

ACCREDITATION AND PARENT-PERCEIVED QUALITY OF EDUCATIONAL SERVICES IN CHILDCARE CENTERS A SERVQUAL Analysis in Greater Bandung

DHEA PARAMYTHA OCTAVIANI*, TAUFANI C. KURNIATUN, NANI HARTINI

Universitas Pendidikan Indonesia

Email: dhea.paramytha.octaviani@upi.edu*, taufani@upi.edu, nani_hartini@upi.edu

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Abstract: Accreditation and Parent-Perceived Quality of Educational Services in Childcare Centers: A SERVQUAL Analysis in Greater Bandung

This study aims to map the gaps in the quality of educational services at Childcare Centers (TPA) based on the differences between parents' expectations and perceptions using the SERVQUAL model. The study used a descriptive-comparative quantitative approach at three accredited TPA institutions; A, B, and C in the Greater Bandung area. Data were collected from parents as primary service users via a SERVQUAL-based questionnaire covering five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Data analysis was conducted using a gap analysis (P-E) and quadrant mapping (Importance-Performance Analysis) based on the overall mean (Grand Mean). The results indicate that all Childcare Centers (TPA) experienced a negative service quality gap across all SERVQUAL dimensions, suggesting that the perceived service quality has not met parents' expectations. In A-accredited TPA, the largest gap was found in the tangibles and assurance dimensions. Meanwhile, in B-accredited TPA, the largest gap was in the assurance and reliability dimensions, while in C-accredited TPA, it was found in the tangibles and reliability dimensions. Conversely, the responsiveness dimension consistently showed the smallest gap across all TPA, which, from the perspective of Islamic education management, reflects the implementation of the Islamic value of khidmah (service/devotion). A quadrant analysis confirms that formal accreditation status is not necessarily associated with parent-perceived quality fulfillment.

Keywords: Accreditation, Childcare Center, Early Childhood Education, Service Quality Gap, SERVQUAL.

Abstrak: Akreditasi dan Kualitas Layanan Pendidikan di Pusat Penitipan Anak yang Dirasakan Orang Tua: Analisis SERVQUAL di Wilayah Bandung Raya

Penelitian ini bertujuan untuk memetakan kesenjangan kualitas layanan pendidikan di Pusat Penitipan Anak (TPA) berdasarkan perbedaan antara harapan dan persepsi orang tua menggunakan model SERVQUAL. Penelitian ini menggunakan pendekatan kuantitatif deskriptif-komparatif di tiga lembaga TPA terakreditasi; A, B, dan C di wilayah Bandung Raya. Data dikumpulkan dari orang tua sebagai pengguna layanan utama melalui kuesioner berbasis SERVQUAL yang mencakup lima dimensi: wujud fisik, keandalan, daya tanggap, jaminan, dan empati. Analisis data dilakukan menggunakan analisis kesenjangan (P-E) dan pemetaan kuadran (Analisis Penting-Kinerja).

berdasarkan rata-rata keseluruhan (*Grand Mean*). Hasil menunjukkan bahwa semua Pusat Penitipan Anak (TPA) mengalami kesenjangan kualitas layanan negatif di semua dimensi SERVQUAL, menunjukkan bahwa kualitas layanan yang dirasakan belum memenuhi harapan orang tua. Di TPA terakreditasi A, kesenjangan terbesar ditemukan pada dimensi wujud fisik dan jaminan. Sementara itu, di TPA (Tenaga Pengajar) terakreditasi B, kesenjangan terbesar terdapat pada dimensi jaminan dan keandalan, sedangkan di TPA terakreditasi C, kesenjangan terbesar ditemukan pada dimensi wujud fisik dan keandalan. Sebaliknya, dimensi daya tanggap secara konsisten menunjukkan kesenjangan terkecil di semua TPA, yang, dari perspektif manajemen pendidikan Islam, mencerminkan implementasi nilai Islam khidmah (pelayanan/pengabdian). Analisis kuadran menegaskan bahwa status akreditasi formal tidak selalu terkait dengan pemenuhan kualitas yang dirasakan oleh orang tua.

Kata Kunci: Akreditasi, Pusat Penitipan Anak, Pendidikan Anak Usia Dini, Kesenjangan Kualitas Layanan, SERVQUAL.

INTRODUCTION

Childcare Centers (TPA) constitute one of the Early Childhood Education service units that play a strategic role within the early childhood education and care system, particularly in urban areas. Beyond serving merely as facilities for child supervision, TPA function as providers of Holistic-Integrative Early Childhood Education (PAUD-HI), ensuring children's safety, care, and optimal developmental stimulation in accordance with established standards (Direktorat Pembinaan Pendidikan Anak Usia Dini, 2015). Given this role, TPA are expected to be managed professionally to deliver high-quality and sustainable educational and caregiving services.

Within educational management, the quality of services provided by Childcare Centers (TPA) is a critical issue because it is directly associated with parental trust as service users, the effectiveness of Holistic-Integrative Early Childhood Education (PAUD-HI) implementation, and institutional sustainability. Previous studies have shown that the quality of educational services in early childhood education institutions significantly influences parental satisfaction, which subsequently becomes a key factor in fostering parents' trust in early childhood education providers (Budiharjo, 2018; Fadilah et al., 2025). Furthermore, improvements in service quality are closely linked to effective institutional management through planning, implementation, and evaluation functions, which not only enhance the quality of early childhood education services but also strengthen parental involvement as primary stakeholders (Susanti et al., 2025). At the same time, high-quality childcare services serve as an important support system for urban families, including working parents, by helping ensure that young children's educational and caregiving needs are adequately met. Therefore, mapping the quality of TPA

services based on parents' perceptions is essential for identifying potential gaps between expectations and the actual performance of early childhood education services.

In the Greater Bandung area, the quality of services provided by Childcare Centers (TPA) remains uneven and tends to vary considerably across institutions. To date, the number of accredited TPA registered in the Basic Education Data System (Dapodik) remains relatively small, with only around 30 institutions officially recorded, despite the fact that many more TPA operate in practice. This situation indicates that a substantial number of TPA in Greater Bandung are not yet included in Dapodik, resulting in limited official documentation regarding their institutional status, legal compliance, and service quality. Consequently, quality monitoring and quality assurance mechanisms for early childhood education remain less effective. This condition is further supported by statements from the Bandung City Government (Tim PRFM, 2025), which noted that many Childcare facilities continue to operate independently without standardized service guidelines covering caregiving, educational provision, and service management. Such disparities are reflected in field practices, where some TPA have established structured developmental programs and adequate facilities, while others continue to function primarily as basic childcare providers with limited educational stimulation (Yuniasri, 2024). These findings are consistent with reports from the Indonesian Child Protection Commission (KPAI), which indicate that many Childcare Centers in Indonesia still predominantly serve as childcare facilities and have not fully implemented their role as holistic-integrative early childhood education service providers (Pranawati et al., 2015).

The rapid development of brain structure and function during the period from birth to six years of age, often referred to as the golden age, places Childcare Centers (TPA) in a particularly important position, not merely as childcare facilities but as essential environments for developmental stimulation that influence children's long-term learning readiness (Brown & Jernigan, 2012; Sania & Sirozi, 2025; Yin et al., 2025). According to Presidential Regulation of the Republic of Indonesia No. 60 of 2013 concerning Holistic-Integrative Early Childhood Development, as non-formal early childhood education institutions, TPA are expected to implement holistic-integrative services by simultaneously integrating educational, caregiving, nurturing, and child protection functions (Republik Indonesia, 2013). The extent to which these holistic-integrative principles are fulfilled has become a central concern in the delivery of quality Childcare services.

In this regard, the quality of TPA services can no longer be assessed solely through administrative indicators. Instead, it should also be evaluated from the perspective of Total Quality Management (TQM), particularly through the principle of fitness for use, which emphasizes the extent to which services are capable of

meeting actual needs and exceeding the expectations of parents as the primary users of the service (Juran & Godfrey, 1999; Sallis, 2011).

Within this framework, the discrepancy between parents' expectations (expected service) and the actual services they perceive (perceived service) becomes a crucial indicator for assessing service quality in TPA settings (Parasuraman et al., 1985, 1988). To systematically evaluate service quality, the SERVQUAL model is employed as the analytical framework through its five principal dimensions of service quality (Parasuraman et al., 1988; Tjiptono & Chandra, 2016): (1) Tangibles, referring to the availability and quality of physical facilities, the safety of play equipment, environmental cleanliness, and the adequacy of developmental stimulation tools that support children's motor and cognitive development; (2) Reliability, referring to the consistency and accuracy of Childcare Centers in delivering caregiving services and daily stimulation programs in accordance with commitments made to parents; (3) Responsiveness, referring to the promptness and willingness of caregivers and administrators to respond to children's needs, including the institution's readiness to receive and address parents' complaints and feedback; (4) Assurance, referring to caregivers' professional competence, training and certification backgrounds, and the provision of physical and psychological safety that fosters parents' confidence and trust; (5) Empathy, referring to the extent to which individualized attention and personal care are provided to each child while considering differences in character, emotional condition, and developmental pace.

A growing body of research has confirmed the effectiveness of the SERVQUAL model in measuring parental satisfaction, loyalty, and behavioral intentions within early childhood education institutions (Emre et al., 2023; Khaerudin, 2023; Nuradi et al., 2025; Omar et al., 2010). However, these studies are characterized by an important methodological limitation, namely the predominance of localized single-case study designs. Such approaches provide limited evidence regarding whether parental satisfaction represents a universal phenomenon or is influenced by the extent to which institutions meet formal quality standards.

Comparative analysis based on accreditation status is academically important because of the potential discrepancy between bureaucratic quality and empirical quality. Accreditation often emphasizes administrative compliance, whereas SERVQUAL assesses the quality of actual processes and interactions directly experienced by parents. Without comparative studies across different accreditation levels, it remains unclear whether the national accreditation framework is genuinely associated with improvements in service quality or merely represents compliance with formal requirements. Furthermore, previous studies have generally limited their analyses to service quality gap scores without integrating Importance-Performance Analysis (IPA), thereby restricting the practical value of their recommendations for Childcare management.

Based on these considerations, the present study seeks to address the academic question of the extent to which the accreditation status of Childcare Centers (TPA) reflects the quality of services perceived by parents as the primary service users. Specifically, this study aims to map service quality gaps by examining differences between parents' expectations and perceptions using the SERVQUAL model and to analyze variations in these gaps across SERVQUAL dimensions among TPA with different accreditation statuses. The study is grounded in the commonly held assumption that a higher accreditation status reflects higher levels of parental satisfaction and more favorable perceptions of service quality across all SERVQUAL dimensions. Accordingly, this research is expected to evaluate the alignment between accreditation as a formal indicator of quality and the actual service experiences perceived by parents, while simultaneously identifying service dimensions that require priority improvement within each accreditation category.

RESEARCH METHODS

This study employed a descriptive-comparative quantitative approach. The quantitative approach was used to map the service quality gaps in Childcare Centers (TPA) by analyzing the discrepancies between parents' expectations and perceptions as service users through the SERVQUAL model. This research design was selected to describe and compare patterns of service quality gaps among TPA with different accreditation statuses. The study was conducted between March and April 2026, covering instrument development, pilot testing, and primary data collection at three Childcare Centers (TPA) representing different accreditation categories in the Greater Bandung area.

The population of this study comprised all officially registered Childcare Centers (TPA) listed in the Basic Education Data System (Dapodik) under the Directorate General of Early Childhood Education, Primary Education, and Secondary Education, Ministry of Education, Culture, Research, and Technology, within the Greater Bandung area. Based on data from the second semester of the 2025/2026 academic year, 30 TPA were identified across West Bandung Regency, Bandung Regency, Bandung City, and Cimahi City. From this population, institutional samples were selected using purposive sampling, in which samples are chosen based on specific criteria relevant to the research objectives (Sugiyono, 2013). The selection criteria included: (1) officially registered in Dapodik; (2) has been accredited A, B, or C; (3) a minimum of three years of operational experience; and (4) representation of the Greater Bandung region. Based on these criteria, three TPA were selected as research samples, each representing one accreditation category: A, B, and C.

The study participants consisted of parents whose children were enrolled in the three selected TPA. Respondents were recruited using a census approach (total sampling), whereby all parents with actively enrolled children at each institution

were invited to complete the questionnaire because the target population was limited and institution-specific (Sugiyono, 2013). Institutional records indicated a total target population of 83 parents, consisting of 36 parents from the A-accredited TPA, 32 from the B-accredited TPA, and 15 from the C-accredited TPA. By the end of the data collection period in April 2026, 51 questionnaires had been returned and completed in full, yielding a response rate of 61.4%. These 51 responses constituted the primary dataset for subsequent analyses.

Data were collected using a SERVQUAL-based questionnaire adapted for Childcare educational services. The instrument employed a Likert scale and was designed to measure two principal constructs: parents' expectations and parents' perceptions regarding the services provided by the Childcare Centers.

The SERVQUAL questionnaire encompassed five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. Within the context of Islamic value-based educational services, these dimensions are not merely regarded as technical indicators of service quality but are also interpreted in accordance with the principles of Islamic hospitality. The tangibles dimension reflects the value of *zaen* (aesthetics and orderliness); reliability corresponds to the principles of *ihsan* and *itqan* (professionalism and excellence in service delivery); responsiveness represents the value of *mubadarah* (promptness and proactiveness in doing good); assurance is associated with *ikram* (honoring and respecting service users); and empathy reflects the principle of *ihitimam* (care and attentiveness to individual needs) (Rokim et al., 2022). Accordingly, SERVQUAL was employed as a service quality evaluation instrument that is compatible with the values underpinning Islamic education.

Prior to data collection, the instrument underwent validity and reliability testing. Content validity was established through expert judgment involving two academic supervisors with expertise in educational administration, particularly in strategic management and educational planning. Feedback from both experts served as the basis for revising item wording and refining the measurement indicators. Subsequently, the instrument was pilot-tested with 30 respondents outside the study sample who possessed characteristics similar to those of the target population. Empirical validity testing was conducted using SPSS through the Corrected Item–Total Correlation procedure. Instrument items were considered acceptable if they achieved a minimum correlation coefficient of 0.30 (Sugiyono, 2013). Items with Corrected Item–Total Correlation values equal to or greater than 0.30 were classified as valid, whereas items with coefficients below 0.30 were excluded. The SPSS results indicated that all items in both the expectation and perception scales exceeded the required threshold, confirming the validity of all questionnaire items.

The pilot-test data were subsequently analyzed using Cronbach's Alpha to assess internal consistency separately for each measurement scale. The results

yielded Cronbach's Alpha coefficients of 0.918 for the expectation scale and 0.955 for the perception scale. Since both coefficients exceeded the minimum acceptable threshold of 0.60, all items in the SERVQUAL questionnaire were deemed reliable and appropriate for the collection of primary research data (Sugiyono, 2013).

The primary data were analyzed using descriptive statistics to calculate the mean scores of parents' expectations and perceptions across each service quality dimension. Gap analysis was then performed by calculating the difference between perception and expectation scores ($P - E$) for each SERVQUAL dimension. The results were used to identify dimensions with the largest service quality gaps and to describe variations in service quality gaps among TPA with different accreditation statuses.

In addition to gap analysis, a service conformity index was calculated by comparing perception scores with expectation scores (P/E) for each SERVQUAL dimension. This index was used to assess the extent to which perceived services met parents' expectations. Subsequently, both the gap scores ($P - E$) and conformity indices (P/E) were plotted into a quadrant matrix to classify the position of each service quality dimension. This quadrant mapping was intended to identify service improvement priorities based on the combined consideration of gap magnitude and service conformity levels across TPA with different accreditation statuses.

RESULTS AND DISCUSSION

Results

Table 1. SERVQUAL Analysis and Service Conformity Results Across A-, B-, and C-Accredited Childcare Centers in Greater Bandung

N o.	SERVQUAL Dimensions	A-accredited TPA				B-accredited TPA				C-accredited TPA			
		P	E	Gap (P-E)	Level of Conformity (P/E)	P	E	Gap (P-E)	Level of Conformity (P/E)	P	E	Gap (P-E)	Level of Conformity (P/E)
1.	Tangibles	4,25	4,71	-0,46	0,90	4,61	4,87	-0,26	0,95	4,39	4,91	-0,53	0,89
2.	Reliability	4,55	4,77	-0,22	0,95	4,46	4,73	-0,27	0,94	4,24	4,70	-0,46	0,90
3.	Responsiveness	4,65	4,84	-0,19	0,96	4,63	4,83	-0,20	0,96	4,53	4,83	-0,30	0,94
4.	Assurance	4,47	4,79	-0,32	0,93	4,48	4,76	-0,28	0,94	4,27	4,58	-0,32	0,93
5.	Empathy	4,58	4,81	-0,23	0,95	4,65	4,91	-0,26	0,95	4,43	4,75	-0,33	0,93

Source: Authors' analysis, 2026.

The results of the SERVQUAL analysis and service conformity assessment for the three TPA are presented in Table 1. The findings of this study describe the quality of educational services provided by Childcare Centers (TPA) based on

parents' expectations and perceptions using the SERVQUAL model across three institutions with different accreditation statuses, namely A-, B-, and C-accredited TPA. The analysis focuses on mapping service quality gaps (the discrepancy between perceptions and expectations) and service conformity levels as the basis for comparing dimensions and institutions.

Service Quality Gaps in Childcare Educational Services

The results of the SERVQUAL analysis and service conformity assessment for the three TPA are presented in Table 1. Overall, the findings indicate that all participating TPA exhibited negative gap scores across all SERVQUAL dimensions. This result suggests that, regardless of accreditation status, parents' perceptions of the services received remained below their expectations.

In the A-accredited TPA, the tangibles dimension exhibited the largest negative gap (-0.46), followed by assurance (-0.32). In contrast, responsiveness showed the smallest gap (-0.19) and the highest level of service conformity (0.96). This pattern indicates that responsiveness was perceived as the dimension most closely aligned with parents' expectations, whereas physical facilities and service assurance continued to exhibit relatively substantial service quality gaps.

In the B-accredited TPA, the largest gap was observed in assurance (-0.28), followed by reliability (-0.27), while tangibles and empathy shared identical gap values (-0.26). Similar to the previous institution, responsiveness again demonstrated the smallest gap (-0.20) and the highest conformity level (0.96). These findings suggest that although caregivers were generally perceived as responsive, parents still identified shortcomings related to professional assurance and the consistency of service delivery.

Meanwhile, in the C-accredited TPA, tangibles once again emerged as the dimension with the largest negative gap (-0.53), followed by reliability (-0.46). Although responsiveness remained the dimension with the smallest gap (-0.30) and a relatively high conformity level (0.94), all SERVQUAL dimensions in this institution exhibited larger gap magnitudes than those observed in the A- and B-accredited TPA. This finding highlights the limitations of physical facilities and service reliability as major structural challenges faced by the C-accredited institution.

Comparison Across SERVQUAL Dimensions and Accreditation Statuses

From a comparative perspective, the findings reveal a relatively consistent pattern of service quality gaps across accreditation categories. The tangibles dimension represented the largest source of dissatisfaction in both the A-accredited (-0.46) and C-accredited (-0.53) TPA. In contrast, negative gaps in the B-accredited TPA were distributed more evenly across dimensions, with slightly larger gaps observed in assurance (-0.28) and reliability (-0.27). These results indicate that parents maintain high expectations regarding physical facilities and service

assurance regardless of the accreditation category of the Childcare center attended by their children.

Conversely, responsiveness consistently exhibited the smallest service quality gap and the highest level of service conformity across all three institutions. This finding suggests that prompt responses to parents' needs, willingness to provide assistance, and attentiveness in service delivery were perceived as the most satisfactory aspects of Childcare services across the participating institutions.

A notable finding from this comparative analysis is that a higher accreditation status does not necessarily guarantee superior service conformity across all SERVQUAL dimensions. For example, the gap score for the tangibles dimension in the B-accredited TPA (-0.26) was lower than that of the A-accredited TPA (-0.46). This phenomenon suggests that accreditation achievements as indicators of formal quality may not always correspond to the quality of actual service experiences perceived directly by parents in their day-to-day interactions with the institution.

Interpretation of the Findings

Overall, the findings indicate that the quality of Childcare educational services in Greater Bandung still requires improvement across all SERVQUAL dimensions. Although parents generally reported relatively positive perceptions of service performance, their expectations were also high, resulting in persistent service quality gaps across all participating institutions.

These findings underscore the importance of directing managerial attention not only toward meeting formal accreditation standards but also toward enhancing the quality of services experienced directly by parents. Service improvement initiatives should therefore be tailored to the specific dimensions requiring the greatest attention within each institution.

Importance–Performance Analysis (IPA) Results

To further clarify service quality improvement priorities within each Childcare Center (TPA), the SERVQUAL results were subsequently mapped using the Importance–Performance Analysis (IPA) approach. This mapping was intended to identify the position of each service quality dimension based on the levels of importance and performance perceived by parents.

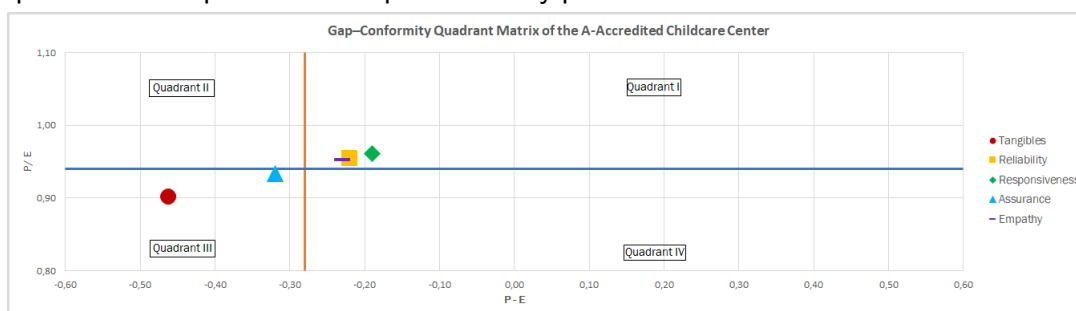


Figure 1. Gap–Conformity Quadrant Matrix of the A-Accredited Childcare Center

As shown in Figure 1, the A-accredited TPA demonstrates that the reliability, responsiveness, and empathy dimensions are positioned in Quadrant I (Keep Up the Good Work). This finding indicates that the average gap scores ($P - E$) and conformity levels (P/E) perceived by parents for these dimensions are above the overall grand mean of all dimensions ($X = -0.28$; $Y = 0.94$). In other words, the actual service performance delivered by caregivers in these three dimensions was more closely aligned with parental expectations than the other dimensions, making them the institution's primary service strengths that should be maintained.

In contrast, the tangibles and assurance dimensions are located in Quadrant III (Low Priority). This position indicates that the degree of conformity between actual services and parental expectations regarding physical facilities (tangibles) and service assurance (assurance) is relatively below the overall average perceived by parents. Although the conformity levels of both dimensions remain relatively close to the ideal level, they are nevertheless perceived as the dimensions in which parental expectations are least fulfilled. Therefore, improvements in these areas may be implemented gradually and proportionately in accordance with the institution's long-term development priorities.

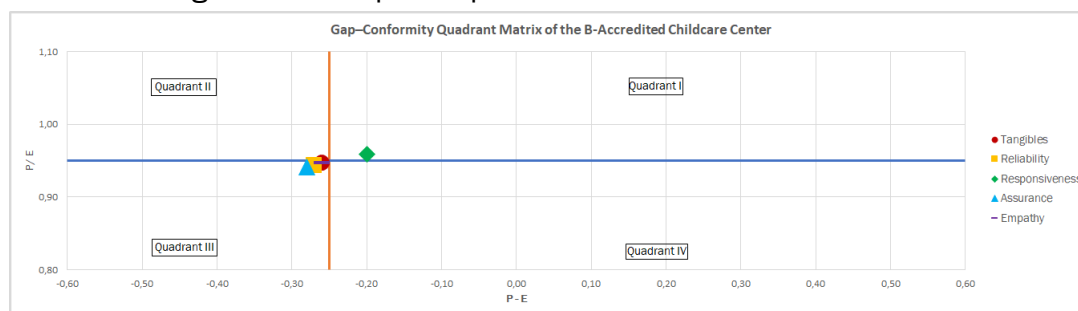


Figure 2. Gap-Conformity Quadrant Matrix of the B-Accredited Childcare Centers

Figure 2 illustrates the service quality quadrant matrix of the B-accredited TPA, where the overall grand mean is located at the coordinate intersection of $X = -0.25$ and $Y = 0.95$. Within this matrix, responsiveness emerges as the only dimension positioned in Quadrant I (Keep Up the Good Work). This finding suggests that caregivers' responsiveness represents the institution's strongest service attribute, exceeding the average level of parental expectations and satisfaction.

Meanwhile, the tangibles and empathy dimensions are simultaneously positioned in Quadrant II (Excessive) because they share identical coordinate values ($X = -0.26$; $Y = 0.95$). Their placement on the quadrant boundary indicates that physical facilities and personalized attention have achieved conformity levels that are broadly consistent with parents' average expectations, although their relative gap scores remain slightly below the overall average.

On the other hand, reliability ($X = -0.27$; $Y = 0.94$) and assurance ($X = -0.28$; $Y = 0.94$) are positioned in Quadrant III (Low Priority), indicating that operational consistency and service assurance remain below the average level of parental

expectation fulfillment and therefore require gradual improvement by the institution.

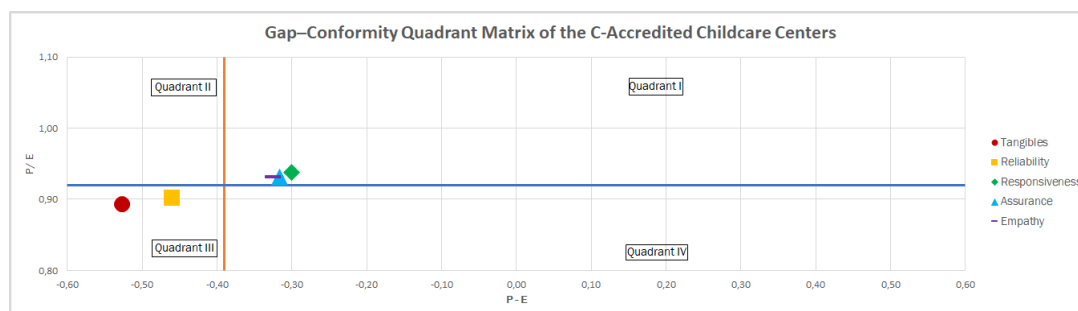


Figure 3. Gap-Conformity Quadrant Matrix of the C-Accredited Childcare Centers

As presented in Figure 3, the responsiveness, assurance, and empathy dimensions of the C-accredited TPA are positioned in Quadrant I (Keep Up the Good Work). This finding indicates that service responsiveness, feelings of safety and trust, and personalized caregiver attention constitute the institution's primary strengths, as their conformity levels (P/E) exceed the overall grand mean across all dimensions ($X = -0.39$; $Y = 0.92$) based on parental evaluations.

Conversely, the tangibles and reliability dimensions are positioned in Quadrant III (Low Priority). This placement confirms that the conformity levels associated with physical facilities and service reliability remain relatively below the overall level of parental satisfaction. Consequently, these dimensions represent the areas with the greatest unmet expectations within the C-accredited TPA and require strategic institutional capacity development in the future.

Based on Figure 4, the combined service quality quadrant mapping of A-, B-, and C-accredited TPA indicates that the responsiveness and empathy dimensions are positioned in Quadrant I (Keep Up the Good Work). This placement suggests that both dimensions are perceived by parents as having relatively high conformity levels (P/E) and comparatively favorable gap scores ($P - E$) above the overall average. Furthermore, these dimensions are consistently supported by satisfactory service performance across all participating institutions.

This finding demonstrates that caregivers' responsiveness to children's needs, together with their personal attention and concern for both children and parents, constitutes the principal strength of Childcare services in Greater Bandung and should therefore be sustained over time.

Meanwhile, tangibles ($X = -0.43$; $Y = 0.91$) and reliability ($X = -0.32$; $Y = 0.93$) are positioned in Quadrant III (Low Priority). This position indicates that, relative to other dimensions, both aspects are perceived as having lower levels of importance and performance based on parents' average evaluations. Rather than indicating critical service failure, these findings suggest that physical evidence of service quality, operational consistency, and professional reliability are not considered as important as interpersonal interactions and relational service quality from the perspective of parents.

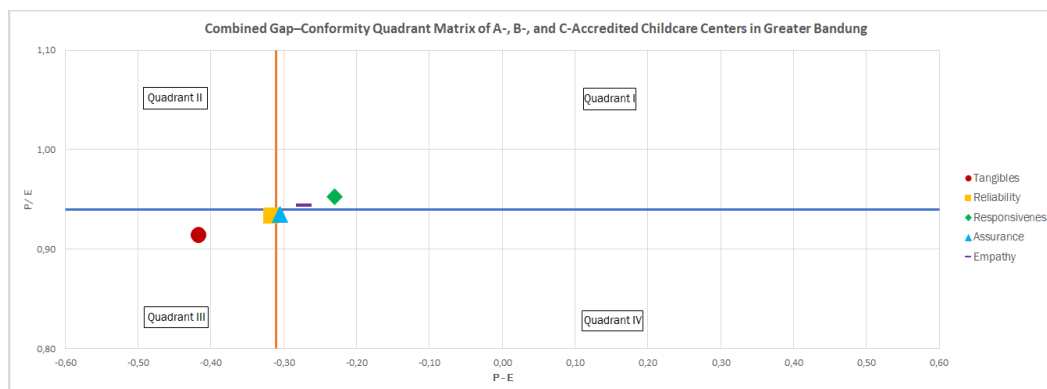


Figure 4. Combined Gap-Conformity Quadrant Matrix of A-, B-, and C-Accredited Childcare Centers in Greater Bandung

In contrast, the assurance dimension is located precisely at the quadrant intersection point ($X = -0.31$; $Y = 0.94$). This placement indicates that service assurance, which may be associated with the principle of ikram within Islamic service ethics, occupies a transitional position. The level of performance perceived by parents is situated at a point of equilibrium that remains highly sensitive to future changes in service quality.

Overall, the combined quadrant mapping confirms that the strengths of Childcare services across accreditation categories are primarily rooted in relational and interactive dimensions, whereas structural and technical dimensions tend to be perceived as less optimal or of secondary importance in shaping parental satisfaction. These findings suggest that future service quality improvement strategies should prioritize maintaining and strengthening high-quality interpersonal interactions while simultaneously implementing gradual enhancements in physical facilities, operational reliability, and service assurance to achieve a more balanced and comprehensive level of service quality in accordance with parents' expectations.

Discussion

The findings indicate that all participating Childcare Centers (TPA), regardless of whether they were accredited A, B, or C, exhibited negative service quality gaps across all SERVQUAL dimensions (Table 1). This finding suggests that, in general, parents' perceptions of Childcare educational services remained below their expectations. Such a pattern is consistent with the fundamental premise of the SERVQUAL model, which posits that service quality is determined by the discrepancy between expected service and perceived service (Parasuraman et al., 1988). The consistently negative gap scores observed across all three institutions indicate that, although educational and caregiving services were being delivered, parental expectations had not yet been fully satisfied.

These findings are consistent with previous studies reporting that early childhood education institutions continue to face discrepancies between expected and perceived service quality, particularly when service provision does not fully reflect parents' needs and perceptions as primary stakeholders (Emre et al., 2023; Omar et al., 2010). The present findings reinforce earlier evidence suggesting that service quality gaps remain a common phenomenon in early childhood education settings, including accredited Childcare Centers.

From an Islamic perspective, the quality of Childcare services should not be assessed solely through technical and functional dimensions but also through moral, ethical, and educational responsibilities. In practice, SERVQUAL dimensions within Islamic-based institutions can be interpreted more comprehensively through the CARTER framework, which incorporates compliance as a sixth dimension alongside tangibles, reliability, responsiveness, assurance, and empathy, representing adherence to Islamic values in service delivery (Ratnasari et al., 2012). In this context, service quality in Childcare Centers extends beyond the fulfillment of educational and caregiving programs to include the institution's ability to foster trust, safety, and moral exemplarity as part of its educational responsibility during the critical period of early childhood development.

Based on Table 1, the tangibles dimension exhibited the largest service quality gap in both the A-accredited (-0.46) and C-accredited (-0.53) TPA and remained one of the dimensions with the highest gap scores in the B-accredited TPA (-0.26). These findings indicate that physical aspects of service delivery—including facilities, environmental safety, spatial comfort, and supporting infrastructure—were perceived by parents as the least capable of meeting their expectations. Notably, the substantial tangibles gap observed in the A-accredited institution suggests that formal accreditation achievements do not necessarily correspond to positive perceptions of physical service quality.

Field observations conducted during data collection provide important contextual explanations for these findings. Despite meeting administrative facility standards, the A-accredited center continued to face parental concerns regarding child safety due to its location within a residential setting adjacent to a village road. Furthermore, despite efforts to separate learning and sleeping areas to improve comfort, the overall spatial arrangement had not yet fully created an ideal child-friendly environment. This limitation was reflected in the shared resting area for infants and older children, as well as restrictions on children's play spaces imposed to maintain manageable supervision ratios for teachers and caregivers. In addition, efforts to optimize physical facilities according to specific child-safety standards, such as improved visual monitoring and the reduction of sharp structural corners, remained constrained by financial considerations, resulting in gradual rather than immediate infrastructure development.

The tangibles gap in the B-accredited center was largely attributable to limited physical space. The use of multifunctional classrooms for learning, dining, and resting activities reduced children's freedom of movement, particularly among older age groups. Concerns regarding inadequate ventilation and elevated indoor temperatures during the afternoon further reinforced parents' perceptions that the learning environment was not yet fully comfortable. Although the institution had independently implemented several improvements, such as replacing wooden flooring with thicker carpeting using internal funds, delays in foundation funding for larger-scale renovations highlighted structural constraints affecting the long-term quality of physical facilities.

Similarly, in the C-accredited TPA, the tangibles gap was closely associated with the institution's physical environment, which shared facilities with a kindergarten and operated within a residential property owned by the Childcare director. Limited classroom space, restricted outdoor play areas, child-unfriendly restroom designs, and gate security systems that remained easily accessible to children were identified as major factors influencing parental perceptions of inadequate physical service quality. These conditions not only affected the tangibles dimension but also intersected with reliability, as an insufficient physical environment was perceived as potentially undermining the consistency and comfort of daily service delivery.

Overall, these findings underscore the critical role of the tangibles dimension in early childhood education services because it represents the aspect of quality most visible and immediately observable to parents. Within Childcare settings, physical evidence of service quality extends beyond the mere availability of facilities; it shapes parents' initial perceptions regarding safety, caregiving readiness, and the institution's commitment to fulfilling its educational mandate during the critical period of child development. Therefore, the relatively large gaps observed in the tangibles dimension should be interpreted not simply as deficiencies in infrastructure but as indicators of a mismatch between parents' expectations for safe, comfortable, organized, and child-friendly environments and their actual experiences of physical service provision.

The reliability dimension also demonstrated notable negative gaps, particularly in the B-accredited (-0.27) and C-accredited (-0.48) institutions. Within the combined IPA mapping, reliability was positioned in Quadrant III (Low Priority), indicating that although operational consistency was perceived as moderately satisfactory, it was not considered by parents to be as critical as the quality of direct interpersonal interactions.

Field evidence further clarifies the factors contributing to this result. Reliability appeared stronger in the B-accredited center, largely due to its strategic location, punctual operations, and the presence of designated duty staff. However, parents perceived a decline in reliability following the discontinuation of physical

communication books, which occasionally resulted in delayed information regarding children's logistical needs, such as milk supplies, diapers, or tissues. Limited communication regarding learning plans and developmental stimulation activities also contributed to weaker perceptions of reliability. In the C-accredited institution, reliability challenges stemmed from organizational limitations, as classrooms, dining areas, and operational activities continued to share space with a kindergarten and a private residence. In contrast, the A-accredited institution maintained stronger reliability through comprehensive standard operating procedures (SOPs), daily morning briefings, and the distribution of a parents' handbook. Although reliability was positioned within Quadrant III, the evidence suggests that gradual improvements in communication systems and operational standardization remain necessary to prevent minor shortcomings from gradually eroding parental trust.

Unlike reliability, the responsiveness dimension consistently produced the smallest service quality gaps across all institutions and was consistently positioned within Quadrant I (Keep Up the Good Work) in the combined IPA analysis. Placement within this quadrant indicates that responsiveness was perceived as both highly important and highly satisfactory by parents.

Empirical findings suggest that this strong performance was facilitated by the effective use of WhatsApp groups as interactive communication channels, enabling rapid responses to issues such as medication administration and incident reporting. In the A-accredited TPA, responsiveness was institutionalized through a mobile support team consisting of the Childcare director and supporting staff who assisted classroom teachers in handling situations such as children's tantrums. Regular quarterly parenting forums also contributed positively to parental perceptions of responsiveness. In the B-accredited institution, although teachers occasionally faced challenges associated with supervising multiple children simultaneously, they were widely regarded as approachable and receptive to parental concerns communicated through school committee channels. In the C-accredited institution, rapid adaptation to parents' needs was facilitated through digital communication platforms that enabled real-time coordination between parents and caregivers. Together, these findings suggest that responsiveness is a consistent strength across accreditation categories.

From the perspective of Islamic service ethics, the prominence of responsiveness may be interpreted as reflecting the values of *amanah* (trustworthiness), *mas'uliyah* (moral responsibility), and *mubadarah* (proactive responsiveness in doing good). Caregivers appear to perceive their responsibilities not merely as professional obligations but also as a form of *khidmah* (service and devotion) in safeguarding children's innate potential during the golden age of development. This interpretation is consistent with the consistently high levels of

parental satisfaction associated with responsiveness and highlights its importance as a dimension that should be preserved and strengthened.

The assurance dimension presented a more complex pattern. It represented the second-largest service quality gap within the A-accredited TPA (-0.32) and the largest gap within the B-accredited TPA (-0.28). Within the combined IPA mapping, assurance was positioned in Quadrant III, suggesting that parents tended to regard formal guarantees and institutional assurances as baseline expectations rather than distinguishing features of service quality. Institutional-level analysis nevertheless revealed that parental expectations regarding assurance remained substantial and highly relevant.

Parents' psychological need for security when entrusting their children to Childcare Centers generated expectations regarding staff competence, professional conduct, institutional reputation, and safety mechanisms, including activity documentation and real-time CCTV access. In the B-accredited institution, assurance gaps were partly driven by differing expectations concerning CCTV monitoring. While parents viewed CCTV as an important mechanism for transparency and child protection, caregivers expressed concerns regarding privacy, particularly for younger children who frequently changed clothing after restroom use. Furthermore, the absence of written complaint-handling procedures contributed to variations in staff responses that some parents perceived as inconsistent. By contrast, the A-accredited institution strengthened assurance through clearly established quality assurance procedures, formal complaint-management SOPs, and a comprehensive parents' handbook outlining parental rights and responsibilities. These findings suggest that, despite its Quadrant III position, assurance requires institution-specific interventions, particularly regarding child protection policies and transparent complaint-management systems.

Finally, the empathy dimension consistently joined responsiveness in Quadrant I and displayed relatively small negative gaps across all institutions. This positioning confirms that personalized attention, genuine care, and sensitivity toward children's unique needs were recognized by parents as major strengths of the Childcare services they selected.

The strength of empathy aligns closely with Islamic educational principles rooted in *rahmah* (compassion) and *ikram al-awlad* (honoring children). Such empathic caregiving contributes to the creation of nurturing environments that support children's emotional well-being and development. This finding may be attributed to the fact that many children had been enrolled since infancy, fostering strong emotional bonds between caregivers and children. In the B-accredited institution, empathy was demonstrated through the transfer of information regarding children's individual characteristics between teachers during academic-year transitions to ensure continuity of personalized care. Empathy was also reflected in teachers' initiatives to visit hospitalized children, although some parents

suggested that such practices should be regulated through formal SOPs to ensure fairness. In the A-accredited institution, empathy was systematically incorporated through trial classes and child observations designed to identify children requiring additional support, including shadow teachers.

Overall, the integration of quantitative findings, IPA quadrant analysis, and field evidence highlights an important conclusion: service quality across Childcare Centers with different accreditation statuses appears to be driven more strongly by relational and interactive dimensions—particularly responsiveness and empathy—than by physical and structural dimensions such as tangibles, reliability, and assurance. Parents appear willing to tolerate certain institutional limitations in facilities and infrastructure provided that their children receive prompt responses, individualized attention, and genuine care from caregivers.

Accordingly, future service quality improvement strategies should not focus exclusively on large-scale infrastructural development. Rather, they should prioritize the preservation and strengthening of high-quality human interactions represented by the Quadrant I dimension while simultaneously implementing gradual and sustainable improvements in operational systems and institutional structures represented by the Quadrant III dimensions.

These findings support the parent-perceived quality perspective embedded within Total Quality Management, which positions users' perceptions as a central indicator of service effectiveness (Sallis, 2011). They also reinforce previous research demonstrating the usefulness of SERVQUAL as a diagnostic tool for identifying service quality dimensions requiring improvement and evaluating the effectiveness of educational service provision across different institutional contexts (Khaerudin, 2023). From the perspective of Islamic educational management, however, satisfaction extends beyond a transactional service relationship. Instead, it reflects a moral partnership between educational institutions as custodians of trust and parents as co-partners in child development. Such a collaborative relationship provides the foundation for nurturing young children who are not only developmentally competent but also prepared to fulfill their broader role as responsible stewards (*khalifatullah fil ardh*) in accordance with the values articulated in Qur'an Surah Al-Baqarah verse 30.

CONCLUSION

This study demonstrates that A-, B-, and C-accredited Childcare Centers (TPA) in Greater Bandung continue to experience negative service quality gaps across all SERVQUAL dimensions. Among these dimensions, tangibles consistently exhibited the largest gap, whereas responsiveness showed the smallest gap across institutions. These findings carry an important theoretical implication: formal accreditation status does not necessarily correspond to the fulfillment of user-based service quality. The results further suggest that SERVQUAL may be extended

beyond its conventional function as a service quality assessment tool to serve as an instrument for evaluating governance practices grounded in trustworthiness, accountability, and educational responsibility. The quality of childcare services should therefore not be assessed solely through compliance with accreditation requirements but also on the institution's demonstrated commitment to safeguarding and nurturing children's developmental potential during a critical period of early childhood development.

This study is subject to several limitations. First, it relied on the standard SERVQUAL framework, which does not incorporate the compliance dimension emphasized in Islamic service quality models. Second, the study did not explore in greater depth how spatial management strategies in home-based Childcare Centers located in densely populated residential areas may contribute to contrasting accreditation outcomes and service quality perceptions, as reflected in the differences between the A- and C-accredited institutions. In addition, data collection was constrained by both the study period and the number of respondents.

Future research is therefore encouraged to expand the SERVQUAL framework by integrating indicators related to Islamic compliance, particularly within the tangibles dimension to better capture child-friendly and value-based physical environments. Further studies are also recommended to investigate how Childcare managers adapt and optimize limited residential spaces to provide safe, comfortable, and developmentally supportive services while preserving children's natural developmental dispositions and well-being.

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