

## The Effect of Facilities, Service Quality, and School Image on Parental Satisfaction at SD ABC Balikpapan

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**Abstract.** This research aims to analyze the influence of school facilities, service quality, and school image on parental satisfaction at SD ABC Balikpapan. The research employed a quantitative approach using a survey method, with data collected through questionnaires distributed to parents or guardians of students. The research variables consisted of school facilities, service quality, and school image as independent variables, and parental satisfaction as the dependent variable. Data analysis was conducted using validity tests, reliability tests, classical assumption tests, and multiple linear regression analysis. The results indicate that school facilities have a positive effect on parental satisfaction, that service quality has a positive and significant effect on parental satisfaction, and that school image has a positive and significant effect on parental satisfaction. These findings demonstrate that the provision of adequate facilities, high-quality educational services, and a positive school image play an important role in enhancing parental satisfaction. This study is expected to serve as a reference for school management in improving the quality of educational services and the management of school facilities.

**Keywords:** School facilities, service quality, school image, parental satisfaction

### INTRODUCTION

Basic education plays a strategic role in shaping students' character, knowledge, and social competence from an early age. Elementary schools not only carry out the function of knowledge transfer but are also responsible for building positive moral and ethical values and learning habits. Therefore, the quality of basic education services is one of the important indicators in determining the quality of the educational process, and parental satisfaction is seen as a direct reflection of the quality of the service (Wilkins & Huisman, 2015).. Parental satisfaction affects their trust, loyalty, and decision to continue sending their children to an educational institution and recommend it to others (Ali et al., 2016; Bakar et al., 2015; Barrett et al., 2019).

As public awareness of the quality of education increases, parents are now more selective in choosing schools for their children (Jabbar, 2016; Nguyen et al., 2020; Oplatka & Hemsley-Brown, 2019). Their considerations are not only limited to academic aspects but also include the school's physical facilities, quality of service, school-parent communication, security, comfort, and the reputation of the institution. Thus, the success of schools in building a positive image and providing a satisfactory educational experience is a strategic factor to maintain public trust, especially amid increasingly fierce competition between public and private schools (Berkowitz & Bier, 2017; Earthman, 2017; Hanaysha et al., 2019).

In the national context, 2023 Education Statistics data show that the availability of decent facilities in elementary schools still faces significant challenges. Nationally, classroom availability has only reached 78.9%. In East Kalimantan Province, the figure is at 74.2%, while Balikpapan City recorded a lower percentage, which is 71.5%. The inequality of these facilities can have an impact on the learning process, student safety, parental comfort, and the quality of public perception of schools. This condition is also a major challenge for private schools that must compete with public schools in providing quality education services.

**Table 1. Conditions of Basic Education in Indonesia, East Kalimantan, and Balikpapan (2022)**

Region	Total of SD (units)	Total of Pupils	Teacher Ratio: Pupils	Percentage of Classrooms Eligible (%)
Indonesia	147.511	25.330.800	1 : 19	78,9
East Kalimantan	3.126	402.700	1 : 21	74,2
Balikpapan	283	38.560	1 : 23	71,5

Source: BPS & Ministry of Education and Culture, Education Statistics 2023

SD ABC Balikpapan is a private school that was established in 2008 and has a vision to form a generation of character and wisdom through an educational approach based on Christian values. The school has a reputation as an institution that provides emotional attention, a personal approach, and a disciplined yet enjoyable learning environment. However, in the last five years, schools have experienced a significant decline in the number of students. Data shows a decrease from 175 students (2021) to 99 students (2025). This phenomenon is estimated to be influenced by several factors: post-pandemic economic instability, increasing public preference for free public schools, and the emergence of negative opinions that affect the image of schools in the eyes of the public.

**Table 2. Number of Students at SD ABC Balikpapan**

No.	Year	Number of Students
1	2025	99
2	2024	119
3	2023	135
4	2022	162
5	2021	175

Source: Data processed by researchers, 2025

In terms of facilities, SD ABC has provided several amenities, such as computer laboratories, science laboratories, and libraries. However, results from initial observations and parental input revealed several shortcomings, including limited parking areas, a temporary suspension of the CCTV system (which affected perceptions of security), and insufficient space for student activities. This mismatch between parents' expectations of ideal facilities and the school's actual conditions can reduce their sense of security, comfort, and satisfaction with educational delivery.

The quality of school services is another important aspect in determining parental satisfaction. Initial findings indicated that some parents criticized the school's responsiveness in handling complaints, the clarity of communication flows, the speed of academic and non-academic information dissemination, and the professional attitudes of teachers and staff. These complaints have not been systematically managed due to the lack of a dedicated mechanism for documenting and processing parental feedback. The current recording system, which is limited to guest books, fails to optimally capture satisfaction and dissatisfaction data, making it difficult for the school to make data-driven decisions to improve service quality.

Various previous studies have shown that service quality is the most dominant factor in shaping parental and student satisfaction. Yulianto Tri (2020), Sumarno (2024), and Ekawarna

et al. (2021) agree that service quality positively and significantly influences parental satisfaction across various educational levels. Nevertheless, other studies have reported inconsistent results. For example, Dian Kusuma Wardhani et al. (2025) found that service quality does not always significantly affect parental satisfaction. These differing results highlight an empirical gap that warrants further investigation, particularly in private schools with unique characteristics like SD ABC.

The school's image also plays a vital role in building public perception and trust. A positive image emerges from parents' experiences, institutional reputation, student achievements, teacher professionalism, and educational service quality. At SD ABC, the development of negative community opinions is seen as a factor eroding public trust, which has contributed to declining enrollment of new students. Studies such as Ekawarna et al. (2021), Nona Baeruma et al. (2025), and Triwijayanti et al. (2022) confirm that school image significantly affects parental and student satisfaction. A strong, positive image can boost community loyalty and interest, whereas a negative image can impede institutional development, even if academic service quality improves.

This phenomenon shows that school facilities, service quality, and school image are three interrelated factors shaping parental satisfaction. These aspects are especially relevant for private schools facing competitive pressures, evolving parental expectations, and shifting public preferences toward alternative institutions. In the context of SD ABC Balikpapan, a comprehensive understanding of the relationships among these variables is crucial for developing strategies to enhance educational quality, restore parental trust, and boost the school's appeal to prospective students.

Therefore, this study analyzes the influence of school facilities, service quality, and school image on parental satisfaction at SD ABC Balikpapan. Its results are expected to contribute theoretically to education management literature while providing a practical foundation for improving basic education services. The findings can help schools prioritize improvements, address shortcomings, strengthen positive images, and formulate data-driven policies to increase parental satisfaction and loyalty moving forward.

## **METHOD**

This study employed a quantitative explanatory research design to examine the causal relationships among school facilities, service quality, school image, and parental satisfaction at SD ABC Balikpapan. This approach was selected because it enabled objective analysis of variable influences through statistical testing of numerical data collected via structured instruments. The research used a cross-sectional survey design, in which data were gathered at a single point in time without manipulating research subjects (Sugiyono, 2019).

The research was conducted in November 2025 at SD ABC Balikpapan, a private elementary school in Balikpapan City, East Kalimantan. This site was purposively selected due to ongoing challenges with facilities, services, and school image that were hypothesized to affect parental satisfaction. The subjects comprised all parents of students in grades II to VI during the 2025–2026 school year.

The population consisted of 77 parents representing 90 students at these grade levels. As the population was under 100, a saturated sampling technique (census) was applied, including all members for greater representativeness of parental perceptions regarding school facilities,

services, and image.

Data were collected from primary and secondary sources. Primary data came from an online questionnaire using a 1–5 Likert scale, which measured perceptions of school facilities, service quality, school image, and parental satisfaction. The instrument was validated and tested for reliability prior to deployment. Secondary data were drawn from school documents, internal reports, student records, infrastructure profiles, and prior research to support theory and interpretation.

Data analysis utilized SPSS software. Initial steps included validity and reliability tests, followed by classical assumption tests (normality, multicollinearity, and heteroscedasticity) to confirm the regression model's suitability.

Multiple linear regression assessed the influence of school facilities ( $X_1$ ), service quality ( $X_2$ ), and school image ( $X_3$ ) on parental satisfaction ( $Y$ ). This involved t-tests for partial effects, F-tests for simultaneous effects, and the coefficient of determination ( $R^2$ ) to evaluate explanatory power.

## **RESULTS AND DISCUSSION**

### **General Description of Respondents**

This study involved 77 respondents, all of whom were parents of students in grades II–VI SD ABC Balikpapan. The use of census sampling techniques allows the entire population to be analyzed so that the data illustrates the actual state of parents' perception of facilities, service quality, school image, and their level of satisfaction.

1. Gender. Most respondents were women (80.52%) or as many as 62 people. Meanwhile, male respondents only amounted to 15 people (19.48%). The dominance of women indicates that mothers play a more active role in observing children's development, interacting with teachers, and being involved in routine school-parent communication activities. Children's education literature states that mothers are more sensitive in assessing aspects of educational services and meeting children's emotional needs at school. Therefore, the perception of public satisfaction with school is largely determined by the experience and observation of mothers.
2. Last Education. The next characteristic shows that respondents are dominated by relatively high educational backgrounds. A total of 49 respondents (63.64%) had a bachelor's education, followed by 20 respondents (25.97%) from high school/vocational school. Respondents with Diploma education amounted to 13 people (16.88%) and Postgraduate as many as 5 people (6.49%). This data shows that the majority of parents have a fairly high literacy level and have the potential to have high standards, expectations, and sensitivity to the quality of service and reputation of the school.
3. Number of Children in School. Most respondents (83.12%) had one child attending ABC Elementary School, while 16.88% had two children. This indicates that the majority of parents' perceptions are based on individual experiences and are not affected by comparisons between children. However, respondents who have two children tend to have a more comprehensive view because they experience the educational service process over a longer and more varied period.

### **Descriptive Analysis of Research Variables**

This study uses four variables, namely School Facilities (X1), Service Quality (X2), School Image (X3), and Parental Satisfaction (Y). Descriptive analysis was carried out to describe the respondents' perception of each indicator in the variable.

1. School Facility Variable (X1). School facility variables were measured through five indicators with a Likert scale of 1–5. The results of the analysis showed a total average score of 4.07, which was included in the good category. The indicators of supporting facilities and the availability of learning rooms obtained the highest score (4.14), while environmental cleanliness and safety had the lowest score (3.95), mainly due to the CCTV facilities that were not yet active during the renovation. In general, school facilities are considered adequate, but improvements are needed in the aspect of environmental safety.
2. Service Quality Variable (X2). The quality of service is measured based on the five dimensions of SERVQUAL. The average value of the total of these variables is 4.11 (good category). The empathy dimension scored the highest (4.14), while responsiveness had the lowest score (4.06), indicating that the speed of response to parental complaints still needs to be improved. Overall, the school's services are considered consistent and professional.
3. School Image Variable (X3). School image is measured through five indicators with a total average of 4.07 (good category). The indicators of good relations with the community recorded the highest score (4.17), while the reputation of schools in the community had the lowest score (3.95). This indicates that even though communication with parents is going well, the school's reputation at the community level still needs to be strengthened.
4. Parent Satisfaction Variable (Y). Parental satisfaction was measured through four indicators with a total average score of 3.90 (good category). The indicator of satisfaction with children's learning outcomes obtained the highest score (4.01), while the willingness to recommend the school recorded the lowest score (3.81). This shows that even if parents are satisfied with their child's education, the motivation to recommend the school still needs to be improved through improvements in facilities and services.

In general, all four variables received good ratings from respondents. However, there are several aspects that need to be of concern to schools, namely environmental safety (especially CCTV facilities) on the facility variable, service responsiveness on the service quality variable, the school's reputation in the community on the school image variable, and the willingness to recommend schools on the parent satisfaction variable. Improvements in these aspects are expected to strengthen the school's image and increase the satisfaction and loyalty of students' parents.

### **Validity and Reliability Test Results**

All statement items in all four variables were declared valid after going through the Pearson Product Moment correlation test. The calculated  $r$  value for each item is greater than the table  $r$  value and the significance is below 0.05, indicating that each indicator is able to accurately and consistently measure the construct of the variable in question. The calculated  $r$ -value ranges from 0.578 to 0.946, with a significance level ranging from 0.000 to 0.001.

Reliability tests using Cronbach's Alpha show that all variables have a high internal consistency. Cronbach's Alpha value for each variable Based on the results of multiple regression analysis that has been conducted, this study reveals the dynamics of the influence of three independent variables—school facilities, service quality, and school image—on parental satisfaction at SD ABC Balikpapan.

The regression equation formed,  $Y = 7.295 + 0.139X_1 + 0.478X_2 + 0.432X_3$ , provides a clear roadmap regarding the relative contribution of each factor. The results of advanced statistical tests, including the t-test, the F test, and the coefficient of determination, not only confirm the existence of such a relationship but also elaborate on the nuances of the different influences, thus giving rise to an in-depth discussion of the mechanisms of parental satisfaction in the context of basic education services. First of all, the finding that school facilities do not have a statistically significant effect on parental satisfaction is an interesting point of discussion. These results seem to contrast with the general logic that places physical infrastructure as an essential component of an educational institution. A relatively small regression coefficient (0.139) and a significance value that exceeded the threshold (0.350) indicated that improvements in facilities—such as classrooms, libraries, laboratories, and parking areas—did not necessarily translate by parents as a noticeable increase in satisfaction. The explanation of this phenomenon can be traced from several aspects. Psychologically, adequate facilities may have been considered a hygiene factor or basic standards that must be met by a school. Parents consider the existence of good facilities not as a special added value, but as a minimum prerequisite for educational services.

Therefore, as long as the facility is available and functioning at an acceptable level, it does not automatically boost satisfaction levels. On the other hand, if there is a decrease in the quality of facilities, it can actually be a significant source of dissatisfaction. In addition, there may be a psychological distance between the available facilities and the parents' perception of the direct benefits to the child's learning process. Parents may be less aware of or directly involved in the use of these facilities in daily learning activities. They are more likely to respond to aspects that are interactive and directly affect their experience, such as communication with teachers or handling children's problems. These findings are in line with previous descriptive analyses that showed the lowest average values on environmental safety indicators (CCTV), suggesting that suboptimal facilities—especially those related to security—can even be a pain point that prevents facilities as a whole from being a driver of satisfaction.

On the other hand, service quality emerged as the variable with the most dominant and significant influence on parental satisfaction. The regression coefficient of 0.478, which is the highest among the three variables, suggests that each unit increase in service quality contributes more to increased parental satisfaction. Significant t-test results ( $p=0.007$ ) reinforce these findings. The dominance of the influence of service quality underscores the paradigm that in the context of educational services, which are intangible and involve high human interaction, the quality of service experience is the main determinant of satisfaction.

Parents, as service recipients, are very sensitive to aspects such as reliability (school keeps promises), responsiveness (quick response to complaints), assurance (teacher's competence and attitude), and empathy (understanding of children's needs). These findings are consistent with the SERVQUAL framework and various previous studies in the field of

education management, which confirm that service customer satisfaction is strongly influenced by the quality of interaction and the fulfillment of expectations during the service delivery process. At SD ABC Balikpapan, a good assessment of the teacher's professionalism, clarity of information, and an empathetic attitude seems to have created a strong foundation of trust. This trust then leads to satisfaction. Parents feel valued, heard, and confident that their child is in the right hands. This shows that investment in the development of competencies and soft skills of educators and staff, as well as the formation of an effective communication system, is a strategic step that has direct implications for the positive perception of parents.

The school image variable was also proven to have a positive and significant effect, with a coefficient of 0.432. The influence is strong, although slightly below the quality of service. The statistical significance ( $p=0.033$ ) confirms that public perception of the reputation, achievements, and ethics of school citizens is an important factor that shapes parental satisfaction. School imagery serves as a heuristic or mental shortcut for parents in assessing the overall quality of the school before they experience its services in depth. Schools with a good image are associated with high quality education, a conducive environment, and a better future for children. Therefore, parents who perceive the school's image positively tend to be more satisfied because they feel they have made the right choice.

This image is built from various elements, such as the academic and non-academic achievements of students, polite behavior and discipline of school citizens, and most importantly according to descriptive data, good relations with the community and open communication with parents. This good relationship creates a sense of attachment and involvement, where parents are not only outsiders, but also partners. In this context, satisfaction comes not only from what the school provides to the child, but also from how the school positions and engages parents in the educational community. These findings support reputation management and service marketing theory, which states that a strong brand image can increase customer loyalty and satisfaction by influencing their expectations and interpretations of the service experience.

Although the school's facilities were not partially significant, simultaneous testing through the F test yielded different conclusions. The F-value of 46,816 with a significance of 0.000 shows that together, these three variables have a very significant influence on parental satisfaction. This means that a model that integrates facilities, services, and imagery is a viable and powerful model in explaining the variation in satisfaction. This combined contribution is reflected in a determination coefficient value ( $R^2$ ) of 0.658, which means that 65.8% of the variance in parental satisfaction can be explained by these three variables. The implication is that while the facility itself may not be the main driver, it still plays an important role in the satisfaction ecosystem. Good facilities support the implementation of quality services (e.g., adequate laboratory space supports good practicum) and at the same time strengthen the school's image as a modern and well-maintained institution. In other words, facilities function as an enabler for service quality and image forming. Without adequate facilities, the quality of service may be hampered and the image of the school can be tarnished. Therefore, ignoring the facilities at all is not a wise choice.

The discussion also needs to touch on the finding of the high proportion of "neutral" answers in respondents' responses, especially on indicators of service quality and school image. This spike in neutral response can indicate several things. First, there is ambiguity or lack of

clarity in respondents' understanding of abstract statements, such as "reliability of services" or "image of schools in the community". Second, it may reflect a parent's diverse or not yet intense experiences with certain aspects. For example, parents who have never submitted a complaint may have difficulty assessing the school's responsiveness. Third, neutrality can be a form of prudence or uncertainty in judging, which naturally occurs when respondents do not have strong enough information or experience to choose to agree or disagree. This phenomenon enriches interpretation by implying that there is room to increase transparency, socialization, and parental involvement, so that their perceptions can become clearer and better informed.

Overall, the results of this study offer a balanced perspective. On the one hand, the research confirms the primacy of service quality and image as the core of the parental satisfaction experience. On the other hand, the study also reminds that physical facilities, while not statistically significant in this model, remain an integral part of the system that supports the creation of superior services and images. These findings have clear managerial implications for school managers. A top priority should be given to continuous improvement of service quality, with a focus on building proactive, responsive, and empathetic communication. Furthermore, schools need to actively manage their image through achievement achievements, instilling positive values, and maintaining close partnership relationships with parents and the community. Meanwhile, maintenance and optimization of facilities must still be carried out, with an emphasis on aspects directly related to the safety, comfort, and learning experience of students, as well as accompanied by effective communication to parents about the benefits and use of the facility. With an integrated approach that blends these three elements, schools can not only quantitatively improve parental satisfaction, but also build a solid foundation for loyalty and positive advocacy in the long run.

## CONCLUSION

The analysis revealed that while school facilities at SD ABC Balikpapan were rated good, they exerted no significant direct influence on parental satisfaction, likely due to suboptimal aspects not fully perceived by parents. In contrast, service quality and school image both demonstrated significant positive effects: professional, responsive services built trust, and a positive image—fostered by reputation, community ethics, and strong parent relations—greatly enhanced satisfaction. Service quality and school image emerged as dominant factors, with facilities playing an indirect role; thus, the school should prioritize service improvements, image strengthening, and facility optimizations post-renovation to boost satisfaction and sustainability. For future research, longitudinal studies could explore mediating effects of facility renovations on satisfaction over time or compare these dynamics across public versus private elementary schools in East Kalimantan.

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