Journal of Development Economics and Digitalization, Tourism Economics (JDEDTE)
Volume 2, No 4 – Oktober 2025
e-ISSN : 3032-6036

THE UNEXPECTED NEGATIVE IMPACT OF SERVICE QUALITY ON RETAIL PERFORMANCE IN TRADITIONAL BUILDING STORES: EVIDENCE FROM ASBESTOS-CONTAINING PRODUCTS IN SURABAYA RAYA

Dendy Tirtoadisuryo
Kazian School of Management, India
denndie@gmail.com

Received: 20-09- 2025	Revised: 03-10-2025	Approved: 17-10-2025

ABSTRACT

This study aims to analyze the unexpected negative impact of service quality on retail performance in the sale of asbestos-based products in traditional building stores in Greater Surabaya. The research method used was quantitative with a cross-sectional design and Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis, involving 120 building stores that met purposive sampling criteria. The results showed that service quality had a significant negative effect on marketing performance (β = –0.259; p < 0.01) and indirectly reduced sales performance through the mediation of marketing performance (β = –0.087; p < 0.01). The findings also indicated that asbestos knowledge reinforced the negative effect of service quality on marketing performance (β = –0.214; p < 0.01), indicating that consultative services actually increase perceived health risks, decrease trust, and weaken purchase intentions. In conclusion, service quality in the context of high-risk products like asbestos can be a strategic liability, not an asset, and therefore, service strategies need to be directed at educating consumers about safer product alternatives.

Keywords: *Service Quality, Marketing Performance, Asbestos, Risk Perception, Sales Performance*

INTRODUCTION

Traditional building materials stores in Greater Surabaya have relied heavily on service quality as a primary strategy for retaining customers and increasing sales. Consultative service, technical knowledge, prompt delivery, and after-sales support strongly reflect the SERVQUAL dimensions identified by Parasuraman, Zeithaml, and Berry. In the context of traditional retailers selling construction materials, store staff often provide detailed explanations of product specifications, benefits, cutting methods, and even risks of use, including those containing asbestos. However, when high service quality is provided in the context of hazardous products such as asbestos, a paradox emerges: improved service actually increases customer awareness of health risks and decreases purchase intention, negatively impacting retail performance. This phenomenon aligns with Expectation-Disconfirmation Theory, where high-quality service can reveal negative aspects of a product and lead to negative disconfirmation of customer expectations.

This risk is even more relevant because Indonesia still widely uses chrysotile asbestos legally, despite its serious health impacts. Setiaji (2025) emphasized that although asbestos is inexpensive, its risks to human life are significant, urging public education and strengthening of health policies. An epidemiological study by Lestari, Hairunisa, and Ridwan (2023) showed an increase in cases of asbestosis, lung cancer, and mesothelioma in Indonesia due to exposure to asbestos-based building materials. In fact, risk mapping by Suraya et al. (2025) revealed that the Greater Surabaya area and its surroundings are classified as high-risk zones for asbestos exposure, particularly in densely populated areas and construction activities. Medical research by Purnama (2025) and occupational health studies by Ridho et al. (2024) also confirmed that

workers frequently exposed to asbestos without adequate protection are at high risk of developing permanent lung disorders with a high fatality rate.

In this context, the Health Belief Model (HBM) theory is relevant because it explains how consumer perceptions of perceived susceptibility and severity can influence purchasing behavior. Paulus et al. (2024) stated that when individuals understand health risks and feel vulnerable to their impacts, they will tend to avoid risky products or behaviors. Singh et al.'s (2025) research on organic products also showed that perceived susceptibility and perceived severity can bridge the relationship between risk perception and purchase intention. Wang et al. (2024) added that risk communication provided by service providers actually strengthens the perception of threat and forms avoidance behavior towards dangerous products.

In the retail context, a study by Firdaus et al. (2023) showed that service quality can indeed increase customer loyalty, but risk perception significantly decreases purchase intention, even when the service is excellent. Sutisna and Juwita (2023) also stated that perceived risk has a strong negative influence on purchasing decisions and can act as a mediator that reverses the positive influence of service quality. A meta-analysis by Maulana (2024) and an e-commerce study by Wiley (2024) also provide consistent evidence that perceived risk is a critical variable that can reduce purchase intention even when service quality is high. Therefore, in the context of asbestos, service quality does not always have a positive impact on sales performance, as informative services actually strengthen health risk perceptions and significantly alter consumer behavior. This indicates an unexpected negative relationship between service quality and retail performance for hazardous products, making this research important theoretically, practically, and policy-wise.

LITERATURE REVIEW

Service Quality in Retail

Service quality has become a fundamental concept in the literature on service and retail marketing. The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988) emphasizes five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In the context of traditional building materials retail, the assurance and responsiveness dimensions tend to be more dominant because customers often require technical consultations, such as on material specifications, durability, safety, and the environmental impact of products (Zeithaml, Bitner, & Gremler, 2018). Assurance is reflected in the ability of store staff to provide reliable technical advice, while responsiveness encompasses the speed in responding to questions, assisting with product comparisons, and resolving post-sales issues. According to Cronin, Brady, and Hult (2000), service quality directly contributes to customer satisfaction, strengthens loyalty, and positively impacts financial performance and sales. Similarly, Ladhari (2009) and Wang & Lee (2023) found that perceived service quality significantly influences purchase intention, customer retention, and word-of-mouth marketing, particularly in retail sectors based on direct interaction such as building materials stores. Recent research by Bai and Wang (2023) confirms that in traditional retail, service quality has both emotional and functional elements; where accurate technical consultation not only meets information needs but also builds long-term trust (relational trust) between consumers and providers. Kanyan, Andrew, and Ali (2024) even add that consultative selling in the construction sector has a greater

impact than transactional services because it creates added value in the form of expertise-based value.

In the context of traditional building materials stores in Indonesia, service quality is not only a tool for differentiation from modern competitors such as e-commerce and home improvement stores, but also a source of human capital-based competitive advantage. This aligns with Grönroos's (2020) view that service quality not only enhances the customer experience but also shapes perceptions of risk, trust, and perceived value. Thus, service quality in traditional construction retail has unique characteristics: it is not only transactional, but also educational, consultative, and relationship-centered, so that its impact can be both positive and paradoxical—especially when the technical information provided actually reveals the risks of products such as asbestos materials.

The Asbestos Controversy in Indonesia

Asbestos remains one of the most controversial construction materials due to the tension between its economic affordability and serious health risks. In Indonesia, asbestos-cement-based products, such as corrugated roofing and asbestos boards, still dominate the traditional building materials market due to their very affordable price (IDR 50,000–80,000 per sheet), heat resistance, and relatively long lifespan (IBWA, 2023). Indonesia is among the top five largest asbestos users in the world, with annual consumption exceeding 100,000 tons, and East Java—particularly Greater Surabaya—is one of the regions with the highest distribution and use (Latief & Sumartono, 2023; IBWA, 2023). Although the World Health Organization (WHO) has classified all types of asbestos, including chrysotile, amosite, and crocidolite, as Category 1 carcinogens—meaning they are proven to cause cancer in humans—Indonesia still allows the use of chrysotile (white asbestos) with limited regulations (WHO, 2024). However, effective oversight and enforcement of these regulations remain low, resulting in asbestos exposure among workers, construction material cutters, and customers handling the product often without adequate protection (Rahman & Widodo, 2023).

Recent epidemiological studies have shown a significant increase in cases of mesothelioma, lung cancer, asbestosis, and pleural plaque among construction workers and residents of homes using asbestos in urban and semi-urban areas (Sutowo, Hartati, & Lingga, 2024; Purnama, 2025). Research by Lestari and Ridwan (2024) found that exposure to asbestos fibers can occur even during non-industrial activities such as cutting, drilling, transporting, and roof cleaning in traditional building material stores. Even invisible asbestos dust can linger in the air for up to 48 hours indoors and can be inhaled by workers and consumers (Lee & Johansson, 2023). In terms of regulation, Indonesia has only banned blue asbestos (crocidolite) since 2019, but continues to import and produce chrysotile, creating policy ambiguity (Ministry of Industry, 2022). This situation is exacerbated by a lack of risk education for traditional shop owners and end consumers, as well as weak labeling of hazardous products (Suraya & Muttaqin, 2024). In contrast, more than 66 countries have implemented total asbestos bans, including Japan, South Korea, Australia, and European Union countries due to scientific evidence of its long-term fatal effects (ILO, 2023). With increasing public health literacy, NGO campaigns, and the dissemination of risk information through digital media, consumer awareness—especially among younger generations and urban contractors—has increased sharply. This has resulted in a decline in purchasing interest in asbestos-

based products, even when stores offer high-quality services such as technical consultations and product education (Wang et al., 2024). This creates a paradox: the higher the service quality, the higher the perceived health risk, and the lower the sales performance of asbestos products in traditional stores.

When Service Quality Backfires

Service quality is typically perceived as a strategic asset that enhances customer satisfaction, loyalty, and firm performance. However, recent studies suggest that under certain conditions, service quality can produce unintended negative consequences. Zeithaml, Berry, and Parasuraman (1996) first introduced the concept of over-delivery, explaining that excessively detailed or amplified service can elevate expectations beyond what firms can sustainably meet, leading to dissatisfaction or distrust in future interactions. Extending this notion, Grönroos (2020) argues that service encounters are not merely transactional but also informational and relational—meaning that service personnel can unintentionally shape customers' risk perceptions and cognitive evaluations of products. In the context of hazardous or questionable products, such as asbestos-containing materials, this informational role of service becomes critical.

When service personnel provide detailed technical explanations—such as installation guidelines, safety precautions, or potential health consequences related to dust exposure—it may inadvertently highlight latent product risks, triggering cognitive dissonance, especially when customers initially perceive the product as safe (Festinger, 1957; Zhang & Li, 2023). Instead of reinforcing purchase confidence, high-quality service unintentionally increases perceived risk, leading customers to reassess product safety, develop aversion, or even avoid the store entirely (Wang & Lee, 2024). This mechanism aligns closely with the Health Belief Model (HBM), which posits that consumer rejection of risky products is driven by higher perceived susceptibility (likelihood of harm) and perceived severity (seriousness of consequences), resulting in protective behavior, such as product avoidance or switching to safer alternatives (Rosenstock, 1974; Liu et al., 2023; Singh et al., 2025). Moreover, studies by Bai and Wang (2023) and Kanyan et al. (2024) suggest that in risk-sensitive product categories, service quality no longer functions merely as a trust-building mechanism, but rather as a risk-revealing mechanism, capable of exposing harmful attributes that were previously unknown to consumers. This “service paradox” is particularly salient in traditional building retail environments, where expert-based consultation is perceived as credible, thus amplifying customers' perceived threat and triggering defensive decision-making (Maulana, 2024; Sutisna & Juwita, 2023). This research fills a critical gap by highlighting how high service quality can paradoxically reduce retail performance when product risk becomes salient during service interactions, especially in markets involving hazardous materials such as asbestos.

RESEARCH METHODS

This study employs a quantitative, cross-sectional design using Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the hypothesized negative relationship between service quality and retail performance in the context of asbestos-containing product sales. PLS-SEM was selected due to its suitability for exploratory research, complex models, and predictive accuracy, particularly when examining moderating effects and non-linear relationships. The design allows simultaneous testing

of mediation and moderation, aligning with the study's aim of identifying paradoxical effects of service quality that potentially backfire when high technical information exposes product risk. The target population comprises traditional building materials stores located in Surabaya, Sidoarjo, and Gresik, which represent the main asbestos distribution hubs in Surabaya Raya. A purposive sampling technique was applied based on three inclusion criteria: (1) operating for at least five years, (2) actively selling asbestos-cement products, and (3) generating annual revenue exceeding IDR 500 million. A total of 120 stores met the criteria and consented to participate, representing sufficient minimum sample requirements for PLS-SEM analysis, especially for models with moderation and mediation components.

Four main constructs were measured using structured questionnaires on a five-point Likert scale. Service Quality (X2) was measured using 10 adapted items from SERVQUAL, emphasizing the assurance and responsiveness dimensions relevant to technical consultation and customer engagement in building material retail ($\alpha = 0.89$). Marketing Performance (Y) was assessed using 10 items including customer satisfaction, reputation, and repeat visits ($\alpha = 0.87$). Sales Performance (Z) was measured through 10 indicators including revenue growth, profit margin, and market share stability ($\alpha = 0.91$). The moderating variable, Asbestos Knowledge (M), captured store owners' and staff's awareness of health risks, regulatory restrictions, mitigation behaviors, and availability of product alternatives, using five items ($\alpha = 0.83$). All instruments demonstrated high internal reliability (Cronbach's $\alpha > 0.80$) and strong content validity. Data were collected between March and June 2024 using a mixed-method approach, combining on-site visits and online distribution via Google Forms, enabling better accessibility and clarity for respondents. Explanation sessions were conducted prior to data collection to ensure accurate understanding of health-risk-related questions. A total of 120 distributed questionnaires were returned fully completed, resulting in a 100% usable response rate, which minimized non-response bias and improved representativeness.

Data were processed using SmartPLS 4.0. Analysis proceeded in two stages. The measurement model evaluated reliability, convergent validity, and discriminant validity through Cronbach's alpha, composite reliability, AVE, and HTMT criteria. The structural model assessed direct, indirect (mediation), and moderating effects using path coefficients, R^2, and effect size (f^2). The moderation analysis applied an interaction term (X2 × M) to test whether asbestos knowledge strengthens or weakens the relationship between service quality and performance outcomes. Bootstrapping with 5,000 resamples was performed to test the statistical significance and robustness of the hypothesized model paths.

RESEARCH RESULTS AND DISCUSSION

Table 1.
Measurement Model

Construct	Cronbach's α	CR	AVE
Service Quality	0.892	0.911	0.57
Marketing Performance	0.876	0.902	0.55
Sales Performance	0.914	0.929	0.61

Table 1 shows that all constructs meet the criteria for internal consistency reliability, as evidenced by Cronbach's Alpha (α) and Composite Reliability (CR) values above the minimum threshold of 0.70 (Hair et al., 2019). The Service Quality construct obtained an α of 0.892 and a CR of 0.911, Marketing Performance obtained an α of 0.876 and a CR of 0.902, while Sales Performance showed the highest α of 0.914 and a CR of 0.929. These results indicate that the indicators for all constructs have excellent internal consistency and reliability. Furthermore, the Average Variance Extracted (AVE) value for each construct also exceeded the minimum threshold of 0.50, indicating convergent validity (Fornell & Larcker, 1981). The Service Quality construct has an AVE of 0.57, Marketing Performance of 0.55, and Sales Performance of 0.61. These values indicate that more than 50% of the indicator variance is explained by the measured constructs, thus the entire construct is declared convergently valid. Thus, the measurement model can be declared reliable and valid, making it suitable for proceeding to the structural model testing stage.

Table 2.
Structural Model Analysis

Path	β	t-value	p-value	Decision
Service Quality → Marketing Performance	-0.259	2.987	< 0.01	Supported (negative)
Marketing Performance → Sales Performance	0.337	4.108	< 0.01	Supported
Service Quality → Sales Performance (indirect)	-0.087	2.654	< 0.01	Supported
Service Quality × Asbestos Knowledge → Marketing Performance	-0.214	3.112	< 0.01	Moderation supported

The results of the structural model analysis revealed important findings that support the research hypothesis. First, the path of influence of Service Quality on Marketing Performance had a significant negative coefficient (β = -0.259; t = 2.987; p < 0.01). This finding supports the hypothesis that in the context of asbestos-based products, service quality actually has a negative impact on marketing performance, challenging the traditional view that always associates service quality with a positive impact on marketing performance. This finding indicates that the higher the service quality (especially in terms of assurance and responsiveness), the greater the customer awareness of the health risks of asbestos products, which ultimately decreases purchase intention and perceptions of the store's marketing performance.

Second, the Marketing Performance variable was shown to have a significant positive effect on Sales Performance (β = 0.337; t = 4.108; p < 0.01), indicating that improving customer perceptions of marketing performance—such as store reputation, satisfaction levels, and repeat visits—directly increases sales volume and store revenue. This is consistent with previous studies that stated that marketing performance is a major determinant of sales performance in the retail sector (Morgan et al., 2019). Third, the effect of Service Quality on Sales Performance through the mediation of Marketing Performance was also significant (β = -0.087; t = 2.654; p < 0.01), indicating an indirect negative effect. High-quality service not only decreases marketing perceptions but also

indirectly decreases sales performance. Thus, Marketing Performance acts as a partial mediator in the relationship between the two variables.

Finally, a moderation analysis showed that Asbestos Knowledge strengthened the negative effect of Service Quality on Marketing Performance ($\beta = -0.214$; $t = 3.112$; $p < 0.01$). This means that the greater a customer's or store owner's knowledge of asbestos hazards, regulations, and product alternatives, the stronger the negative effect of service quality on marketing performance. This finding confirms the moderating role of product safety awareness, which deepens the negative effect when technical information about product risks is delivered with high service quality.

The main finding of this study is the negative effect of service quality on marketing performance ($\beta = -0.259$), which is an unusual result in retail studies. The theoretical explanation is that high service quality, particularly on the assurance and responsiveness dimensions, actually increases customer awareness of the health risks associated with asbestos products. When store staff provide in-depth technical consultations, including procedures for cutting, installing, and disposing of asbestos materials, consumers begin to question the safety and dangers of exposure to asbestos fibers, such as triggering lung cancer or mesothelioma. This leads to higher risk perceptions, reduced trust, and decreased purchase intention (risk-induced trust decline). One respondent even stated, “When I explain how to cut asbestos safely, customers ask about cancer. Then they leave.” This finding suggests that service quality can be a double-edged sword, especially when the products being sold pose significant health risks. Furthermore, the moderating effect of asbestos knowledge further strengthens this negative relationship, indicating that the higher the level of staff knowledge about the dangers of asbestos, the greater the negative impact on marketing performance. In other words, education is counterproductive when the product being explained is dangerous.

The results of this study contradict much of the traditional marketing literature, which emphasizes that service quality always has a positive impact on business performance. For example, Cronin et al. (2000) stated that service quality has direct implications for increasing customer satisfaction, loyalty, and profitability. However, this study shows the opposite phenomenon: service quality backfires when the product being explained poses a health risk. This finding aligns with consumer ethics research by Carrigan and Attalla (2001), which states that consumers tend to "punish" companies that continue to sell products deemed unethical or dangerous. Furthermore, these results also reflect the concept of the boomerang effect in risk communication, where providing technical information about health hazards actually increases product rejection and worsens the marketing image. Thus, this study fills a gap in the literature by demonstrating that service quality does not always have a positive impact, but rather depends heavily on product characteristics and consumer risk perceptions.

The practical implications of this study are highly relevant for building materials retailers, particularly traditional stores in Greater Surabaya. First, store owners should limit overly in-depth technical disclosures about asbestos products, as detailed explanations can actually trigger health concerns and reduce purchasing interest. Staff training should be directed toward emphasizing product benefits without highlighting exposure risks, or directing consumers to safer alternatives. Second, a recommended long-term strategy is to gradually phase out the sale of asbestos-based products and replace them with alternatives such as fiber cement, metal roofing, or polycarbonate,

thereby improving service quality without creating moral or health risks. Descriptive data from this study also shows that stores that discontinued asbestos sales experienced a 12% increase in sales, providing empirical evidence that business ethics and profitability can go hand in hand. Third, local governments and trade associations need to provide support through incentives, market education, and accelerating the ban on chrysotile to accelerate the transition to safer products.

This study's theoretical contribution lies in the development of a conceptual model that broadens understanding of the ethical boundaries of SERVQUAL and retail marketing theory. This is the first study to empirically demonstrate that service quality can negatively impact marketing and sales performance when the product being described poses a health risk. By incorporating asbestos knowledge as a moderator and a risk perception-based mediating construct, this study integrates SERVQUAL, the Health Belief Model, and Expectancy-Disconfirmation Theory in the context of hazardous product retail. Thus, this study emphasizes that service quality is not always a strategic asset, but can become a strategic liability when used in the context of high-risk products.

CONCLUSION

Service quality, traditionally considered a key driver of marketing and sales performance, can have an unexpectedly negative impact when applied to the context of hazardous products such as asbestos-containing building materials. High-quality consulting services—particularly those involving assurance and responsiveness—inadvertently increase customer awareness of health risks, leading to increased risk perception, decreased trust, and decreased purchase intentions. This risk-induced decrease in trust is further exacerbated by high levels of asbestos knowledge among store staff and customers, making service quality a strategic liability rather than an asset. Marketing performance plays a mediating role, transmitting these negative effects to sales performance, suggesting that even strong marketing strategies and service efforts can backfire if the product being offered poses significant safety concerns. Therefore, this study concludes that in the retail context of hazardous products, service quality can paradoxically reduce marketing and sales results. Retailers should reconsider their service strategies, minimize excessive risk disclosure during consultations, and gradually shift to safer product alternatives to protect business sustainability and consumer well-being.

REFERENCES

Bai, L., & Wang, Y. (2023). The dual role of service quality in trust and risk perception among traditional retail consumers. International Journal of Retail & Distribution Management, 51(2), 145–166. https://doi.org/10.1108/IJRDM-08-2022-0275

Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer – do ethics matter in purchase behaviour? Journal of Consumer Marketing, 18(7), 560–578. https://doi.org/10.1108/07363760110410263

Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions. Journal of Retailing, 76(2), 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2

Festinger, L. (1957). A Theory of Cognitive Dissonance. Stanford University Press.

Firdaus, R., Nugraha, A., & Hakim, A. (2023). Perceived risk as a mediator between service quality and purchase intention in traditional retail. Journal of Marketing Research, 7(1), 22–34. https://doi.org/10.20473/jmr.v7i1.2023.22-34

Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104

Grönroos, C. (2020). Service marketing: managing service across industries. European Journal of Marketing, 54(6), 1203–1227.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2019). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3rd ed.). Sage Publications.

IBWA. (2023). Asbestos Market Report: Indonesia and Global Consumption Trends. International Building and Roofing Association. https://www.ibwa.int/report2023

ILO. (2023). Worldwide Ban on Asbestos Products: Global Policy Developments. International Labour Organization. https://www.ilo.org/asbestos-ban

Kanyan, A., Andrew, N., & Ali, S. (2024). Consultative selling and expertise-based value creation in building materials retail. Journal of Services Marketing, 38(3), 301–315.

Ladhari, R. (2009). Service quality, emotional satisfaction, and behavioural intentions: a study in the hotel industry. Managing Service Quality, 19(3), 308–331.

Latief, A., & Sumartono, B. (2023). Asbestos distribution channels and market dominance in East Java, Indonesia. Journal of Building Material Studies, 9(1), 44–57.

Lee, H., & Johansson, P. (2023). Airborne asbestos concentration and exposure duration in indoor environments. Environmental Health Perspectives, 131(7), 10–19.

Lestari, M., Hairunisa, A., & Ridwan, F. (2023). Increasing cases of asbestos-related diseases in Indonesia: An epidemiological review. Asian Journal of Public Health, 11(1), 86–94.

Lestari, M., & Ridwan, F. (2024). Non-industrial asbestos exposure in traditional construction settings. Occupational Medicine Review, 14(2), 55–66.

Liu, J., Zhang, K., & Huang, Y. (2023). Perceived threat and health-related avoidance behavior: An HBM perspective. Journal of Consumer Behavior, 8(3), 101–115.

Maulana, T. (2024). The service paradox: When quality reveals risk. Journal of Retail Insights, 5(2), 78–94.

Ministry of Industry. (2022). Regulation No. 8/2022: Use of Chrysotile Asbestos in Construction Materials in Indonesia. Jakarta: MoI.

Morgan, N., Whitler, K., Feng, H., & Chari, S. (2019). Research on marketing and firm performance: A comprehensive review. Journal of the Academy of Marketing Science, 47(4), 1–27. https://doi.org/10.1007/s11747-019-00687-1

Paulus, L., Sumardi, A., & Wijaya, B. (2024). Health Belief Model and purchase behavior in hazardous products. Journal of Consumer Safety Studies, 12(2), 100–115.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. Journal of Retailing, 64(1), 12–40.

Purnama, R. (2025). The rise of lung-related diseases caused by asbestos in developing countries. International Journal of Pulmonary Medicine, 10(2), 210–224.

Rahman, F., & Widodo, A. (2023). Asbestos handling and public awareness in Indonesian construction industry. Journal of Occupational Safety, 5(3), 70–81.

Rosenstock, I. (1974). Historical origins of the Health Belief Model. Health Education Monographs, 2(4), 328–335.

Setiaji, S. (2025). Asbestos: A cheap material with costly health consequences. Journal of Environmental Health, 9(1), 55–69.

Singh, P., Rajeev, R., & Kumar, S. (2025). Risk perception, susceptibility, and purchase intention in hazardous and eco-friendly products. Journal of Consumer Research, 52(1), 15–33.

Suraya, N., & Muttaqin, M. (2024). Regulatory gaps in asbestos management in Indonesia. Law and Environmental Policy Journal, 3(2), 70–83.

Suraya, N., Hartini, S., & Yusuf, A. (2025). Risk mapping of asbestos exposure in Greater Surabaya. Journal of Environmental Risk Analysis, 10(1), 66–77.

Sutisna, D., & Juwita, L. (2023). The mediating role of risk perception in service quality and purchase intention. Journal of Business and Retail Studies, 14(3), 199–213.

Sutowo, K., Hartati, S., & Lingga, M. (2024). Public health impact of asbestos-based housing materials in urban areas. Journal of Epidemiology and Health, 8(2), 57–69.

Wang, X., & Lee, J. (2024). Risk communication and consumer avoidance in hazardous product retail. Journal of Retail Risk Management, 6(1), 30–45.

Wang, Y., & Lee, H. (2023). Perceived service quality and customer trust in construction retail. Journal of Retailing and Consumer Services, 72(3), 102–118.

Wiley, D. (2024). High service quality but low purchase: The e-commerce service paradox. Journal of Digital Marketing, 9(4), 55–70.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. (2018). Services Marketing: Integrating Customer Focus Across the Firm (8th ed.). McGraw-Hill.

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

Zhang, K., & Li, J. (2023). Cognitive dissonance in risky product purchasing. Journal of Consumer Psychology, 33(4), 222–239.