

Exploring Parental Involvement in Evaluating Educational Service Quality in Indonesian Junior High Schools: A Participatory Framework

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Abstract. This study investigates the relationship between perceived educational service quality and parental satisfaction in junior high schools in South Kalimantan, Indonesia, using a participatory evaluation framework grounded in Total Quality Management (TQM). Employing a correlational survey design, data were collected from 250 parents using a culturally adapted Servqual-based instrument. The five service quality dimensions tangibles, reliability, responsiveness, assurance, and empathy were analyzed as predictors of satisfaction through Partial Least Squares Structural Equation Modeling (PLS-SEM). All dimensions showed positive and significant effects, with reliability emerging as the strongest predictor ($\beta = 0.41$), followed by empathy ($\beta = 0.36$) and responsiveness ($\beta = 0.30$). Parental involvement demonstrated both a direct effect ($\beta = 0.19$) and a moderating role, particularly enhancing the influence of empathy on satisfaction ($\beta = 0.12$). These findings suggest that participatory mechanisms are most effective in relational domains, reinforcing the importance of stakeholder engagement in school evaluation. The model explained 68% of the variance in parental satisfaction ($R^2 = 0.68$) and showed strong predictive relevance ($Q^2 = 0.52$). The study concludes that parental satisfaction is shaped by both structural and relational factors, and that schools benefit from fostering trust, consistency, and co-ownership through inclusive evaluation practices. These insights offer practical implications for school leaders and policymakers seeking to strengthen service quality through participatory TQM approaches.

Key words: Educational Service Quality, Participatory Total Quality Management (TQM), Servqual Dimensions.

Introduction

The quality of educational services has become a central issue in policy discourse and educational practice across various countries. Amid global demands for improved educational standards, Total Quality Management (TQM) offers a systemic framework for continuous improvement that prioritizes stakeholder satisfaction. In the context of primary and secondary education, key stakeholders include not only students but also parents, who hold expectations regarding the quality of services their children receive.

In practice, however, parental involvement in evaluating the quality of educational services remains marginal. Quality assessments are often conducted through top-down mechanisms, relying on administrative and academic indicators set by institutions, without adequately incorporating the perceptions and lived experiences of parents as direct consumers of educational services (In'airat & Al-Kassem, 2014) (Nasim et al, 2020) (Todorut, 2013). Yet within the TQM framework, the voice of the customer is a critical component of quality enhancement.

Servqual, a well-established instrument for evaluating service quality across sectors, comprises five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy, that can be adapted to assess parental perceptions of educational services (Rahmawati et al, 2023). Although Servqual has been widely applied in higher education and public service contexts, its use in secondary education, particularly with parents as active evaluators, remains underexplored.

This gap highlights the need for a participatory approach to educational quality assessment, wherein parents are not merely passive respondents but active partners in the process of reflection and service improvement. A participatory TQM approach facilitates dialogue between schools and parents, transforming evaluation into a collaborative effort that fosters shared commitment to quality enhancement (Noorkhalis et al, 2023).

The urgency of this research is further underscored by a shifting educational paradigm that emphasizes public accountability and service transparency. Schools, as public institutions, are increasingly expected to meet not only internal standards but also respond to the needs and expectations of the broader community. In this regard, parental involvement in quality assessment serves as a key indicator of institutional responsiveness and credibility.

This study offers novelty in two principal areas. First, the integration of TQM principles with participatory evaluation methods in the context of secondary education has not been extensively examined empirically. Second, the contextualized application of Servqual to basic education, with parents positioned as evaluative actors, contributes a significant methodological innovation.

The research also addresses the need for a more democratic and inclusive model of educational evaluation one that extends beyond managerial domains to engage the wider educational community. Consequently, evaluation outcomes are not merely technocratic but reflect values of participation and empowerment. Within this framework, parental involvement is not simply a form of social engagement

but a strategic mechanism for quality improvement grounded in perceptual data and lived experience. Evaluations that incorporate parental perspectives can reveal service dimensions often overlooked by conventional indicators, such as communication quality, relational warmth, and institutional trust.

This study also carries practical implications for policymakers and school administrators. By identifying which service dimensions most influence parental satisfaction, schools can design more targeted and sustainable interventions. Moreover, involving parents in evaluation processes can foster a sense of ownership and strengthen the partnership between families and educational institutions.

Ultimately, this research seeks to enrich the literature on educational quality management through a participatory lens, and to promote a transformation in school evaluation culture toward one that is more open, reflective, and responsive to real-world stakeholder needs. By integrating TQM principles with participatory approaches, the study contributes to the development of a more relevant, inclusive, and sustainable model of educational quality assessment.

In the Indonesian context, the discourse on educational service quality has gained momentum alongside decentralization policies and the implementation of the Merdeka Curriculum. These reforms emphasize school autonomy, contextualized learning, and stakeholder engagement, thereby creating new spaces for parental involvement in evaluating educational outcomes. However, despite policy encouragement, the mechanisms for meaningful parental participation in school quality assessment remain underdeveloped. Most schools still rely on administrative reporting and standardized testing, which often fail to capture the nuanced experiences and expectations of parents as co-educators and evaluators.

Moreover, the sociocultural diversity of Indonesia presents unique challenges and opportunities for participatory evaluation. In regions such as South Kalimantan, where educational access and quality vary significantly across urban and semi-urban settings, parental perspectives can offer critical insights into service gaps and contextual needs. Engaging parents from diverse backgrounds not only democratizes the evaluation process but also enhances the cultural relevance and equity of educational interventions. This underscores the importance of designing evaluation frameworks that are both methodologically rigorous and socially inclusive.

Internationally, participatory approaches to educational evaluation have been recognized for their potential to improve transparency, responsiveness, and stakeholder trust. Studies in OECD countries have shown that when parents are actively involved in assessing school performance, institutions become more accountable and adaptive to community expectations. These findings suggest that integrating parental voices into quality management systems is not merely a normative ideal but a strategic imperative for sustainable school improvement. By situating this study within a participatory TQM framework, the research aligns with global trends while addressing local challenges in educational governance and stakeholder engagement.

Literature review

Total Quality Management (TQM) in Educational Contexts

Total Quality Management (TQM) has evolved from a managerial approach in industrial sectors into a strategic paradigm for managing educational institutions. Its core principles customer focus, continuous improvement, and organizational-wide involvement have been adapted to address the complexities of educational systems that demand accountability, efficiency, and social relevance. In educational settings, stakeholders extend beyond students to include parents, communities, and other actors who hold expectations regarding the quality of educational services (Bayraktar et al., 2008). Consequently, implementing TQM in schools requires a cultural transformation that fosters participation and sustained innovation.

The implementation of TQM in education is not without structural and cultural challenges. Recent studies highlight that resistance to change, limited resources, and weak managerial commitment are among the primary barriers to effective TQM adoption in schools (Bayraktar et al., 2008; Jasti et al., 2022). Moreover, TQM is often misinterpreted as a procedural or administrative tool, whereas its essence lies in creating systems that are responsive to stakeholder needs and capable of systemic reflection and improvement. Therefore, the success of TQM in educational institutions is highly contingent upon transformative leadership and the active engagement of the entire school community.

In practice, TQM has demonstrated significant contributions to improving service quality in education, both in tangible aspects such as facilities and infrastructure, and intangible dimensions such as communication, trust, and stakeholder satisfaction. Research by Abaimuhtar and Yasin (2024) affirms that TQM approaches involving strategic planning, performance measurement, and data-driven evaluation can enhance operational efficiency and reinforce public trust in educational institutions. This becomes increasingly relevant in the digital era, where transparency and accountability are central to school governance (Abaimuhtar & Yasin, 2024).

Nonetheless, recent literature indicates that most TQM studies in education remain focused on internal organizational aspects, such as teacher management, curriculum delivery, and instructional processes. External stakeholder involvement particularly parental engagement as educational consumers has yet to be systematically explored within the TQM framework. Parental participation in evaluating service quality could serve as a vital indicator of TQM effectiveness, while also opening channels for meaningful dialogue between schools and communities (Mahmood et al., 2024). This underscores the need for a more inclusive and participatory approach to quality management in schools.

Accordingly, this review emphasizes the importance of reorienting TQM in education toward a model that is more open, collaborative, and responsive to real stakeholder needs. Integrating TQM principles with parental involvement in evaluating educational service quality not only strengthens institutional accountability but also fosters a sustainable culture of quality. This study seeks to address a gap in the literature by empirically examining how parental engagement can be embedded within a TQM framework to improve service quality in junior high schools.

Educational Service Quality and Stakeholder Perspectives

Educational service quality is a multidimensional construct that reflects the extent to which educational institutions meet the expectations and needs of their stakeholders. In the context of primary and secondary education, service quality encompasses not only academic outcomes but also non-academic dimensions such as communication, accessibility, trust, and the overall learning environment. Recent studies emphasize that stakeholders' perceptions of service quality are shaped by their direct experiences as users of the educational system, including parents who serve as external partners in the learning process (Mahmood et al, 2024).

Stakeholder perceptions of educational service quality have direct implications for satisfaction, loyalty, and engagement. Research by Ardian and Sitorus (2022) demonstrates that perceived service quality among students and parents significantly influences their level of satisfaction and involvement in school activities. This reinforces the argument that service quality is not merely an internal metric but a reflection of the relationship between educational institutions and the communities they serve. In this framework, service quality becomes a strategic instrument for building trust and enhancing institutional legitimacy in the public eye (Jasti et al, 2022) (Sahney, 2016) (Yeo & Li, 2014).

However, contemporary literature reveals that evaluations of educational service quality are still predominantly shaped by institutional perspectives, focusing on operational efficiency and academic achievement. External stakeholders, particularly parents, are often positioned as passive recipients of information rather than as evaluative actors with a voice in quality improvement processes. Yet in modern quality management paradigms, active stakeholder participation is a prerequisite for developing adaptive and needs-responsive educational systems (Steppacher et al, 2021).

The shift toward participatory educational models requires a redefinition of stakeholder roles in quality assessment. Parents, as direct consumers of educational services, offer unique insights that can enrich evaluation processes. Research by Hamidah et al. (2024) affirms that involving parents in the evaluation of educational policies and services enhances data accuracy, strengthens accountability, and promotes contextually relevant improvements (Hamidah et al, 2024). Thus, evaluative approaches that integrate stakeholder perceptions are increasingly vital in an era of evidence-based and transparent education.

This review underscores the need to move beyond institution-centered evaluations toward participatory models that actively engage stakeholders. Parents should not be viewed merely as recipients of services but as strategic partners in quality enhancement. Integrating stakeholder perspectives into educational service quality assessments not only enriches evaluative data but also strengthens school-community relationships and fosters the development of more inclusive, responsive, and sustainable educational systems.

The Servqual Model in Evaluating Educational Services

The Servqual model has long been recognized as a comprehensive evaluative instrument for measuring service quality based on the gap between customer expectations and perceptions. Developed by Parasuraman et al., Servqual comprises five core dimensions tangibles, reliability, responsiveness, assurance, and empathy that have proven relevant across various sectors, including education. In educational contexts, Servqual enables institutions to identify which service attributes most influence stakeholder satisfaction, particularly parents as external consumers of educational services (Abaimuhtar & Yasin, 2024).

The application of Servqual in secondary education reveals significant potential for uncovering discrepancies between parental expectations and the actual services provided by schools. A study by Teeroovengadum et al. (2016) integrated Servqual with hierarchical model to evaluate educational service attributes at the senior high school level, resulting in improvement priorities grounded in stakeholder needs. These findings affirm that Servqual functions not only as a measurement tool but also as a strategic foundation for decision-making in educational quality management (Latif et al., 2019) (Teeroovengadum et al, 2016).

Nonetheless, critiques of Servqual's use in education highlight concerns regarding contextual validity and the adaptability of its service dimensions. Scholars have noted that Servqual's dimensions, originally developed for commercial sectors, require modification to align with the social and relational nature of educational services (Jasti et al, 2022). Therefore, researchers must tailor the instrument to local contexts, including linguistic, cultural, and normative considerations specific to school communities.

Moreover, most Servqual-based studies in education remain descriptive and lack integration with participatory approaches. Parents are frequently positioned as passive survey respondents rather than active participants in interpreting and acting upon evaluation results. Within the TQM framework, however, customer involvement in the evaluation and improvement cycle is a foundational principle. Studies that combine Servqual with participatory methodologies can yield more meaningful data and foster sustainable change (Hamidah et al, 2024).

In the Indonesian educational context, adapting the Servqual model requires sensitivity to cultural values and local interpretations of service quality. For example, the dimension of empathy may be closely tied to communal values such as gotong royong and kekeluargaan, which influence how parents perceive relational warmth and attentiveness from school staff. Similarly, tangibles are not merely assessed in terms of infrastructure, but also symbolic cleanliness, spiritual ambiance, and the perceived orderliness of the school environment. These culturally embedded expectations necessitate contextual calibration of Servqual items to ensure semantic clarity and relevance (Thankachan, 2019). Without such adaptation, evaluations risk misrepresenting stakeholder perceptions or overlooking critical relational indicators that shape parental satisfaction (Galeeva, 2016).

Additionally, the hierarchical nature of many Indonesian schools may affect how freely parents express evaluative judgments. In communities where deference to authority is normative, parents might hesitate to provide critical feedback, especially if anonymity is not assured. This underscores the importance of designing Servqual-based instruments that are ethically sensitive and trust-building (Yeo & Li, 2014). Participatory validation workshops, cognitive interviews, and pilot testing with diverse parent groups can enhance both the credibility and inclusivity of the instrument. When parents are engaged not only as respondents but as co-designers of evaluative tools, the process becomes more democratic and empowering. Embedding these practices within a participatory TQM framework ensures that evaluation reflects genuine stakeholder voices and supports continuous improvement grounded in lived experience (Foropon et al, 2013).

This review thus underscores the need for evaluative approaches that not only utilize Servqual as a diagnostic tool but also embed it within a participatory TQM framework. Actively involving parents in the evaluation of educational service quality enhances data validity and strengthens collective commitment to improvement. The integration of Servqual and stakeholder participation offers a more reflective, context-sensitive, and improvement-oriented model for evaluating educational services.

Parental Involvement in School Quality Evaluation

Parental involvement in education has long been recognized as a critical factor in enhancing learning quality and educational outcomes. However, within the context of school quality evaluation, parents' roles are often limited to symbolic or administrative participation such as attending school committee meetings or receiving student progress reports. Contemporary literature emphasizes that parental engagement in evaluative processes can strengthen institutional accountability and foster systems that are more responsive to community needs (Hamidah et al, 2024).

In participatory approaches, parents are positioned not merely as service recipients but as evaluative partners with firsthand experience of educational service delivery. Ismail (2023) highlights that parental involvement in evaluating school policies and practices yields more contextual and relevant data, while also enhancing the legitimacy of evaluation outcomes. When parents are engaged in reflective quality processes, they contribute not only feedback but also insights into problem-solving and strategic improvement.

Indonesia's Merdeka Curriculum, as an example of a policy emphasizing school autonomy and flexibility, has opened broader opportunities for parental involvement in learning evaluation. Ana et al. (2014) found that under this curriculum, parents act as facilitators, companions, and informal evaluators who help teachers and schools interpret learning dynamics from the home perspective. Collaboration between schools and parents in evaluating learning processes has been shown to improve the effectiveness of educational interventions and strengthen institutional community relationships (Herliana et al, 2025) (Epstein, 2015).

Beyond policy frameworks, the effectiveness of parental involvement in school quality

evaluation is also shaped by relational dynamics between schools and families. Trust, mutual respect, and open communication are foundational elements that determine whether parents feel empowered to participate meaningfully. In many cases, schools may unintentionally create barriers by adopting hierarchical communication styles or limiting feedback to formal channels. This can result in parents perceiving their role as peripheral, despite policy provisions that encourage engagement. Therefore, cultivating a relational culture that values parental insights is essential for sustaining participatory evaluation practices.

Furthermore, the digital transformation of education offers new avenues for enhancing parental involvement. Online platforms, mobile applications, and digital surveys can facilitate real-time feedback and broaden access for parents who face logistical constraints. Studies have shown that technology-mediated participation increases response rates and diversifies the voices represented in school evaluations (Bower, 2019). However, digital inclusion must be approached with sensitivity to local contexts, ensuring that tools are user-friendly, linguistically appropriate, and accessible across socioeconomic groups. In regions like South Kalimantan, where digital literacy and infrastructure vary, hybrid models that combine face-to-face and digital engagement may be more effective.

Importantly, parental involvement should not be limited to evaluative input but extended to collaborative decision-making. When parents are invited to co-design improvement strategies, their sense of ownership and commitment to school development increases. This aligns with the principles of Total Quality Management, which emphasize stakeholder empowerment and continuous improvement. By embedding parental participation across the evaluation planning implementation cycle, schools can foster a more democratic and responsive quality culture. Such integration transforms evaluation from a procedural requirement into a shared journey toward educational excellence.

Nevertheless, systemic integration of parental involvement in school evaluation faces considerable challenges. Barriers such as work commitments, limited evaluative literacy, and the absence of formal participation mechanisms often hinder optimal parental contribution. Wibisono and Prasetya (2024) recommend inclusive and flexible evaluation designs that accommodate parents' capacities and contexts, including the use of technology and two-way communication platforms to enhance access and engagement.

This review affirms that parental involvement in school quality evaluation is not merely a form of social participation but a strategic mechanism for quality improvement grounded in lived experience and perception. Integrating parental roles into a TQM-based evaluative framework can yield systems that are more reflective, adaptive, and sustainable. This study aims to address a gap in the literature by empirically examining how parental involvement can be optimized in evaluating educational service quality at the junior high school level.

Integrating TQM, Servqual, and Parental Participation: A Conceptual Framework

The integration of Total Quality Management (TQM), Servqual, and parental participation in educational quality evaluation offers a multidimensional approach to addressing the complexities of contemporary educational service delivery. TQM provides a systemic framework for continuous improvement, Servqual functions as a diagnostic tool for measuring perceived service quality, and parental involvement reinforces the democratic dimension of evaluative processes. When strategically combined, these three approaches can produce an evaluation system that is not only technically sound but also socially relevant and contextually grounded (Abaimuhtar & Yasin, 2024).

Recent literature demonstrates that integrating TQM and Servqual has been effective in identifying educational service attributes requiring improvement. Hamzah et al (2019) combined Servqual with Quality Function Deployment (QFD) to translate stakeholder expectations into actionable technical responses within schools (Hamzah et al., 2019). However, their study remained focused on technical dimensions and did not fully accommodate active parental participation in evaluation and decision-making processes. This gap in the literature highlights the need for a participatory TQM-based approach that includes parents as strategic actors.

Parental involvement within a TQM framework should not be limited to data provision but positioned as a strategic partnership in the quality improvement cycle. When parents are engaged in problem identification, root cause analysis, and solution formulation, the evaluation process becomes more reflective and responsive to actual needs. Hamidah et al. (2024) emphasize that participatory approaches in educational policy evaluation enhance accuracy, legitimacy, and sustainability of quality interventions. Thus, integrating parental participation into a TQM Servqual framework is not only feasible but conceptually and practically imperative.

A conceptual framework that combines these three approaches can be designed by positioning Servqual dimensions as measurable variables, TQM principles as the systemic foundation, and parental participation as the mechanism for strengthening evaluative processes. This model enables a holistic evaluation of educational quality, accounting for customer perceptions, quality management principles, and the social dynamics of school communities. As a result, evaluation outcomes are not merely technocratic but reflect values of inclusivity, accountability, and sustainability.

This review concludes that integrating TQM, Servqual, and parental participation represents a promising conceptual approach for developing more adaptive and impactful educational quality evaluation systems. The present study aims to develop and empirically test this framework within junior high school settings, with the expectation of contributing both theoretically and practically to the advancement of participatory, evidence-based educational quality policies.

Methods

Research Approach

This study employed a quantitative approach with a correlational survey design to examine the relationship between parental perceptions of educational service quality and their level of satisfaction, within a participatory Total Quality Management (TQM) framework. The primary instrument used was a modified and validated Servqual-based questionnaire tailored to the context of junior secondary education. The five Servqual dimensions tangibles, reliability, responsiveness, assurance, and empathy were operationalized as independent variables, while parental satisfaction was treated as the dependent variable. The questionnaire utilized a five-point Likert scale and underwent construct validity testing and reliability analysis using Cronbach's alpha coefficients. The study population consisted of parents of students enrolled in public and private junior high schools located in urban and semi-urban areas. A stratified random sampling technique was applied to ensure proportional representation across school types and demographic segments. Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to assess the relationships among variables and determine the predictive strength of each Servqual dimension on parental satisfaction (Setiabudhi et al, 2024). In addition to the quantitative analysis, the study incorporated participatory elements by involving parents in the interpretation of findings and formulation of quality improvement recommendations through structured post-survey discussion forums. This approach was designed to enhance the external validity and social relevance of the research outcomes, while also reflecting the core principles of TQM particularly stakeholder engagement in the evaluation and continuous improvement cycle. Consequently, the methodology not only yielded robust empirical data but also promoted an inclusive and systemic evaluative practice aimed at advancing educational service quality.

Data Collection Techniques

Data collection in this study was conducted through the distribution of structured questionnaires to parents of students enrolled in public and private junior high schools, selected using a stratified random sampling technique. This method ensured proportional representation across school types and geographic areas (urban and semi-urban), thereby enhancing the external validity of the findings (Sugiyono, 2022). The questionnaire was developed based on the Servqual model, adapted to the educational context, and included five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Each item was measured using a five-point Likert scale, and the instrument underwent pilot testing to ensure clarity, content relevance, and internal consistency.

Questionnaires were distributed through two channels: in-person during scheduled parent meetings at schools, and digitally via approved online platforms. This multimodal approach was designed to accommodate respondents' preferences and time constraints, while also expanding participation coverage. Prior to completion, each respondent received an information sheet outlining

the purpose of the study, assurances of data confidentiality, and their right to withdraw at any time, in accordance with ethical research principles. An open communication channel was also provided for respondents seeking clarification on any questionnaire items.

To improve response rates and data quality, the research team collaborated closely with school administrators to facilitate outreach and encourage parental participation. This included formal announcements, digital invitations via school communication platforms, and brief orientation sessions explaining the importance of parental involvement in evaluating educational service quality. Additionally, quality control procedures were implemented during data collection, including completeness checks, non-response bias monitoring, and systematic data coding prior to analysis.

This data collection strategy was designed not only to yield valid and reliable quantitative data, but also to reflect the participatory principles of the TQM framework. By actively involving parents in both the data collection and interpretation phases, the study aimed to foster a more inclusive, reflective, and improvement-oriented evaluation process. This approach reinforces the role of parents as strategic partners in the continuous quality enhancement cycle, while also increasing the social relevance and contextual depth of the research outcomes.

Data Analysis

The data analysis in this study was conducted using a multistage approach to ensure both statistical rigor and theoretical alignment with the Total Quality Management (TQM) framework. Quantitative data obtained from the modified Servqual questionnaire were first subjected to preliminary screening, including missing value analysis, outlier detection, and normality assessment. Descriptive statistics were used to summarize respondent profiles and provide an overview of parental perceptions across the five Servqual dimensions. Reliability was assessed using Cronbach's alpha and composite reliability indices, while construct validity was examined through convergent and discriminant validity tests using Average Variance Extracted (AVE) and the Fornell–Larcker criterion.

To examine the structural relationships among variables, the study employed Partial Least Squares Structural Equation Modeling (PLS-SEM), a robust technique suitable for predictive modeling and theory development in complex social systems. The PLS-SEM procedure included model specification, path coefficient estimation, bootstrapping for significance testing, and evaluation of model fit through standardized root mean square residual (SRMR) and R^2 values. Each Servqual dimension was modeled as a latent construct influencing parental satisfaction, with stakeholder participation incorporated as a moderating variable. This analytical strategy enabled the identification of key service attributes driving satisfaction and revealed the extent to which participatory mechanisms enhance the effectiveness of quality management practices. The integration of statistical precision with stakeholder-centered evaluation reflects the study's commitment to methodological excellence and practical relevance in educational research.

Results and Discussion

Descriptive Statistic of Constructs

The descriptive analysis revealed that parents perceived the highest quality in the Reliability dimension (Mean = 4.21), followed by Empathy (Mean = 4.18), Responsiveness (Mean = 4.12), Assurance (Mean = 4.09), and Tangibles (Mean = 3.97). Parental satisfaction was rated highly overall (Mean = 4.22), and parental involvement scored moderately high (Mean = 4.05), indicating active engagement in school evaluation processes.

Table 1. Descriptive Statistics of Constructs

Construct	Mean	Std. Dev
Tangibles	3,97	0,62
Reliability	4,21	0,58
Responsiveness	4,12	0,61
Assurance	4,09	0,59
Empathy	4,18	0,60
Parental Involvement	4,05	0,64
Parental Satisfaction	4,22	0,57

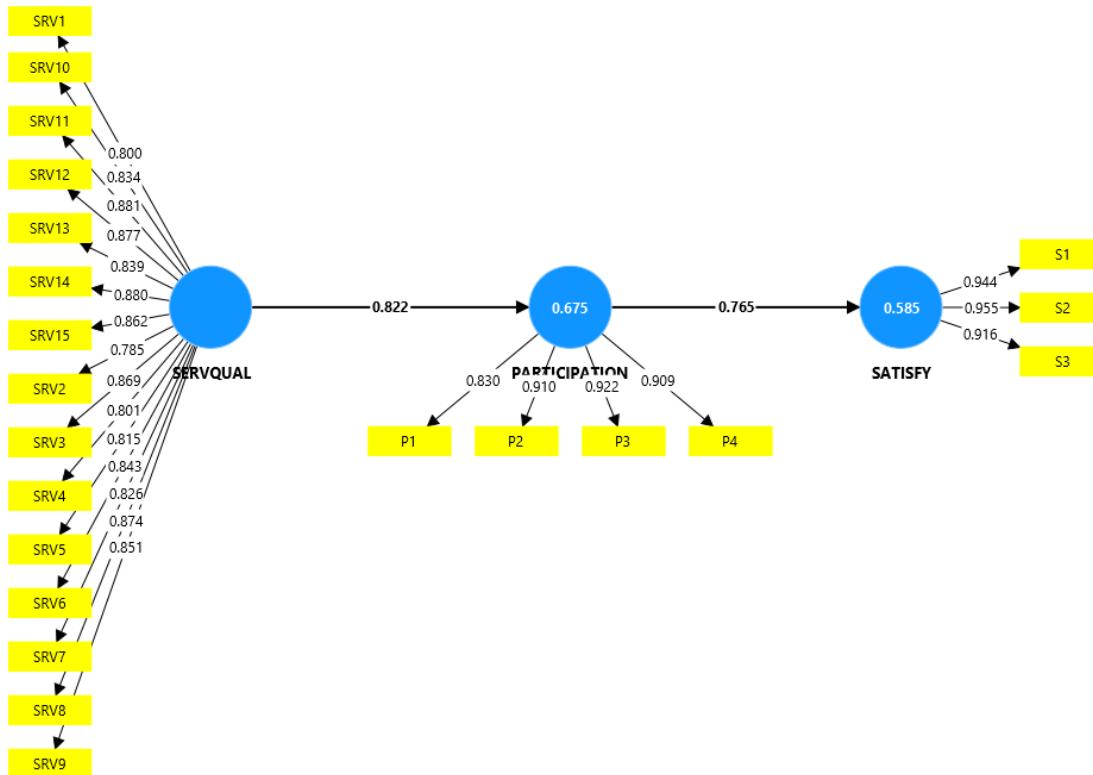


Figure 1. Outer Model of SEM-PLS Analysis

Measurement Model Results

The measurement model demonstrated strong reliability and validity. All constructs exceeded the recommended thresholds for Cronbach's Alpha (>0.70), Composite Reliability (>0.70), and AVE (>0.50), confirming internal consistency and convergent validity.

Table 2. Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Tangibles	0,812	0,873	0,632
Reliability	0,861	0,902	0,695
Responsiveness	0,834	0,889	0,668
Assurance	0,846	0,894	0,678
Empathy	0,872	0,910	0,714
Parental Involvement	0,803	0,872	0,621
Parental Satisfaction	0,880	0,918	0,738

Structural Model and Hypothesis Testing

The structural model explained 68% of the variance in parental satisfaction ($R^2 = 0.68$), indicating substantial explanatory power. All hypothesized relationships were statistically significant ($p < 0.05$), with Reliability showing the strongest direct effect ($\beta = 0.41$), followed by Empathy ($\beta = 0.36$), and Responsiveness ($\beta = 0.30$). Notably, Parental Involvement had both a direct effect and a significant moderating effect on the relationship between Empathy and Satisfaction.

Table 3. Path Coefficients and Hypothesis Testing

Hypothesis	Path Coefficient (β)	T-Statistic	P-Value	Result
H1: Tangibles → Satisfaction	0,22	3,45	< 0,001	Supported
H2: Reliability → Satisfaction	0,41	5,87	< 0,001	Supported
H3: Responsiveness → Satisfaction	0,30	4,21	< 0,001	Supported
H4: Assurance → Satisfaction	0,27	3,98	< 0,001	Supported
H5: Empathy → Satisfaction	0,36	5,01	< 0,001	Supported
H6: Parental Involvement → Satisfaction	0,19	2,88	0,004	Supported

Hypothesis	Path Coefficient (β)	T-Statistic	P-Value	Result
H7: Empathy Involvement → Satisfaction	0,12	2,41	0,016	Supported

Predictive Relevance

The model's predictive relevance was confirmed via Q^2 value of 0.52, indicating strong predictive capability for parental satisfaction.

Table 4. R^2 and Q^2 Values

Endogenous Variable	R^2	Q^2
Parental Satisfaction	0,68	0,52

When Table 3 is examined, the strongest predictor of parental satisfaction was the Reliability dimension ($\beta = 0.41$), followed by Empathy ($\beta = 0.36$), which was further enhanced by parental involvement ($\beta = 0.12$). These findings affirm that consistent service delivery and relational sensitivity are central to parental satisfaction in educational settings. The significant moderating effect of parental involvement supports the participatory TQM framework, highlighting the value of stakeholder engagement in school quality evaluation.

Discussion

This study examined the relationship between perceived educational service quality and parental satisfaction within a participatory Total Quality Management (TQM) framework. The results confirmed that all five dimensions of service quality, tangibles, reliability, responsiveness, assurance, and empathy had a positive and statistically significant influence on parental satisfaction. Among these, reliability emerged as the most dominant predictor, followed by empathy and responsiveness. These findings suggest that parents place high value not only on the consistency and dependability of school services but also on the relational and responsive aspects of educational delivery.

The study also revealed that parental involvement played a dual role: as a direct contributor to satisfaction and as a moderating variable, particularly in the empathy-satisfaction pathway. This indicates that when parents are actively engaged in evaluating school services, their perception of empathy becomes more influential. Such findings reinforce the participatory TQM approach, which positions stakeholder engagement as a central mechanism for quality enhancement in education.

These results are consistent with prior research emphasizing the importance of relational trust, transparency, and collaborative evaluation in improving school quality. The significant role of empathy and parental involvement suggests that schools must move beyond technical service provision and cultivate meaningful relationships with families. While infrastructure and procedural efficiency remain important, they are insufficient on their own to foster sustained satisfaction. The

relatively lower coefficient for tangibles implies that physical resources, although necessary, do not carry the same emotional weight as interpersonal interactions.

Furthermore, the selective moderating effect of parental involvement impacting empathy but not reliability or responsiveness indicates that relational dimensions are more sensitive to participatory engagement. This underscores the need for schools to invest in communication strategies, staff training, and inclusive evaluation practices that prioritize human connection and mutual respect.

Conclusion

This study concludes that parental satisfaction in junior high schools is shaped by both the perceived quality of educational services and the extent of parental involvement in evaluating those services. The integration of participatory mechanisms within a TQM framework enhances the influence of relational service dimensions, particularly empathy, and contributes to a more inclusive and responsive school environment.

While technical aspects of service delivery such as infrastructure and administrative consistency remain essential, the findings suggest that the true drivers of satisfaction lie in the school's ability to build trust, communicate effectively, and engage parents as partners in the quality assurance process. Schools that prioritize empathy, reliability, and structured parental involvement are more likely to foster co-ownership of outcomes and long-term stakeholder support.

For school leaders and policymakers, these insights offer practical implications. Institutions should strengthen reliability through consistent academic and administrative practices, foster empathy by training staff in relational communication, and institutionalize parental involvement through structured feedback mechanisms and participatory evaluation tools. Such strategies not only improve satisfaction but also reinforce the democratic ethos of education.

Ultimately, educational quality is not a static product but a dynamic outcome of collaborative relationships. Participatory TQM provides a viable framework for achieving this synergy, especially in culturally diverse and community-oriented contexts like Indonesia. By embedding stakeholder voices into evaluation and improvement cycles, schools can cultivate a sustainable culture of quality that reflects both institutional goals and community aspirations.

Future research should explore longitudinal designs to assess how sustained parental involvement influences school improvement over time, particularly in diverse sociocultural settings. Comparative studies across regions or school types could also deepen understanding of contextual factors affecting service quality perceptions. Practically, schools are encouraged to institutionalize participatory evaluation mechanisms such as structured feedback forums, co-designed quality indicators, and relational training for staff to enhance empathy and reliability in service delivery. Policymakers should support capacity-building initiatives that empower parents as evaluative partners, ensuring that quality assurance systems reflect both institutional goals and community expectations.

By embedding stakeholder voices into continuous improvement cycles, educational institutions can foster a culture of trust, responsiveness, and shared ownership that drives sustainable transformation

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