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THE IMPACT OF HEALTH SAFETY MANAGEMENT AND SERVICE QUALITY ON CUSTOMER SATISFACTION IN LOGISTICS: A MEDIATED MODEL FROM THAILAND

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Abstract

This research investigates the impact of health safety management (HSM) and service quality (SQ) on customer satisfaction (SAT) within the logistics service provider (LSP) context in Thailand, examining the mediating role of customer decision-making (DCS). Utilizing a structured questionnaire administered to 400 logistics service users and analyzed using structural equation modeling (SEM), the study reveals that effective HSM has a positive influence on customer decision-making, ultimately enhancing customer satisfaction. Moreover, high SQ also significantly improves SAT through customer decision-making. The research highlights the significance of customer decision-making as a crucial mediator between HSM and SQ, as well as customer satisfaction. While the direct impact of HSM on SAT was not significant, its influence was notable. This study provides practical insights for logistics companies seeking to enhance customer satisfaction, emphasizing the importance of robust safety standards, improved service delivery, and a supportive environment that fosters favorable customer decision-making. The findings contribute to the academic understanding of the mediating effect of customer decision-making and offer strategic guidance for logistics providers.

Keywords: Health Safety Management, Service Quality, Customer Satisfaction, Customer Decision-Making, Logistics Service Providers

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Introduction

The need for high-quality services, combined with the safety and well-being of customers, has become a crucial factor for logistics service providers in today's climate of intense competition. Many previous studies have also acknowledged the influence of health safety management and service quality on customer satisfaction. However, there are no studies that investigate customer decisions as a mediator variable in this relationship. Although there is extensive literature on health safety management, service quality, and customer satisfaction, fewer studies examine the interaction among these factors and the role of customer decision-making (Bae, 2012; Elsaed et al., 2023; Lin et al., 2023).

Despite this understanding, a critical gap exists in the literature. Many existing studies examine these factors in isolation or focus only on their direct effects on customer satisfaction (Auyong et al., 2011; Yuliarto, 2021; Abbas & Malik, 2023). They fail to explain the underlying mechanism or how these factors translate into a customer's final assessment. Specifically, there is a significant lack of research that investigates the mediating role of customer decision-making in the relationship between health safety management, service quality, and customer satisfaction (Bae, 2012; Elsaed et al., 2023; Lin et al., 2023). This omission is significant because the customer's decision-making process is a crucial step that influences both satisfaction and loyalty (Alzaydi, 2023; Elsaed et al., 2023; Lin et al., 2023).

Maritime health safety, a prevalent issue facing logistics service providers and manifesting in maritime logistics, operational management, and transport services, needs further exploration; very little is known about the impact of health safety management on logistics service providers' customer decision-making processes. While some studies assess the influence of service quality on customer behavior, research specifically analyzing the impact of health and safety management on consumer behavior is limited. Understanding the impact of health and safety management on customer decision-making is essential for logistics service providers to attract and retain customers effectively in the logistics industry. This is especially relevant as health and safety standards have become increasingly significant within industry (Auyong et al., 2011; Jermsittiparsert et al., 2019; Park & Lee, 2022). Moreover, existing studies generally overlook the collective impact of health safety management, service quality, and customer decision-making on customer satisfaction in the logistics service provider sector. Most studies examine these features in isolation, ignoring how they interact with each other—yet such interaction is often complex and can yield nuanced insights. According to Kurniawan & Putritama (2020) and Oktavanny & Sulistiadi (2022), customer satisfaction is influenced by several interrelated variables, including management of health and safety, service quality, and customer decision-making. It is essential to study how these factors interrelate to increase customer satisfaction.

Despite that, as the literature concerning the impact of health safety management and service quality on customer satisfaction is considerable, less research work has been done to investigate the relationship of health safety management, service quality, and customer satisfaction, which is related to the role of customer decision-making moderation in the relationship between health safety management, service quality, and customer satisfaction of logistics service providers. This research aims to investigate the impact of health safety management and service quality on customer satisfaction, mediated by consumer choices. This study may provide profound insights into logistics services providers by focusing on how to improve their services, enhance customer satisfaction levels, and establish a reliable relationship with their customers.

Literature Reviews

Health Safety Management and Customer Decision

The use of customer relationship and health safety management systems enhances the quality of cooperation between companies offering occupational safety and health services and their customers (Robson et al., 2007). Furthermore, safety from a health perspective is important for food businesses, as food products may contain harmful materials. People have been increasingly concerned about the healthiness of food and the hygiene standards of restaurants, fast food, and frozen food (Fabac & Mance, 2011). The management system in the catering industry generally requires higher food hygiene and public health standards to prevent safety accidents and protect consumer health (Golian et al., 2018). The development of occupational health and safety management systems based on international standards such as ISO 45000 is an important element in achieving a healthy and safe workplace (Tsopa et al., 2023). Health and safety are among the significant issues in transport operations, as they can enhance job effectiveness, reduce costs, and improve the organization's image (Jaafar et al., 2018). This demonstrated commitment to health and safety serves as a critical external signal that builds a positive organizational image. Consequently, it becomes a key factor that directly influences and shapes customer decisions by conveying reliability and professionalism.

The cognitive and emotional processes encompass the impulse, social circle, advertising, and personal desires that drive a customer to make a purchase (Valentini et al., 2011; Tanduklangi & Yusuf, 2017). The customer journey encompasses the exploration of various options, the selection of a particular product or service, and the factors that influence the decision. Understanding customer decision-making is crucial because it enables us to observe the progression from product search to selection and the factors that influence this decision-making process (Elbanna, 2006; Wang & Ruhe, 2007; Shepherd & Rudd, 2014; Panwar et al., 2019). Research shows that the level of autonomy and role clarity for employees or organizations affects their responsiveness to customer needs (Bolumole et al., 2016). Additionally, studies highlight the significance of occupational health and safety in logistics, confirming that there is still considerable room for improvement in safety management systems, particularly among small and medium-sized enterprises (SMEs) (Klimecka-Tatar & Matevž, 2020). Additionally, it is crucial for achieving better organizational success and customer satisfaction (Auyong et al., 2011) to integrate occupational health and safety measures into logistics. Involvement in strategic human resource management practices that prioritize health and safety can form sustainable competitive advantages, facilitate performance improvements, and serve as an effective means of communicating with customers (Okeudo, 2012; Tabor & Modrak, 2015). Thus, the following hypothesis can be formulated:

Hypothesis 1: Health safety management influences customer decisions in using logistics service providers.

Health Safety Management and Customer Satisfaction

Health and safety management can indirectly influence customer satisfaction when using logistics service providers. Customer satisfaction is a crucial term in business, defined as the overall assessment of a customer's experience after using a product or service, reflecting their level of happiness or dissatisfaction in relation to their personal expectations. This human phenomenon is said to be elucidated using fuzzy logic, and according to it, satisfaction can be computed based on variables such as service quality, product quality, and price (Abdallat & Emam, 2008; Cengiz, 2010; Bungatang & Reynel, 2021). Factors such as service quality, price satisfaction, relational satisfaction, and commitment have been identified as important for customer loyalty and satisfaction in previous research (Teresa & Evangelos, 2015; Bungatang & Reynel, 2021; Uzir et al., 2021; Nguyen et al., 2023). Logistics distribution services depend heavily on perceived service quality and service cost, which, by far, influence customer satisfaction (Singh, 2015). Additionally, aspects of logistics service quality, including

operational, resource, information, personal contact, and customization qualities, have a positive impact on customer satisfaction, which in turn encourages customers to use the logistics service again (Lang, 2020). Beyond its internal benefits, an organization's approach to health and safety management also sends a direct message to its customers. Customers can interpret a visible commitment to safety as a sign of professionalism, competence, and overall reliability. This perception fosters a sense of trust and security, which are key components of relational satisfaction and contribute directly to the customer's overall feeling of satisfaction with the service provider. Therefore, the hypothesis can be formed as follows:

Hypothesis 2: Health safety management influences customer satisfaction in using logistics service providers.

Service Quality and Customer Decision

Service quality enables an organization to meet customer expectations in the delivery of its services. It encompasses the visible attributes or benefits of a product or service that meet both the communicated and uncommunicated needs of a customer (Zeithaml et al., 1996; Phrapratanporn et al., 2022; Nilashi et al., 2021; Ali et al., 2021; Tuncer et al., 2021). Customer expectations serve as benchmarks for service performance and play a crucial role in enhancing customer satisfaction and loyalty (Partalidou et al., 2020; Tuncer et al., 2021). The specification of the quality of service by logistics service providers has a significant influence on customers' decisions regarding the selection of logistics service providers. The attributes of service quality emphasized in previous studies include operational, resource, information, contact, and customized qualities, which significantly promote customer satisfaction and a consumer's intention to reuse the service (Yen et al., 2022; Lin et al., 2023). Moreover, the quality of other services, such as customer service, product quality, information quality, delivery service, perceived pricing, and reverse logistics, also contributes to an improvement in customer loyalty through satisfaction (Dabees et al., 2023). Furthermore, the sustainable reverse logistics service quality framework highlights service quality as a vital factor in fulfilling customer demands for effective sustainability operations (Wang & Hu, 2022). Furthermore, the consolidated multiple decision-making models for logistics service supply chains demonstrated that service quality and green factors significantly impact customer satisfaction and global profitability (Singh et al., 2022). Service quality was identified as having the most significant influence on service quality efforts for logistics service customers, affecting overall customer satisfaction, loyalty, and operational performance. Based on this, the following hypothesis can be generated:

Hypothesis 3: Service quality influences customer decisions in using logistics service providers.

Service Quality and Customer Satisfaction

Logistics service providers significantly impact customer satisfaction through their services, which are primarily based on the quality of service. According to previous studies, service quality dimensions including the reliability, assurance, empathy, tangibles, and responsiveness of service (Chartchawalitsakul, 2020); delivery time (Jusufbašić & Stević, 2023); the quality of ordering, distribution of commodities, customization, information, courier service, and error handling (Lin, 2022) are the primary factors affecting customer satisfaction. Riliandini et al. (2021) identify aspects of quality in order fulfillment, such as the condition of the package at delivery and consistency in maintaining the package's integrity, as the most important areas for improvement. Additionally, Lin et al. (2023) conducted an operational perspective examination of manufacturers, focusing on five key antecedents of customer satisfaction that influence re-use intention: operational quality, resource quality, information quality, personal contact quality, and customization quality. In conclusion, these findings highlight the substantial impact of service quality on enhancing customer satisfaction in Thailand's logistics industry. Accordingly, the hypothesis can be generated as follows:

Hypothesis 4: Service quality influences customer satisfaction in using logistics service providers.

Customer Decision and Customer Satisfaction

Consumer decisions have substantial implications for customer satisfaction with logistics service providers. Several studies have described elements that impact customer satisfaction in logistics services. It has been suggested that dimensions of service quality, such as operational, resource, information, personal contact, and customization, can positively impact customer satisfaction, thereby influencing reuse intentions (Lin et al., 2023). Finally, service improvement attributes are believed to enhance customer loyalty and satisfaction, including customer service, product quality, information quality, delivery service, perceived pricing, and reverse logistics (Yen et al., 2022). Additionally, perceived service quality, expected service quality, and brand image are key indicators of customer satisfaction and loyalty in logistics distribution services (Lang, 2020). Responsiveness, assurance, reliability, tangibles, and empathy are various factors that influence the quality of service in port logistics service companies, significantly impacting customer satisfaction (Le et al., 2020). Finally, in line with logistic service quality in Serbian logistics practice, quality in logistics services was identified as positively influencing customer satisfaction, with responsibility being the most significant factor (Dašić et al., 2022). Accordingly, the hypothesis can be generated as follows:

Hypothesis 5: Customer decisions influence customer satisfaction in using logistics service providers.

Health Safety Management, Customer Decision, and Customer Satisfaction

Factors Influencing Customer Satisfaction with Logistics Service Providers. Recent research has shown that service quality dimensions, including operational quality, resource quality, information quality, personnel contact quality, and customization and innovation quality, have a significant impact on customer satisfaction (Setia et al., 2022; Gupta et al., 2023). Additionally, employee performance is likely to improve with high job satisfaction, which is influenced by effective talent and knowledge management (Lin et al., 2023). Furthermore, another study in the logistics industry on female employees found that job satisfaction has a mediating role in the relationship between intrinsic motivation and the intention to remain in the organization (Sukri et al., 2023). Additionally, flexible working arrangements have a positive impact on job satisfaction, with organizational commitment acting as a mediator in the loyalty of four attached employees (Türkmen & Polat, 2019). As a result, customers' decision-making, which is understood to be affected by health and safety management for employees, can mediate the effect of employee-related factors on customer satisfaction in logistics services. Accordingly, the hypothesis can be generated as follows:

Hypothesis 6: Customer decision mediates the relationship between health safety management and customer satisfaction in using logistics service providers.

Service Quality, Customer Decision, and Customer Satisfaction

Customer satisfaction has a significant influence on service quality and customer loyalty in the selection of logistics service providers. The key characteristics of logistics service quality (LSQ) include operational quality, resource quality, information quality, personal contact quality, and customization quality, all of which contribute to customer satisfaction (Türkmen & Polat, 2019; Elsaed et al., 2023). Customer satisfaction is also shown as an intermediary between each of the logistics service dimensions and the loyalty of past customers, being confirmed as the basic intermediary and essential intermediary variable of customer loyalty based on the quality dimension (Yen et al., 2022; Do et al., 2023; Gupta et al., 2023). Focusing on configuration provides an excellent opportunity for improvement in logistics performance and an increase in customer satisfaction within the prevailing configuration. Accordingly, the hypothesis can be generated as follows:

Hypothesis 7: Customer decision mediates the relationship between service quality and customer satisfaction in using logistics service providers.
Based on the literature review, the conceptual framework can be represented as shown in Figure 1.

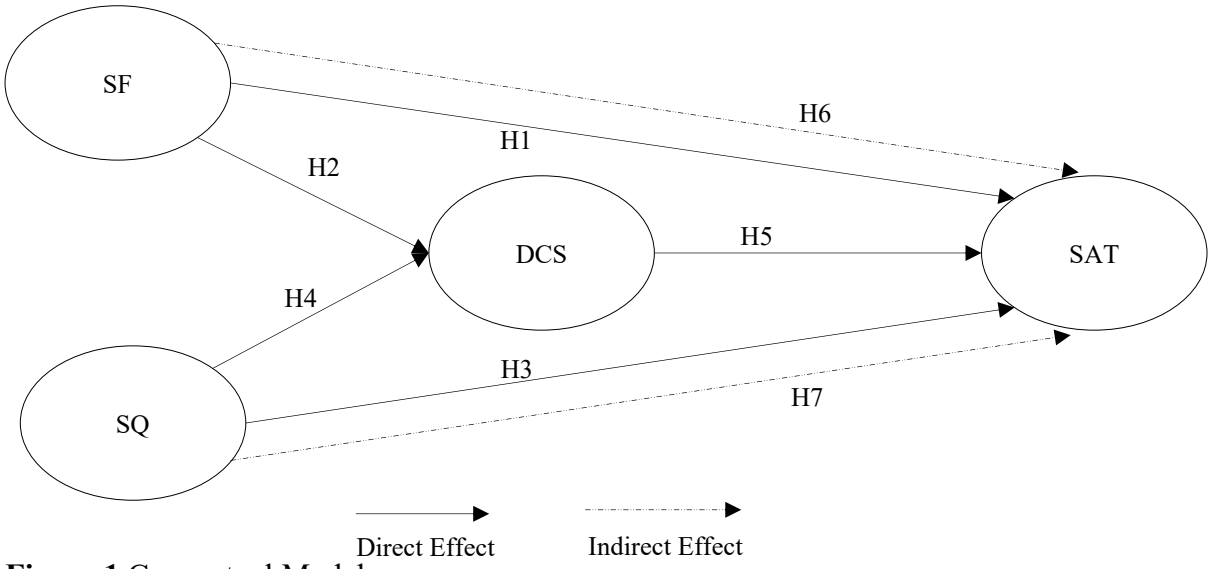

Figure 1 Conceptual Model
Note: SF = health safety management, SQ = service quality, DCS = customer decision, SAT = customer satisfaction

Research Methodology

This study used a quantitative research design. Although the demographic scope of the study appears broad, referring to customers who engage in logistics services in Bangkok and its peripheral metropolitan area in Thailand, the exact number of customers in this demographic group was not reported. If statistical validity were desired for the quote, Cochran's formula (Cochran, 1977) would prescribe a sample size of 400 customers. For this study, a convenience sampling method was employed, as it is not feasible to identify and obtain a complete list of all logistics service users in the defined region, given practical considerations. The investigators acknowledge the limitations of this non-probability sampling method, specifically sampling bias and the extent to which the findings can be generalized. Accordingly, these findings should be taken into account within this context. A well-structured questionnaire, utilizing a five-point Likert scale, was employed to collect data for this study. This scale was demonstrated to be an effective method for quantitatively investigating and measuring participant responses. Three experts thoroughly assessed the relevance and clarity of the questionnaire before distributing it, achieving an acceptable level of item-objective congruence (IOC). The internal consistency of the questionnaire was further determined using Cronbach's alpha analysis. Furthermore, to ensure the robustness of the measurement model, construct validity was thoroughly assessed using confirmatory factor analysis (CFA). This process involved examining factor loadings, composite reliability (CR) to assess internal consistency among indicators for each latent construct, and the average variance extracted (AVE) to establish both convergent and discriminant validity.
The variables in this study were constructed from a few important aspects, including health safety management consisting of health safety policy, health risk management, and health safety promotion, adapted from Robson et al. (2007), Fabac & Mance (2011), Özaydin (2016), and Golian et al. (2018). For service quality, its dimensions include reliability, assurance, tangibility, empathy, and responsiveness, which were adapted from Uvet (2020), Ali et al.

(2021), and Nilashi et al. (2021). For customer decision-making, the study employs dimensions including need recognition, information searching, alternative evaluation, decision-making, and post-decision evaluation, adapted from Singh (2015), Teresa & Evangelos (2015), Panwar et al. (2019), and Nguyen et al. (2023). Lastly, customer satisfaction denotes the service convenience, service coordination, employee service mind, service information, and service cost, adapted from Abdallat & Emam (2008); Cengiz (2010); Teresa & Evangelos (2015); Reynaldo et al. (2020); Bungatang & Reynel (2021); Uzir et al. (2021); and Nguyen et al. (2023).

Due to the complexity of the research model, which involves several independent, dependent, and mediating variables, the technique of structural equation modeling (SEM) was selected as the most suitable statistical tool. SEM is the most appropriate method of analysis for this study, as it involves testing all paths on the postulated model and can be presented in a comprehensive model simultaneously. Crucially, it is also robust in that it can accommodate latent variables—entities such as service quality and 'customer satisfaction' that are measured by more than one indicator—and thus it can lead to deeper and sharper insight into the complexity of relationships in play. The multiple mediation approach enables a thorough examination of the direct and indirect effects of health safety management and service quality on customer satisfaction through the mediating influence of customer decision-making, thereby expanding our understanding of complex relationships in social phenomena.

Research Results

Respondents' Profiles and Studied Variables

The profiles of respondents, including gender, age, education, and monthly income, were analyzed by frequency and percentage. Table 1 displays the details.

Table 1 Profiles of Respondents

Information	Frequency (Person)	Percentage
Gender		
Male	126	31.5
Female	274	68.5
Age		
Lower than 30 years old	349	87.3
Between 31 and 40 years old	13	3.3
Between 41 and 50 years old	19	4.7
Above 50 years old	19	4.7
Education		
Lower than a Bachelor's degree	136	34.0
Bachelor's degree	256	64.0
Higher than a Bachelor's degree	8	2.0
Monthly Income		
Lower than 10,000 baht	267	66.8
Between 10,000-15,000 baht	78	19.5
Between 15,001-20,000 baht	27	6.7
Higher than 20,000 baht	28	7.0
Total	**400**	**100.0**

Table 1 reveals that females make up the majority, accounting for 68.5% (274 respondents). In terms of age, a large portion of the respondents are younger, with 87.3% (349 respondents) below the age of 30. For education, most respondents have a bachelor's degree, accounting for

64.0% (256 respondents). Lastly, in relation to monthly income, the majority, 66.8% (267 respondents), earn less than 10,000 Baht per month.

Health Safety Management, Service Quality, Customer Decision, and Customer Satisfaction

The study analyzes health safety management, service quality, customer decision-making, and customer satisfaction using the mean, standard deviation (S.D.), skewness, kurtosis, and coefficient of variation (C.V.). The details are shown in Table 2.

Table 2 Mean, Standard Deviation (S.D.), Skewness, Kurtosis, Coefficient of Variation (C.V.) of Studied Variables

Variables	Mean	S.D.	Skewness	Kurtosis	C.V.
Health Safety Management					
- Health Safety Policy (HPOL)	4.138	0.701	-0.362	-0.875	0.169
- Health Risk Management (HRIS)	4.141	0.688	-0.457	-0.555	0.166
- Health Safety Promotion (HPRO)	4.104	0.693	-0.288	-0.920	0.169
Service quality					
- Reliability (SREL)	3.949	0.730	-0.294	-0.236	0.185
- Assurance (SASS)	4.114	0.671	-0.544	0.386	0.163
- Tangibility (SPHY)	4.082	0.731	-0.450	-0.393	0.179
- Empathy (SEMP)	4.164	0.694	-0.376	-0.959	0.167
- Responsiveness (SRES)	4.119	0.680	-0.349	-0.742	0.165
Customer Decision					
- Need Recognition (DAWA)	4.129	0.692	-0.334	-0.909	0.168
- Information Searching (DINF)	4.123	0.680	-0.310	-0.804	0.165
- Alternative Evaluation (DEVA)	4.092	0.713	-0.377	-0.571	0.174
- Decision Making (DDEC)	4.114	0.737	-0.485	-0.507	0.179
- Post-decision Evaluation (DAFT)	4.128	0.689	-0.453	-0.396	0.167
Customer Satisfaction					
- Service Convenience (SCON)	4.115	0.729	-0.450	-0.549	0.177
- Service Coordination (SCOO)	4.115	0.721	-0.556	-0.065	0.175
- Employee Service Mind (SINT)	4.123	0.723	-0.533	0.043	0.175
- Service Information (SINF)	4.093	0.737	-0.444	-0.602	0.180
- Service Cost (SCOS)	4.090	0.712	-0.333	-0.738	0.174

From Table 2, it is found that the mean scores across all variables range from around 3.949 to 4.164, indicating generally high positive responses on a likely scale and suggesting that respondents rated aspects in terms of health safety management, service quality, decision, and satisfaction favorably. Specifically, the high mean scores, all of which are well above the midpoint of the 5-point scale, indicate a strong tendency among respondents to agree on the importance of these constructs. Also, the standard deviations are mainly in the range of 0.671 to 0.737, which are relatively low given the scale used, suggesting that responses were fairly consistent among participants. For skewness, the values of all variables are pretty mild, ranging from -0.288 to -0.556. For kurtosis, all values are predominantly negative, except for one slightly positive value (0.386). The kurtosis values, such as -0.920 and -0.875, are predominantly negative. However, both skewness and kurtosis values suggest that the distribution of responses is normal and acceptable. Finally, the coefficients of variation range from 0.163 to 0.185, indicating moderate relative variability in responses compared to the mean. These values indicate a relatively high level of agreement among responses, with no variable exhibiting extremely high dispersion or variability in the data.

Validity and Reliability

The instrument's validity and reliability were thoroughly assessed to ensure the quality of the measurement model. Internal consistency was evaluated using Cronbach's Alpha (CA) and Composite Reliability (CR), while construct validity was examined through convergent and discriminant validity tests. The detailed results of these assessments, including factor loadings, CA, CR, and Average Variance Extracted (AVE), are presented in Table 3.

Table 3 Factor Loading, Cronbach's Alpha Coefficient (CA), Composite Reliability (CR), and Average variance extracted (AVE) for Measurement Model

Latent Variable	CA	CR	AVE	Indicators	Loads
Safety (SF)	0.933	0.933	0.882	HPOL	0.939
				HPRO	0.940
				HRIS	0.938
Service Quality (SQ)	0.937	0.940	0.799	SREL	0.856
				SASS	0.894
				SRES	0.898
				SPHY	0.905
				SEMP	0.915
Decision (DCS)	0.942	0.944	0.811	DAFT	0.899
				DAWA	0.913
				DDEC	0.883
				DEVA	0.886
				DINF	0.922
Satisfaction (SAT)	0.944	0.945	0.818	SCON	0.908
				SCOO	0.904
				SCOS	0.907
				SINF	0.893
				SINT	0.910

As shown in Table 3, the measurement model demonstrates strong psychometric properties. All Cronbach's Alpha and Composite Reliability values ranged from 0.933 to 0.945, significantly exceeding the 0.70 threshold and indicating excellent internal consistency (Hair et al., 2016). Convergent validity was established as all AVE values (0.799-0.882) surpassed the 0.50 benchmark suggested by Fornell & Larcker (1981). Finally, discriminant validity was confirmed as the square root of each construct's AVE was greater than its correlation with any other construct in the model, satisfying the Fornell-Larcker criterion and ensuring the distinctiveness of the variables (Henseler et al., 2015).

Analysis of Structural Model

In relation to the structural model in this research, the direct effects indicated that the R-squared value of the dependent variable, or satisfaction (SAT), was 0.841, indicating that the independent variable explained 84.1% of the variance in the dependent variable. For the indirect effects, the R-squared value of the mediating variables showed that the R-squared value for decision (DCS) was 0.833. Figure 2 and Table 4 show information from the structural model.

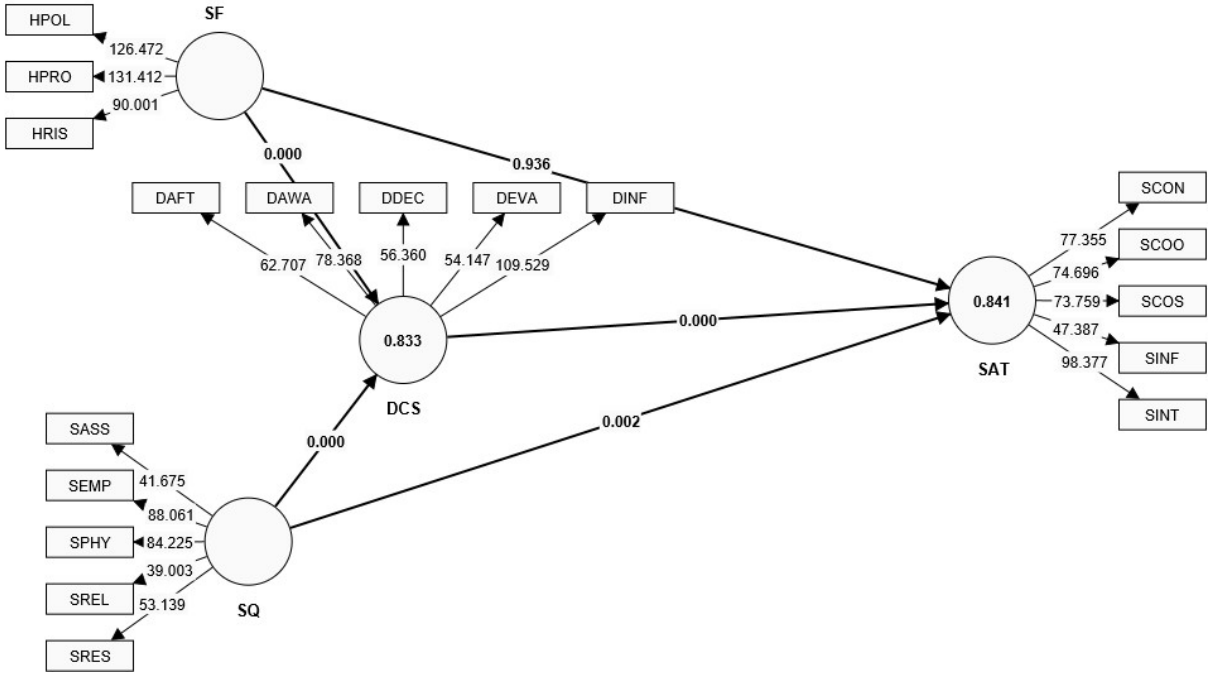

Figure 2 Analysis of Hypotheses Using Structural Equation Modeling
Note: SF = health safety management, SQ = service quality, DCS = customer decision, SAT = customer satisfaction

Table 4 Structural Model

Hypothesis	β	T Statistics	P-value
H1: SF → SAT	0.007	0.08	0.936
H2: SF → DCS	0.608	8.907	0.000***
H3: SQ → SAT	0.192	3.099	0.002**
H4: SQ → DCS	0.328	4.634	0.000***
H5: DCS → SAT	0.739	11.394	0.000***
H6: SF → DCS → SAT	0.449	7.557	0.000***
H7: SQ → DCS → SAT	0.242	4.119	0.000***

The results in Table 4 showed that safety (SF) did not affect satisfaction (SAT) ($\beta = 0.007$, $p > 0.05$) but had a positive and significant effect on decision (DCB) ($\beta = 0.608$, $p < 0.001$). In contrast, service quality (SQ) had a positive and significant effect on satisfaction (SAT) ($\beta = 0.192$, $p < 0.01$) and on decision (DCS) ($\beta = 0.328$, $p < 0.001$), so hypothesis 1 was rejected while hypotheses 2, 3, and 4 were supported. The results also revealed that Decision (DCS) had a positive and significant effect on satisfaction (SAT) ($\beta = 0.739$, $p < 0.001$), so hypothesis 5 was supported. The results also demonstrated a significant indirect effect on the relationships between safety (SF), service quality (SQ), decision (DCS), and satisfaction (SAT). Decision (DCS) played a mediating role in the relationships among safety (SF) and satisfaction (SAT) ($\beta = 0.449$, $p < 0.001$), and service quality (SQ) and satisfaction (SAT) ($\beta = 0.242$, $p < 0.001$), so hypotheses 6 and 7 were supported. To provide a more in-depth understanding, the path coefficients (β) reveal the magnitude of these relationships. The most substantial direct effect on the model was from customer decision to customer satisfaction (H5: $\beta = 0.739$), indicating that the customer's decision is the most powerful predictor of their satisfaction. Furthermore, health safety management showed a substantial positive influence on customer decision (H2: $\beta = 0.608$). For the mediation effects, the indirect path from health safety management to customer satisfaction through customer decision (H6: $\beta = 0.449$) was significant and

substantial, underscoring the critical role of customer decision-making in translating safety perceptions into satisfaction.

Conclusion and Discussion

The study demonstrates that while health safety management influences customer decisions in H1 and H2, it does not have an impact on customer satisfaction with logistics service providers. This is because the importance of health and safety management for client service-oriented industries is mainly attributed to the intimate interactions between consumers and service providers. In the food industry, consumers are more likely to choose a restaurant that provides them with the assurance of proper health and safety precautions to protect their health and well-being. In healthcare, individuals select hospitals and clinics based on their health safety measures (Robson et al., 2007; Golian et al., 2018) to ensure their safety. However, for logistics service provider firms, customer satisfaction is mainly driven by factors such as timeliness, accuracy, and cost-effectiveness rather than the control of health and safety. While clients expect logistics companies to maintain specific health and safety protocols, this does not significantly affect their choice of service provider (Jaafar et al., 2018; Tsopa et al., 2023). This could be because clients perceive logistics services as being more concerned about the safe and swift delivery of items than they are about human health and safety. As long as logistics providers provide their products on time and in excellent condition, customers are often satisfied with their service. Studies by Shepherd & Rudd (2014), Bolumole et al. (2016), and Panwar et al. (2019) suggest that health safety management may not have a significant impact on customer satisfaction in the logistics services sector.

On the other hand, based on H2, H3, and H4, the study showed that service quality influences customer decisions and customer satisfaction in using logistics service providers, and customer decisions also influence customer satisfaction in using logistics service providers. Customers rely heavily on logistics companies to deliver their products efficiently, on time, and without damage. Poor quality of service can lead to delays, errors, and other issues for consumers, which can negatively impact their business operations. For example, this may cause consumers to become dissatisfied with the logistics providers, leading them to substitute with other providers (Yen et al., 2022; Lin et al., 2023). In contrast, satisfied logistics provider clients are more likely to continue using their services and refer others to them. Experiences with a logistics provider contribute to consumer trust and loyalty over time (Ali et al., 2021; Tuncer et al., 2021; Dabees et al., 2023). This not only helps the logistics provider with the retention and acquisition of clients but also enhances the overall consumer journey and satisfaction. Given their freedom of choice, consumers' decision-making undoubtedly determines their satisfaction with logistics service providers. Pleased customers are more likely to be content with their service.

Finally, H6 and H7 indicate that customer decision mediates the relationships between health and safety management and customer satisfaction, as well as between service quality and customer satisfaction in the context of logistics service providers. Customers prioritize their health and safety when selecting logistics service providers. Customers demand guarantees related to safe and hygienic treatment and shipment of their goods (Yen et al., 2022; Sukri et al., 2023). Thus, an effective health and safety management system can enhance consumer confidence and loyalty, which may ultimately lead to higher customer satisfaction levels. Moreover, one of the key factors influencing client satisfaction is the quality provided by logistics service providers. Customers expect on-time and trustworthy delivery, clear communication, and effective troubleshooting from their logistics service provider (Le et al., 2020). Meeting these criteria ensures that clients are more likely to be satisfied with the service. The level of service quality plays a crucial role in customer satisfaction and influences consumer preferences (Türkmen & Polat, 2019; Elsaed et al., 2023). Overall, the level of

customer satisfaction with logistics service providers is primarily determined by consumer choices, which are influenced by health and safety management, as well as service quality. By meeting these conditions, logistics service providers can potentially enhance customer satisfaction and cultivate meaningful relationships with their clients.

The outcomes of this study offer several actionable implications for logistics service providers seeking to enhance customer satisfaction. Crucially, given that health and safety management significantly influence customer choice, providers must move beyond mere compliance and actively communicate their safety standards as a key market differentiator. This can involve showcasing certifications and publicizing hygiene protocols to build trust and directly influence the customer's selection process. Alongside this strategic communication of safety, the findings reaffirm that providers must not neglect the fundamental drivers of satisfaction. The direct impact of service quality underscores the continued need to invest in core operational areas, such as on-time delivery, package integrity, and responsive customer service. To integrate these efforts effectively, managers are advised to map the entire customer decision journey, which allows them to strategically place messages about both service quality and safety commitment at the critical touchpoints where potential clients evaluate their options.

The findings of this study should be considered in light of several limitations. First, the application of a convenience sampling strategy may limit the generalizability of the findings to a broader population of logistics users in Thailand. Second, the study is centered in the Bangkok metropolis, and the results cannot necessarily be generalized to other geographic contexts where the logistics landscape is different. Last but not least, the cross-sectional nature of the study takes a snapshot at a point in time; it does not monitor time effects on customer perceptions and satisfaction in a longer-term relationship. Finally, these constraints suggest several potential Opportunities for Future Research. These gaps could be addressed in future studies by applying a random sampling strategy and enlarging the geographical area of investigation. A longitudinal study can provide valuable insights into the dynamic process of customer satisfaction. Second, research may employ a mixed-methodology approach, for example, through qualitative interviews with logistics managers and customers, which provide depth and context to the quantitative data. To develop a more comprehensive AIS, researchers may consider other antecedent variables, such as brand reputation and price sensitivity, as well as macro-environmental influences like market competition and the state of the economy.

In conclusion, this research provides evidence that the customer decision-making process serves as the mediating link through which health and safety management affects customer satisfaction in the logistics sector of Thailand. Service quality directly affects satisfaction; the effect of health and safety management is fully mediated. The influence of health and safety management on customer choice is then a primary predictor of customer satisfaction. The primary purpose of this study is to empirically examine this mediating process and provide a refined model that can be applied to both academia and practice. Ultimately, these results point toward a new strategic orientation for logistics service providers, one where it is no longer sufficient to ensure security, but one where security is actively communicated as a means to influence customer decisions.

References

Abbas, F., & Malik, T. (2023). Quality of service, patient safety, and patient trust in patient loyalty. *Journal of Indonesian Scholars for Social Research, 3*(1), 8-17.

Abdallat, M., & Emam, H. (2008). Customer satisfaction. *Journal of King Saud University, 17*, 45-60.

Ali, H., Zainal, V., & Ilhamalimy, R. (2021). Determination of purchase decisions and customer satisfaction: Analysis of brand image and service quality (review literature of

marketing management). *Dinasti International Journal of Digital Business Management, 3*(1), 141-153.

Alzaydi, Z. (2023). Examining the mediating effect of multi-channel integration quality in the relationship with service quality, customer satisfaction and customer loyalty in the Saudi banking sector. *Management & Sustainability: An Arab Review, 3*(2), 132-149.

Auyong, H., Zailani, S., & Surienty, L. (2011). Safety and health management in logistics: Literature review and future research. *Journal of System and Management Sciences, 1*(3), 9-20.

Bae, H. (2012). The influencing factors of logistics integration and customer service performance for value creation of port logistics firms. *The Asian Journal of Shipping and Logistics, 28*(3), 345-368.

Bolumole, Y., Grawe, S., & Daugherty, P. (2016). Customer service responsiveness in logistics outsourcing contracts: The influence of job autonomy and role clarity among on-site representatives. *Transportation Journal, 55*(2), 124-148.

Bungatang, B., & Reynel, R. (2021). The effect of service quality elements on customer satisfaction. *Golden Ratio of Marketing and Applied Psychology of Business, 1*(2), 107-118.

Cengiz, E. (2010). Measuring customer satisfaction: Must or not. *Journal of Naval Science and Engineering, 6*(2), 76-88.

Chartchawalitsakul, P. (2020). *The service quality affecting customer loyalty toward food delivery service in Thailand*. Master's Thesis, Chulalongkorn University.

Cochran, W. (1977). *Sampling techniques*. New Jersey: John Wiley & Sons.

Dabees, A., Barakat, M., Elbarky, S., & Lisec, A. (2023). A framework for adopting a sustainable reverse logistics service quality for reverse logistics service providers: A systematic literature review. *Sustainability, 15*(3), 1755.

Dašić, M., Trajković, S., & Jakšić, K. (2022). Influence of service quality on customer satisfaction in Serbian logistics practice. *BizInfo (Blace) Journal of Economics, Management and Informatics, 13*(1), 19-24.

Do, Q., Kim, T., & Wang, X. (2023). Effects of logistics service quality and price fairness on customer repurchase intention: The moderating role of cross-border e-commerce experiences. *Journal of Retailing and Consumer Services, 70*, 103165.

Elbanna, S. (2006). Strategic decision-making: Process perspectives. *International Journal of Management Reviews, 8*(1), 1-20.

Elsaed, A., Soliman, S., & Emam, A. (2023). The impact of logistics service quality on customer loyalty in Egyptian resorts: Customer satisfaction as a mediator. *International Journal of Tourism and Hospitality Management, 6*(1), 153-167.

Fabac, R., & Mance, I. (2011). Customer relationship management system in occupational safety & health companies: Research on practice and preliminary design solution. *Interdisciplinary Description of Complex Systems, 9*(2), 101-118.

Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Golian, J., Nagyová, Ľ., Andocsová, A., Zajác, P., & Palkovič, J. (2018). Food safety from consumer perspective: Health safety. *Potravinarstvo, 12*(1), 313-323.

Gupta, A., Singh, R., Mathiyazhagan, K., Suri, P., & Dwivedi, Y. (2023). Exploring relationships between service quality dimensions and customers satisfaction: Empirical study in context to Indian logistics service providers. *The International Journal of Logistics Management, 34*(6), 1858-1889.

Hair, J., Hult, G., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. California: Sage Publications.

Henseler, J., Ringle, C., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43*, 115-135.

Jaafar, M., Arifin, K., Aiyub, K., Razman, M., Ishak, M., & Samsurijan, M. (2018). Occupational safety and health management in the construction industry: A review. *International Journal of Occupational Safety and Ergonomics, 24*(4), 493-506.

Jermsittiparsert, K., Sriyakul, T., Sutduean, J., & Singsa, A. (2019). Determinants of supply chain employees safety behaviours. *Journal of Computational and Theoretical Nanoscience, 16*(7), 2959-2966.

Jusufbašić, A., & Stević, Ž. (2023). Measuring logistics service quality using the SERVQUAL model. *Journal of Intelligent Management Decision, 2*(1), 1-10.

Klimecka-Tatar, D., & Matevž, O. (2020). The level of occupational health and safety in European enterprises providing transport and logistics services in terms of quality management principles. *Multidisciplinary Aspects of Production Engineering, 3*(1), 394-404.

Kurniawan, Y., & Putritama, A. (2020). Customers'satisfaction factors of online transportation services. *Nominal Barometer Riset Akuntansi dan Manajemen, 9*(2), 191-210.

Lang, G. (2020). An empirical study on the exploration of factors influencing customer satisfaction in logistics distribution service. *IOP Conference Series Earth and Environmental Science, 546*(5), 052031.

Le, D., Nguyen, H., & Truong, P. (2020). Port logistics service quality and customer satisfaction: Empirical evidence from Vietnam. *The Asian Journal of Shipping and Logistics, 36*(2), 89-103.

Lin, C. (2022). Effect of the service quality of express service company on Thai e-commerce customer satisfaction in Thailand: A case of Kerry Express. *Frontiers in Business, Economics and Management, 6*(1), 55-60.

Lin, X., Mamun, A., Yang, Q., & Masukujjaman, M. (2023). Examining the effect of logistics service quality on customer satisfaction and re-use intention. *PloS ONE, 18*(5), e0286382.

Nguyen, V., Tran, D., Dang, T., Nguyen, T., & Ngo, T. (2023). The impact of logistics services on customer satisfaction: An empirical study in the COVID-19 pandemic. *Journal of Organizational Behavior Research, 8*(1), 12-24.

Nilashi, M., Abumalloh, R., Alghamdi, A., Minaei-Bidgoli, B., Alsulami, A., Thanoon, M., Asadi, S., & Samad, S. (2021). What is the impact of service quality on customers' satisfaction during COVID-19 outbreak? New findings from online reviews analysis. *Telematics and Informatics, 64*, 101693.

Okeudo, G. (2012). The role of strategic human resources management in the performance of logistic service provider firms: A case study of Owerri. *International Journal of Asian Social Science, 2*(6), 858-868.

Oktavanny, A., & Sulistiadi, W. (2022). The determinant factors of customer satisfaction: Promotion, service quality and brand image. *International Journal of Entrepreneurship and Business Development, 5*(2), 312-322.

Özaydin, N. (2016). The service failure and recovery strategies in logistics service sector. *Celal Bayar Üniversitesi Sosyal Bilimler Dergisi, 14*(2), 485-506.

Panwar, D., Anand, S., Ali, F., & Singal, K. (2019). Consumer decision making process models and their applications to market strategy. *International Management Review, 15*(1), 36-44.

Park, J., & Lee, S. (2022). A study on the effects of the win-win supportive collaboration on safety climate, safety prevention, and safety behavior: From the safety quality

perspective of domestic small and medium-sized logistics companies. *Journal of Korean Society for Quality Management, 50*(2), 251-264.

Partalidou, X., Zafeiriou, E., Giannarakis, G., & Sariannidis, N. (2020). The effect of corporate social responsibility performance on financial performance: The case of food industry. *Benchmarking: An International Journal, 27*(10), 2701-2720.

Phrapratanporn, B., Thanitnan, C., Thanitnan, C., Rungsawanpho, D., Aunyawong, W., & Kochakasettrin, N. (2022). Online purchase decision on consumer goods in the context of the service value of third-party logistics service provider. *Journal of Optoelectronics Laser, 41*(4), 79-84.

Reynaldo, R., Suprapto, W., & Jani, Y. (2020). Service convenience and service quality to customer satisfaction among the shipping expeditions. *SHS Web of Conferences 76*, 01043.

Riliandini, P., Dianti, E., Hidayah, S., & Pertiwi, D. (2021). Improved logistics service quality for goods quality delivery services of companies using analytical hierarchy process. *Journal of Soft Computing Exploration, 2*(1), 33-39.

Robson, L., Clarke, J., Cullen, K., Bielecky, A., Severin, C., Bigelow, P., Irvin, E., Culyer, A., & Mahood, Q. (2007). The effectiveness of occupational health and safety management system interventions: A systematic review. *Safety Science, 45*(3), 329-353.

Setia, B., Yuniarsih, T., Gaffar, M., Suryadi, E., Affandi, A., & Rohmawati, T. (2022). Job satisfaction as a mediator in improving employee performance through talent and knowledge management. *Journal of Eastern European and Central Asian Research, 9*(5), 749-762.

Shepherd, N., & Rudd, J. (2014). The influence of context on the strategic decision-making process: A review of the literature. *International Journal of Management Reviews, 16*(3), 340-364.

Singh, S. (2015). The impact of service satisfaction, relational satisfaction and commitment on customer loyalty in logistics outsourcing relationship. *Journal of Supply Chain Management Systems, 4*(1), 58-71.

Singh, S., Adhikari, A., Majumdar, A., & Bisi, A. (2022). Does service quality influence operational and financial performance of third party logistics service providers? A mixed multi criteria decision making-text mining-based investigation. *Transportation Research Part E: Logistics and Transportation Review, 157*, 102558.

Sukri, S., Ngah, A., & Yiaw, M. (2023). To stay or not to stay: the mediation roles of job satisfaction and organization commitment among women in logistics industry. *Acta Logistica, 10*(1), 35-46.

Tabor, J., & Modrak, J. (2015). Occupational safety management in selected logistics systems. *Polish Journal of Management Studies, 12*(2), 161-169.

Tanduklangi, A., & Yusuf, H. (2017). The role of customer motivation in mediating customer communication and customer decision to use Kartu as of Telkomsel broadband Services in Kendari of Indonesia. *Mediterranean Journal of Social Sciences, 8*(2), 87-96.

Teresa, G., & Evangelos, G. (2015). *Importance of logistics services attributes influencing customer satisfaction*. A paper presented at the 4th International Conference on Advanced Logistics and Transport, Valenciennes, France.

Tsopa, V., Mamatova, T., Yavorska, O., Cheberiachko, S., Cheberiachko, Y., & Deryugin, O. (2023). Formation of a new concept of a healthy and safe workplace in Ukraine. *Labour Protection Problems in Ukraine, 39*(1-2), 28-37.

Tuncer, I., Unusan, C., & Cobanoglu, C. (2021). Service quality, perceived value and customer satisfaction on behavioral intention in restaurants: An integrated structural model. *Journal of Quality Assurance in Hospitality & Tourism, 22*(4), 447-475.

Türkmen, F., & Polat, N. (2019). The mediating effect of organizational commitment on relationship between flexible working and job satisfaction: a research in logistics sector. *Beykoz Akademi Dergisi*, 1-20. https://doi.org/10.14514/byk.m.26515393.2019.sp/1-20.

Uvet, H. (2020). Importance of logistics service quality in customer satisfaction: An empirical study. *Operations and Supply Chain Management: An International Journal, 13*(1), 1-10.

Uzir, M., Al Halbusi, H., Thurasamy, R., Hock, R., Aljaberi, M., Hasan, N., & Hamid, M. (2021). The effects of service quality, perceived value and trust in home delivery service personnel on customer satisfaction: Evidence from a developing country. *Journal of Retailing and Consumer Services, 63*, 102721.

Valentini, S., Montaguti, E., & Neslin, S. (2011). Decision process evolution in customer channel choice. *Journal of Marketing, 75*(6), 72-86.

Wang, S., & Hu, Z. (2022). Logistics service supply chain decision-making analysis considering impact of environment and service level. *Polish Journal of Environmental Studies, 31*(6), 5285-5297.

Wang, Y., & Ruhe, G. (2007). The cognitive process of decision making. *International Journal of Cognitive Informatics and Natural Intelligence, 1*(2), 73-85.

Yen, T., Trang, N., & Anh, T. (2022). Impact of e-logistics service quality on customer's satisfaction and loyalty: Evidence in Hanoi, Vietnam. *East Asian Journal of Multidisciplinary Research, 1*(5), 739-752.

Yuliarto, R. (2021). Analysis of the influence of service quality on customer satisfaction. *E-Jurnal Manajemen, 1*(10), 62-81.

Zeithaml, V., Berry, L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing, 60*(2), 31-46.

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