

Investigating Parental Satisfaction Towards Private Kindergartens in China: A Chinese Customer Satisfaction Index Approach

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ABSTRACT

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This study investigates parental satisfaction toward private kindergartens in China using the Chinese Customer Satisfaction Index (CCSI) as the theoretical framework. Specifically, the study examines the relationships among brand image, parental expectation, perceived quality, and parental satisfaction within the context of private early childhood education. As competition among private kindergartens in China intensifies, understanding the factors influencing parental satisfaction has become increasingly important for institutional sustainability and service improvement. A quantitative cross-sectional survey design was employed in this study. Data were collected from parents whose children were enrolled in four private kindergartens located in the Guangxi Zhuang Autonomous Region of China. An online survey questionnaire was distributed, resulting in 109 valid responses for data analysis. The collected data were analyzed using structural equation modeling to examine the hypothesized relationships among the constructs. The findings revealed that brand image positively and significantly affected parental expectation. In turn, parental expectation was found to positively influence perceived quality. Furthermore, perceived quality demonstrated a significant positive effect on parental satisfaction. These findings indicate that parents' perceptions of kindergarten reputation and institutional image play an important role in shaping expectations, which subsequently influence evaluations of service quality and overall satisfaction. The study contributes to the literature on customer satisfaction and early childhood education by extending the application of the Chinese Customer Satisfaction Index to the private kindergarten sector in China. Practically, the findings provide valuable insights for private kindergarten operators seeking to improve parental satisfaction through stronger institutional image, effective expectation management, and enhanced service quality.

Contribution/Originality: This study contributes to the growing literature on the early childhood education industry in China by examining the parental satisfaction towards private kindergarten. It is one of the few studies that quantitatively examines the parental satisfaction through the Chinese Customer Satisfaction Index (CCSI) model, adding the dimension of brand image as an important element of private kindergarten in China.

1. Introduction

In most advanced democratic countries, the conduct of by-elections is an integral part in Historically, the preference for public kindergartens (gongban) among Chinese parents has been overwhelming. This bias is not merely a matter of economic convenience but is deeply rooted in perceived institutional stability and pedagogical quality. Public kindergartens are often viewed as the gold standard because they benefit from direct government oversight, standardized teacher training, and significant fiscal subsidies that keep tuition fees low. In contrast, private kindergartens (minban) have frequently been stigmatized as "second-tier" options, often associated with higher costs and inconsistent educational outcomes (Wang, 2002). For parents, whose "logic of choice" is often driven by a mix of pragmatism and social mobility aspirations, the public system represents safety and official endorsement. However, the scarcity of public spots which is a phenomenon often referred to as ruyuan nan (difficulty in enrollment) creates a systemic bottleneck that the state alone cannot currently resolve (Wang & Zhao, 2024).

To address these systemic pressures, the expansion and improvement of the private kindergarten sector is no longer an option but a necessity. The public system is currently operating at or beyond capacity, leading to overcrowded classrooms and a decline in the individualized attention necessary for early development. By improving the admission processes and operational standards of private kindergartens, the government can effectively "offload" the demand on public resources. Recent policy shifts in 2025 have encouraged the development of "inclusive private kindergartens," which receive state subsidies in exchange for capping tuition fees (Ministry of Education, 2025). Yet, increasing capacity is only half the battle; the more significant challenge lies in elevating the perceived value of these institutions to ensure that parents feel their children are not being "left behind" in low-quality private centers.

This is where the concept of brand image becomes a pivotal lever for change. In the modern educational market of China, brand image serves as a critical proxy for quality and trust. For a private kindergarten, "brand" goes beyond a logo; it encompasses the school's reputation for safety, its curriculum innovation, and its level of engagement with the local community. Research suggests that when private kindergartens invest in a professional brand identity by emphasizing transparency, teacher qualifications, and modern facilities the parental satisfaction scores rise significantly, even when tuition is higher than public alternatives (Lai, 2024). In Chinese settings, where "word-of-mouth" (koubei) acts as the primary information channel, a strong brand image can mitigate the traditional skepticism toward private education. By cultivating a brand that signals social responsibility and pedagogical excellence, private providers can transform from being a "last resort" into a "preferred choice" for rural families (Li, 2013).

Current literature identifies a strong cultural preference for state-run institutions, yet there is limited research on how private providers can leverage market-based strategies to bridge this gap. Specifically, it remains unclear how the brand image of a private kindergarten interacts with parental expectations and the actual perceived quality of service to determine overall parental satisfaction. Without a structured understanding of these relationships, private educators cannot strategically improve their service delivery, and the goal of providing high-quality, inclusive education to rural "left-behind" and marginalized populations remains unfulfilled.

Using the Chinese Customer Satisfaction Index (CCSI) as a theoretical framework, this study seeks to address this problem by examining the extent to which brand image, parental expectation, and perceived quality serve as significant predictors of parental satisfaction. The core research problem is the lack of a verified, framework-driven model to explain how Chinese parents evaluate private kindergarten, which hinders the sector's ability to provide a satisfactory and sustainable alternative to the overextended public system.

1.1. Research Objectives

This study aims to investigate:

- i. the effect of brand image on the parental satisfaction towards private kindergarten in China.
- ii. the effect of parental expectations on the parental satisfaction towards private kindergarten in China.
- iii. the effect of perceived quality of private kindergarten on the parental satisfaction towards private kindergarten in China.
- iv. the effect of brand image on the parental expectation of private kindergarten in China.
- v. the effect of parental expectation on the perceived quality of private kindergarten in China.

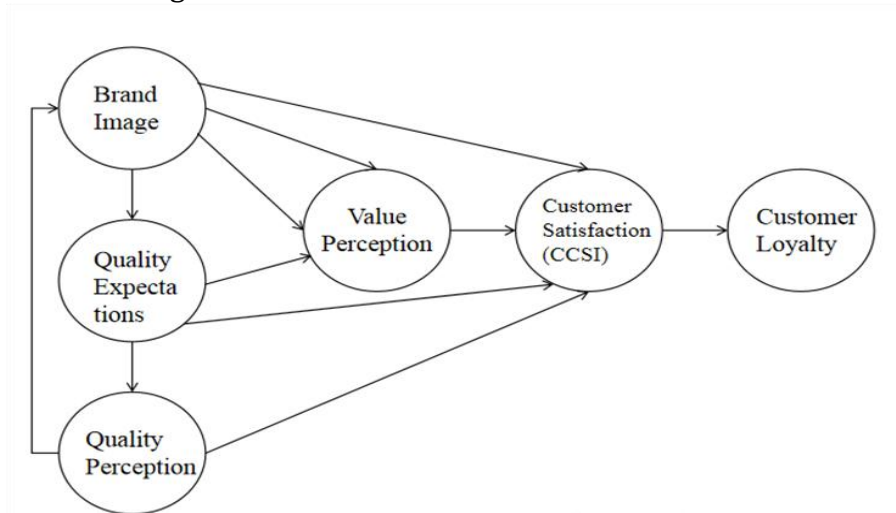
2. Literature Review

2.1. Chinese Customer Satisfaction Index

The Chinese Customer Satisfaction Index (CCSI) is a national standard (GB/T 19038) and a structural equation model used to evaluate the quality of products and services from the consumer's perspective (Lin & Yin, 2022). Adapted from the American Customer Satisfaction Index (ACSI), the CCSI shown in Figure 1 is specifically designed to reflect the socio-economic nuances of the Chinese market, including the high value placed on institutional reputation and social trust. In the context of private kindergartens, where parents act as the primary "consumers" of educational services, the CCSI provides a robust framework for understanding how subjective perceptions translate into overall satisfaction (Hao et al., 2025).

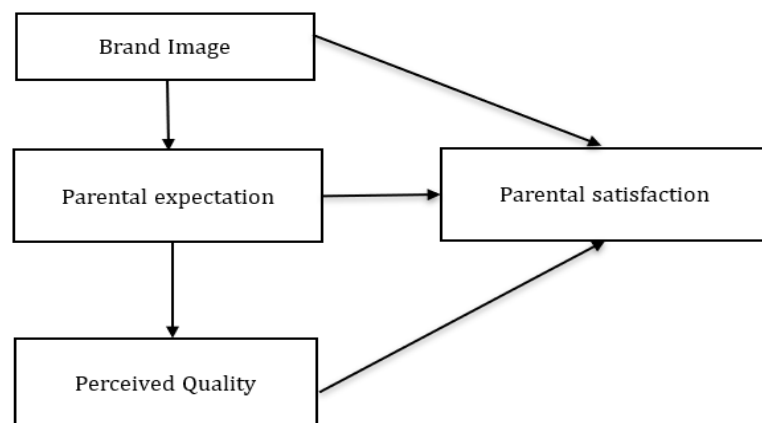
For this study's research framework in Figure 2, perceived value and customer loyalty are excluded from further investigation. In the case of perceived value, a majority of private kindergartens in China have transitioned to "inclusive private kindergartens" (puhuixing). Under this government-mandated model, tuition fees are strictly capped and subsidized by the state (Ministry of Education, 2025).

Figure 1: Chinese Customer Satisfaction Index



When prices are relatively uniform across providers, "value for money" becomes a constant rather than a variable, losing its power as a significant predictor of satisfaction (Hao et al., 2025). Research into the "education fever" (jiaoyu re) in China suggests that for many parents, the psychological priority is the absolute quality of the education and the child's safety, rather than a cost-benefit analysis (Chen et al., 2020). In this high-stakes environment, parents are less sensitive to price differentials, making perceived quality a more direct and potent driver of parental satisfaction than perceived value. As for customer loyalty, unlike retail or banking, preschool education is a terminal service with a fixed duration (usually three years). There is no "repurchase" opportunity for the same child, which is a core metric of traditional loyalty models (Hao et al., 2025). While "recommendation" is possible, it is often treated as a behavioral outcome of satisfaction rather than a component of the satisfaction formation process itself. In many rural and Western Chinese territories, the "choice" of a kindergarten is limited by geography. Parents may remain "loyal" to a private kindergarten simply because there is no other accessible public or private option (Wang & Hu, 2025). In such cases, loyalty is "spurious" or forced, and does not accurately reflect the psychological state of satisfaction.

Figure 2: Research Framework



2.3. Brand Image of Private Kindergarten in China

The concept of brand image in the context of China's early childhood education (ECE) has evolved from a purely commercial marketing tool into a multi-dimensional construct that reflects institutional credibility, social responsibility, and educational quality (Hao et al., 2025; Lai, 2024). Within the Chinese Customer Satisfaction Index (CCSI) framework, brand image acts as an antecedent to parental expectations and perceived value, significantly influencing the overall satisfaction and loyalty of parents toward private kindergartens (Lin & Yin, 2022). This literature review examines the three critical measurement items of brand image identified for this study: (1) public praise, (2) reputation, and (3) kindergarten type.

In the Chinese educational market, public praise or commonly referred to as *koubei* or word-of-mouth is a primary indicator of a kindergarten's brand image. Because preschool education is an "experience-based service," parents often find it difficult to evaluate quality prior to enrollment (Xue & Song, 2022). Consequently, they rely heavily on the subjective assessments and recommendations of their social networks. Research indicates that brand praise serves as a visual and social signal of a brand's uniqueness and strength (Yu et al., 2022). In China, where social bonds are tight, *koubei* is the most influential channel for building initial trust; positive public praise effectively lowers the perceived risk of choosing a private institution over a state-run one.

Reputation constitutes the long-term, stable perception of an institution's reliability and professional standards. Under the CCSI model, reputation is a core metric of brand image used to assess the "credibility" and "recognition" of an organization (Lin & Yin, 2022). For private kindergartens, reputation is often tied to factors such as teacher qualifications, safety records, and historical performance (Hao et al., 2025). Studies have shown that when parents perceive a school as having a high reputation, they are more likely to exhibit brand trust, which acts as a mediator between the institution's actions and the parent's ultimate loyalty (Hao et al., 2025). Furthermore, a strong reputation can mitigate negative perceptions during periods of systemic pressure, such as the enrollment "bottleneck" currently facing the Chinese preschool system (Wang & Zhao, 2024).

The type of kindergarten that is categorized as either public (*gongban*) or private (*minban*) serves as a critical "external factor" that shapes the brand image in the minds of Chinese parents (Zhang et al., 2022). Public kindergartens in China benefit from a built-in brand image of "stability" and "authority" due to government ownership and standardized quality ratings (Hu & Szente, 2009). Private kindergartens, however, must actively differentiate their brand to overcome the "quality gap" often perceived by the public (Liu, 2020). The "type" of kindergarten significantly impacts parental satisfaction because public institutions are traditionally favored for their lower fees and subsidized resources, while private institutions are often scrutinized for their profit-oriented motives (Hu & Szente, 2009; Lin & Yin, 2022). Recent shifts toward "inclusive private kindergartens" have sought to align the private sector's brand image more closely with the public service ethos of *gongban* schools, aiming to stabilize parent satisfaction across both sectors (Hao et al., 2025; Ministry of Education, 2025).

2.4. Parental Expectation of Private Kindergarten in China

Parental expectation serves as a vital antecedent that shapes how parents perceive the value and quality of early childhood education (ECE) services (Lin & Yin, 2022; Wang & Zhao, 2024). In the contemporary Chinese context, particularly as of 2026, these expectations are intensified by the "education fever" (jiaoyu jiaolü) and the cultural emphasis on "not losing at the starting line," making the management of these expectations a critical challenge for private kindergarten operators (Fang et al., 2018).

The physical and social environment of a kindergarten constitutes the first point of evaluation for parents. Within the CCSI and SERVQUAL models, this is often categorized under the "tangibles" dimension (Lin & Yin, 2022). For private kindergartens in rural or developing areas, parents' initial expectation is for an acceptable teaching environment that guarantees basic safety, hygiene, and age-appropriate infrastructure (Xue & Song, 2022). Following the 2024-2025 national updates to "inclusive preschool" safety standards, parental expectations for physical safety such as advanced surveillance systems, green building materials, and standardized catering have become non-negotiable baselines (Ministry of Education, 2025). This suggests that while parents may forgive minor pedagogical shifts, any perceived failure to maintain a safe and stimulating physical environment leads to an immediate drop in trust and satisfaction.

Beyond the physical facility, Chinese parents place a premium on the teaching capabilities of the faculty. This measurement item encompasses the professional qualifications, pedagogical skills, and "soft competencies" of the educators, such as patience and emotional regulation (Hao et al., 2025). Recent empirical studies highlighted that rural parents are increasingly moving away from purely academic metrics, now expecting teachers to possess "responsive teaching skills" that foster child-centered interactions and emotional resilience (Shi et al., 2026; Wang & Hu, 2025).

The ultimate measure of a kindergarten's value for many Chinese families is its teaching effectiveness, which refers to the tangible outcomes of the child's enrollment. This includes academic readiness (literacy and numeracy), social-emotional development, and behavioral compliance (tinghua) (Shi et al., 2026). Under the CCSI framework, if the perceived effectiveness falls short of the initial high expectations, the resulting "negative gap" significantly diminishes overall parental satisfaction (Lin & Yin, 2022). Parents today expect private kindergartens to provide a "holistic" effectiveness that prepares children for the rigorous transition to primary school while simultaneously fostering modern skills such as creativity and digital literacy (Cui and Greger, 2024; Wang & Zhao, 2024).

In conclusion, parental expectations in the Chinese private kindergarten sector are multi-layered, beginning with the baseline requirements of the environment and escalating to professional capabilities and effective developmental outcomes. For private providers to succeed within the CCSI model, they must not only meet these expectations but strategically align their brand image to ensure that the "expectation-perception gap" remains positive.

2.5. Perceived Quality of Private Kindergarten in China

Perceived quality serves as the direct experiential bridge between parental expectations and ultimate satisfaction (Lin & Yin, 2022). While expectations are formed a priori,

perceived quality represents the parent's subjective evaluation of the actual service delivery after enrollment (Hao et al., 2025). In the context of the 2026 Chinese preschool market, private kindergartens must excel in specific quality dimensions to justify their tuition premiums and remain competitive against the subsidized public sector.

The physical infrastructure, or "tangibles," is the most visible indicator of quality for parents. Research shows that Chinese parents prioritize the safety, hygiene, and technological modernization of kindergarten equipment (Lv et al., 2022). Following the national public security upgrades in early 2025, parental perception of equipment quality has expanded to include "smart" surveillance systems and high-end air purification technologies (Technavio, 2026). Additionally, the presence of standardized play facilities and modern multimedia classrooms acts as a significant "quality signal" that mitigates the traditional skepticism toward the private sector (Wang et al., 2022).

Teacher quality is often cited as the "soul" of the preschool experience and the strongest predictor of child development outcomes (Su et al., 2023). Within the CCSI, this item measures the professional competencies, emotional responsiveness, and stability of the faculty. Recent studies using the Chinese Kindergarten Teacher Quality Scale (CKTQS) emphasize that parents value "practical wisdom" and "professional love" over mere academic credentials (Hao et al., 2025). However, the high turnover rates in private kindergartens remain a critical challenge; parents perceive a decline in quality when teachers lack tenure or professional empowerment.

As the market for "inclusive" private kindergartens saturates, private providers have increasingly relied on unique features to differentiate their brand image. This measurement item refers to specialized educational philosophies (e.g., Montessori, Reggio Emilia) or niche service offerings (e.g., bilingual immersion or weekend childcare). Market analysis from 2026 indicates that private institutions offering "holistic wellness" or "early intervention" programs report parent retention rates significantly higher than those providing standard care (Technavio, 2026). These unique features serve as a proxy for "perceived value," making parents feel that the institution offers something unattainable in the standard public system.

The final element of perceived quality is the pedagogical "process" which refers to the course contents and methods. Chinese parents are increasingly discerning, moving away from rote memorization toward inquiry-based and play-based learning (Cui and Greger, 2024). There is a growing demand for curricula that integrate STEAM (Science, Technology, Engineering, Arts, and Mathematics) and "school readiness" skills without being overly academic (Technavio, 2026). The perceived quality of these methods is often evaluated through the child's daily feedback and the transparency of teacher-parent communication via digital tools, which has been shown to increase satisfaction scores by up to 15% (Zhang & Chen, 2024).

2.5. Hypotheses Development

For parents in rural China, the brand image of a private kindergarten acts as a critical signal of quality in an information-asymmetric market (Hao et al., 2025). When a kindergarten possesses a strong, positive brand image characterized by social responsibility and community trust, it psychologically "anchors" the parents' beliefs, leading them to elevate their parental expectations. Specifically, a premium brand image leads parents to expect superior teaching environments, higher faculty capabilities, and

greater developmental effectiveness (Wang and Zhao, 2024). In rural contexts, where public resources are scarce, the brand image of a private institution often carries the weight of a "guarantor of success," directly inflating what parents believe their child will achieve (Shi et al., 2026). Thus, the more favorable the brand image, the higher the level of service and outcomes the parents will anticipate before enrollment.

H1: Brand image positively affects parental expectation of private kindergarten in China

Prior studies in early childhood education have shown that Chinese parents place high importance on various dimensions of kindergarten quality. Hu et al. (2018) found that parents in China consistently emphasized teacher quality, learning environment, and child development outcomes when assessing early childhood education services. This suggests that parental expectations serve as benchmarks that influence subsequent quality perceptions. Similarly, Cui et al. (2016) reported that Chinese parents' educational expectations significantly shaped their evaluations of preschool teaching competencies, indicating that stronger expectations may lead to more deliberate and rigorous quality assessments. In addition, evidence from private kindergarten settings suggests that unmet parental expectations regarding facilities, teaching standards, and service responsiveness may reduce favorable evaluations of the institution. Hao et al. (2025) noted that parents' perceptions of value and trust are strongly influenced by how well kindergartens respond to parental needs and expectations. Since perceived quality is often derived from comparisons between expected and experienced performance, higher parental expectations are likely to positively influence quality perceptions when those expectations are adequately fulfilled.

H2: Parental expectation positively affects perceived quality of private kindergarten in China.

A study by Li and Lau (2018) found that structural quality factors such as teacher experience and class size, together with process quality factors such as emotional support, significantly predicted Chinese parental satisfaction toward early childhood education services. Their findings indicate that both operational and experiential dimensions of perceived quality contribute positively to satisfaction. Likewise, Nyland et al. (2016) reported that parents in Beijing were informed consumers who based satisfaction judgments on the quality of kindergarten services delivered during a period of systemic expansion. This suggests that when parents perceive educational and administrative services to be of high quality, satisfaction increases accordingly. Recent evidence also indicates that private kindergartens in China often receive lower satisfaction ratings when parents perceive weaknesses in facilities, teaching quality, or staff responsiveness. Hao et al. (2025) noted that parental satisfaction declines when hardware facilities, teaching environment, and staff quality are perceived as inadequate, further confirming the importance of perceived quality as an antecedent of satisfaction.

H3: Perceived quality positively affects parental satisfaction of private kindergarten in China.

Empirical evidence supports the positive effect of brand image on satisfaction in education settings. Song (2023) found that brand image significantly influenced student satisfaction in the context of private educational institutions in China, indicating that favorable institutional image enhances stakeholder satisfaction. Although the study focused on higher education, the mechanism is relevant to private kindergarten services

where parents similarly evaluate educational brands. More directly, recent evidence from China's kindergarten sector indicates that institutional reputation is closely associated with parental satisfaction. Hao et al. (2025) reported that privately funded kindergartens received lower ratings for kindergarten reputation and parent satisfaction compared with publicly supported kindergartens. This finding suggests that weaker brand image may diminish parental satisfaction, whereas a stronger image is likely to enhance it.

H4: Brand image positively affects parental satisfaction of private kindergarten in China.

Hu et al. (2018) found that Chinese parental satisfaction with early childhood education services was significantly associated with structural and process quality indicators such as teacher experience, class size, and emotional support, suggesting that satisfaction is shaped by how well kindergartens meet parental expectations regarding service delivery. Similarly, national evidence from China indicates that parents evaluate kindergarten services based on dimensions such as kindergarten responsibility, government responsibility, and children's development outcomes. When these expectations are adequately fulfilled, satisfaction levels tend to be higher. Wang et al. (2023) reported that Chinese parents were generally satisfied with Puhui early childhood education services, with the highest satisfaction linked to children's development outcomes, reflecting the importance of expectation fulfilment. Within the private kindergarten sector in China, this relationship may be even stronger because parents often pay premium tuition fees and expect superior services compared with public alternatives. Chinese parents also tend to place strong emphasis on early academic preparation, safety, discipline, and holistic child development. Therefore, when private kindergartens successfully meet or exceed these expectations, parental satisfaction is likely to increase substantially.

H5: Parental expectation positively affects parental satisfaction of private kindergarten in China.

3. Research Methods

3.1. Research Design

This study employed a quantitative, cross-sectional survey design to investigate the relationships between brand image, parental expectation, perceived quality and parental satisfaction of private kindergarten in China. This study adopts a quantitative cross-sectional survey design to examine the determinants of parental satisfaction toward private kindergartens in China. A quantitative approach is appropriate because the study seeks to test hypothesized relationships among measurable constructs such as parental expectation, perceived quality, brand image, and parental satisfaction using statistical techniques. Quantitative methods are widely used in educational service research due to their ability to objectively measure attitudes and perceptions across large respondent groups (Creswell & Creswell, 2018).

A cross-sectional design is suitable because data are collected from respondents at a single point in time, allowing the researcher to capture current parental perceptions and evaluate associations among variables efficiently. Cross-sectional surveys are commonly used in marketing and service quality research because they enable timely data collection while minimizing cost and administrative burden (Malhotra, 2020). In the

context of private kindergartens in China, this design is particularly relevant because parental evaluations may reflect present institutional performance, service quality, and satisfaction levels.

3.2. Sampling Method and Size

The target population of this study consists of parents or legal guardians whose children are currently enrolled in four (4) private kindergartens in the Guangxi Zhuang Autonomous Region of China. The kindergartens chosen were Qilin Bilingual Kindergarten, Golden Cradle Yaohui Kindergarten, Guiyi Xijing Kindergarten and G City Duomei Joyful Song Kindergarten. Parents are selected as the unit of analysis because they are the primary decision-makers, tuition payers, and evaluators of kindergarten services. Their perceptions are therefore central to understanding satisfaction and behavioral outcomes.

Given the large geographical coverage of China and the practical difficulty of obtaining a complete sampling frame, this study employs non-probability purposive sampling combined with convenience access through participating private kindergartens, parent associations, and online parent communities. Purposive sampling is appropriate when respondents must meet specific criteria relevant to the study objectives (Etikan et al., 2016). Eligible respondents must (1) be at least 18 years old, (2) have a child currently enrolled in a private kindergarten, and (3) possess sufficient knowledge of the kindergarten's services.

As for the sample size, this study used the G*Power software to determine the sample size. According to Faul et al. (2007), with 3 predictors toward a variable, the minimum sample size considered to be appropriate for this study would be 77 samples.

3.3. Research Instruments

This study employed a survey questionnaire to cover four variables which are brand image, parental expectation, perceived quality and parental satisfaction of private kindergarten in rural China. The items for the questionnaire were developed following an extensive review of previous studies on brand image (3 items), perceived quality (11 items), parental expectation (3 items) and parental satisfaction (3 items) of kindergarten in the context of China. To ensure validity of the questionnaire, two private kindergarten administrators in China reviewed the draft. Additionally, a pre-test was conducted with 10 parents who have enrolled their children in kindergarten in Guangxi Zhuang Autonomous Region for assessing the questionnaire's clarity. Feedbacks from the parents were incorporated to make sure the questionnaire understandability and accessibility.

3.4. Data Collection Procedure

The data collection procedure was designed to capture authentic evaluations of brand image, parental expectations, perceived quality, and parental satisfaction from parents of private kindergartens. Prior to the formal survey, written permission was obtained from the management of the four target private kindergartens. All questionnaires were administered anonymously, and an informed consent statement was provided on the first page, clearly explaining the study's purpose, voluntary participation, confidentiality, and the right to withdraw at any time. Data collection took place from December 2025 to

January 2026, spanning approximately five weeks. Given that parents in these areas commonly use WeChat and smartphones, an online distribution channel was exclusively adopted. The researcher first designed and generated an electronic questionnaire link using the Sojump platform, and then sent the link via WeChat and email to the principals or lead teachers of each participating kindergarten. With the assistance of the kindergarten administration, teachers forwarded the link to parent groups whose children were enrolled in their respective kindergartens. Parents voluntarily completed the questionnaire by clicking the link on their mobile phones within the WeChat environment, and all responses were anonymized to ensure data authenticity and privacy. A total of 200 questionnaires were initially collected. Invalid responses, namely those with completion time less than 60 seconds or those showing extreme response patterns such as identical ratings for all items, were removed, yielding 191 preliminary valid questionnaires. Subsequently, to ensure the stability and discriminant validity of the measurement model for each latent construct, further measurement model analysis was performed on the 191 responses. Questionnaires that resulted in poor model fit or had critically missing information were excluded, ultimately producing 109 valid questionnaires, representing an effective response rate of 54.5%. No missing values were detected in the final 109 valid questionnaires.

3.5. Data Analysis

Data will be analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through the SmartPLS software. PLS-SEM is appropriate because the study aims to predict parental satisfaction, examine multiple latent constructs simultaneously, and assess measurement reliability and structural relationships. It is also suitable for non-normal data and complex models (Hair et al., 2022). The analysis will proceed in two stages: (1) Measurement Model Assessment which analyze the internal consistency reliability (Cronbach's alpha, Composite Reliability), convergent validity (Average Variance Extracted), discriminant validity (HTMT criterion) and (2) Structural Model Assessment that covers the collinearity diagnostics, path coefficients and bootstrapping for hypothesis testing.

4. Results

4.1. Demographics of Respondents

A total of 109 valid questionnaires were collected from parents of four private kindergartens. The demographic characteristics of all 109 respondents such as gender, age and occupation are presented in Table 1 for establishing respondents' profiles. In terms of gender, female parents accounted for 75.23% and male parents for 24.77%, which suggests that mothers are more involved in daily childcare and school communication, making their satisfaction ratings more reflective of family perceptions. Regarding age, parents aged 31 to 40 made up 63.30% of the sample, followed by those aged 21 to 30 at 20.18%, those aged 41 to 50 at 13.76%, and those over 50 at 2.75%. No respondents were under 20. This distribution matches the typical age pattern of parents with young children and indicates that young and middle-aged parents are the primary users of private kindergartens. In terms of education, 53.21% held a bachelor's degree, 20.18% had a master's degree or higher, 16.51% had an associate degree, and 10.09% had high school education or below. These figures show that the parents in this sample have relatively high educational levels, which may influence how they evaluate kindergarten service quality and form brand perceptions. Monthly household income

after tax was concentrated in the ranges of 5001 to 10000 RMB (34.86%) and 3001 to 5000 RMB (26.61%), followed by 10001 to 20000 RMB (21.10%), 3000 RMB or below (14.68%), and 20001 RMB or above (2.75%). This suggests that most families fall into the middle-income bracket, which roughly matches the tuition levels of private kindergartens. Regarding occupation, the "Other" category (including freelancers, full-time parents, and self-employed) was the largest at 43.12%, followed by professional technicians at 22.02%, heads of government or enterprise units at 17.43%, business and service personnel at 11.01%, and office staff at 6.42%. No respondents reported working in agriculture, forestry, animal husbandry, or fishing. This distribution reflects the occupational diversity among parents. In terms of the child's primary caregiver, joint care by both parents was most common at 55.96%, followed by mother-only care at 32.11%, father-only care at 4.59%, and care by elderly relatives at 7.34%. This indicates that shared parenting has become fairly common in many families. Overall, the sample is characterized by young, relatively well-educated mothers, who tend to be more sensitive to kindergarten brand image and service quality, and are more likely to influence other parents' choices through daily conversations.

Table 1: Demographic Profile of Respondents (N=109)

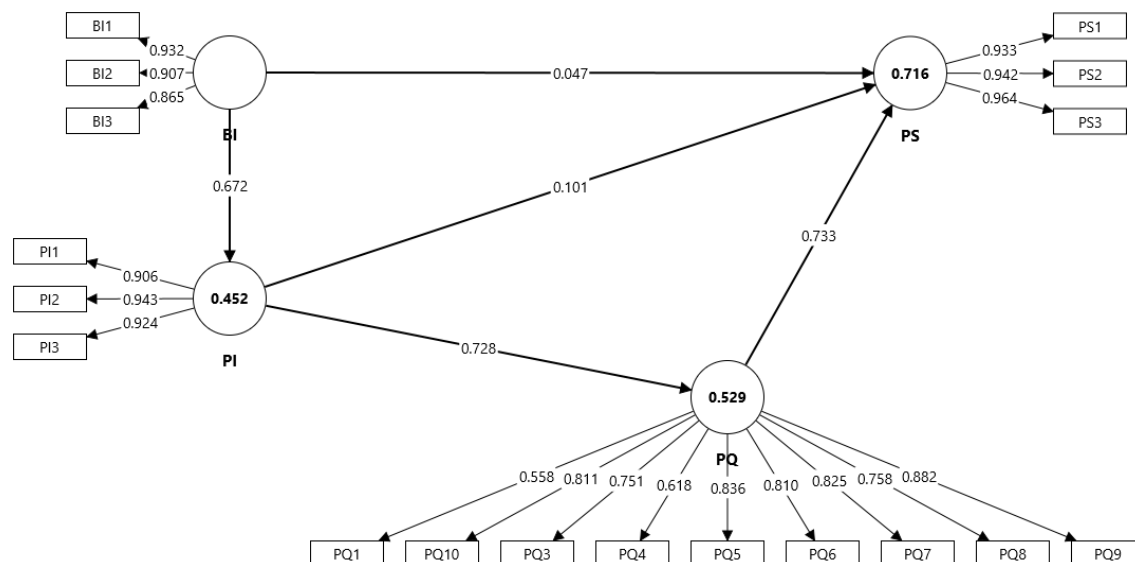
Variable(s)	Frequency	Percentage (%)
Gender		
1. Male	27	24.77%
2. Female	82	75.23%
Age		
1. 18-20 years old	0	0%
2. 20-30 years old	22	20.18%
3. 31-40 years old	69	63.3%
4. 41-50 years old	15	13.76%
5. Over 50 years old	3	2.75%
Educational background		
1. Junior high school or below	5	4.59%
2. High school, vocational school or college	24	22.02%
3. Undergraduate program	58	53.21%
4. Master's degree or above	22	20.18%
Occupation		
Head of government agencies, enterprises and institutions	19	17.43%
Professional technical personnel	24	22.02%
Office staff	7	6.42%
Business and service industry personnel	12	11.01%
Agricultural, forestry, animal husbandry, and fishery production personnel	0	0%
Other	47	43.12%
Child's primary caregiver		
1. Father as the main	5	4.59%

2. Mother as the main	35	32.11%
3. Both parents	61	55.96%
4. Elderly relatives	8	7.34%
After tax monthly household income		
1. 3000 yuan or less	16	14.68%
2. 3001-5000 yuan	29	26.61%
3. 5001-10000 yuan	38	34.86%
4. 10001-20000 yuan	23	21.1%
5. 20001 yuan and above	3	2.75%

4.2 Measurement Model Analysis

The SmartPLS path analysis was evaluated to examine both the indicator loadings and the structural relationships among the latent constructs. Figure 3 shows the overall result of the analysis.

Figure 2: Measurement Model Analysis



4.2.1. Construct Reliability

Internal consistency reliability determines the extent to which the indicators assigned to a specific latent variable are mutually consistent. According to Hair et al. (2022), values of 0.70 or higher across these metrics indicate acceptable reliability in social science research. As detailed in Figure 2, the construct reliability was firmly established for all latent variables except for two items labeled PQ2 and PQ11 from Perceived Quality that were removed due to their loading values being less than 0.4.

4.2.2. Convergent Validity

Convergent validity assesses the degree to which a measure correlates positively with alternative measures of the same construct. This was evaluated using the Average Variance Extracted (AVE) for each latent variable. An AVE value of 0.50 or higher is required, signifying that, on average, the construct explains more than 50% of the variance of its respective indicators (Fornell & Larcker, 1981). The results in Table 2 show the values for Cronbach's alpha, composite reliability (CR) and AVE for all

constructs. The results revealed that the value of both Cronbach's alpha and CR are above 0.7 which indicate ideal reliability (Hair et al., 2022). It is also confirmed that the AVE values for all four constructs ranged from 0.589 to 0.896, successfully surpassing the 0.50 benchmark. Specifically, the lowest AVE was observed in the Perceived Quality construct (0.589), meaning it accounted for 58.9% of its indicators' variance, while the Parental Satisfaction construct exhibited the highest convergent validity, capturing 89.6% of the indicator variance. Thus, the measurement model demonstrates adequate convergent validity.

Table 2: Convergent Validity

Construct	Cronbach's alpha	Composite reliability	AVE
Brand Image (BI)	0.885	0.929	0.813
Parental Expectation (PI)	0.915	0.946	0.855
Perceived Quality (PQ)	0.910	0.927	0.589
Parental Satisfaction (PS)	0.942	0.963	0.896

4.2.3. Discriminant Validity

Discriminant validity ensures that a latent construct is empirically unique and captures phenomena not represented by other constructs in the structural model (Hair et al., 2019). This study evaluated discriminant validity using the Heterotrait-Monotrait ratio of correlations (HTMT), which is considered a more modern and sensitive alternative to classic criteria like Fornell-Larcker (Henseler et al., 2015). Table 3 compiled the HTMT value for all constructs for establishing discriminant validity. According to Henseler et al. (2015), HTMT values of constructs should be below 0.9 for discriminant validity to be established. Most construct pairs safely comply with the conservative threshold of 0.85. Specifically, the relationship between PI and BI (HTMT = 0.742), PQ and BI (HTMT = 0.822), PQ and PI (HTMT = 0.794), PS and BI (HTMT = 0.721), and PS and PI (HTMT = 0.714) indicate distinct variance patterns. The highest HTMT ratio is observed between PQ and PS (HTMT = 0.897). While this value borders the strict limit, it remains below the liberal threshold of 0.90 suggested by Henseler et al. (2015). Therefore, discriminant validity is successfully established across all latent variables.

Table 3: Discriminant Validity HTMT

	BI	PI	PQ	PS
BI				
PI	0.742			
PQ	0.822	0.794		
PS	0.721	0.714	0.897	

4.3. Structural Model Analysis

To assess the significance of the hypothesized direct relationships within the structural model, a non-parametric bootstrapping procedure was executed using 5,000 resamples (Hair et al., 2022). The structural path coefficients (beta), t-statistics, and corresponding p-values are evaluated below in Table 4 for establishing hypothesis result. According to Hair et al. (2022), significant relationship between variables is established when the value of the T statistics is above 1.645 for a 95% significance level. Additionally, the path coefficients value indicates the direction of the relationship; a positive value indicates a

positive relationship and vice versa. Based on the results, it can be concluded that H1, H2 and H3 are supported due to their significant positive effects as both their path coefficient and T statistics are positive and above 1.645 respectively. On the other hand, H4 and H5 were not supported as their T statistics value are below 1.645.

Table 4: Bootstrapping Results

Hypothesis	Path coefficients (beta)	T statistics	P values	Hypothesis result
BI -> PI (H1)	0.672	9.692	0.000	Supported
PI -> PQ (H2)	0.728	10.273	0.000	Supported
PQ -> PS (H3)	0.733	5.689	0.000	Supported
BI -> PS (H4)	0.047	0.451	0.652	Not supported
PI -> PS (H5)	0.101	0.869	0.385	Not supported

5. Discussion of Findings

The empirical results of this study demonstrate that Brand Image exerts a positive and statistically significant influence on Parental Expectation ($\beta = 0.672$, $p < 0.001$) within the context of private kindergartens in China, thus supporting H1. This finding implies that as a private kindergarten's brand image improves, parents correspondingly elevate their pre-enrollment expectations regarding the school's teaching environment, teacher qualifications, and ultimate pedagogical effectiveness. This finding extends the observations of Kim and Chao (2019), who demonstrated that among Chinese millennial consumers, brand image carries a symbolic weight that shapes expectation pathways for high-involvement decisions. While Kim and Chao (2019) focused on commercial products, this study confirms that the principle applies even more intensely to early childhood education. Because Chinese parents experience profound "education anxiety" (jiaoyu jiaolü) and desperately seek to protect their children from "losing at the starting line", a private school's premium brand image is immediately translated into high expectations for rigorous "school-readiness" outcomes and advanced teaching capabilities (Cui and Greger 2024).

It is also shown that Parental Expectation exerts a positive and statistically significant effect on the Perceived Quality of private kindergartens in China ($\beta = 0.728$, $p < 0.001$) which supports H2. This result demonstrates that the pre-enrollment standards and benchmarks held by parents directly shape their subsequent, subjective evaluations of the kindergarten's physical equipment, teacher quality, unique features, and course methods once their child is enrolled. The present finding is also supported by Hu et al. (2017), who found that Chinese parents considered all dimensions of kindergarten quality highly important and used these expectations as criteria when evaluating kindergarten quality. Their study demonstrated that parents' perceptions of educational quality were strongly influenced by what they expected from kindergarten operators, particularly in areas such as classroom environment, teacher interaction, and learning support.

Support for H3 was also found through the analysis where Perceived Quality is shown to exert a positive and statistically significant influence on Parental Satisfaction ($\beta = 0.733$, $p < 0.001$) within private kindergartens in China. The present finding is aligned with the study by Ling et al. (2019), who found that service quality dimensions

significantly influenced parental satisfaction in private kindergartens. Their study emphasized that responsiveness and communication quality were particularly important in shaping parents' satisfaction perceptions. The findings support the present study by confirming that parents who perceive better educational service quality tend to report higher satisfaction levels toward private kindergarten institutions in China.

However, Brand Image was found to not have a direct significant effect on Parental Satisfaction which does not support H4. The result aligns with the study by Kandampully and Suhartanto (2000), who found that image alone did not always directly influence customer loyalty and satisfaction in service settings unless supported by perceived service quality and customer experiences. Their study suggested that image acts more effectively as a cognitive cue that shapes expectations and perceived value rather than as an independent determinant of satisfaction. The current findings are also consistent with Nyland et al. (2016), who found that parents' satisfaction toward kindergarten services in Beijing was primarily influenced by actual service experiences, communication effectiveness, and educational quality rather than institutional prestige alone. Their study suggested that while reputation may attract parents initially, sustained satisfaction depends heavily on whether the kindergarten can deliver quality educational services that meet parental expectations.

In addition, no support was also found for H5 as the result shows that Parental Expectation does not have a direct significant effect on Parental Satisfaction. The current finding is aligned with the study by Parasuraman, Zeithaml, and Berry (1988), who argued that service quality is fundamentally derived from the gap between customer expectations and perceived performance. Their SERVQUAL framework suggests that expectations influence customers' evaluations of perceived quality, which subsequently determines satisfaction. The findings are also consistent with Hu et al. (2017), who reported that parental satisfaction in Chinese early childhood education settings was significantly influenced by structural and process quality indicators such as classroom interaction, emotional support, teacher quality, and learning environments. Their study emphasized that parents' perceptions of actual educational quality were more influential in determining satisfaction than pre-existing beliefs or expectations.

6. Conclusion

This study examined the relationships among brand image, parental expectation, perceived quality, and parental satisfaction in the context of private kindergartens in China by applying the Chinese Customer Satisfaction Index (CCSI) as the underpinning theoretical framework. The study contributes to the growing body of literature on educational service marketing and early childhood education by extending the applicability of the CCSI model to the private kindergarten sector in China. The findings revealed that brand image did not directly influence parental satisfaction. Instead, brand image positively and significantly affected parental expectation, which subsequently influenced perceived quality, and perceived quality then significantly affected parental satisfaction. While branding and reputation-building strategies remain important for attracting parents and establishing institutional positioning, private kindergartens should prioritize the delivery of high-quality educational services that align with parental expectations. Emphasis should therefore be placed on improving teaching quality, communication practices, child-centered learning environments, safety standards, emotional support, and service responsiveness. By consistently fulfilling parental expectations through superior educational quality, kindergartens can enhance

parental satisfaction, strengthen trust, and improve long-term institutional competitiveness. Despite its contributions, this study has several limitations that should be acknowledged. First, the data were collected only from parents located in the Western region of China. Consequently, the findings may not fully represent the perceptions and experiences of parents from other regions of China, such as Eastern, Central, or Northern China, where economic development, educational resources, cultural values, and parental expectations may differ substantially. Therefore, the generalizability of the findings to the broader Chinese population may be limited. Second, this study employed a cross-sectional research design. As a result, the study was unable to capture changes in parental perceptions, expectations, and satisfaction over time. Since parental evaluations of kindergarten services may evolve as children progress through different stages of early childhood education, a longitudinal approach could provide deeper insights into the dynamic nature of parental satisfaction formation. Third, future studies may consider incorporating additional variables into the CCSI framework to further enrich understanding of parental satisfaction in early childhood education. Variables such as trust, parental involvement, word-of-mouth intention, loyalty, service innovation, digital communication quality, and child learning outcomes may provide a more comprehensive explanation of parental satisfaction. Finally, future studies may conduct comparative analyses between public and private kindergartens or between domestic and international kindergarten systems in China. Such comparisons may provide deeper understanding regarding differences in parental evaluation processes and service expectations across different educational settings. Overall, this study provides meaningful theoretical and practical contributions by demonstrating that parental satisfaction in private kindergartens in China is primarily shaped through a sequential process involving brand image, parental expectation, and perceived quality. The findings reinforce the importance of delivering consistent and high-quality educational services to fulfil parental expectations and enhance satisfaction within the increasingly competitive private kindergarten sector in China.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research Ethics Committee of Universiti Teknologi MARA (REC UiTM). All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. The guidelines comply with the Declaration of Helsinki (2013), Malaysian Good Clinical Practice (2018), UiTM Ethics Policy as well as relevant laws in Malaysia for obtaining informed consent.

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Conflict of Interest

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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