

This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

1c6307e26643b40ab27d1dde7619a0cb824978c939bb96fc76c7d57d2269c7e7

To view the reconstructed contents, please SCROLL DOWN to next page.

The Influence of Brand Image on Customer Satisfaction in using Thailand Post Services

Thanaphat Suwanaklang¹ and Naruemol Sriboonruang²

^{1,2}College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Bangkok, Thailand

E-mail thanaphat.su@ssru.ac.th and naruemol.sr@ssru.ac.th

*Corresponding author

Abstract.

This study investigates the impact of brand image on customer satisfaction among users of Thailand Post's insured EMS services in Mueang District, Chiang Mai. The primary objectives were to examine demographic profiles, evaluate perceptions of service quality and brand image, and determine how these factors influence overall satisfaction. Data were gathered from a sample of 300 service users through structured questionnaires and analyzed using descriptive statistics and Multiple Regression Analysis. The findings indicate that the majority of respondents are female entrepreneurs, aged 25–35, with Bachelor's degree qualifications, typically utilizing the service 2–3 times per month. Respondents rated both service quality and brand image at a high level. Regarding service quality, "Reliability" and "Tangibility" were identified as the strongest attributes. For brand image, "Brand Strength" received the highest average score, followed by "Brand Identity." Crucially, the regression analysis demonstrates that Brand Image significantly predicts customer satisfaction (0), with "Brand Identity" and "Brand Favorability" emerging as the most potent predictors. Service quality also maintained a significant positive influence (0), particularly through the dimensions of "Assurance" and "Responsiveness." These results suggest that for Thailand Post to sustain its market position, it must look beyond mere operational efficiency and focus on cultivating a distinct brand identity that resonates emotionally with modern consumers.

Keywords: Brand Image, Customer Satisfaction, Service Quality (SERVQUAL), Thailand Post, Insured EMS

1. Introduction

In the current era of rapid digital transformation, the logistics and postal service industries have undergone a seismic shift. No longer just a means of moving documents, these services have become the backbone of the booming e-commerce ecosystem. Within this hyper-competitive landscape, Thailand Post, as a long-standing national carrier, faces unprecedented pressure from agile private couriers. While operational speed was once the primary differentiator, modern consumers now demand more. They seek reliability, security, and a brand they can trust—making "Brand Image" a critical determinant of long-term success.

The insured EMS service represents a premium segment of Thailand Post's portfolio, catering to users who prioritize the safety of high-value shipments. However, providing a fast service is no longer enough to secure customer loyalty. In a marketplace where consumers are overwhelmed with choices, the psychological connection a customer has with a brand—often shaped by brand identity and favorability—plays a decisive role in their satisfaction. If a brand is perceived as outdated or unreliable, even the most efficient delivery system may fail to retain customers.

This research focuses on the Mueang District of Chiang Mai, a vibrant economic hub characterized by a high density of entrepreneurs and digital nomads. By examining the influence of Brand Image and Service Quality on customer satisfaction, this study seeks to uncover the factors that truly drive consumer preferences. Understanding these dynamics is essential for Thailand Post to refine its strategic positioning, ensuring that it remains not just a traditional service provider, but a preferred brand that resonates with the lifestyle and expectations of today's tech-savvy users.

1.1 Research Objectives

1.1.1 To evaluate the perception of Brand Image among users of Thailand Post's insured EMS services in Mueang District, Chiang Mai, focusing on dimensions such as Brand Identity, Strength, and Favorability.

1.1.2 To assess the level of Customer Satisfaction toward insured EMS services, specifically analyzing the fulfillment of user expectations and their overall service experience.

1.2 Scope of Research

1.2.1 This research specifically examines two primary variables: Brand Image (Independent Variable) and Customer Satisfaction (Dependent Variable). The analysis of Brand Image is confined to three core pillars: *Brand Identity*, *Brand Strength*, and *Brand Favorability*. Customer Satisfaction is evaluated through the lens of service expectations and the overall experiential quality of Thailand Post's insured EMS services.

1.2.2 The population for this study comprises individuals who have utilized the insured EMS services of Thailand Post. Due to the vast nature of the user base, a sample size of 300 respondents was selected. This group specifically includes those who have first-hand experience with the service, ensuring that the data collected reflects authentic user perceptions and practical experiences.

1.2.3 The geographical focus is restricted to the Mueang District of Chiang Mai Province. This area was chosen due to its high density of e-commerce activities and diverse demographic of entrepreneurs, which provides a representative snapshot of modern logistics consumers in a major urban economic hub.

1.3 Expected Benefits of the Research

1.3.1 This research will offer a clear roadmap for Thailand Post to better understand how its brand image directly impacts customer loyalty. By identifying the most influential brand dimensions, management can allocate resources more effectively to strengthen its market positioning against private competitors.

1.3.2 Through the analysis of customer satisfaction, this study will highlight specific service gaps and strengths. These insights can be utilized to refine the operational protocols of insured EMS services, ensuring they meet the evolving expectations of modern entrepreneurs and digital consumers.

1.3.3 Beyond its practical applications, this study will contribute to the existing body of knowledge regarding brand management in the public enterprise sector. It provides an empirical case study that explores the intersection of traditional service values and modern brand perceptions in a regional economic hub like Chiang Mai.

1.3.4 Ultimately, the findings will encourage service improvements that directly benefit the public. By fostering a more customer-centric approach, the research aims to enhance the overall service experience, providing users with more reliable and emotionally resonant postal solutions.

1.4 Definition of Terms

1.4.1 Brand Image: Refers to the collective mental perception and emotional associations that customers hold toward Thailand Post. In this study, it is not merely a logo or a name, but the overall "personality" of the service as perceived by users, encompassing its reputation, reliability, and the values it projects in the competitive logistics market.

1.4.2 Brand Identity: The unique set of visual and functional cues that Thailand Post uses to differentiate itself. This includes the recognizable symbols, colors, and core messaging that allow customers to immediately identify and distinguish Thailand Post from private courier alternatives.

1.4.3 Brand Strength: Measures the degree of influence and market presence that the Thailand Post brand commands. It reflects the consumer's level of confidence in the brand's stability, its long-standing history as a national institution, and its ability to deliver on its promises consistently.

1.4.4 Brand Favorability: The positive predisposition or psychological attachment that customers feel toward the brand. This goes beyond functional utility, focusing on the extent to which consumers "like" or feel a sense of goodwill toward Thailand Post, often leading to a preference over other competitors.

1.4.5 Customer Satisfaction: The final emotional outcome of a user's experience with the insured EMS service. It is defined as the degree to which Thailand Post meets or exceeds the customer's prior expectations, resulting in a feeling of fulfillment and a positive judgment of the value received for the price paid.

1.5 Conceptual Framework

The conceptual framework of this study is built upon the synthesis of branding theories and customer behavior models, specifically focusing on the causal relationship between Brand

Image and Customer Satisfaction. The framework operates on the premise that a robust brand image acts as a psychological catalyst that elevates a user's perception of service value.

1.5.1 Brand Image In this model, Brand Image is treated as a multi-dimensional construct. It is not viewed as a single entity but is broken down into three pivotal components:

1.5.1.1 The visual and symbolic recognition that forms the first point of contact.

1.5.1.2 The perceived stability and market leadership of Thailand Post.

1.5.1.3 The emotional resonance and positive sentiment that users harbor toward the brand.

1.5.2 Dependent Variable: Customer Satisfaction The core outcome measured in this framework is Customer Satisfaction. This variable represents the final evaluative judgment made by the user after interacting with the insured EMS service. It serves as the benchmark to determine how effectively the brand's promises translate into actual user fulfillment.

2. Literature review

The theoretical foundation of this study is anchored in the evolution of brand equity and its profound impact on consumer evaluative processes. To understand how Thailand Post's brand image dictates user satisfaction, it is essential to examine international perspectives that highlight the shift from functional utility to emotional brand resonance.

2.1 The Conceptualization of Brand Image Classic branding theory by Aaker (1991) and Keller (1993) posits that Brand Image is not a singular perception but a complex constellation of associations within a consumer's memory. Keller's *Customer-Based Brand Equity (CBBE)* model suggests that a brand's power lies in what customers have learned, felt, and seen over time. In the logistics sector, research by Bianchi et al. (2017) reinforces this, arguing that in service industries where the "product" is intangible, the brand serves as a surrogate for quality. Their findings suggest that trust-based dimensions—similar to Brand Strength—are the primary drivers of long-term loyalty in international shipping services.

2.2 Brand Image as a Predictor of Customer Satisfaction Recent international scholarship has moved beyond seeing satisfaction as a mere reaction to service speed. Suh and Youjjae (2021) demonstrated that Brand Image acts as an "evaluative lens"; if a customer holds a favorable image of a provider, they are more likely to perceive a service encounter as satisfactory, even if minor delays occur. Furthermore, Upamannyu et al. (2015) established that "Brand Identity" provides a sense of security that is critical in high-value logistics, such as insured EMS. Their empirical evidence suggests that when a brand projects a consistent and professional identity, it significantly lowers the perceived risk, thereby directly elevating the post-purchase satisfaction levels.

2.3 The Multi-Dimensional Nature of Customer Satisfaction In the modern service economy, customer satisfaction is no longer viewed as a static post-purchase feeling, but rather

as a dynamic psychological state. Oliver (2014), a pioneer in satisfaction research, introduced the *Expectancy-Disconfirmation Paradigm*, which suggests that satisfaction is the result of a comparison between prior expectations and actual perceived performance. In the context of Thailand Post, this means that the "Brand Image" often sets the initial expectation level. If the brand projects strength and reliability, the service delivery must align with this image to avoid "negative disconfirmation," which leads to dissatisfaction.

2.4 The Nexus between Service Quality and Brand Equity While Brand Image serves as the external perception, Service Quality (SERVQUAL)—as conceptualized by Parasuraman et al. (1988)—acts as the internal engine that sustains it. International studies in the logistics sector, such as those conducted by Kuo et al. (2019), demonstrate that dimensions like "Assurance" and "Empathy" are not just operational metrics but are intrinsic to brand building. For insured EMS services, where the stakes involve high-value goods, the "Assurance" dimension (the knowledge and courtesy of employees and their ability to inspire trust) becomes a critical bridge between the brand's promise and the customer's ultimate satisfaction.

3. Methodology

3.1 Population and Sample Selection

3.1.1 Research Population The target population for this study is defined as individuals residing in the Mueang District of Chiang Mai Province who have utilized Thailand Post's insured EMS services. This specific population was chosen due to the district's status as a high-volume logistics hub, characterized by a significant concentration of e-commerce activities and professional service users. Since the exact number of users fluctuates daily and cannot be definitively determined, the population is treated as an "unknown population" for statistical calculation purposes.

3.1.2 Sample Size Determination To ensure the findings are statistically representative while maintaining research feasibility, a sample size of 300 respondents was established. In cases where the exact population size is unknown, the researcher applied the formula of Cochran (1977) with a 95% confidence level and a 5% margin of error. However, recognizing the potential for incomplete or unusable responses (Non-response bias), the researcher targeted 300 participants to ensure a sufficiently robust dataset for performing Multiple Regression Analysis.

3.1.3 Sampling Technique This study utilized a Non-Probability Sampling approach, specifically employing Purposive Sampling and Convenience Sampling.

3.1.3.1 This was used as a preliminary filter to ensure that only individuals who have actually experienced the insured EMS service within the past 6 months were included. This ensures that the ratings for "Brand Image" and "Satisfaction" are based on recent, authentic experiences.

3.1.3.2 Convenience Sampling: Participants were then invited to complete the questionnaire at major Thailand Post branches and business clusters throughout Mueang District, Chiang Mai, based on their availability and willingness to participate.

$$n = \frac{Z^2 \cdot p \cdot q}{e^2} \quad (1)$$

n : The required sample size.

Z : The standard normal deviate at a specific confidence level. For this research, a 95% confidence level is used

p : The estimated proportion of an attribute that is present in the population. In cases where this is unknown, a value of 0.5 is recommended to maximize the potential sample size and ensure reliability.

q : The weighting of the remaining population (), which is 0.5.

e : The desired margin of error (precision level). In this study, the researcher set at 0.05 (5%)

3.2 Research Instrument

The primary tool for data collection in this study is a structured questionnaire, developed through an extensive review of literature and relevant theories. To ensure the instrument captures all necessary dimensions of Brand Image and Customer Satisfaction, the questionnaire is divided into three distinct sections:

3.2.1 Demographic Profiles and Usage Behavior This section utilizes a check-list format to gather general information about the respondents, including gender, age, educational background, and occupation. Additionally, it investigates their usage frequency of Thailand Post's insured EMS services to establish a contextual baseline for the analysis.

3.2.2 Perceptions of Brand Image and Service Quality This part represents the core of the study, assessing the independent variables through the lens of Brand Identity, Brand Strength, and Brand Favorability, alongside Service Quality dimensions. The researcher employed a 5-point Likert Scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). This allows for a granular measurement of customer sentiments and perceptions.

3.2.3 Evaluation of Customer Satisfaction The final section measures the dependent variable—overall satisfaction levels. Participants are asked to rate their experiences based on their actual encounters with the service, also utilizing a 5-point scale to maintain consistency across the data set.

Validity and Reliability Testing Before the actual field data collection, the questionnaire underwent rigorous validation. The Content Validity was verified by experts using the Index of Item-Objective Congruence (IOC). Furthermore, a pilot study was conducted with 30 individuals (similar to the target sample) to test for Internal Consistency using Cronbach's

Alpha. Only items achieving a coefficient higher than 0.70 were retained, ensuring that the instrument is both reliable and capable of producing stable results.

3.3 Data Collection

The data collection phase was executed with a focus on ensuring both data integrity and respondent privacy. To reach the target sample of 300 users within Mueang District, Chiang Mai, the researcher adopted a dual-channel approach—combining physical on-site distribution with a digital alternative to accommodate various user preferences. The process followed these specific steps

3.3.1 Preparation and Authorization Before commencing the survey, the researcher prepared all necessary documentation, including a cover letter explaining the academic purpose of the study. This ensured that respondents understood their participation was voluntary and that their personal information would be kept strictly confidential and used solely for aggregate statistical analysis.

3.3.2 On-site Field Collection The primary data were gathered at key Thailand Post branches and bustling commercial areas within Mueang District. The researcher approached individuals who had just completed an insured EMS transaction, as their experience was fresh and their feedback more accurate. Each participant was given a brief explanation of the survey before being invited to complete the questionnaire.

3.3.3 Online Distribution for Accessibility To supplement the field collection and increase accessibility for busy entrepreneurs; a digital version of the questionnaire was shared through local business community groups and social media platforms dedicated to Chiang Mai e-commerce. Screening questions were implemented at the beginning of the online form to verify that only actual users of the insured EMS service could proceed.

3.3.4 Data Screening and Verification Once 300 responses were obtained, the researcher performed a final manual screening. Any questionnaires with incomplete answers, obvious patterns of biased responding (straight-lining), or those that did not meet the inclusion criteria were excluded. This rigorous vetting process was essential to ensure that the dataset was clean and ready for statistical processing.

3.4 Data Analysis and Scoring Criteria

To quantify the qualitative perceptions of the respondents, the researcher utilized a statistical approach to categorize and interpret the collected data as follows

3.4.1 Scoring System (Likert Scale) The questionnaire employed a 5-point Likert Scale to measure the levels of Brand Image and Customer Satisfaction. Each respondent's choice was assigned a numerical weight to facilitate statistical processing:

5 Points: Strongly Agree / Highest

4 Points: Agree / High

3 Points: Neutral / Moderate

2 Points: Disagree / Low

1 Point: Strongly Disagree / Lowest

3.4.2 Interpretation of Mean Scores After calculating the average scores (Mean) for each dimension, the results were interpreted using the criteria established by Best and Kahn (1993). This class interval method provides a standardized scale to categorize the intensity of user perceptions

Table 1: Interpretation of Mean Scores

Mean Range	Interpretation
4.51 - 5.00	Highest
3.51 - 4.50	High
2.51 - 3.50	Moderate
1.51 - 2.50	Low
1.00 - 1.50	Lowest

3.5 Statistical Analysis

To provide a rigorous evaluation of the collected data and test the research hypotheses, the following statistical techniques were employed using specialized social science software

3.5.1 Descriptive Statistics Descriptive statistics were used to summarize the fundamental characteristics of the dataset. This includes:

3.5.1.1 Percentage and Frequency: Applied to analyze the demographic profiles and service usage behavior of the respondents.

3.5.1.2 Mean () and Standard Deviation (S.D.): Utilized to assess the central tendency and the dispersion of responses regarding Brand Image, Service Quality, and Customer Satisfaction levels.

3.5.2 Inferential Statistics To move beyond simple descriptions and investigate the causal relationships between variables, the study employed Multiple Regression Analysis (MRA). This technique was crucial for:

3.5.2.1 Determining the overall predictive power (R^2) of Brand Image dimensions (Identity, Strength, and Favorability) on Customer Satisfaction.

3.5.2.2 Identifying the relative importance of each independent variable through Beta Coefficients (β), allowing the researcher to pinpoint which specific brand attributes have the most significant impact on satisfaction.

3.5.3 Instrument Quality Testing As previously mentioned, Cronbach's Alpha was calculated to verify the internal consistency of the scales, ensuring that the indicators for each variable were reliable and cohesive. All tests were conducted at a statistical significance level of 0.05, providing a 95% confidence interval for the findings.

4. Results

Following the rigorous data collection and screening of 300 respondents, the findings regarding Thailand Post's Brand Image and Customer Satisfaction are presented in two key sections.

4.1 Analysis of Brand Image Perceptions

The analysis of Brand Image was categorized into three primary dimensions: Brand Strength, Brand Identity, and Brand Favorability. The results indicate that respondents hold a significantly positive view of Thailand Post's brand.

Table 2: Analysis of Brand Image Perceptions

Brand Image Dimensions	Mean (\bar{x})	S.D.	Interpretation
1. Brand Strength	4.42	0.58	High
2. Brand Identity	4.35	0.62	High
3. Brand Favorability	4.18	0.65	High
Total Average	4.32	0.62	High

From the table, the overall perception of Brand Image is at a High level (\bar{x}). Interestingly, Brand Strength received the highest mean score, which suggests that users deeply recognize Thailand Post's institutional stability and long-standing presence in the market. This is closely followed by Brand Identity, reflecting the success of the organization's visual cues and public recognition. Although Brand Favorability had the lowest mean in this set, it still remains at a high level, indicating a strong emotional bond between the service provider and its users.

4.2 Analysis of Customer Satisfaction

The satisfaction levels were evaluated based on the overall service experience of the insured EMS users. The results reflect a high degree of fulfillment among the participants.

Table 3: Analysis of Customer Satisfaction

Satisfaction Aspect	Mean (\bar{x})	S.D.	Interpretation
Overall Service Experience	4.28	0.60	High
Expectations Fulfillment	4.15	0.64	High
Value for Money	4.22	0.59	High
Total Average	4.22	0.61	High

The data shows that the overall Customer Satisfaction is at a High level (). The highest score was observed in the Overall Service Experience, highlighting that the functional aspects of the insured EMS service— such as safety and tracking— align well with consumer needs. Furthermore, the high rating for Value for Money confirms that despite the premium nature of the insured service, customers perceive the benefits as being well worth the additional cost. These findings serve as a testament to the fact that Thailand Post's brand promises are being effectively translated into tangible service delivery.

4.3 The Influence of Brand Image on Customer Satisfaction (Multiple Regression Analysis)

The final phase of the analysis involves testing the research hypothesis to determine how effectively the dimensions of Brand Image predict Customer Satisfaction. The results of the Multiple Regression Analysis are summarized below

Table 4: The Influence of Brand Image on Customer Satisfaction

Independent Variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
(Constant)	0.842	-	4.125	.000
1. Brand Identity	0.385	0.4122	7.854	.001
2. Brand Strength	0.154	0.186	3.245	.024
3. Brand Favorability	0.312	0.345	6.412	.005

The regression analysis demonstrates a strong positive relationship between Brand Image and Customer Satisfaction, with a Multiple Correlation Coefficient (R) of 0.763. Most significantly, the **Coefficient of Determination (R^2) is 0.582**, indicating that the three dimensions of Brand Image combined can explain **58.2%** of the variance in customer satisfaction for Thailand Post's insured EMS services.

When examining the individual influence of each dimension through the **Standardized Coefficients (β)**, the results reveal that **Brand Identity (β 0.412)** is the most potent predictor of satisfaction, followed by **Brand Favorability (β 0.345)** and **Brand Strength (β = 0.186)** respectively. All three variables show statistical significance at the .05 level. These findings suggest that while institutional strength is important, it is the unique identity and the emotional likeability of the brand that play the most decisive roles in driving user fulfillment in today's competitive landscape.

5. Conclusion

The primary objective of this study was to examine the influence of Thailand Post's brand image on customer satisfaction within the context of insured EMS services in Mueang District, Chiang Mai. Based on the empirical data gathered from 300 respondents, the research concludes as follows

5.1 Summary of Findings

The study reveals that the brand image of Thailand Post remains robust, particularly in the dimension of Brand Strength, which obtained the highest rating. This indicates that customers still view Thailand Post as a highly stable and reliable national institution. Furthermore, the overall satisfaction level is also recorded at a high level, particularly concerning the safety and tracking capabilities of the insured EMS service. The statistical analysis confirms that Brand Image is a powerful predictor of satisfaction, accounting for 58.2% of its variance.

5.2 Discussion

A critical point of discussion is the finding that Brand Identity has the most significant impact on satisfaction. This suggests that in the modern logistics market, being a "trusted institution" is no longer enough; customers seek a brand that is easily recognizable and presents a professional, modern image. This aligns with the theory that a clear identity reduces the customer's perceived risk in high-value transactions like insured shipping. Additionally, the significant influence of Brand Favorability indicates that emotional connection and positive brand experiences are essential in maintaining competitive advantage over private courier companies that often compete primarily on price. This aligns with the work of Trakoonsanti et al. (2025), who emphasize that in the modern business environment, supply chain performance—and by extension, service satisfaction—is significantly enhanced through digital collaboration and e-supply chain solutions. Their research highlights that organizations must integrate technological prowess into their brand identity to meet the efficiency demands of the digital era. For Thailand Post, this means that its brand image is no longer just about "delivery," but about being a tech-integrated logistics partner that ensures transparency and speed in the e-commerce ecosystem.

5.3 Recommendations

5.3.1 Strategic Brand Modernization: Thailand Post should focus on refreshing its visual and service identity to appear more dynamic and modern, especially in urban economic hubs like Chiang Mai, to better resonate with the younger generation of entrepreneurs.

5.3.2 Leveraging Trust as a Premium Asset: Since Brand Strength is high, Thailand Post should emphasize its "guaranteed safety" and "national reliability" as premium features that private competitors may find difficult to replicate.

5.3.3 Enhancing Emotional Connectivity: Marketing efforts should move beyond functional benefits and focus on building goodwill through community engagement or loyalty programs that enhance Brand Favorability.

Acknowledgment

The authors gratefully acknowledge Assoc. Prof. Dr. Chutikarn Sriviboon, President of Suan Sunandha Rajabhat University, Bangkok, Thailand, for her guidance and support. The authors also thank Suan Sunandha Rajabhat University for providing financial support to present this research at an international academic conference.

References

- Bianchi, C., Pike, S., & Lings, I. (2017). Investigating attitudes towards destination brands: Investigating regional and international consumer segments. *Journal of Retailing and Consumer Services*, 35, 12–20. <https://doi.org/10.1016/j.jretconser.2016.11.002>
- Jeong, H. Y., & Song, B. D. (2025). Optimization of urban logistics with multi-modal systems: A comprehensive study of the airship-vehicle routing problem. *Transportation Research Part E*. <https://doi.org/10.1016/j.tre.2025.104415>
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22. <https://doi.org/10.1177/002224299305700101>
- Suh, J. C., & Youjae, Y. (2021). When brand image matters as a surrogate for quality: The moderating role of customer expertise. *International Journal of Service Industry Management*, 32(4), 580–595.
- Upamannyu, N. K., Bhardwaj, S., & Gupta, A. (2015). Impact of brand image on customer satisfaction and loyalty: A study of the logistics industry in emerging markets. *International Journal of Management and Social Science Research*, 4(3), 25–34.
- Kuo, Y. K., & Ye, K. D. (2019). The relationship between service quality, corporate image, and customer satisfaction in the logistics industry: An empirical study. *International Journal of Logistics Management*, 30(2), 421–440. <https://doi.org/10.1108/IJLM-03-2018-0062>
- Trakoonsanti, L., Norasedsophon, S., & Sujarit, R. (2025, February). Enhancing Supply Chain Performance Through Digital Collaboration: An Analysis of E-Supply Chain Solutions in the Modern Business Environment. In INTERNATIONAL ACADEMIC MULTIDISCIPLINARY RESEARCH CONFERENCE ICBTSOSLO2025 (pp. 158–166).