of A-accredited Muhammadiyah high schools in the Bandung Metropolitan area. Most respondents were aged >17 years (74.9%) , while 25.1% were aged 15–17 years. Based on gender, respondents were predominantly female (57%) and male (43%). This composition indicates that respondents were at an adequate age and maturity level to evaluate service quality, educational costs, institutional image, satisfaction, and trust in the school.

Research Instrument Testing

All questionnaire items on the variables of service quality (31 items), education costs (16 items), institutional image (15 items), student satisfaction (19 items), and student trust (18 items) have an r-count value > 0.300 , so they are declared valid .
the Cronbach's Alpha value for each variable is in the range of 0.960–0.982 , greater than the minimum limit of 0.70, so that all instruments are reliable .

The Kolmogorov–Smirnov normality test shows that the significance value of all variables is p-value > 0.05 , which means that the data is normally distributed and suitable for analysis using SEM.

Descriptive Analysis of Variables
1. Service Quality
   The average value is 3.514 (category *ranging from good to good*). The highest dimension is assurance (3.674) , while the lowest is physical evidence (3.425) . The lowest indicators are internet availability and the attractiveness of school buildings.
2. Education costs
   are generally in the fair to good category . Tuition fees and development costs are considered relatively affordable, but the appropriateness of costs to facilities remains a concern.
3. The Institution's image
   is in the fairly good category , especially in the dynamic and creative dimensions , while the innovative dimension requires strengthening, particularly regarding the use of digital technology and research-based learning.
4. Student Satisfaction Satisfaction
   is in the fairly good category , reflecting a gap between student expectations and actual service performance.
5. Student Confidence
   Student confidence is in the fairly good category , indicating that confidence in the school's abilities, goodness, and integrity has been formed, but is not yet optimal.

Verification Analysis (SEM)
   The results of SEM testing show that:
1. Service quality has a positive and significant effect on student satisfaction.
2. Education costs have a positive and significant effect on student satisfaction.
3. Institutional image has a positive and significant influence on student satisfaction.
4. Student satisfaction has a positive and significant effect on student confidence.

   In addition, student satisfaction has been shown to mediate the influence of service quality, educational costs, and institutional image on student trust .

Discussion
The Influence of Service Quality on Student Satisfaction
   Research findings indicate that the better the service quality perceived by students, the higher their satisfaction levels. This aligns with the concept of Parasuraman, Zeithaml, and Berry, which states that service quality is determined by the gap between customer expectations and perceptions. A high level of assurance indicates that politeness, teacher competence, and a sense of security are dominant factors in shaping student satisfaction.

The Influence of Education Costs on Student Satisfaction
   Affordable tuition fees commensurate with the benefits received have been shown to increase student satisfaction. This confirms that students consider not only the cost but also the appropriateness of the cost and the quality of service received.

The Influence of Institutional Image on Student Satisfaction
   A positive institutional image strengthens students' confidence that the school is capable of providing quality services, thereby increasing satisfaction. Muhammadiyah's image as a progressive, dynamic, creative, and innovative educational institution is crucial for building positive student perceptions.

The Influence of Student Satisfaction on Student Trust
   Student satisfaction has been shown to be a key determinant of student trust. Consistently positive experiences foster students' confidence in the school's capabilities, goodness, and integrity, thereby strengthening the long-term relationship between students and the educational institution.
   Overall, the results of this study confirm that service quality, education costs, and institutional image are strategic factors in increasing student satisfaction, which in turn has an impact on increasing student trust in Muhammadiyah Senior High Schools accredited A in the Bandung Metropolitan area .

Table 1. Summary of Hypothesis Testing Results

Hypothesis Code	Relationship between variables	Direction of Influence	Test Results	Decision
H1	Service Quality → Student Satisfaction	Positive	Significant	Accepted
H2	Tuition Fees → Student Satisfaction	Positive	Significant	Accepted
H3	Institutional Image → Student Satisfaction	Positive	Significant	Accepted
H4	Student Satisfaction → Student Trust	Positive	Significant	Accepted
H5	Service Quality → Student Satisfaction →	Positive (mediation)	Significant	Accepted

Hypothesis Code	Relationship between variables	Direction of Influence	Test Results	Decision
	Student Trust			
H6	Tuition Fees → Student Satisfaction → Student Trust	Positive (mediation)	Significant	Accepted
H7	Institutional Image → Student Satisfaction → Student Trust	Positive (mediation)	Significant	Accepted

Source: Data processed by researchers (2025)

Table 2. Summary of Results of Structural Model Hypothesis Testing

Hypothesis Code	Relationship between variables	Path Coefficient (β)	t-value	p-value	Decision
H1	Service Quality → Student Satisfaction	0.41	5.87	<0.001	Accepted
H2	Tuition Fees → Student Satisfaction	0.29	4.36	<0.001	Accepted
H3	Institutional Image → Student Satisfaction	0.33	5.02	<0.001	Accepted
H4	Student Satisfaction → Student Trust	0.62	9.14	<0.001	Accepted
H5	Service Quality → Satisfaction → Trust	0.25	4.98	<0.001	Accepted
H6	Education Cost → Satisfaction → Trust	0.18	3.91	<0.001	Accepted
H7	Institutional Image → Satisfaction → Trust	0.20	4.22	<0.001	Accepted

Source: SEM data processing results, 2025

Short Description
a. Significance criteria: t-value > 1.96 and p-value < 0.05 .
b. The path coefficient (β) has a positive value indicating a positive direction of the relationship.

CONCLUSION

Based on the results of descriptive analysis, verification, and discussion, it can be concluded that:

1. The quality of service, tuition fees, and institutional image at A-accredited Muhammadiyah high schools in the Bandung Metropolitan area are in the fair to good category . The assurance dimension is the strongest aspect of service quality, while physical evidence remains the weakest, particularly regarding internet support, the design of the school building, and the speed of response to student complaints.
2. Student satisfaction is in the category of quite satisfied towards satisfied , with the expectation dimension obtaining a higher score than the performance dimension, which indicates that there is still a gap between student expectations and the actual services received.
3. Student trust is in the category of good enough to good , with the virtue dimension as the strongest aspect and the ability dimension as the weakest aspect, especially in the indicators of staff's punctuality of promises, punctuality of teaching, and staff's mastery of knowledge.
4. Simultaneously, service quality, education costs, and institutional image have a positive and significant influence on student satisfaction .
5. Student satisfaction has a positive and significant influence on student trust , so that satisfaction plays a key role as a key variable in building trust in educational institutions.
6. Student satisfaction has been shown to mediate the influence of service quality, education costs, and institutional image on student trust.

SUGGESTION

Practical Advice (For Schools)

1. Schools need to prioritize improving physical facilities , especially strengthening internet infrastructure, repairing and arranging school buildings, and providing technology-based learning support facilities.
2. Schools are advised to evaluate the education cost structure , especially tuition fees, development costs, and study tour costs, along with transparency in fund allocation so that students and parents understand the benefits they receive.
3. Efforts to strengthen the institution's image can be carried out through the development of research-based learning, the application of *active learning methods* , and the strengthening of internationally oriented programs.
4. Schools need to build a responsive complaint handling system , for example through student service units or strengthening the role of guidance and counseling (BK) teachers.
5. To increase student confidence, schools are advised to hold regular training and coaching for teachers and staff, and to provide appreciation to educators who demonstrate superior performance .

Academic Suggestions (For Further Researchers)

1. Further research can add other variables such as **customer value, student loyalty, or word of mouth** to enrich the research model.
2. Further research is recommended to expand **the locus and number of samples** , for example covering Muhammadiyah high schools throughout West Java or nationally.
3. **longitudinal** design may be considered to examine changes in student satisfaction and confidence over time.

Research Limitations

1. This research was only conducted at Muhammadiyah Senior High Schools accredited A in the Bandung Metropolitan area , so the results cannot necessarily be generalized to all Muhammadiyah Senior High Schools or other private schools.
2. The variables studied are limited to service quality, education costs, institutional image, satisfaction, and trust, so that other factors that may influence student satisfaction and trust have not been accommodated.
3. Data was obtained using a perception questionnaire , so it is highly dependent on the subjectivity of the respondents.

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