

Website Development Using SDLC Prototyping with Study Case CV. RR Jaya Transindo to Support Brand Trust in Road Freight Transport Services

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Abstract

Newly established B2B road freight transport companies in Indonesia face a critical credibility gap due to the absence of digital presence, limiting their ability to build initial brand trust with potential clients in an increasingly competitive market projected to reach USD 72.25 billion by 2030. This study aims to develop a website for CV. RR Jaya Transindo, a newly established B2B road freight transport company based in Mojokerto, East Java, and to assess user's perceptions of brand trust based on their interaction with the developed website. A Research and Development (R&D) approach was adopted, applying the SDLC Prototyping model by Pressman and Maxim (2020) through five iterative phases: communication, quick plan, modeling quick design, construction of prototype, and deployment, delivery, and feedback. The website was developed using WordPress CMS with UML-based system modeling. Black-box testing across 31 test cases yielded a cumulative effectiveness score of 100%, confirming full functional conformity. Brand trust was evaluated through a quantitative survey adapted from Mal and Davies (2023) administered to 50 potential B2B clients across East, Central, and West Java. Results produced an overall mean score of 4.44, categorized as very high brand trust, indicating that the website effectively establishes a strong initial trust impression. This study demonstrates that iterative, user-feedback-driven development through SDLC Prototyping produces technically reliable systems capable of supporting initial brand trust formation in B2B road freight transport services.

Keywords: SDLC Prototyping; Website Development; Brand Trust; Road Freight Transport; Black-Box Testing.

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Abstrak

Perusahaan transportasi kargo darat B2B yang baru berdiri di Indonesia menghadapi celah kredibilitas yang kritis akibat tidak adanya presensi digital, yang membatasi kemampuan mereka untuk membangun kepercayaan merek (brand trust) awal dengan calon klien di pasar yang kian kompetitif, yang diproyeksikan akan mencapai USD 72,25 miliar pada tahun 2030. Penelitian ini bertujuan untuk mengembangkan website bagi CV. RR Jaya Transindo, perusahaan jasa pengiriman kargo darat B2B yang baru berdiri di Mojokerto, Jawa Timur, serta untuk menilai persepsi pengguna terhadap brand trust berdasarkan interaksi mereka dengan website yang dikembangkan. Pendekatan Research and Development (R&D) diterapkan menggunakan model SDLC Prototyping dari Pressman dan Maxim (2020) melalui lima fase iteratif: komunikasi, perencanaan cepat, pemodelan desain cepat, konstruksi prototipe, serta penerapan, penyerahan, dan umpan balik. Website dikembangkan menggunakan WordPress CMS dengan pemodelan sistem berbasis UML. Pengujian black-box terhadap 31 skenario uji menghasilkan skor efektivitas kumulatif 100%, mengkonfirmasi kesesuaian fungsional penuh. Brand trust dievaluasi melalui survei kuantitatif yang diadaptasi dari Mal dan Davies (2023) terhadap 50 calon klien B2B di Jawa Timur, Jawa Tengah, dan Jawa Barat. Hasil penelitian menghasilkan rata-rata skor keseluruhan sebesar 4,44, yang dikategorikan sebagai brand trust sangat tinggi. Penelitian ini menunjukkan bahwa pengembangan berbasis umpan balik pengguna secara iteratif melalui SDLC Prototyping menghasilkan sistem yang andal secara teknis dan mampu mendukung pembentukan brand trust awal dalam konteks jasa pengiriman kargo darat B2B.

Kata kunci: SDLC Prototyping; Pengembangan Website; Brand Trust; Pengiriman Kargo Darat; Pengujian Black-Box

INTRODUCTION

Economic growth is closely tied to logistics dynamics, where transportation efficiency enables intersectoral connectivity and supports structural transformation (Karayalcin & Pintea, 2022). In Indonesia, the GDP contribution of warehousing, transportation support services, postal, and courier activities increased substantially from IDR 93.5 trillion in 2015 to IDR 282.9 trillion in 2024 (Badan Pusat Statistik, 2025), underscoring the expanding strategic role of logistics in the national economy. Road freight transport is a particularly significant segment of this sector, defined as the use of commercial trucks to facilitate efficient cargo movement with unmatched door-to-door delivery flexibility (International Road Transport Union, n.d.). The Indonesian road freight market is estimated at USD 53.88 billion in 2025 and projected to reach USD 72.25 billion by 2030 at a CAGR of 6.04% (Mordor Intelligence, 2025).

Despite this growth, the market remains highly fragmented and competitive, with no single firm holding a dominant position (Mordor Intelligence, 2025). Competitive differentiation increasingly depends on digital innovation, including the establishment of a digital presence (Ritter & Pedersen, 2020). Website development represents a fundamental manifestation of this strategy, enabling companies to make services accessible, establish professional virtual presence, and facilitate connections with potential business partners across geographical boundaries (Ipsmiller et al., 2022). Moreover, corporate websites play an important role in capturing stakeholder attention and enhancing brand visibility in an increasingly competitive digital environment (Pant & Pant, 2017).

This study focuses on CV. RR Jaya Transindo, a B2B road freight transport company established in 2023 with its head office in Mojokerto Regency, East Java, and no prior digital presence. The company specializes in last-mile trucking across East, Central, and West Java, yet lacked the digital platform needed to communicate its operational capabilities and build credibility with potential B2B clients. User requirement interviews with internal stakeholders confirmed that establishing a website was identified as an urgent priority for professional recognition and market reach expansion.

In terms of website design, specific elements including visual aesthetics, information structure, and navigation design are key determinants of trust (Shaouf & Lu, 2022). In the logistics context, where service provider-client relationships are highly interdependent, trust serves as a foundation for sustaining cooperation (Yuan et al., 2018). Brand trust is conceptually defined as a consumer's willingness to rely on a brand in environments characterized by risk and uncertainty (Chaudhuri & Holbrook, 2001; Mal & Davies, 2023). Scholars analyze brand trust through two dimensions: competence (reliability) and benevolence (integrity) (Chaudhuri & Holbrook, 2001; Delgado-Ballester et al., 2003).

This study grounds the website development and evaluation within three theoretical frameworks. First, the DeLone and McLean IS Success Model (2003) is adopted as the grand theory, specifically adapting three of its six dimensions: system quality (functional reliability), information quality (content accuracy and completeness), and service quality (responsiveness of interactive support features). These three dimensions were selected because they correspond to the technical and semantic readiness criteria relevant to a first-deployment corporate website, prior to measuring behavioral use or long-term organizational benefits. Second, the SDLC Prototyping model by Pressman and Maxim (2020) is employed for development because this model is specifically suited to contexts in which initial requirements are ambiguous or incompletely defined a condition that applies directly to CV. RR Jaya Transindo, which had no prior digital reference point.

Third, the brand trust measurement framework by Mal and Davies (2023) is adopted over alternative scales (Albayrak et al., 2023; Husain et al., 2022) because it specifically captures initial trust beliefs formed at first contact, without presupposing prior usage history or an established relationship aligning precisely with the context of respondents evaluating the company solely through its website.

Prior studies have extensively examined SDLC Prototyping for web-based development (Mutamassikin et al., 2025; Ronce et al., 2025; Saputra & Sutopo, 2025), the effectiveness of WordPress CMS for corporate website development (Dewi & Putri, 2025; Riskiyah et al., 2024; Priantoni & Rochman, 2025), and the role of black-box testing in functional validation (Alfidhinnuni et al., 2025; Azizi et al., 2024). Regarding brand trust, research consistently emphasizes website quality and visual credibility as key antecedents (Srisathan et al., 2024; Hanaysha et al., 2025; Riadi et al., 2023). However, these studies predominantly focus on consumer-oriented contexts such as e-commerce and digital banking, and treat trust as a post-usage outcome rather than an initial perception formed at first contact.

A research gap remains: empirical evidence is limited regarding how a website developed through an iterative prototyping approach and validated through black-box testing can support initial brand trust formation for a B2B road freight company entering the digital market. This study addresses this gap by applying the theoretical and methodological frameworks outlined above within the unexplored context of B2B road freight transport website development. This study further argues that the iterative, user-feedback-driven nature of the SDLC Prototyping model produces systems with higher functional conformity and content accuracy, which in turn function as credibility signals supporting initial brand trust formation among potential B2B clients evaluating the company for the first time through its website.

Accordingly, this study has two objectives: (1) to develop a website for CV. RR Jaya Transindo by implementing the SDLC Prototyping model; and (2) to assess potential B2B client's perceptions of brand trust based on their interaction with the developed website.

METHODS

This study applies a Research and Development (R&D) approach, combining qualitative and quantitative methods to develop and validate the website. The R&D approach is adopted because the primary output is a tangible product (a functional website) that must be systematically designed, iteratively refined, and empirically evaluated against predefined quality standards (Gall et al., 2007). The development phase adopts the SDLC Prototyping model by Pressman and Maxim (2020), consisting of five iterative phases: (1) communication, (2) quick plan, (3) modeling quick design, (4) construction of prototype, and (5) deployment, delivery, and feedback.

Research Object, Population, and Sample

CV. RR Jaya Transindo is a B2B road freight transport services company established in 2023, located in Mojokerto Regency, East Java, operating last-mile delivery routes across East, Central, and West Java. For the qualitative development phase, the population consisted of 16 employees at the company's head office, from which three key informants were selected using snowball

sampling: the commissioner (IF01), director (IF02), and administrative staff (IF03). For the brand trust evaluation phase, the population comprises B2B business actors in the Java region (an infinite population), from which 50 respondents were selected using judgment sampling based on the central limit theorem (Sauro & Lewis, 2016). Respondent criteria required B2B operational roles, a professional need for road freight services, and operational coverage in East, Central, or West Java.

SDLC Prototyping Implementation

The five phases were implemented iteratively, with findings from each phase informing and refining the subsequent one. Communication phase: Semistructured interviews were conducted with three informants across multiple sessions to identify functional requirements, visual preferences, and operational constraints. Unstructured and structured observation (benchmarking against Shipper, Lalamove, and J&T) were also employed to cross-verify requirements and establish industry standards.

Quick plan phase: UML diagrams were developed using use case diagrams to define five functional modules (“Beranda”, “Layanan”, “Armada”, “Tentang Kami” pages, and AI Assistant system) and activity diagrams to map interaction workflows for each module.

Modeling quick design phase: Low-fidelity wireframes were created in Figma to establish information architecture and layout structure, followed by high-fidelity prototypes incorporating visual aesthetics, color palette (Navy Blue #053752, Orange #F2651B), and Poppins typography. Two iterative feedback rounds refined the designs based on informant responses.

Construction of prototype phase: The website was built using WordPress CMS with the Blocksy theme on Hostinger hosting (domain: rjayatransindo.com). Tools included the Gutenberg block editor and Elementor page builder. Twelve plugins were activated for specific functions including MapGeo for interactive maps, Gutena Tabs for dynamic content, WPForms Lite for inquiry form automation, and Tidio Chat for the AI Assistant integration.

Deployment, delivery, and feedback phase: Black-box testing using use case testing methodology was conducted across 31 test cases in five modules. The brand trust evaluation was subsequently administered as an online questionnaire via Google Forms.

Data Collection and Analysis

Qualitative data was collected through semi-structured interviews (recorded, transcribed, and analyzed using Miles, Huberman, and Saldaña's (2020) condensation-display-verification framework) and observation. To ensure the credibility of qualitative findings, member checking was conducted at the end of each interview session, with condensed data summaries reviewed and confirmed by the respective informants before advancing to subsequent phases. Quantitative data was collected via a five-point Likert scale questionnaire adapted from Mal and Davies (2023), comprising eight brand trust statement items. Instrument validity was assessed through convergent validity (outer loadings) and discriminant validity

(AVE ≥ 0.500), while reliability was confirmed using Cronbach's Alpha and Composite Reliability (Hair et al., 2014). Descriptive analysis was used to interpret brand trust mean scores using an interval scale adapted from Sugiyono (2023). Specifically, mean scores were categorized using the following five-interval scale: 1.00–1.80 (very low), 1.81–2.60 (low), 2.61–3.40 (moderate), 3.41–4.20 (high), and 4.21–5.00 (very high).

RESULT AND DISCUSSION

Website Development Using the SDLC Prototyping Model

The implementation of the SDLC Prototyping model followed five iterative phases producing a fully functional website. The qualitative data analysis framework of Miles et al. (2020) was applied continuously, with raw interview and observation data systematically condensed and verified through member checking before advancing to subsequent phases.

In the communication phase, unstructured observation of the company's head office revealed operational capabilities including a fleet of 25 units manufactured from 2021 onwards. Structured benchmarking against Shipper, Lalamove, and J&T established eight functional criteria: fleet specification details, service area clarity, vision-mission transparency, physical office verifiability, authentic imagery, direct communication channels, social proof elements, and FAQ availability. These eight criteria map directly onto the information quality dimension of the DeLone and McLean (2003) model, confirming that content completeness and relevance are foundational prerequisites for credibility-based trust formation in a first-deployment corporate website context.

The quick plan phase produced five use case diagrams and five activity diagrams modeling the system's functional scope. As illustrated in Figure 1, the use case diagram for the “Beranda” page defines the primary interactions available to potential B2B clients, serving as the structural foundation for the website's main landing page.

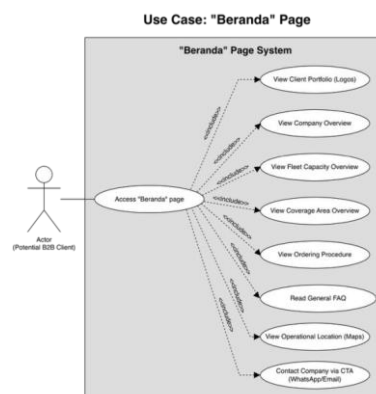


Figure 1. Use Case Diagram (“Beranda” Page)

As illustrated in Figure 1, the use case diagram maps key actor interactions including hero section navigation, client portfolio browsing, ordering process review, FAQ interaction, and WhatsApp CTA engagement. The activity diagram in Figure 2 further details the sequential workflow during user interaction with the “Beranda” page.

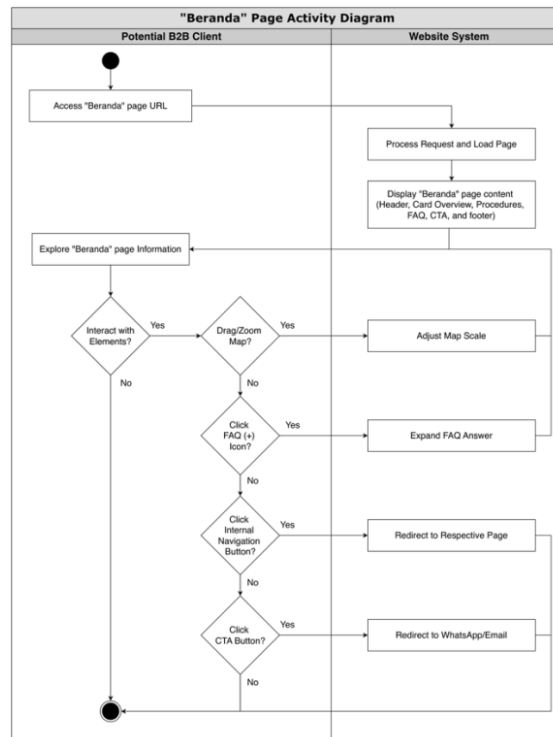


Figure 2. Activity Diagram (“Beranda” Page)

Based on Figure 2, the activity flow begins when the potential B2B client accesses the URL; the system responds by loading the page content, enabling map scale adjustment and FAQ accordion toggling. This behavioral logic was consistently applied across all five modules to ensure intuitive navigation toward conversion goals.

In the modeling quick design phase, wireframes were developed to establish layout structure before visual design, followed by high-fidelity prototypes incorporating the approved design guideline. The wireframe for the “Beranda” page (Figure 3) illustrates the initial structural skeleton focusing on content hierarchy without visual embellishment.

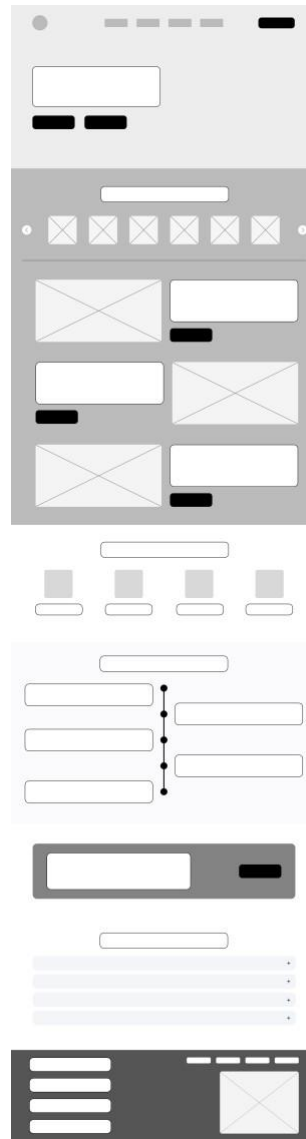


Figure 3. Low-Fidelity Wireframe Design (*"Beranda"* Page)

As illustrated in Figure 3, the wireframe defined the placement of fleet categories, specification expansion elements, and CTA positioning. Following two rounds of iterative feedback from the three informants, five structural revisions were implemented across the *"Layanan"*, *"Armada"*, and *"Tentang Kami"* pages, including the addition of a Java Island delivery route map, a tonnage-based fleet filter, a photo gallery section, and office location information.

The wireframe revisions informed the high-fidelity prototype, which translated structural layouts into a fully interactive visual design. The high-fidelity prototype for the *"Beranda"* page (Figure 4) demonstrates the professional visual output incorporating the approved color palette, typography, hero imagery, and interaction components.

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Figure 4. High-Fidelity Prototype (“Beranda” Page)

Based on Figure 4, the prototype incorporated a social proof section displaying partner logos, a fleet statistics counter, a step-by-step ordering guide, FAQ accordion, and an integrated footer with Google Maps. A second prototype review cycle yielded nine additional revisions, including correction of the service scope to Java Island, reduction of the fleet unit count to an accurate 25 units, integration of a WhatsApp-linked inquiry form on the “Armada” page, and implementation of an AI Assistant chatbot powered by Tidio.

The construction of prototype phase translated the validated Figma designs into a live WordPress-based website. The final website result, accessible at

rrjayatransindo.com, is illustrated in Figure 5, showing the hero section of the Beranda page as implemented in WordPress.

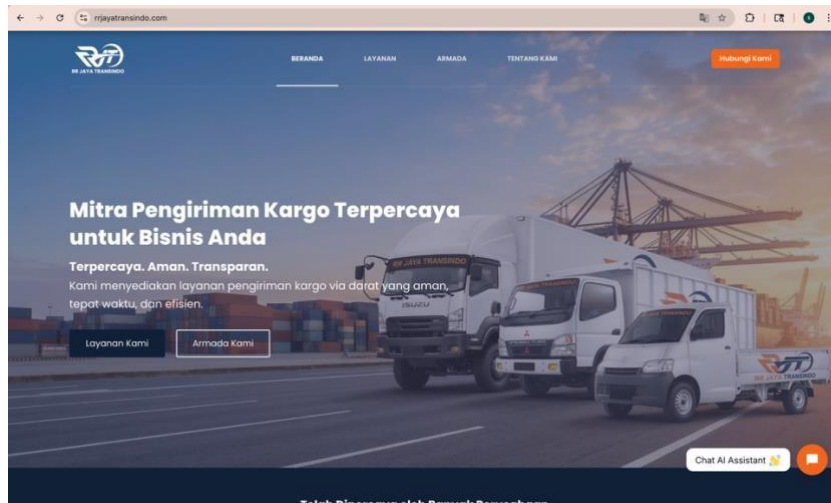


Figure 5. Website Result on WordPress (“Beranda” Page Hero Section)

As illustrated in Figure 5, the hero section implements the Blocksy Header builder for navigation consistency, with a LiteSpeed Cache-optimized highresolution fleet image. The overall website comprised four main pages (“Beranda”, “Layanan”, “Armada”, “Tentang Kami”) and an AI Assistant system, implemented using 12 activated plugins. This finding is consistent with Dewi and Putri (2025) and Priantoni and Rochman (2025), confirming that WordPress provides a viable development environment for professional corporate websites requiring long-term operational sustainability. However, this study extends previous findings by demonstrating that the plugin configuration can support domain-specific functional requirements including geographic route visualization, dynamic fleet filtering, and WhatsApp-integrated form automation.

Black-Box Testing Results

Following website construction, black-box testing using use case testing methodology was conducted across all five modules. The test design followed use case scenarios mapping realistic user journeys. The cumulative evaluation results are presented in Table 1.

Table 1. Black-Box Testing Evaluation Results

Module Name	Test Cases	Pass	Fail	Score
“Beranda” Page	8	8	0	100%
“Layanan” Page	5	5	0	100%
“Armada” Page	5	5	0	100%
“Tentang Kami” Page	8	8	0	100%

Module Name	Test Cases	Pass	Fail	Score
AI Assistant System	5	5	0	100%
Total	31	31	0	100%

Source: Processed by the Researcher (2026)

Based on Table 1, all 31 test cases across the five modules achieved a Pass status, yielding a cumulative effectiveness score of 100%, calculated using the Equation (1) below (Samdono et al., 2024):

$$\text{Table Effectiveness Score} = \frac{\sum \text{Valid Test Results}}{(\sum \text{Total Test Scenarios})} \times 100 \quad (1)$$

Functional elements confirmed include: page rendering without layout errors, dynamic tab-based city list updates on the “Layanan” page, tonnagebased fleet filtering on the “Armada” page, WhatsApp API redirection with prestructured messages generated from inquiry form inputs, Google Maps interactivity, FAQ accordion functionality, logo carousel navigation, and AI Assistant automated response flows.

These results align with the DeLone and McLean IS Success Model (2003) adopted in this study. The 100% pass rate confirms high system quality through functional stability. Structured fleet and service data ensures information quality, while the WhatsApp-linked inquiry form, AI Assistant, and FAQ sections reflect service quality. This finding is consistent with Alfidhinnuni et al. (2025) and Azizi et al. (2024), who demonstrated that use case-based blackbox testing effectively validates functional conformity. The 100% score should be interpreted as full conformity within predefined testing scenarios, not a guarantee of error-free behavior under all real-world conditions.

Brand Trust Evaluation Results

The brand trust evaluation was conducted with 50 potential B2B clients. Respondent demographics revealed that 58% held owner/director positions, 60% operated in the trade/distributor/retail sector, and 72% were domiciled in East Java, aligning with CV. RR Jaya Transindo's primary target market. Prior to descriptive analysis, instrument validity and reliability testing were conducted to confirm the measurement scale met the minimum psychometric thresholds, with detailed results presented in Table 2.

Table 2. Validity and Reliability Test Results

Item	Outer Loading	Composite Reliability	Cronbach's Alpha	AVE
BT1	0.749	0.892	0.878	0.527
BT2	0.754			
BT3	0.778			
BT4	0.729			
BT5	0.793			
BT6	0.599			

Item	Outer Loading	Composite Reliability	Cronbach's Alpha	AVE
BT7	0.684			
BT8	0.749			

Source: Processed by the Researcher (2026)

Based on Table 2, all eight items (BT1–BT8) were declared valid with outer loading values ranging from 0.599 to 0.793. Items BT6 (0.599) and BT7 (0.684) fell below the ideal 0.708 threshold but were retained because the AVE value of 0.527 exceeded the minimum benchmark of 0.500 as recommended by Hair et al. (2014). Cronbach's Alpha (0.878) and Composite Reliability (0.892) both fall within the satisfactory range of 0.700 to 0.900, confirming adequate reliability.

Table 3. Respondent's Assessment of Brand Trust

	Statement Item	Mean Score	Interpretation
BT1	I think I would trust the RR Jaya Transindo brand	4.42	Very High
BT2	The website gives the impression that RR Jaya Transindo is competent	4.38	Very High
BT3	Based on website information, I consider the services of RR Jaya Transindo reliable	4.36	Very High
BT4	I expect the fleet condition shown on the website matches reality	4.42	Very High
BT5	I expect RR Jaya Transindo to be honest in its service claims	4.54	Very High
BT6	Website information meets my expectations of what I want to know	4.38	Very High
BT7	I expect RR Jaya Transindo to communicate in a transparent manner	4.44	Very High
BT8	The website conveys a customer-first orientation	4.54	Very High
	Statement Item	Mean Score	Interpretation
	Overall Variable Mean	4.44	Very High Brand Trust

Source: Processed by the Researcher (2026)

Based on Table 3, the brand trust variable achieved an overall mean score of 4.44, categorized as very high brand trust. BT5 and BT8 recorded the highest scores (4.54), reflecting strong agreement that the website communicates honesty in service claims and prioritizes customer interests. These high scores are analytically significant given that 58% of respondents hold owner or director positions, who are inherently sensitive to vendor credibility. The website's content strategy, incorporating authentic fleet imagery, transparent service scope limited to the Java region, accurate fleet count of 25 units, and explicit mention of GPS tracking, effectively communicated a credible and customer oriented identity.

Items BT1 and BT7 (4.42 and 4.44 respectively) indicate that the website's professional color palette, typographic hierarchy, and organized information architecture contributed to perceived openness and credibility. This is consistent with Srisathan et al. (2024), who demonstrated that innovative website design positively influences trust through perceived professionalism, and Riadi et al. (2023), who found that visual credibility functions as a strong signal of institutional integrity.

The remaining items (BT2, BT3, BT4, BT6) recorded mean scores between 4.36 and 4.42, all within the very high brand trust category. Specific website features drove trust across both competence and benevolence dimensions. The detailed fleet catalog, tonnage filters, and fleet gallery documentation communicated competence through tangible operational evidence. The WhatsApp-integrated inquiry form and AI Assistant enhanced perceived benevolence by demonstrating a customer-first orientation. These findings align with Hanaysha et al. (2025) and Thalib and Nishad (2022), who established website quality and reliability as core predictors of brand trust.

The mean score of 4.44 should be interpreted as initial trust formed at first contact through the website interface, not deep experience-based trust. This distinction is grounded in the Mal and Davies (2023) framework, which specifically captures initial trust beliefs rather than trust built upon accumulated service experience. The selection of this scale over Albayrak et al. (2023) and Husain et al. (2022) was deliberate, as those scales presuppose an established relationship or prior usage history inapplicable to first-contact evaluation.

The novelty of this study lies in providing empirical evidence that a website developed through SDLC Prototyping for a newly established B2B road freight company can generate very high initial brand trust, extending prior research by demonstrating that trust can be formed at the initial interaction stage through system design rather than only after repeated usage. The DeLone and McLean (2003) model's three quality dimensions, system quality (functional stability), information quality (content accuracy), and service quality (responsive support channels), are confirmed to contribute collectively to initial brand trust formation in a B2B logistics context previously underexplored in the literature. This finding advances the DeLone and McLean (2003) model by empirically demonstrating that its three quality dimensions when operationalized through an iterative, user-feedback-driven development approach collectively function as antecedents of initial brand trust, extending the model's application from internal IS evaluation to external stakeholder credibility assessment in a B2B logistics context.

CONCLUSION

This study addressed two research questions concerning the implementation of the SDLC Prototyping model in developing a website for CV. RR Jaya Transindo and users' perceptions of brand trust based on their interaction with the developed website.

In response to the first research question, the SDLC Prototyping model was successfully implemented through five iterative phases, producing a technically stable and credible website. The implementation demonstrates that the prototyping

model effectively facilitates iterative refinement of user requirements, enabling progressive alignment between stakeholder needs and the final system design. The iterative feedback process proved generative, with several key features, including Java Island map visualizations, a tonnage-based fleet filter, a WhatsApp-integrated consultation form, and an AI assistant chatbot, emerging exclusively through user evaluation. Black-box testing confirmed full functional conformity across all 31 test cases with a cumulative effectiveness score of 100%, validating the system quality, information quality, and service quality dimensions of the DeLone and McLean (2003) model as prerequisites for trust-supporting digital presence.

In response to the second research question, the brand trust analysis demonstrates that the developed website successfully establishes very high initial brand trust (mean = 4.44) among potential B2B clients with no prior experience with the company. The findings confirm that the website positively influences initial brand trust by enhancing perceived transparency, credibility, and accessibility during first interaction. However, this study is limited to initial perception measurement and does not capture long-term trust development or actual transactional outcomes.

Theoretically, this study contributes by integrating the SDLC Prototyping model with the DeLone and McLean IS Success Model (2003) as a unified development-and-evaluation framework, demonstrating that iterative system quality enhancement through user feedback cycles systematically supports initial brand trust formation, a relationship previously unexplored in B2B logistics website development research. Practically, this study provides a replicable development framework for newly established road freight transport companies entering the digital market with limited technical resources, demonstrating that WordPress CMS with domain-specific plugin configuration can fulfill professional functional requirements while remaining independently maintainable by non-technical staff. CV. RR Jaya Transindo is further recommended to implement a scheduled content update cycle and progressively develop advanced features such as real-time shipment tracking to deepen the initial trust established through this study.

For future research, it is recommended to: first, conduct longitudinal studies tracking how initial brand trust evolves following actual service engagement; second, expand the sample size and geographic scope beyond the current 50 respondents; third, integrate behavioral data such as conversion rates and engagement metrics to validate whether perceived trust translates into business outcomes; and fourth, explore the moderating role of respondent characteristics such as company size and industry sector on brand trust perceptions.

REFERENCES

- Albayrak, T., González-Rodríguez, M. R., Caber, M., & Karasakal, S. (2023). The use of mobile applications for travel booking: Impacts of application quality and brand trust. *Journal of Vacation Marketing*, 29(1), 3–21. <https://doi.org/10.1177/13567667211066544>

- Alfidhinnuni, M. I., Santoso, N., & Arwan, A. (2025). Pengembangan sistem portal manajemen laboratorium (Studi kasus: Fakultas Ilmu Komputer Universitas Brawijaya). *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 9(10).
- Azizi, J. N., Silalahi, E. O., Damara, R., Fahrezy, M. F., Saputra, F., Wicaksono, A., & Nasir, M. (2024). Pengujian black box pada website Buitenzorg Outdoor menggunakan metode use case testing dan boundary value. *Jurnal Cakrawala Informasi (JCI)*, 4(2), 22–32. <https://doi.org/10.54066/jci.v4i2.502>
- Badan Pusat Statistik. (2025). Laju pertumbuhan PDB seri 2010. Retrieved October 12, 2025, from <https://www.bps.go.id/id/statisticstable/2/MTA0lzl=-seri-2010--laju-pertumbuhan-pdb-seri-2010--persen.html>
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal Marketing*, 65(2), 81–93. <https://doi.org/10.1509/jmkg.65.2.81.18255>
- Delgado-Ballester, E., Munuera-Aleman, J. L., & Yague-Guillen, M. J. (2003). Development and validation of a brand trust scale. *International Journal of Market Research*, 45(1), 35–54.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Dewi, E. R., & Putri, I. S. S. (2025). Rancang bangun website company profile berbasis WordPress CMS pada PT Samha Catra Nusantara. *Jurnal Sains Informatika Terapan*, 4(2), 155–162.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications.
- Hanaysha, J. R., Ramadan, H. I., & Alhyasat, K. M. K. (2025). Exploring the impact of customer reviews, website quality, perceived service quality, and product assortment on online purchase intention: The mediating role of trust. *Telematics and Informatics Reports*, 19, 100236. <https://doi.org/10.1016/j.teler.2025.100236>
- Husain, R., Ahmad, M., & Khan, B. M. (2022). Luxury brand trust, brand loyalty and purchase intention. *Vilakshan – XIMB Journal of Management*, 19(1), 65–80. <https://doi.org/10.1108/XJM-02-2021-0028>
- International Road Transport Union. (n.d.). Different types of freight transport. Retrieved December 15, 2025, from <https://www.iru.org/whatwe-do/facilitating-trade-and-transit/different-types-freighttransport/road-freight-transport>

- Ipsmiller, E., Dikova, D., & Brouthers, K. D. (2022). Digital internationalization of traditional firms: Virtual presence and entrepreneurial orientation. *Journal of International Management*, 28(4), 100940. <https://doi.org/10.1016/j.intman.2022.100940>
- Karayalcin, C., & Pinte, M. (2022). The role of productivity, transportation costs, and barriers to intersectoral mobility in structural transformation. *Economic Modelling*, 108, 105759. <https://doi.org/10.1016/j.econmod.2022.105759>
- Mal, C. I., & Davies, G. (2023). The primacy of corporate brand trust for new market entrants. *Journal of Product & Brand Management*, 32(1), 79–92. <https://doi.org/10.1108/JPBM-05-2021-3457>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook (4th ed.)*. SAGE Publications.
- Mordor Intelligence. (2025). Indonesia road freight transport market. December 15, 2025, from <https://www.mordorintelligence.com/industry-reports/indonesia-roadfreight-transport-market>
- Mutamassikin, Hikmah, A. N., Syaputra, A. O., Febriani, A. T., Nurhidayat, M., & Kulfikri, R. (2025). Perancangan sistem informasi promosi dan reservasi foto pada Aare Studio berbasis website menggunakan metode prototype. *Journal of Artificial Intelligence and Digital Business*, 4(3), 5321–5329. <https://doi.org/10.31004/riggs.v4i3.2779>
- Pant, G., & Pant, S. (2017). Visibility of corporate websites: The role of information prosociality. *Decision Support Systems*, 106, 119–129. <https://doi.org/10.1016/j.dss.2017.12.006>
- Pressman, R. S., & Maxim, B. R. (2020). *Software engineering: A practitioner's approach (9th ed.)*. McGraw-Hill Education.
- Priantoni, S., & Rochman, F. (2025). Pengembangan website profil perusahaan berbasis WordPress CMS sebagai media promosi di PT AMD Academy Indonesia. *Jurnal Ekonomi Kreatif dan Manajemen Bisnis Digital*, 3(3), 267–290.
- Riadi, A., Widiatmoko Soewardikoen, D., & Swasty, W. (2023). Pengungkit kredibilitas dan brand trust pada website bank digital di Indonesia. *Serat Rupa Journal of Design*, 7(1), 1–14. <https://doi.org/10.28932/srjd.v7i1.5310>
- Riskiyah, B., Utomo, H., & Wardani, T. I. (2024). Developing a websitebased company profile using WordPress CMS as a promotional medium at CV Pijar Pendar Pustaka in Malang City. *Jurnal Ekonomi Kreatif dan Manajemen Bisnis Digital*, 3(2), 179–192.
- Ritter, T., & Pedersen, C. L. (2020). Digitization capability and the digitalization of business models in business-to-business firms: Past, present, and future.

Industrial Marketing Management, 86, 180–190.
<https://doi.org/10.1016/j.indmarman.2019.11.019>

- Ronce, F. A. A. P., Ratnasari, D., & Murpratiwi, S. I. (2025). Development of scholarship information and consultation center website for Straya Institute using prototyping method. *J-COSINE (Journal of Computer Science and Informatics Engineering)*, 9(1), 82–92.
- Samdono, A., Sari, A. P., & Aditiawan, F. P. (2024). Pengujian black box pada sistem informasi stok dan penjualan berbasis website menggunakan metode equivalence partitioning. *JATI (Jurnal Mahasiswa Teknik Informatika)*, 8(1), 880–885.
- Saputra, J. A., & Sutopo, J. (2025). Development of a web-based ecomplaint platform with websocket integration using the prototyping method. *Jurnal Ilmiah Komputasi*, 24(1), 7.
- Sauro, J., & Lewis, J. R. (2016). *Quantifying the user experience: Practical statistics for user research (2nd ed.)*. Morgan Kaufmann.
- Shaouf, A. A., & Lu, K. (2022). Establishing trust in e-commerce through website design elements: The moderating role of gender. *International Journal of Technology and Human Interaction*, 18(1), 1–24.
<https://doi.org/10.4018/IJTHI.297615>
- Srisathan, W. A., Ketkaew, C., Jantuma, N., & Naruetharadhol, P. (2024). Trust and website conversion in consumer responses to green product purchasing: A new perspective through the lens of innovative website design's technology integration. *Heliyon*, 10(1), e23764.
<https://doi.org/10.1016/j.heliyon.2023.e23764>
- Sugiyono, D. (2023). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Thalib, M., & Nishad, T. M. (2022). Developing brand trust and loyalty in ecommerce: Examining the role of service quality, website quality, and reliability using SEM. *South India Journal of Social Sciences*, 23(3), 103–106.
- Yuan, Y., Feng, B., Lai, F., & Collins, B. J. (2018). The role of trust, commitment, and learning orientation on logistic service effectiveness. *Journal of Business Research*, 93, 37–50. <https://doi.org/10.1016/j.jbusres.2018.08.020>