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THE ROLE OF TECHNICAL COMMUNICATION BY THAI STAFF IN INFORMATION TECHNOLOGY EQUIPMENT RETAILERS IN BANGKOK ON CUSTOMER SATISFACTION AND BRAND TRUST: A CORRELATION ANALYSIS

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ABSTRACT

This study examined the role of technical communication by Thai staff in information technology equipment retailers in Bangkok in relation to customer satisfaction and brand trust. Data were collected through an online survey of 300 respondents who were customers of technology service centers in Bangkok, selected via a convenience sampling method. The study analyzed the relationships among customers' need for staff proficiency in English technical vocabulary, satisfaction with the staff's use of technical terminology, and brand trust. Descriptive statistics, including mean and standard deviation, alongside Pearson's correlation analysis, were employed. The results indicated a significant positive influence of customers' demand for staff's technical English skills on their satisfaction with the staff's technical communication. In turn, customer satisfaction was found to positively impact staff responsiveness, thereby enhancing brand trust. Furthermore, an indirect positive effect of customer demand for technical communication on brand trust was identified, mediated by customer satisfaction. The research underscores the critical role of effective technical communication in enhancing customer experience, aligning with customer expectations for clear technical explanations, increasing satisfaction, and fostering trust in the brand's expertise and reliability.

Keywords: Technical Communication; Customer Satisfaction; Brand Trust



INTRODUCTION

In today's highly competitive business landscape, ensuring customer satisfaction and trust is crucial, especially in technically complex industries like IT, automotive, and healthcare. Effective communication of product and service information is key to positive customer experiences. However, the use of specialized terminology in technical communication can be challenging for customers with limited expertise, potentially leading to confusion, misunderstanding, and feelings of neglect, which can negatively impact satisfaction and trust (Faber, Petersen & Staal, 1998, p. 15; Wong, 2017, p. 125; Redish, 2007, p. 20). In IT equipment retail stores, customers may be confused when staff use overly complex technical terms. This can lead to incorrect purchasing decisions or dissatisfaction later on. Meanwhile, retailers might lose business opportunities if they fail to effectively communicate product features and benefits. These concerns may cause uncertainty, misunderstanding, and feelings of neglect, all of which can have a detrimental influence on satisfaction and trust.

Bangkok's IT equipment retail industry has grown rapidly in recent years, with both large retail chains and independent stores. The intense competition has made service quality and staff communication skills crucial factors in differentiation. In this context, Thai sales staff in IT equipment retail stores play a vital role as intermediaries between complex technology and customers, needing to use technical communication skills in both Thai and English to provide accurate and easily understandable information. Conversely, using technical terminology at a level appropriate to customers' knowledge and needs, adhering to "user-centered communication" (Redish, 2007, p. 20), can help customers clearly understand and perceive the value of products and services, leading to satisfaction and trust. Therefore, examining the connection between technical terminology used in customer communication, satisfaction, and brand trust is crucial from both academic and practical perspectives. It provides insights into how communication affects consumer perceptions and attitudes and assists businesses in developing effective, customer-centric technical communication strategies. Effective technical communication not only helps customers better understand products but also affects customer satisfaction and brand trust. When customers obtain clear information that suits their demands, they are more likely to be content with their purchase and establish trust in the brand's competency.



The use of technical terms and jargon differ in their prevalence, impact, and context. Technical terms have specific meanings within a field, while jargon is often used for intragroup communication and may exclude outsiders (Anderson, Online, 2017). Technical communication is a primary tool for distributing specialized knowledge to specific audiences through various forms, such as user manuals, technical reports, and multimedia content (Johnson-Sheehan, 2018, pp. 5-6). The process involves audience analysis, information management, content creation, and testing. Effective technical communication is essential for customer satisfaction, particularly in customer service contexts (Markel & Selber, 2018, p. 30; Byrne, 2007, p. 22). Customer satisfaction has a significant impact on an organization's performance and competitiveness. It is an ongoing process influenced by factors such as perceived value, convenience, brand reputation, and past experiences. Measuring satisfaction helps businesses improve their performance and identify areas for development. Brand trust, which refers to customers' confidence in a brand's reliability and integrity, plays a vital role in shaping customer behavior and loyalty, especially in high-involvement IT purchases (Delgado-Ballester & Munuera-Alemán, 2005, p. 190). Factors such as perceived quality, brand image, and customer satisfaction are significant predictors of brand trust (Ha & Perks, 2005, p. 445).

Studies have explored the positive relationship between technical communication skills and customer satisfaction in various industries (Dastoom, Naseem, Hussain & Jaffar, 2019, p. 305) emphasizing the importance of tailoring communication to the audience's knowledge level. Research has also confirmed a positive relationship between customer satisfaction and brand trust (Ha & Perks, 2005, p. 448; Piriyakul, Wongchuer & Satiman, 2015, p. 24; Delgado-Ballester & Munuera-Aleman, 2005, p. 192; Horppu, Kuivalainen, Tarkiainen & Ellonen, 2008, p. 408). However, studies on the impact of technical communication on Thai customers' satisfaction and trust are limited.

The use of technical terminology in customer communication has been a topic of interest in recent research. Appropriate use of technical terms can enhance perceptions and intentions, while overuse may cause confusion (Jandová, 2016, p. 55; Wong, 2017, p. 130). "User-centered" communication considers audience knowledge and uses various techniques to aid understanding (Redish, 2007, p. 22; Byrne, 2007, p. 25). Although previous research has examined



the relationship between technical communication and customer satisfaction, as well as the relationship between customer satisfaction and brand trust, few studies simultaneously investigate the relationship between all three factors, presenting a research gap. Swaen & Chumpitaz (2008, p. 268) linked corporate social responsibility, trust, and satisfaction, but did not focus on technical communication specifically. From the literature review, while there are some studies on the relationship between technical communication, customer satisfaction, and brand trust, there is still a lack of clear and comprehensive research, particularly in considering the relationship between all three factors simultaneously, which presents a gap for further investigation.

RESEARCH OBJECTIVES

1. Assess customer satisfaction with employees' technical communication
2. Analyze the relationship between technical terms, satisfaction, and trust
3. Identify key factors in technical communication influencing satisfaction and trust

RESEARCH HYPOTHESIS

Empirical evidence supports the link between technical communication, satisfaction, and trust (Byrne, 2007, p. 18; Sun & Kim, 2022, p. 25; Cuong, 2020, p. 695). However, no research has systematically examined the causal relationship between all three factors. The proposed hypotheses are:

H1: Technical Communication positively influences Customer Satisfaction

H2: Customer Satisfaction positively influences Brand Trust

H3: Technical Communication indirectly influences Brand Trust through Customer Satisfaction



RESEARCH FRAMEWORK

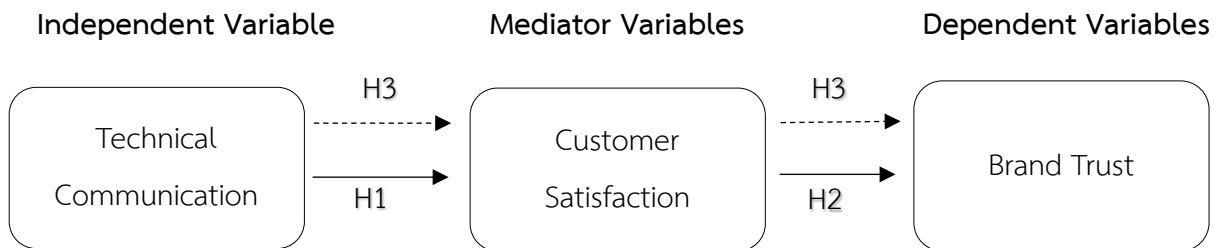


Figure1 Research Framework

METHODOLOGY

Population and Sample The population for this study consisted of customers who visited technology service centers in Bangkok. According to the Official Statistics Registration Systems, Department of Provincial Administration, Ministry of Interior (Online, 2023), the total population of Bangkok as of December 2022 was 5,537,283. The sample size was determined using Taro Yamane's formula (Yamane, 1967, p. 886, as cited in Singh & Masuku, 2014, p. 5) with a 95% confidence level and a margin of error of .05, resulting in a required sample size of 400. However, due to limitations in time and resources, the researcher collected the data from 300 respondents. The sample was drawn using a convenience sampling method. The reduction in sample size may have some impact on the accuracy of the study results, thereby increasing the inaccuracy in calculating population parameters. However, a sample size of 300 is still regarded as enough for statistical analysis and valid findings, particularly when combined with suitable sampling methods.

The researcher acknowledges this limitation and has used appropriate statistical methods in data analysis. This limitation is also noted in the discussion of results to allow readers to consider the research findings appropriately.

Research Instrument The research instrument was an online questionnaire consisting of 4 parts: Part 1 for personal information of the respondents (5 items), Part 2 for customer needs for salespeople's use of English technical vocabulary skills (10 items, 5-point Likert scale), Part 3 for customer satisfaction with salespeople's English technical vocabulary skills (7 items, 5-point



Likert scale), and Part 4 for brand trust (5 items, 5-point Likert scale). The quality of the research instrument was assessed for content validity by three experts using the Index of Item-Objective Congruence (IOC) method (Turner & Carlson, 2003, p. 164). The IOC values for all items were greater than .50, indicating acceptable content validity. The IOC values for all items ranged from .67 to 1, which is greater than the stipulated requirement of .50, suggesting that the research instrument has adequate content validity. The reliability of the questionnaire was tested using Cronbach's alpha coefficient (Wanichthanarak, 2001, p. 125). Cronbach's alpha results for Parts 2, 3, and 4 were .92, .87, and .89, accordingly indicating strong internal consistency.

Data Collection The data were collected using an online survey distributed through social media platforms and email to customers who had visited technology service centers in Bangkok. The data collection took place from February to March 2024. To address potential limitations of online surveys, including sample representativeness, low response rates, and reliability concerns, the researcher implemented several measures. These included using screening questions to ensure target group accuracy, designing a concise and engaging questionnaire to boost responses, and incorporating attention checks to screen unreliable answers. These approaches were designed to increase the overall dependability and correctness of the information gathered.

Data Analysis Descriptive statistics, including mean and standard deviation, were used to analyze the personal information of the respondents and the levels of customer needs, satisfaction, and brand trust. The interpretation of the mean scores was based on the following criteria: 4.50-5.00 for the highest level, 3.50-4.49 for a high level, 2.50-3.49 for a moderate level, 1.50-2.49 for a low level, and 1.00-1.49 for the lowest level (Warmbrod, 2014, p. 32). Inferential statistics, including Pearson's product-moment correlation coefficient, were employed to examine the relationships between the variables. The interpretation of the correlation coefficients was based on the following criteria: .90-1 for a very high correlation, .70-.89 for a high correlation, .50-.69 for a moderate correlation, .30-.49 for a low correlation, and .00-.29 for little if any correlation (Schober, Boer & Schwarte, 2018, p. 1765). The statistical significance level was set at .05 for all tests.



RESULT

Part 1 Personal Information

A survey of 300 respondents at a technology service center revealed a diverse demographic profile. The majority of respondents were females (39.46%), followed by men (54.55%) and individuals who were LGBTQ (5.99%). The age ranges with the highest impact were 21-30 years old (43.28%), 31-40 years old (35.56%), and younger than 20 years old (21.16%). Almost all respondents (97.01%) had a bachelor's degree, and 74.25% earned 40,000 Thai Baht or less each month.

Most clients (71.26%) had visited the center at least once in the previous six months, mostly to purchase goods and services (29.94%). The most popular buying reasons were efficiency (12.57%) and convenience (11.38%). Brand promotions (5.39%), sales staff recommendations (4.79%), and new product availability (7.78%) were the most common purchasing factors.

Part 2 Result on Needs, Satisfaction, Brand Trust

Table 1 The Needs of English Technical Vocabulary in IT Product Communications

| Statement | Mean | SD | Level |
|--|------|------|-------|
| 5.1.1 NEEDLIS1 [Listening to English technical terms correctly] | 3.68 | 0.90 | High |
| 5.1.2 NEEDLIS2 [Understand conversations using technical English vocabulary] | 3.65 | 0.90 | High |
| 5.1.3 NEEDLIS3 [Listening and understanding in meetings] | 3.72 | 0.93 | High |
| 5.2.1 NEEDSP [Discuss general knowledge and understanding] | 3.73 | 0.82 | High |
| 5.2.2 NEEDSP [Ask about customer needs and answer questions accurately] | 3.78 | 0.95 | High |
| 5.2.3 NEEDSP [Contains suggestions and sales conversations] | 3.75 | 0.87 | High |



Table 1 (Continue)

| Statement | Mean | SD | Level |
|---|------|------|----------|
| 5.3.1 NEEDRE1 [Able to read and understand technical terms in English] | 3.54 | 1.06 | High |
| 5.3.2 NEEDRE2 [Reading and understanding the information on product packaging] | 3.55 | 1.09 | High |
| 5.4.1 NEEDWri1 [Writing product names and other specific English technical terms correctly] | 3.41 | 0.88 | Moderate |
| 5.4.2 NEEDWri2 [Answer emails using technical English vocabulary] | 3.39 | 1.09 | Moderate |
| 5.4.3 NEEDWri3 [Write technical vocabulary in English correctly while communicating with customers] | 3.34 | 1.19 | Moderate |

Table 1 The survey results (mean scores: listening 3.65-3.72, $SD=0.90-0.93$; speaking slightly over 3.70, $SD=0.82-0.95$; reading/writing 3.54 or below, $SD=0.88-1.19$) underscore the perceived importance of staff proficiency in using English technical vocabulary for effective communication. Listening comprehension of technical terms ranked as the most crucial, followed by speaking for technical discussions. Reading and writing technical English were seen as relatively important but less so than listening and speaking abilities.

Table 2 Consumer Perceptions of Brand Trust in IT Products

| Statement | Mean | SD | Level |
|---|------|------|-------|
| BT1: Confidence in well-known technology product brands | 4.13 | 0.77 | High |
| BT2: Safety of brands recommended by sales staff | 4.20 | 0.70 | High |
| BT3: Trust in brands that sales staff can really trust | 4.16 | 0.84 | High |
| BT4: Effectiveness of brands recommended by sales staff | 4.23 | 0.76 | High |
| BT5: Confidence in the quality of brands recommended by sales staff | 4.25 | 0.80 | High |



Table 2 The survey revealed strong brand trust among respondents for brands recommended by staff. On a 5-point scale, average ratings ranged from 4.13 to 4.25, with standard deviations of 0.70 and 0.84, showing consistently high levels of confidence. Respondents believed strongly in well-known brands (Mean=4.13, $SD=0.77$), viewed them as safe (Mean=4.20, $SD=0.70$), held them in high respect (Mean=4.16, $SD=0.84$), trusted their efficacy (Mean=4.23, $SD=0.76$), and were confident in their quality (Mean=4.25, $SD=0.80$). All these aspects were rated at a 'High' level on the scale. Overall, a high level of trust was demonstrated albeit with some variation.

Part 3 Correlation Analysis and Hypothesis Testing

Correlation and regression analyses examined the relationships between customer needs for technical communication (NEED), customer satisfaction (SAT), and brand trust. Tables 3 and 4 present the results of these analyses, providing insights into the interconnections among these key variables and the outcomes of hypothesis testing.

Table 3 Correlation Matrix of Main Variables

| Variable | 1. NEED | 2. SAT | 3. Brand Trust |
|--------------------------------|---------|--------|----------------|
| 1. Customer Needs (NEED) | 1 | | |
| 2. Customer Satisfaction (SAT) | .33** | 1 | |
| 3. Brand Trust | .38** | .53** | 1 |

** $p<.01$

Table 3 Analysis of correlations:

1. Relationship between NEED and SAT: A low positive correlation ($r=.33^{**}$, $p<.01$) was found between customer needs for staff's technical communication skills (NEED) and customer satisfaction (SAT). This suggests that higher customer needs for technical communication are associated with slightly higher levels of satisfaction.

2. Relationship between SAT and Brand Trust: A moderate positive correlation ($r=.53^{**}$, $p<.01$) was observed between customer satisfaction (SAT) and brand trust. This indicates that higher levels of customer satisfaction are associated with higher levels of brand trust.



3. Relationship between NEED and Brand Trust: A low positive correlation ($r=.38^{**}$, $p<.01$) was found between NEED and Brand Trust, suggesting a weak direct relationship between customer needs for technical communication and brand trust.

Table 4 Summary of Hypothesis Testing and Regression Analysis

| Hypothesis | Relationship | Correlation Coefficient | β | p | Conclusion |
|------------|--|-------------------------|---------|-------|-------------------------|
| H1 | NEED \rightarrow SAT | 0.336 | 0.150 | .004 | Supported |
| H2 | SAT \rightarrow Brand Trust | 0.536 | 0.478 | <.001 | Supported |
| H3 | NEED \rightarrow SAT \rightarrow Brand Trust | - | - | - | Supported (Indirect) |

Note: β values represent standardized regression coefficients, indicating the strength and direction of the relationship between variables.

Table 4 Hypothesis testing results:

1. Hypothesis 1 (H1): Supported NEED positively influences SAT, as evidenced by the significant regression coefficient ($\beta=0.150$, $p=.004$). This confirms that customer needs for technical communication positively affect customer satisfaction.

2. Hypothesis 2 (H2): Supported SAT positively influences Brand Trust, with a strong and significant regression coefficient ($\beta=0.478$, $p<.001$). This indicates that customer satisfaction has a substantial positive effect on brand trust.

3. Hypothesis 3 (H3): Supported (Indirect effect) The indirect influence of NEED on Brand Trust through SAT is supported by the pattern of relationships observed in both the correlation and regression analyses. This suggests that customer needs for technical communication indirectly affect brand trust, with customer satisfaction acting as a mediating variable.

These findings collectively demonstrate the importance of effective technical communication in the IT retail industry, highlighting its role in enhancing customer satisfaction and building brand trust.

**Part 4 Regression analysis**

The regression analysis supported that effective technical communication by salespeople indirectly and positively impacts customer brand trust, mediated through customer satisfaction with their language skills in tech retail.

Table 5 Regression Analysis of Influences on Customer Technical Vocabulary Satisfaction in Technology Retail

| Independent Variable | Dependent Variable | B | β | p | Summary Result |
|--|---|-------|---------|-------|--------------------------------|
| Salesperson Responsiveness | Level of Customer Satisfaction with Salesperson's English | 1.273 | 0.478 | <.001 | Significant Positive Influence |
| Factors Affecting Brand Trust (BT) | Technical Vocabulary Skills (SAT) | | | | |
| Customer Needs for Salespeople with English Technical Vocabulary Skills (NEED) | Level of Customer Satisfaction with Salesperson's English | 0.354 | 0.150 | .004 | Significant Positive Influence |
| | Technical Vocabulary Skills (SAT) | | | | |

Table 5 The regression analysis examined the influence of two independent variables on customer satisfaction with salespeople's English technical vocabulary skills (SAT) in the technology retail industry. Salesperson responsiveness factors affecting brand trust ($\beta=0.478$, $p<.001$) and customer needs for salespeople with English technical vocabulary skills (NEED) ($\beta = 0.150$, $p=.004$) both had significant positive influences on SAT. This suggests that when salespeople demonstrate responsiveness that builds brand trust and meets customer expectations for strong English technical vocabulary abilities, it leads to higher customer satisfaction with their ability to use relevant English technical vocabulary during the sales process. These findings support the



hypothesis that effective technical communication by salespeople indirectly and positively influences customer brand trust through the mediating role of customer satisfaction with their language skills.

DISCUSSION

This study underscores the critical role of effective technical communication by salespeople in shaping customer perceptions and attitudes in IT retail. The findings align with the research objectives and demonstrate the importance of effective technical communication in the IT retail industry through three key insights:

1. Customer needs for technical communication positively influence satisfaction, aligning with user-centered communication principles (Redish, 2007, p. 20) and confirming the positive impact of technical vocabulary on customer satisfaction (Byrne, 2007, p. 22; Dastoom, Naseem, Hussain & Jaffar, 2019, p. 305).

2. Satisfaction strongly influences brand trust, supporting the work of Ha & Perks (2005, p. 448) on the relationship between customer satisfaction and brand trust in the digital context.

3. There is an indirect effect of technical communication needs on brand trust through satisfaction, extending the findings of Delgado-Ballester & Munuera-Aleman (2005, p. 192) and Horppu, Kuivalainen, Tarkiainen & Ellonen (2008, p. 408).

These results support and extend the concept of "user-centered communication" (Redish, 2007, p. 22; Byrne, 2007, p. 25) in the IT retail context. They also align with the broader understanding of technical communication as a primary tool for distributing specialized knowledge to specific audiences (Johnson-Sheehan, 2018, pp. 5-6).

The broader implications of this research extend beyond IT retail. Economically, the findings indicate that investing in technical communication skills may result in greater sales and customer retention, thereby increasing profitability in technology-driven enterprises. This aligns with the view of technical communication as crucial for customer satisfaction in customer service contexts (Markel & Selber, 2018, p. 30). Socially, the study highlights the significance of bridging the knowledge gap between technical professionals and consumers. As technology becomes increasingly complex, the ability to communicate technical information effectively could play a



crucial role in digital literacy and consumer empowerment, echoing the concerns raised by Faber, Petersen & Staal (1998, p. 15) about the challenges of technical communication.

Theoretically, this study contributes to the evolving understanding of technical communication in the digital age. It supports the model proposed by Anderson (Online, 1998) that technical terms have specific meanings within a field, while also demonstrating how these terms impact consumer behavior. The findings also extend the work of Piriyaikul, Wongchuer, & Satiman (2015, p. 24) on factors affecting customer satisfaction in technology markets. Moreover, the study provides empirical support for the conceptual link between corporate communication practices and trust building, as suggested by Swaen & Chumpitaz (2008, p. 268), particularly in the specific context of technical communication in retail.

In the context of applicability, the findings may be applied to other high-involvement buying settings requiring technical expertise, such as the automobile or healthcare sectors. The development of specialized training programs focusing on technical communication could enhance customer experiences across various sectors. This aligns with the emphasis on tailoring communication to the audience's knowledge level (Jandová, 2016, p. 55; Wong, 2017, p. 130). Such programs for training could include the integration of AI-powered systems for real-time language adaptation, further enhancing the effectiveness of technical communication in retail settings.

While the Bangkok-based sample limits generalizability, this research provides valuable insights into the role of technical communication in IT retail. Future studies could explore these relationships across diverse cultural contexts and different technology-intensive industries.

In conclusion, this research emphasizes the significant impact of technical communication on customer satisfaction and brand trust in IT retail. It advocates for a strategic rethinking of technical communication techniques, implying that investments in this area might bring significant benefits in terms of customer connections and brand loyalty. As technology advances, the capacity to effectively explain complicated knowledge will certainly become a more important difference in competitive marketplaces.



RECOMMENDATIONS

Recommendations for Applying Research Findings

1. Develop salespeople's technical communication abilities, with a focus on improving their English technical vocabulary and ability to describe complicated product or service information, features, and details in an easy-to-understand manner.

2. Implement training programs for salespeople aimed at strengthening their technical expertise, effective communication skills, and the use of clear language in presentations and addressing customer inquiries. These programs may incorporate simulated real-life scenarios for practical training.

Recommendations for Future Research

1. Expand the scope of future study to include a broader range of consumer groups, such as individuals from different geographic locations, income levels, and educational backgrounds, together with other sectors and product/service categories. This improves the capacity to draw bigger inferences and apply study findings more broadly and extensively.

2. Conduct further research into specific factors or components of communication that influence customer satisfaction and trust. This will help identify appropriate and more targeted communication strategy development approaches for businesses.

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