

UNDERSTANDING B2B CONSUMER SATISFACTION THROUGH PERCEPTUAL AND COGNITIVE LENSES: A CASE STUDY OF GEOTRONIX INDONESIA

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Article history:

Received
31 October 2025

Revised
8 December 2025

Accepted
22 January 2026

Available online
31 January 2026

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Abstract:

Background: The B2B survey technology industry struggles to merge behavioral analytics with technical performance. Limited empirical use of consumer behavior theories exists in industrial procurement, especially in Southeast Asia.

Purpose: This study examines behavioral factors influencing customer satisfaction at Geotronix Pratama Indonesia. It integrates Solomon's Consumer Perception Model and Peter & Olson's Cognitive Processing Model to build behaviorally driven customer profiles.

Methodology: A convergent mixed-methods approach was employed. Data were collected from 50 client surveys and eight stakeholder interviews. Pearson correlation tested relationships, while NVivo-based thematic analysis provided qualitative insights.

Findings: Equipment quality strongly correlates with satisfaction ($r = 0.67, p < 0.01$). Technical support shows moderate correlation ($r = 0.34, p < 0.05$). Reliability shapes initial perceptions, while support fosters long-term trust. Satisfaction drivers shift from product performance to partnership value as relationships mature.

Conclusion: Satisfaction in B2B procurement is driven by both tangible perceptions and cognitive service evaluations. Firms should balance product quality and proactive support within behavior-based CRM strategies that adapt to client relationship stages.

Originality/value: This study pioneers the dual application of Solomon's and Peter & Olson's models in Southeast Asian B2B contexts. It offers a validated framework linking perception, cognition, and industrial customer satisfaction.

Keywords: customer satisfaction, consumer behavior, B2B marketing, survey technology, mixed-methods research

How to Cite:

Adi, F. S., Lestari, E., & Rahman, F. (2026). Understanding B2B consumer satisfaction through perceptual and cognitive lenses: A case study of Geotronix Indonesia. *Indonesian Journal of Business and Entrepreneurship*, 12(1), 137. <https://doi.org/10.17358/ijbe.12.1.137>

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INTRODUCTION

The survey technology industry has evolved rapidly over the past decade, transitioning from a niche technical provider into a strategic partner for sectors such as oil and gas, infrastructure, maritime, and environmental monitoring. This transformation is driven by growing demand for high-precision geospatial data, which supports decision-making in planning, risk assessment, and operational efficiency (Darmawansyah et al. 2023; Fatima & Ali, 2022). Consequently, survey firms are now required not only to deliver technical excellence but also to understand clients' strategic and behavioral needs. Traditional success indicators such as equipment sophistication remain vital, but customer-centricity and behavioral insight have become equally crucial for competitive advantage (Centobelli et al. 2020). Understanding these behavioral dimensions has become essential for firms seeking to maintain long-term client relationships in increasingly competitive markets.

Despite growing awareness of this need, academic and industrial understanding of customer behavior in B2B survey technology remains limited. Theoretical applications of consumer behavior frameworks such as those explaining perception and cognitive processing are rarely tested in industrial procurement settings. This gap is especially apparent in emerging Southeast Asian markets, where unique cultural and regulatory factors shape client behavior and limit the adoption of behavioral analytics in B2B relationships. Moreover, industrial purchasing decisions differ from consumer contexts, requiring rational, multi-stage evaluations emphasizing return on investment and long-term reliability rather than emotional appeal (Jasim et al. 2022; Troise et al. 2020). These characteristics make B2B survey technology an ideal context for examining how behavioral theories apply in high-involvement industrial procurement environments.

Recent studies in marketing emphasize the role of behavioral segmentation and profiling in strengthening customer retention and value creation (Monesi & Belgiawan, 2023). In high-involvement industries like maritime services and precision engineering, product reliability remains fundamental. However, integrated service quality especially technical support and knowledge transfer has emerged as a major satisfaction driver (Bashir et al. 2024; Del Giudice et al. 2021; Salim et al. 2021). Two theoretical models offer valuable

perspectives: Solomon's Consumer Perception Model, explaining how customers evaluate tangible product attributes, and Peter & Olson's Cognitive Processing Model, describing how accumulated experiences shape trust and satisfaction (Ó. Hayes & Kelliher, 2022; Ma et al. 2024; Sufyan & Mas'ud, 2022). These models provide complementary lenses for understanding how industrial clients form and maintain satisfaction judgments over time.

However, their empirical application in Southeast Asian B2B markets remains rare due to inconsistent regulations, unequal digital infrastructure, and limited analytical resources among SMEs (Alanazi et al. 2024; Diab et al. 2023; Jahanshahi et al. 2013). Fortunately, technological advances such as cloud-based analytics and fintech integration now lower these barriers, enabling data-driven customer profiling under supportive regulatory trends. Firms that combine behavioral insights with technical performance consistently outperform competitors in acquisition, retention, and revenue metrics. From a cognitive standpoint, customers use filtering mechanisms to process complex information flows. Solomon's model captures how first impressions form through sensory evaluation, while Peter & Olson's model explains how ongoing interactions create enduring mental representations of supplier reliability and service quality (Jerath & Ren, 2021; Nadhani & Ulfa, 2019; Prasetyo et al. 2023). Yet, research applying both frameworks concurrently in Southeast Asian industrial settings is still lacking, presenting a theoretical and empirical gap this study seeks to address.

This study bridges the gap through a convergent mixed-methods approach combining quantitative surveys and qualitative interviews to analyze behavioral factors influencing customer satisfaction in B2B survey technology markets. Quantitative analysis identifies relationships among variables, while qualitative insights reveal the cognitive and experiential processes behind them. The dual theoretical foundation Solomon's perceptual framework and Peter & Olson's cognitive model enables examination of both immediate evaluations and long-term relationship development (Peter & Olson, 2010). Solomon's model helps explain tangible attributes such as equipment durability and precision shape early impressions, while Peter & Olson's framework illustrates how accumulated experiences build trust, satisfaction, and loyalty. This integrated approach provides a comprehensive

understanding of satisfaction formation in industrial procurement contexts.

The empirical focus on Geotronix Pratama Indonesia strengthens contextual relevance. The company operates in a competitive environment with both international and domestic players, serving multiple industries such as construction, energy, and environmental consulting. Its SME scale and diverse clientele make it an information-rich case for understanding behavioral and relational dynamics in Southeast Asia's evolving B2B technology sector. The company's established market presence and varied client base provide ideal conditions for examining how satisfaction drivers differ across client segments and relationship stages. This contextual grounding ensures that findings are both theoretically robust and practically applicable to similar firms operating in emerging market contexts.

This research pursues two interrelated objectives that address both theoretical and practical gaps in understanding B2B customer satisfaction. First, to identify behavioral factors influencing customer satisfaction and purchasing decisions among Geotronix's industrial clients, examining both product-related and service-related attributes. This includes assessing perceptions of equipment quality, technical support, and overall relationship value, providing actionable insights into satisfaction drivers in high-involvement procurement. By systematically examining these factors, the study aims to reveal which attributes exert the strongest influence on client satisfaction and loyalty. Understanding these priority factors enables more efficient resource allocation and strategic focus for firms operating in competitive industrial markets.

Second, to apply and integrate behavioral theories specifically Solomon's and Peter & Olson's models into B2B contexts to construct a dual-framework for customer profiling. This integration enhances understanding of both perceptual and cognitive influences on industrial decision-making. Theoretically, the study extends behavioral frameworks into Southeast Asian B2B markets, while practically, it provides firms with structured strategies to transition from product-centric to customer-centric business models. The dual-framework approach offers a more nuanced understanding of how satisfaction develops through both immediate product evaluations and cumulative service experiences. Ultimately, the findings aim to inform evidence-based improvements in marketing

strategy, customer relationship management, and service design for sustainable competitive advantage in high-involvement industrial sectors.

METHODS

This study employed a convergent mixed-methods design to examine behavioral factors influencing customer satisfaction in the B2B survey-technology sector. Conducted at Geotronix Pratama Indonesia between January and April 2025, the research combined quantitative analysis used to measure the relationships among equipment quality, technical support, and satisfaction with qualitative exploration to interpret customer perceptions and experiential reasoning. Integrating both approaches enabled a holistic understanding of how perceptual and cognitive mechanisms jointly shape satisfaction in industrial procurement.

The study utilized complementary quantitative and qualitative data. Quantitative data were collected to test hypotheses and assess the strength of associations among key variables, while qualitative data provided contextual insights that numerical indicators alone could not capture. Primary data were obtained from active B2B clients and internal stakeholders with direct experience using or supporting Geotronix's geospatial equipment. Clients represented diverse sectors such as construction, oil and gas, environmental consulting, and marine navigation, ensuring varied industrial perspectives. Internal participants included personnel from sales, technical support, product development, and training, offering organizational insights into service quality.

For the quantitative component, 50 purposively selected respondents were surveyed based on their recent product use and decision-making or procurement responsibilities, ensuring informed assessments of equipment and service performance. For the qualitative component, eight purposively chosen informants five internal stakeholders with customer-facing roles and three external clients from different sectors and relationship durations were interviewed to enrich the analysis with operational and strategic viewpoints.

The quantitative data were obtained through a structured questionnaire developed from established measures of equipment quality, technical support, and

customer satisfaction adapted from prior industrial service studies. Each construct was measured using a 10-point Likert scale, allowing respondents to express nuanced evaluations of performance and satisfaction. The questionnaire underwent a multi-stage validation process to ensure reliability and clarity. First, content validity was verified through expert reviews by three academics specializing in marketing research and two professionals with experience in the survey technology industry. Their feedback led to refinements in question wording and construct alignment with industrial realities. Second, a pilot test with eight participants was conducted to evaluate question clarity and respondent comprehension. Based on their feedback, minor revisions were made to ensure consistency across interpretations.

To ensure measurement reliability, internal consistency was evaluated using Cronbach's alpha coefficients. The results confirmed strong reliability for all constructs: equipment quality ($\alpha = 0.82$), technical support ($\alpha = 0.79$), and customer satisfaction ($\alpha = 0.85$), all exceeding the minimum threshold of 0.70. The final questionnaire was then distributed through multiple channels, including electronic mail, telephone interviews, and in-person administration, to accommodate diverse respondent preferences. This approach resulted in a 72% response rate, which significantly exceeded typical B2B survey standards and reflected the strong trust relationships maintained by Geotronix with its clients. The robustness of this data collection process ensured that the resulting dataset was both reliable and representative of the company's industrial customer base.

The qualitative data were collected through semi-structured interviews guided by theoretical constructs from Solomon's Consumer Perception Model (2018) and Peter & Olson's Cognitive Processing Model (2010). These models informed the development of interview questions designed to explore how clients evaluate providers, prioritize product and service attributes, and form satisfaction judgments over time. Interviews began with open-ended questions that encouraged participants to share their experiences freely, followed by targeted probes exploring emerging themes. Each interview lasted between 25 and 40 minutes and was conducted in a private and comfortable setting to facilitate open dialogue. With the participants' consent, all interviews were audio-recorded, transcribed verbatim, and supplemented with

field notes capturing contextual observations and non-verbal cues

Quantitative data were analyzed using SPSS version 26, employing both descriptive and inferential statistical procedures. Descriptive statistics were used to summarize respondent profiles and central tendencies of variables, providing an overview of the data distribution. Pearson correlation analysis was then conducted to test hypothesized relationships between equipment quality, technical support, and customer satisfaction. Before analysis, standard statistical assumptions including normality, linearity, and absence of outliers were verified to ensure the validity of results. Statistical significance was determined at $p < 0.05$, while effect sizes were interpreted using Cohen et al (2021) guidelines, where coefficients between 0.10–0.29 indicated small effects, 0.30–0.49 moderate effects, and values above 0.50 large effects. This dual focus on statistical and practical significance provided a comprehensive understanding of variable relationships. Qualitative data analysis followed the six-phase thematic analysis procedure by Braun & Clarke (2006), using NVivo 12 for data organization and coding. The analysis began with repeated readings of transcripts to achieve data familiarization and preliminary pattern recognition. Deductive coding was used to apply theoretical constructs derived from Solomon (2018) and Peter & Olson (2010), ensuring alignment with behavioral and cognitive dimensions of satisfaction. Simultaneously, inductive coding allowed the emergence of new, context-specific insights grounded in the empirical data. Codes were systematically grouped into categories, refined into themes, and validated for coherence and distinction. Final themes were linked to theoretical constructs, illustrating how perceptual and cognitive mechanisms jointly explain customer satisfaction formation.

Integration of quantitative and qualitative findings occurred in the interpretation phase following the convergent mixed-methods principle. Both datasets were analyzed separately before being merged to identify points of convergence, complementarity, or divergence. Quantitative correlations were contextualized through qualitative narratives that explained the underlying psychological and behavioral processes. Conversely, emergent qualitative themes were assessed for their implications for quantitative refinement and future hypothesis development. This analytical integration enabled the research to connect

statistical associations with experiential explanations, thus enhancing theoretical robustness and empirical validity.

The hypotheses in this study were formulated based on established consumer behavior theory and supported by empirical findings from industrial-market research. The conceptual framework identifies two behavioral pathways that shape customer satisfaction in B2B survey-technology procurement: perceptual evaluation of equipment quality and cognitive processing of technical support experiences.

Equipment Quality and Customer Satisfaction

In industrial procurement, equipment quality is a primary perceptual cue through which customers assess a provider's capability. According to Solomon's Consumer Perception Model (2018), product attributes such as reliability, accuracy, and durability shape evaluations by reducing operational uncertainty and reinforcing confidence in performance. High-quality equipment delivers functional benefits that directly enhance productivity and minimize risk. Prior studies similarly confirm the positive influence of product quality on satisfaction in technical and industrial markets (Bashir et al. 2024; Heirati et al. 2024) business-to-business (B2B).

H1: Equipment quality has a positive and significant effect on customer satisfaction in B2B survey-technology procurement.

Technical Support and Cognitive Processing

Technical support contributes to satisfaction through cognitive mechanisms shaped by repeated service encounters. As explained by Peter and Olson's Cognitive Processing Model (2010), customers form mental representations of reliability and competence based on their cumulative interactions with service providers. Positive experiences such as timely assistance and effective problem resolution reinforce trust and strengthen long-term relational judgments. Empirical research shows that strong technical support significantly enhances customer satisfaction and retention in technology-driven service industries (Cui et al. 2021; O. Hayes & Kelliher, 2025).

H2: Technical support has a positive and significant effect on customer satisfaction in B2B survey-technology procurement.

The conceptual framework (Figure 1) integrates Solomon's Consumer Perception Model (2018) and Peter & Olson's Cognitive Processing Model (2010) to explain how customers form satisfaction judgments through dual pathways. On the perceptual pathway, customers evaluate tangible product attributes such as equipment accuracy, durability, and reliability, forming immediate sensory impressions that anchor satisfaction judgments. On the cognitive pathway, repeated experiences with technical support shape trust, reduce uncertainty, and reinforce satisfaction through accumulated knowledge and emotional assurance. These two mechanisms operate concurrently and interdependently, ultimately determining overall customer satisfaction. The integration of both models thus reflects a holistic behavioral understanding of industrial relationship dynamics where product excellence and service experience jointly drive satisfaction and loyalty.

RESULTS

Quantitative Findings: Survey Analysis

This section presents quantitative analysis results derived from survey data collected from fifty clients of Geotronix Pratama Indonesia across three industrial sectors: construction project management, oil and gas exploration, and environmental consulting services. The analysis tested two hypotheses concerning equipment quality and technical support influences on customer satisfaction in business-to-business survey technology contexts. A ten-point Likert scale captured nuanced client perceptions across multiple service dimensions, with data collected between January and April 2025 from respondents holding procurement decision-making authority. The dataset provided robust empirical foundation for statistical testing of key behavioral factors influencing satisfaction in high-involvement industrial procurement environments.

Descriptive statistical analysis indicated favorable client evaluations across measured dimensions, reflecting consistently positive perceptions of Geotronix's performance. Mean satisfaction scores ranged from 7.2 to 8.5 on the ten-point scale, demonstrating responses well above the midpoint. Equipment quality achieved the highest mean score, underscoring its centrality in shaping client judgments about provider competence, while technical support ranked second, suggesting

responsiveness and assistance quality remain pivotal for sustaining long-term satisfaction. These findings reinforce the assumption that both hypothesized variables play dominant roles within cognitive and perceptual frameworks industrial clients employ to evaluate suppliers.

To enhance interpretation, a correlation heatmap visualized interrelationships among main variables, providing intuitive overview of how service dimensions correlated with overall satisfaction through color-coded

gradients (Figure 2). Darker red tones represented stronger positive relationships, while lighter hues indicated weaker associations. The correlation between equipment quality and satisfaction displayed the most intense red shading, visually affirming strong positive linkage between these constructs. This graphical evidence complements subsequent statistical correlation coefficients while offering accessible representation of how key service attributes contribute to customer satisfaction patterns across Geotronix's industrial client base.

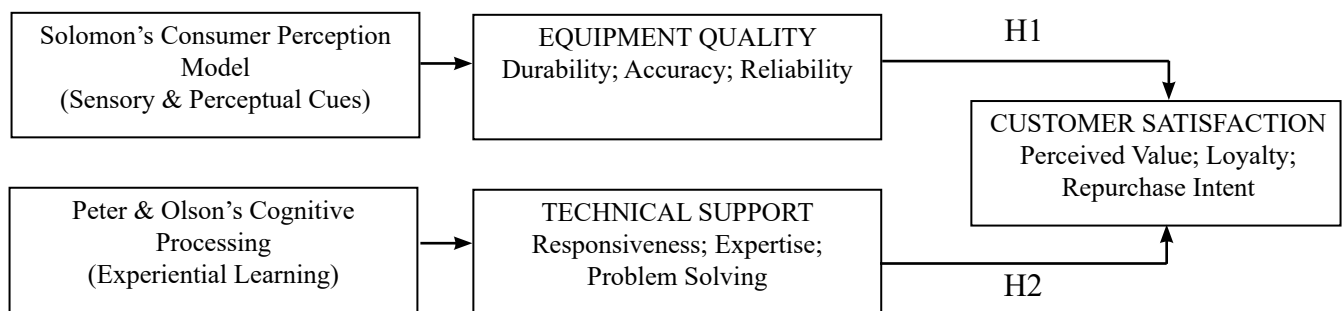


Figure 1. Research conceptual framework



Note: The heatmap visualizes correlation coefficients between key service attributes and customer satisfaction. Equipment Quality demonstrates the strongest positive correlation ($r = 0.67^{**}$, $p < 0.01$), indicated by the darkest red shading. Technical Support shows a moderate positive correlation ($r = 0.34^*$, $p < 0.05$), represented by lighter red tones. Darker red indicates stronger positive relationships, while lighter colors represent weaker associations. Equipment Quality exhibits a large effect size (Cohen's $d > 0.50$), confirming its substantial influence on satisfaction, whereas Technical Support demonstrates a moderate effect size (Cohen's $d = 0.30-0.49$), reflecting its conditional but significant impact on relationship quality.

Figure 2. Pearson correlation heatmap illustrating relationship strengths between equipment quality, technical support, and overall customer satisfaction in b2b survey technology procurement

The correlation heatmap reveals distinct patterns in service attribute influences on customer satisfaction. Equipment Quality emerges as the primary satisfaction driver ($r = 0.67, p < 0.01$), accounting for substantial variance in client evaluations and functioning as a perceptual anchor in supplier assessment processes.** Technical Support demonstrates moderate yet significant influence ($r = 0.34^*, p < 0.05$), operating as a trust-building mechanism that sustains relationships through accumulated positive service experiences. The color gradations confirm that tangible product performance and responsive service jointly shape satisfaction outcomes, with equipment reliability serving as a qualifying condition before service quality enters client evaluation frameworks. These visual patterns align with theoretical expectations from Solomon's Consumer Perception Model and Peter and Olson's Cognitive Processing Model, wherein perceptual cues and experiential learning interact to determine overall satisfaction. The heatmap provides intuitive diagnostic insight into managerial decision-making, highlighting priority areas for continuous improvement to maximize customer satisfaction in high-involvement industrial procurement contexts.

To formally test hypotheses (Table 1), Pearson correlation analysis was employed as the primary inferential statistical technique. This method was selected because all measured variables were continuous, normally distributed, and theoretically expected to exhibit linear relationships with satisfaction. Diagnostic checks confirmed the dataset met essential assumptions, including normality of

variable distributions, absence of extreme outliers, and linearity in scatterplot patterns. Statistical significance was evaluated at the 0.05 alpha level, ensuring observed correlations with p-values below this threshold were unlikely to occur by random variation. The correlation results provide empirical evidence of relationships proposed in the research model, confirming theoretical linkages between equipment quality, technical support, and customer satisfaction.

Empirical findings confirm both equipment quality and technical support exhibit statistically significant positive relationships with customer satisfaction, providing empirical support for both research hypotheses. The correlation coefficient for equipment quality and satisfaction ($r = 0.67, p < 0.01$) indicates a strong positive association statistically significant at the 0.01 alpha level, reflecting very low probability this relationship occurred by random chance. According to Cohen's effect size classification, a correlation of 0.67 represents a large effect, suggesting equipment quality accounts for substantial variance in satisfaction evaluations. This result underscores that perceived reliability, durability, measurement accuracy, and field performance of Geotronix's instruments play central roles in shaping satisfaction judgments among industrial clients. The magnitude aligns with Solomon's Consumer Perception Model, which posits that tangible product attributes functioning as sensory cues exert strong influence on customer value assessments in high-involvement industrial procurement contexts where equipment performance directly affects project success.

Table 1. Pearson correlation analysis results for hypothesis testing: relationships between equipment quality, technical support, and customer satisfaction in b2b survey technology context

Hypothesis	Independent Variable	Dependent Variable	Pearson r	p-value	Effect Size	Decision
H1	Equipment Quality	Customer Satisfaction	0.67	< 0.01	Large (Strong)	Accepted
H2	Technical Support	Customer Satisfaction	0.34	< 0.05	Moderate	Accepted

Similarly, technical support demonstrated statistically significant positive correlation with satisfaction ($r = 0.34$, $p < 0.05$), although its effect size is moderate rather than large. This result confirms the relationship is unlikely to have occurred by sampling variability alone, and while smaller in magnitude than equipment quality, the correlation holds practical and managerial significance by highlighting the essential contribution of responsive support services to long-term satisfaction. The observed pattern supports Peter and Olson's Cognitive Processing Model, which suggests post-purchase experiences such as problem resolution and communication quality build trust and reinforce relationship strength through cumulative positive interactions. The moderate correlation reflects that technical support primarily affects satisfaction among clients requiring assistance, whereas equipment quality influences all clients universally. Moreover, technical support's impact may be partially indirect, enhancing intermediate constructs such as trust and commitment, which in turn drive satisfaction and relationship continuity. Together, these statistical outcomes confirm both hypotheses while illuminating distinct behavioral mechanisms through which product and service attributes jointly determine satisfaction within complex industrial relationships.

These quantitative findings provide strong empirical validation for the study's conceptual framework by demonstrating equipment quality and technical support function as critical behavioral drivers of satisfaction in business-to-business survey technology procurement. However, while correlation analysis quantifies relationship strength and direction, it cannot reveal underlying cognitive and perceptual mechanisms through which these factors influence customer judgments. To address this limitation and provide deeper behavioral insight, the research incorporated a qualitative phase involving semi-structured interviews with internal stakeholders and external clients. The qualitative findings complement statistical results by explaining how clients interpret product performance, perceive reliability, and form relational trust based on service experiences. This convergent mixed-methods design enables triangulation of evidence from multiple sources, producing comprehensive and credible understanding of satisfaction formation in high-risk, technically complex business-to-business environments.

Qualitative Findings: Thematic Insights from Interviews

To complement quantitative findings and enrich understanding of behavioral mechanisms shaping customer satisfaction, this section presents insights from semi-structured interviews conducted with five internal stakeholders and three key external clients of Geotronix Pratama Indonesia. Participants were purposively selected to represent varied organizational roles and industrial sectors, ensuring comprehensive perspectives from both provider and client sides. The interview guide was grounded in Solomon's Consumer Perception Model and Peter and Olson's Cognitive Processing Model, enabling systematic exploration of perceptual and cognitive dimensions of satisfaction. All interviews were recorded with consent, transcribed verbatim, and analyzed using NVivo 12 following Braun and Clarke's thematic analysis procedure. The iterative coding and constant comparison process identified two dominant convergent themes providing rich contextual explanations of quantitative correlations: Equipment Quality as Primary Cognitive Filter and Perceptual Anchor, and Technical Support as Trust-Enabling Mechanism and Relationship Sustainer.

Theme 1: Equipment Quality as Primary Cognitive Filter and Perceptual Anchor

Across client interviews, equipment quality consistently emerged as the most influential factor shaping satisfaction judgments and overall perceptions of provider reliability. Respondents emphasized that durability, measurement accuracy, and reliability under field conditions were non-negotiable criteria for continued supplier engagement, particularly in industries where operational failures entail significant financial and safety consequences. Clients described equipment reliability not as a competitive differentiator but as a qualifying condition, a fundamental expectation that must be met before service quality considerations enter evaluation processes. As one construction client explained, *"We use Geotronix equipment in remote and demanding environments. Reliability is non-negotiable. If the instruments fail, our entire project timeline collapses."* This statement underscores how product dependability serves as both perceptual filter and cognitive anchor shaping subsequent satisfaction judgments, aligning with (Solomon, 2018) proposition that tangible product cues strongly influence perceived value in high-involvement decisions.

Internal stakeholders echoed this sentiment, confirming client evaluations typically begin with assessments of product robustness before progressing to service attributes. A technical staff member noted, “*Clients always start by evaluating whether our instruments can survive the field. Their first impression is always about the gear, not about service.*” This observation confirms that customers in industrial markets employ sequential evaluation processes, first validating technical performance before assessing relational quality, aligning with established decision-making theory where high-stakes buyers manage cognitive load by filtering alternatives based on tangible performance. The convergence between client and staff perspectives demonstrates that equipment quality operates as a perceptual gateway to trust formation, serving as symbolic representation of provider competence and credibility. These findings provide mechanistic explanation for the strong correlation between equipment quality and satisfaction ($r = 0.67$, $p < 0.01$) by revealing how sensory-based evaluations anchor long-term perceptions of reliability and value.

Theme 2: Technical Support as Trust-Enabling Mechanism and Relationship Sustainer

The second major theme highlights technical support as a critical relational mechanism sustaining satisfaction and enabling long-term partnership continuity. While product quality forms the foundation of trust, responsive and reliable support transforms initial positive impressions into enduring loyalty. Clients repeatedly cited rapid response times, technical competence, and clear communication as key attributes differentiating Geotronix from competitors. One oil and gas client articulated, “*The reason we continue using Geotronix is not just the equipment. It’s their people. When something breaks down, they send someone within 24 hours. That builds trust.*” This statement illustrates how support quality functions as affective and cognitive trust enabler, reducing perceived risk and reinforcing customer confidence in provider dependability. The association aligns with (Peter & Olson, 2010) framework, which conceptualizes satisfaction as progressive outcome of accumulated experiences strengthening internal cognitive representations of reliability.

Internal stakeholders provided corroborating evidence that technical support serves as strategic relationship-management function rather than reactive service. As one customer service representative explained, “*We*

treat every support request as part of client retention. It’s not after-sales; it’s relationship management.” This insight demonstrates organizational awareness that support interactions serve as repeated opportunities for relationship reinforcement and emotional engagement, embodying relational marketing approaches emphasizing consistent engagement and problem-solving partnership over one-time transactions. The qualitative evidence provides context for the moderate but significant correlation between technical support and satisfaction ($r = 0.34$, $p < 0.05$), illustrating that support effectiveness exerts cumulative influence on satisfaction primarily through trust, commitment, and perceived relationship quality rather than immediate performance outcomes. The findings suggest support quality affects satisfaction asymmetrically—its impact intensifies among clients experiencing issues requiring assistance, while remaining latent among those without service incidents.

Integrative Interpretation

Synthesizing these themes provides holistic understanding of how customer satisfaction develops in business-to-business survey technology markets. Equipment quality functions as perceptual foundation of satisfaction serving as both initial filter and enduring cognitive anchor while technical support operates as experiential mechanism maintaining or strengthening trust over time. This interaction illustrates that satisfaction in industrial procurement results from interplay between rational product evaluations and affective relationship reinforcements. Within this dual-process framework, Solomon’s perceptual model explains the origin of customer confidence, while Peter and Olson’s cognitive model elucidates its evolution through accumulated service encounters. These findings reveal that in high-involvement, risk-intensive contexts such as geospatial technology procurement, customer satisfaction emerges through dual mechanisms: perceptual assurance of equipment reliability and cognitive reinforcement through consistent service experiences. Together, these mechanisms provide empirical and theoretical basis for understanding how industrial clients form, sustain, and deepen satisfaction within long-term provider relationships.

Integrating quantitative and qualitative findings clarifies behavioral factors influencing customer satisfaction in business-to-business survey technology markets. Results confirm equipment quality and technical

support as primary satisfaction drivers, each operating through distinct mechanisms. The convergent mixed methods design enabled triangulation of statistical evidence with experiential narratives, strengthening validity and interpretive depth. This integrated approach demonstrates that perceptual evaluations and cognitive learning jointly shape industrial customer satisfaction. The strong positive relationship between equipment quality and satisfaction ($r = 0.67$, $p < 0.01$) aligns with Solomon's Consumer Perception Model. Clients assessed durability, accuracy, and reliability as initial perceptual filters anchoring subsequent evaluations. Qualitative evidence revealed equipment quality functions as a qualifying condition rather than competitive differentiator. This perceptual anchoring proved particularly pronounced among newer clients lacking extensive service interaction history.

Technical support demonstrated moderate yet significant correlation with satisfaction ($r = 0.34$, $p < 0.05$), operating as a trust-building mechanism consistent with Peter and Olson's Cognitive Processing Model. Equipment quality drove initial impressions through perceptual pathways, whereas technical support sustained relationships through cognitive reinforcement. Interview data revealed support quality affected satisfaction asymmetrically, intensifying among clients experiencing service issues. This pattern suggests technical support functions as relationship insurance mechanism becoming salient during critical moments.

Integrating both frameworks demonstrates that business-to-business satisfaction arises from perceptual assessments and experiential dimensions. Moreover, satisfaction drivers evolved across relationship stages, with newer clients prioritizing equipment performance and established clients emphasizing technical support and partnership value (Heirati et al. 2024; Tikakul & Thomson, 2016). These findings suggest firms must adapt value propositions based on client relationship maturity.

For practitioners, findings suggest implementing dual strategic focus balancing product excellence with service responsiveness. Equipment quality requires sustained investment in engineering excellence communicated through technical documentation and field demonstrations. Technical support systems must evolve toward proactive relationship management incorporating rapid response mechanisms and clearly

defined service agreements. Behavior-based customer relationship management systems should track client tenure and usage patterns to enable sophisticated segmentation, with marketing communications emphasizing equipment reliability for prospects and partnership value for mature accounts.

Managerial Implications

The findings indicate that managerial decisions in the B2B survey-technology industry should prioritize two areas: product quality and technical support. Strong perceptual responses to equipment performance suggest that firms must consistently maintain and upgrade product reliability, accuracy, and durability. Meanwhile, the role of technical support in reinforcing customer trust highlights the need for structured service protocols, faster response times, and proactive maintenance engagement. By integrating behavior-based CRM systems that capture interaction histories and equipment usage trends, managers can deliver more personalized service strategies, reduce client churn, and strengthen long-term partnerships.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Customer satisfaction in business-to-business survey technology markets is shaped by two complementary pathways: perceptual evaluation of product quality and cognitive learning from service experiences. Equipment quality ($r = 0.67$, $p < 0.01$) forms the foundation of trust through tangible performance attributes, while technical support ($r = 0.34$, $p < 0.05$) sustains relationships through cumulative positive interactions. These findings demonstrate that satisfaction drivers evolve across relationship stages, with newer clients prioritizing equipment capabilities and established clients emphasizing partnership value.

Integrating Solomon's Consumer Perception Model and Peter & Olson's Cognitive Processing Model reveals that industrial clients assess both immediate product performance and long-term service reliability. For sustainable competitive advantage, organizations must achieve excellence in both dimensions, supported by behavior-based customer relationship management strategies that adapt to client relationship maturity. This study pioneers the dual application of these behavioral

frameworks in Southeast Asian business-to-business contexts, offering a validated model linking perception, cognition, and industrial satisfaction. The findings bridge theoretical gaps while providing actionable insights for firms transitioning from product-centric to customer-centric business models in high-involvement technical markets.

Recommendations

Practitioners are advised to adopt integrated service packages that combine reliable equipment with continuous technical support and client training. Firms should also invest in digital CRM platforms capable of predicting service needs and personalizing communication for new and existing customers. Further research is recommended to examine satisfaction dynamics through longitudinal studies, cross-industry comparisons, and the use of predictive analytics or machine learning to understand evolving customer behavior in B2B procurement.

FUNDING STATEMENT: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

CONFLICTS OF INTEREST: The authors declare no conflict of interest.

DECLARATION OF GENERATIVE AI STATEMENT: During the preparation of this work, the authors used ChatGPT to assist in checking grammar, improving language clarity, and polishing the academic writing style. After using this tool, the authors carefully reviewed, edited, and validated all content to ensure accuracy, originality, and consistency with the research objectives. The authors take full responsibility for the content of the published article.

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