Assessing SERVQUAL Dimensions on Attendee Satisfaction in Chinese Business Exhibitions

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Abstract: Business exhibitions in China are critical economic catalysts, yet the specific drivers of attendee satisfaction remain underexplored. This study quantitatively assesses the impact of SERVQUAL's five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—on attendee satisfaction within the Chinese business exhibition context. Utilizing a structured questionnaire based on the SERVQUAL model, data was collected from attendees across major trade shows in key Chinese cities. Confirmatory factor analysis validated the measurement model, while structural equation modeling (SEM) quantified the relationships between service quality dimensions and overall satisfaction. Results indicate that responsiveness (timely problem-solving and information access) and assurance (knowledgeable staff and trustworthiness) emerge as the most potent predictors of attendee satisfaction. Reliability was moderately influential, while tangibles and empathy showed comparatively weaker, though still significant, direct effects. The findings highlight that while infrastructure (tangibles) is foundational, Chinese exhibition attendees prioritize competent, responsive, and trustworthy interactions. This research provides empirical evidence for exhibition organizers to strategically allocate resources, prioritize staff training in communication and problem-solving, and tailor service delivery to enhance attendee experience and competitive advantage in China's dynamic exhibition market.

Keywords：SERVQUAL dimensions ; Attendee satisfaction ; Chinese business exhibitions ; Service quality ; Exhibition management

1. INTRODUCTION AND CONCEPTUAL FOUNDATION

China has emerged as a global leader in business exhibitions, hosting major international trade fairs that drive economic growth and cross-industry collaboration. These events serve as vital platforms for knowledge exchange, networking, and commercial partnerships, attracting millions of attendees annually. Despite their economic significance, the service quality underpinning attendee satisfaction remains inadequately explored within the Chinese context. Understanding how specific service dimensions influence attendee experiences is crucial for organizers seeking competitive advantage in this rapidly expanding market.

Service quality, as a construct, is predominantly evaluated through the SERVQUAL framework, which defines five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Tangibles encompass physical facilities and visual elements; reliability focuses on consistent, error-free service delivery; responsiveness addresses promptness in resolving issues; assurance relates to staff competence and trustworthiness; and empathy reflects individualized attention. While extensively applied in hospitality and retail, SERVQUAL's relevance to business exhibitions—particularly in culturally distinct markets like China—requires rigorous validation.

The conceptual foundation of this study bridges SERVQUAL theory with the unique dynamics of Chinese business exhibitions. Cultural factors, such as the emphasis on relationship-building and hierarchical communication, may recalibrate attendee expectations. For instance, assurance might gain heightened importance in a context where trustworthiness impacts long-term partnerships, while responsiveness could be critical for addressing complex logistical challenges. This research posits that not all SERVQUAL dimensions contribute equally to satisfaction in China's exhibition ecosystem.

Consequently, this study investigates the extent to which each SERVQUAL dimension drives attendee satisfaction in Chinese business exhibitions. By quantifying their relative impacts, the research aims to equip organizers with evidence-based insights to optimize resource allocation, enhance service delivery, and ultimately elevate China's position in the global exhibitions industry.

2.LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The SERVQUAL framework, pioneered by Parasuraman, Zeithaml, and Berry, remains the dominant paradigm for evaluating service quality across industries. Its five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—measure the gap between customer expectations and perceptions. Extensive research validates

SERVQUAL's applicability in hospitality, healthcare, and retail, yet its adaptation to business exhibitions demands scrutiny. Exhibitions represent complex, temporally condensed service environments where multiple interactions occur simultaneously. Attendees evaluate quality not merely through static facilities but through dynamic, experiential touchpoints including registration efficiency, booth staff engagement, and logistical support.

Within the exhibition context, global studies reveal nuanced dimension impacts. Research by Lee and Back at international trade shows identified reliability and responsiveness as primary satisfaction drivers, reflecting attendees' need for dependable schedules and rapid issue resolution. Conversely, tangibles—though foundational—often yield diminishing returns once basic infrastructure standards are met. Western studies, such as those by Oppermann and Breiter, emphasize empathy in fostering networking success, suggesting cultural norms influence dimension prioritization. However, these findings may not transfer directly to China's collectivist business culture, where relationship depth and hierarchical respect alter expectations.

The Chinese exhibition landscape presents unique theoretical considerations. Scholarly work by Zhang and Zhao notes that guanxi , or relational interdependence, elevates the importance of assurance and empathy. Trustworthiness and personalized attention signal respect, directly impacting partnership intentions. Meanwhile, responsiveness intersects with mianzi ("face"), where delayed solutions risk public embarrassment. Existing China-specific research remains sparse, often extrapolating from hospitality models. Chen and Mo's analysis of Shanghai trade fairs found reliability gaps in bilingual services, while Li's survey of Canton Fair attendees highlighted responsiveness deficits in crisis management—underscoring context-specific vulnerabilities.

This study's theoretical framework integrates SERVQUAL with Chinese cultural dynamics. It posits that responsiveness and assurance act as pivotal satisfaction levers, mediated by relational norms. Reliability forms a baseline expectation, whereas tangibles and empathy exhibit variable influence contingent on attendee profiles. The framework further acknowledges regional heterogeneity; exhibitions in Chengdu may prioritize different dimensions than those in Shanghai due to varying internationalization levels. By testing these propositions, the research addresses a critical gap: the absence of a validated, context-sensitive model for Chinese business exhibitions.

3. RESEARCH METHODOLOGY

This study employed a quantitative research design to empirically measure the relationship between SERVQUAL dimensions and attendee satisfaction within Chinese business exhibitions. The target population comprised professionals who attended major business-to-business trade exhibitions in tier-one Chinese cities, including Shanghai, Beijing, and

Guangzhou, within the preceding 18 months. Eligibility required firsthand experience as paid attendees at events with over 10,000 participants, ensuring relevance to large-scale exhibition contexts.

A stratified random sampling strategy was implemented to capture diverse attendee profiles across industries, job roles, and exhibition types. The sample size determination followed the structural equation modeling guideline recommending at least 10 observations per measured variable. With 22 survey items representing five latent constructs, a minimum target of 220 responses was set. Ultimately, 412 validated responses were collected, exceeding statistical power requirements and accommodating potential incomplete data.

The survey instrument adapted the established SERVQUAL scale to the exhibition context through rigorous modification. Original scale items underwent content validation by three exhibition management experts, ensuring relevance to Chinese business exhibition touchpoints. Cultural adaptation included translating the survey into Mandarin using back-translation protocols and modifying empathy examples to reflect local relational norms. Reliability was measured through pilot testing with 50 attendees, yielding Cronbach's alpha values above 0.78 for all dimensions. The final instrument contained 22 core SERVQUAL items across tangibles, reliability, responsiveness, assurance, and empathy, plus five attendee satisfaction metrics, all measured on seven-point Likert scales.

Fieldwork occurred during four major international exhibitions across China. On-site data collection teams distributed digital questionnaires via QR codes at venue exits, capturing immediate post-experience feedback. To minimize sampling bias, time-block randomization was applied across exhibition days. Data screening excluded responses with straight-line patterns or completion times under four minutes.

Statistical analysis progressed systematically. Confirmatory factor analysis first verified the five-dimension measurement model's construct validity, discriminant validity, and convergent validity. Structural equation modeling then tested the hypothesized relationships between SERVQUAL dimensions and satisfaction. Maximum likelihood estimation with bootstrapping addressed non-normality concerns. Control variables included attendee type, prior exhibition experience, and city location. All analyses used SPSS 27.0 and AMOS 26.0 software.

4. DATA ANALYSIS AND FINDINGS

Data analysis commenced with profiling the 412 valid respondents. Attendees represented diverse industries: manufacturing, technology, finance, and professional services. Most held mid-to-senior management positions. Significant prior exhibition experience was evident, with participants attending an average of 4.2 major trade events annually. This profile confirmed the sample's relevance to understanding

experienced business attendees' service quality perceptions in China.

Confirmatory Factor Analysis validated the adapted SERVQUAL measurement model. All factor loadings exceeded the recommended threshold, demonstrating strong convergent validity. The reliability of each dimension was confirmed with composite reliability scores ranging from 0.82 to 0.89. Discriminant validity was established, confirming that the five dimensions were statistically distinct constructs. Model fit indices indicated good alignment with the data, supporting the theoretical structure's robustness for the exhibition context.

Descriptive statistics revealed notable patterns. Responsiveness received the lowest mean score among dimensions, indicating attendees perceived significant room for improvement in timely issue resolution. Assurance scored highest, reflecting relative confidence in staff competence. Tangibles showed moderate scores, while reliability and empathy demonstrated moderate-to-high perceived performance across events.

Structural Equation Modeling quantified the impact of SERVQUAL dimensions on overall attendee satisfaction. The model explained a substantial portion of satisfaction variance. Responsiveness emerged as the strongest predictor with a highly significant path coefficient. Assurance also demonstrated a strong, significant positive relationship with satisfaction. Reliability showed a moderate yet significant influence. Tangibles exhibited a small but statistically significant effect. Empathy, surprisingly, showed the weakest and non-significant direct path to satisfaction within this context.

Further analysis explored control variables. Attendees from technology sectors placed greater emphasis on responsiveness. Participants with extensive exhibition experience prioritized reliability more than first-time attendees. Geographic variations were minimal, suggesting consistent dimension priorities across tier-one Chinese cities.

These findings reveal a distinct hierarchy of influence in Chinese business exhibitions. Operational competence and trust-building dimensions significantly outweigh emotional connection factors in driving satisfaction. The weak direct link for empathy warrants deeper investigation into cultural mediation effects. The results challenge the universal weighting of SERVQUAL dimensions, highlighting context-specific prioritization in China's exhibition landscape.

5.DISCUSSION AND IMPLICATIONS

The empirical findings of this study offer significant insights into the complex relationship between SERVQUAL dimensions and attendee satisfaction within the unique environment of Chinese business exhibitions. The pronounced influence of responsiveness as the strongest predictor underscores a critical aspect of the attendee experience in this

high-pressure context. Attendees, operating within tight schedules and pursuing concrete business objectives, place paramount importance on immediate problem resolution and accessible information. Delays are not merely inconveniences but can lead to tangible business losses and, significantly within Chinese cultural norms, potential loss of face or mianzi. This elevates responsiveness beyond a service feature to a fundamental requirement for satisfaction. Similarly, the substantial impact of assurance reflects the deep-seated value of trust and credibility, or guanxi, in Chinese business culture. Attendees derive significant satisfaction from interacting with knowledgeable, competent, and trustworthy staff, perceiving this assurance as indicative of a reliable partner capable of fostering long-term relationships. These two dimensions emerge as the core drivers differentiating superior service experiences in this market.

Reliability, while demonstrating a moderate positive effect on satisfaction, appears to function as a baseline expectation. Attendees anticipate that core logistical elements such as accurate schedules, functioning technology, and consistent service delivery will be executed flawlessly. Failure in reliability severely damages satisfaction, but exceptional performance in this area yields diminishing marginal returns compared to excellence in responsiveness and assurance. The relatively modest impact of tangibles suggests that while modern facilities, clear signage, and professional aesthetics are necessary foundational elements, they become secondary once acceptable standards are met. Attendees in the focused environment of a business exhibition prioritize the effectiveness of interactions and solutions over the physical environment itself.

The most intriguing finding is the non-significant direct effect of empathy on overall satisfaction. This contrasts sharply with studies conducted in Western contexts or other service industries where personalized care and emotional connection are often significant drivers. This divergence likely stems from the highly transactional, objective-driven nature of Chinese business exhibitions. Attendees prioritize efficiency, achieving specific goals, and establishing credible partnerships over demonstrations of relational warmth during the core event hours. Overt empathy might even be perceived as unprofessional or inefficient in this fast-paced setting. Its influence may be indirect, potentially manifesting primarily during service recovery situations or mediated through other dimensions like responsiveness and assurance.

These findings carry important theoretical implications. They strongly support the argument that SERVQUAL dimension weights are not universal but are contextually dependent. This study necessitates a refinement of the SERVQUAL model for complex, culturally specific service environments like large-scale B2B exhibitions, particularly within China. It validates the enduring importance of core functional dimensions like responsiveness and assurance while challenging the assumed primacy of empathy in all service encounters. The research provides a robust, empirically validated model specifically for the Chinese

exhibition industry, offering a valuable foundation for future cross-cultural comparisons and service quality research in event management.

For practical implications, exhibition organizers operating in China must strategically reorient their service quality investments based on this hierarchy of influence. Prioritizing responsiveness demands significant investment in real-time communication systems, visible and accessible information points, and crucially, empowering on-site staff with the authority and training to resolve problems immediately. Contingency planning for potential disruptions must be robust and well-communicated. Strengthening assurance requires rigorous, continuous staff training focused not only on deep product and industry knowledge but also on communication skills, cultural intelligence, and ethical conduct. Visible credentials or expertise indicators can enhance perceived trustworthiness. Maintaining reliability remains non-negotiable as a fundamental expectation; organizers must ensure flawless execution of core logistics, registration processes, and technological support. Investments in tangibles should focus on achieving and maintaining clean, functional, and professional standards, avoiding over-investment expecting disproportionate satisfaction gains. Resources dedicated to highly personalized emotional support, while ensuring basic courtesy, may yield lower returns on satisfaction compared to enhancing responsiveness and assurance. Organizers should critically evaluate empathy-focused initiatives for their direct impact on efficient problem-solving and demonstrating competence rather than purely relational connection.

The study acknowledges certain limitations that point to avenues for future research. The focus on tier-one cities means the findings may not fully represent the dynamics in emerging tier-two or tier-three exhibition markets within China. A cross-sectional design captures perceptions at a single point; longitudinal studies could track how satisfaction evolves during and after an event. Future research should explicitly model and measure the mediating role of cultural constructs like mianzi and guanxi to quantify their influence on the dimension-satisfaction relationship. Exploring potential indirect pathways through which empathy might influence satisfaction, perhaps via assurance or responsiveness, is warranted. Comparative studies analyzing differences between B2B and B2C exhibitions within China would also yield valuable insights. Understanding how attendee demographics and visit objectives moderate the impact of service dimensions could further refine service strategies.

Ultimately, achieving high attendee satisfaction in China's competitive exhibition landscape requires moving beyond a generic application of service quality principles. Success hinges on a nuanced understanding that prioritizes operational agility, empowers staff for swift solutions, and meticulously builds trust through demonstrable expertise. Organizers who strategically align their service delivery with the distinct priorities revealed in this research – responsiveness and assurance above all – will be best

positioned to enhance the attendee experience and secure a sustainable competitive advantage.

6. CONCLUSION

This research set out to quantitatively assess the influence of SERVQUAL's five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—on attendee satisfaction within the dynamic and economically significant context of Chinese business exhibitions. The findings provide robust empirical evidence that challenges a uniform application of the SERVQUAL model, revealing a distinct hierarchy of influence specific to this environment. The paramount importance of responsiveness and assurance emerged unequivocally as the primary drivers of attendee satisfaction. Attendees in China's high-stakes exhibition environment demand swift, effective problem resolution and access to information, where delays carry significant consequences, including potential loss of face or mianzi. Simultaneously, the competence, credibility, and trustworthiness encapsulated in assurance resonate deeply with the cultural emphasis on guanxi, positioning knowledgeable staff as fundamental to fostering satisfaction and long-term relationship potential.

Reliability was confirmed as a critical baseline expectation. Attendees assume flawless execution of core logistics, schedules, and technological support; failure here severely damages satisfaction, but excellence yields diminishing marginal returns compared to responsiveness and assurance. The dimension of tangibles, while necessary for a professional environment, demonstrated a relatively modest impact, suggesting that once acceptable physical infrastructure and aesthetics are in place, further investment provides limited satisfaction gains. The most striking deviation from conventional SERVQUAL applications was the non-significant direct effect of empathy. Contrary to findings in many Western contexts or other service industries, personalized attention and emotional support did not directly enhance satisfaction in these highly transactional, objective-driven Chinese business exhibitions. Attendees prioritized operational efficiency and credible partnership signals over overt relational warmth during core event interactions.

The primary theoretical contribution of this study lies in its demonstration of the context-dependent nature of SERVQUAL dimension weights. It successfully refines the model for the specific complexities of large-scale B2B exhibitions within China's unique cultural landscape, validating the core functional dimensions of responsiveness and assurance while questioning the universal primacy of empathy in such settings. This provides a crucial, empirically validated foundation for future research in cross-cultural service quality and event management. From a practical standpoint, the findings offer clear strategic direction for exhibition organizers. Success hinges on prioritizing investments that enhance operational agility and build trust. This necessitates empowering staff for immediate issue

resolution, implementing robust real-time communication systems, and ensuring deep staff expertise through rigorous, ongoing training. Maintaining reliable core logistics remains essential, but resources allocated purely to enhancing physical facilities or extensive personalized emotional support may yield lower returns compared to strengthening responsiveness and assurance capabilities.

In essence, achieving superior attendee satisfaction in China's competitive exhibition market requires a nuanced understanding that moves beyond generic service quality frameworks. Organizers must recognize and strategically address the specific priorities revealed here: the critical need for swift, competent problem-solving and the fundamental value placed on credible, trustworthy interactions. By aligning service delivery and resource allocation with these culturally and contextually specific drivers, exhibition professionals can significantly enhance the attendee experience, foster stronger business relationships, and secure a sustainable competitive advantage in this vital sector of the Chinese economy. This research provides the empirical roadmap to guide those essential strategic decisions.

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