

**BUILDING THE IMAGE OF A “CITRA ANAK BANGSA”: A RETROSPECTIVE  
STUDY OF PTDI N219’S PUBLIC RELATIONS MANAGEMENT**

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**Abstract.** This study examines the role of public relations (PR) management in shaping early reputation during the pre-commercialization phase of a high-tech product, using the case of the N219 aircraft developed by PT Dirgantara Indonesia. A qualitative single-case study approach was applied, drawing on in-depth interviews, observations, and document analysis. The data were analysed thematically to identify patterns linking communication strategies, organizational constraints, and reputational outcomes. The findings indicate that physically oriented communication channels, such as exhibitions and live demonstrations, played an important role in supporting trust formation in a context characterized by high technological complexity and public uncertainty. In contrast, digitally efficient channels were found to have limited impact on building deeper public confidence. The study also highlights challenges related to inter-agency coordination and constrained communication resources, which affected the consistency of public messaging. Based on these findings, the study proposes the notion of an Efficiency Paradox as an analytical lens to understand the tension between communication efficiency and trust-building in high-risk industries. This concept is presented as a context-bound proposition rather than a generalizable claim.

**Keywords:** Public Relations Management, PT Dirgantara Indonesia, N219 Aircraft, Excellence Theory, Retrospective Study

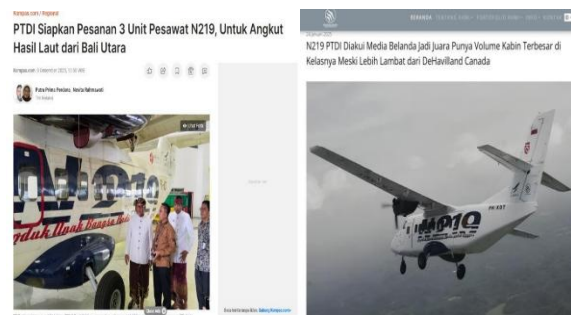
## INTRODUCTION

The aerospace industry serves as a barometer of a nation's technological progress and sovereignty. For Indonesia, an archipelagic nation with extreme geographical complexity, aircraft are not merely a mode of transportation, but rather an instrument of national integration and the lifeline of economic distribution to the Underdeveloped, Frontier, and Outermost regions. In this context, PT Dirgantara Indonesia (PTDI) plays a central role as the driving force of the national aerospace industry. One of the most ambitious milestones in PTDI's modern history is the development of the N219 "Nurtanio" aircraft. This aircraft, a collaboration between PTDI and LAPAN, is specifically designed to fill the gap in the pioneer aviation market, which has long been dominated by foreign products. However, the journey of a high-tech product from the drawing board to the consumer's hands is determined not only by the excellence of its avionics or aerodynamic structure but also by how the reality of that product is constructed in the public's mind through strategic communication management.

The year 2019 was a crucial period for the N219's survival. In the innovation cycle, this period is often referred to as the valley of death, where a prototype is struggling to obtain an airworthiness certificate while simultaneously trying to convince the market of its reliability (Pittini & Kourousis, 2023). In 2019, the N219 found itself caught in the midst of high public expectations and sharp skepticism. As a state-funded national product, every technical development regarding the N219 became a highly sensitive public issue. Communication failures during this phase could have fatal consequences: loss of investor confidence, withdrawal of potential buyers, and the collapse of PTDI's corporate image as

world-class aircraft manufacturer. Therefore, Public Relations (PR) management in 2019 is not merely a supporting function, but rather the frontline in selling the future of Indonesia's aerospace industry (Nihayah & Afifi, 2023).

Looking back from the perspective of 2026, the relevance of the analysis to the 2019 PR strategy becomes increasingly clear. Today, in 2026, the N219 has passed the certification phase (2020); several operators have begun to show interest and place orders; and the government has provided support for its use within Indonesia, including as a cargo aircraft for transporting seafood. The commercial success enjoyed today is the outcome of reputation-building efforts that began years earlier. Studying the 2019 PR management means studying the initial image architecture. Without a strong image foundation during the pre-commercialization phase, pricing, contract negotiations, and airline trust in 2026 would lack a solid foundation. This research serves as a retrospective evaluative study documenting how a state-owned high-tech organization manages uncertainty through managerial communication functions (Silaen, 2021).



**Figure 1.** The N219 aircraft has successfully strengthened market trust

(Source: Reports from Kompas.com and Indonesian-airspace.com, 2025)

PR management in the aircraft manufacturing industry has unique characteristics that distinguish it from the service industry or the mass consumer goods

sector. There are three main challenges: high risk, long decision-making cycles, and reliance on technical authorities (Tourky et al., 2020). In such an environment, PR must be able to translate complex technical language into narratives that evoke nationalism while remaining business-rational. PR strategies must balance educational public campaigns with strategic lobbying of high-level stakeholders. Using a constructivist paradigm, this study views the image of the N219 as a “homegrown aircraft” as the result of a consciously constructed narrative. PTDI’s PR management in 2019 acted as a constructor of reality, selecting facts, framing narratives, and distributing them through channels deemed most capable of mitigating public skepticism (Nugroho et al., 2024).

Based on this background, this study focuses on addressing the fundamental question of how PTDI’s Public Relations management function was implemented in shaping the image of the N219 aircraft during the critical pre-commercialization phase in 2019. The analysis will focus on four main pillars: 1) Planning: How were image targets established amid technical uncertainty? 2) Organization: How did the PR team’s structure respond to the rapid dynamics of information? 3) Actuating: Which communication channels were most effective in building market trust? 4) Controlling: How were control mechanisms implemented to maintain the consistency of the product narrative?

The theoretical framework of this study is built upon the foundation of strategic communication management, which positions Public Relations (PR) as a core management function within an organization. Over the past decade, the evolution of Excellence Theory has demonstrated that organizational effectiveness is highly dependent on PR’s ability to fulfill a symmetrical and strategic managerial role.

James E. Grunig’s updated framework, as highlighted in recent literature, emphasizes that effective PR functions not only technically but must also serve as an Expert Prescriber capable of formulating solutions to reputation challenges in high-risk industries (Fyke et al., 2022). This is particularly relevant in the aerospace industry, where public and stakeholder trust are crucial assets that must be managed through careful planning to minimize reputational risk (Theaker, 2020).

This communication management is implemented through the classic Planning, Organizing, Actuating, and Controlling (POAC) cycle, which over the past decade has been adapted to the context of digital industrial transformation. Strategic planning in PR now focuses not only on short-term goals but also on building long-term narratives that are resilient to market fluctuations (Gregory & Willis, 2022). Organizing communication resources within an aircraft manufacturing company requires inter-departmental synergy and the synchronization of accurate technical information. During the implementation phase, the integration of conventional and digital media channels with physical exhibition activities becomes crucial for creating a cohesive brand experience. Monitoring or control then serves as an evaluation mechanism to ensure that the messages conveyed remain consistent with the corporate identity and public expectations.

Philosophically, the effort to shape the image of the N219 aircraft as a “Karya Anak Bangsa” is understood through the paradigm of social constructivism. An image is not a static, objective fact, but rather a reality that is consciously constructed through a continuous process of communication. Public relations acts as an agent of reality construction that translates the aircraft’s technical superiority into a

symbol of national sovereignty. Through the process of externalizing and objectifying this narrative, the public is expected to internalize the N219's identity as a reliable and proud product (Maryam & Indrawan, 2019).

This study proposes a conceptual framework in which communication channel type (digital vs physical) influences customer trust and perceived credibility. However, this relationship is moderated by product complexity and perceived risk. In high-risk and high-complexity contexts, physical interactions (e.g., exhibitions, live demonstrations) are expected to have a stronger positive effect on trust formation, which subsequently leads to higher customer loyalty. Conversely, while digital channels offer cost efficiency, their impact on trust remains limited in such contexts, illustrating the Efficiency Paradox. (Chiu, 2020)

This literature review highlights several critical limitations in existing studies on public relations in high-tech and strategic industries. Most prior research adopts a cross-sectional approach, focusing on communication outputs at a single point in time. While such studies offer valuable insights, they often overlook how early-stage PR strategies influence long-term reputational outcomes, particularly in high-risk and high-uncertainty contexts. Globally, the literature on PR in high-tech industries has been closely associated with crisis communication, risk management, and trust-building. However, it tends to emphasize reactive responses rather than proactive communication during the initiation phase of strategic innovations. This reveals two key gaps. First, there is a lack of retrospective or longitudinal analysis linking initial managerial planning with subsequent public perception. Second, within the Indonesian context, studies on PR in state-led strategic sectors remain limited and are rarely positioned within broader theoretical debates. Addressing these gaps, this study proposes a

retrospective analytical framework to examine how early PR strategies within State-Owned Enterprises interact with structural constraints, such as budget limitations and coordination challenges, in shaping public trust and perception toward national technological innovations.

## METHOD

This study employs a qualitative approach using a case study method to explore how and why specific Public Relations strategies are implemented in the aircraft manufacturing industry, which involves high technical and reputational risks. The research is grounded in a constructivist paradigm, viewing the image of the N219 product as a socially constructed outcome shaped through strategic communication practices. Data analysis was conducted using thematic analysis. The process began with open coding to identify recurring patterns across interview transcripts, organizational documents, and media reports. These codes were then refined through axial coding to establish relationships between communication strategies, organizational constraints, and reputational outcomes. Finally, selective coding was used to integrate these categories into overarching themes aligned with the study's analytical framework.

To ensure trustworthiness, the study applied several strategies. Credibility was strengthened through data triangulation across multiple sources. Member checking was conducted to validate key interpretations with informants. Dependability was ensured by maintaining an audit trail documenting the research process, while reflexivity was applied to reduce potential researcher bias. (Shihab et al., 2023)

The research was conducted at the headquarters of PT Dirgantara Indonesia (PTDI) in Bandung, West Java. Chronologically, data collection took place in

2019, a period identified as a crucial transitional phase or the pre-commercialization phase of the N219 aircraft. This timing was strategically chosen in retrospect, as data from this period provides an authentic snapshot of the foundation-laying process for the product's reputation prior to obtaining official certification. This approach aligns with qualitative research principles that emphasize the importance of time and place in understanding a social phenomenon (Lahman, 2024). The research focuses on managerial efforts encompassing the functions of planning, organizing, executing, and supervising, carried out by the Corporate Communications Department in support of marketing this national technological innovation.

The research subjects or key informants were selected using purposive sampling to ensure the credibility and reliability of the data collected. The informants in this study consisted of the Assistant Manager of External Communications, who has authority in formulating strategic policies; the Assistant Manager of Promotion; and operational staff from PTDI's Corporate Communications and Promotion Department who were directly involved in executing publication programs, managing social media, and organizing aerospace exhibitions during the study period. By involving these various managerial levels, the researcher was able to capture a broad range of perceptions regarding the challenges and successes of the company's communication strategies in accordance with the principle of information sufficiency in qualitative research.

Given the retrospective nature of the study, potential recall bias and post-hoc rationalization was acknowledged. To mitigate these limitations, interview data were cross-validated with archival materials and media records. However, the findings

should be interpreted cautiously, as retrospective accounts may not fully capture real-time decision-making processes. As a single-case study, this research does not aim for statistical generalization but rather analytical generalization. The findings are intended to contribute to broader theoretical discussions on PR strategies in high-risk and high-tech industries, particularly in relation to trust-building and communication effectiveness under structural constraints.

## RESULTS AND DISCUSSION

**The Dynamics of Public Relations Management at PTDI.** Public Relations (PR) management at PT Dirgantara Indonesia (PTDI) in overseeing the N219 aircraft project in 2019 was not merely a marketing support activity, but rather an effort to construct social reality. Based on the research findings, the implementation of management functions—including Planning, Organizing, Actuating, and Controlling (POAC)—exhibits patterns highly specific to the characteristics of the high-technology industry.

**Planning.** The initial step taken to support marketing efforts was a branding campaign titled “Pesawat Karya Anak Bangsa” for the N219 aircraft, aimed at fostering nationalism as the primary strategy for penetrating the domestic market. As stated by Informant 1, an Assistant Manager in the external communications department:

*“The company's image had taken a hit, and we are rebuilding it through the N219 aircraft. The existence of the N219 actually marks a turning point for the company and serves as proof that PT. Dirgantara Indonesia is still capable of producing aircraft that are 100 percent the work of the nation's own people.”*

The term turning point refers to the company's operational instability. During its heyday, PTDI employed 16,000 people. Due to the economic crisis that struck Indonesia in 1998, PTDI was forced to downsize its workforce to approximately 4,000 employees. Because it was deemed unable to pay debts in the form of severance pay, pension benefits, and retirement benefits to its former employees, the company was declared bankrupt by the Commercial Court at the Central Jakarta District Court on September 4, 2007. Although the bankruptcy ruling was temporarily overturned on October 24, 2007, the company's financial condition remained unstable until 2012.

This planning process involves extensive stakeholder mapping, ranging from the central government to regional airline operators. However, it faces significant challenges because it must proceed in tandem with the unpredictable aircraft certification process, meaning that communication plans often need to be adapted to technical progress on the ground.

*“Take the current situation, for example. The development of the N219 aircraft is still in the certification phase with the Directorate General of Civil Aviation, Ministry of Transportation. This also means we cannot disclose the interior design of the N219 to the public. So far, we have only been able to release images of its exterior.”* (Informant 1, Assistant Manager of External Communications)

**Organizing.** During the organizational phase, PTDI established a task structure encompassing social media, media relations, internal communications, and a promotional team for trade shows. A significant finding during this phase was the establishment of inter-institution communication efforts, including collaboration with the Ministry of Tourism. This collaboration involved the

Ministry of Tourism sending Miss of Tourism finalists to every trade show attended by PTDI, both domestically and internationally. The Miss of Tourism finalists is tasked with welcoming guests and asking whom they wish to meet to learn more about PTDI's products. Meanwhile, the benefit gained by the Ministry of Tourism is the opportunity to promote domestic tourist destinations through the presence of the Miss of Tourism and the traditional attire they wear while participating in exhibition activities. This initiative demonstrates that PTDI recognizes that marketing the N219 aircraft cannot be done in isolation. The N219 is positioned as a solution for enhancing Indonesia's tourism connectivity.

PTDI's openness with the media also demonstrates that the company maintains good relations with the press, which means it frequently invites media representatives to various events, whether at trade shows or during the signing of cooperation agreements. As Informant 1 stated during the interview:

*“We are very open to the media wishing to cover PT Dirgantara Indonesia. We frequently invite the media, and conversely, we are also very happy to accept requests for coverage or special interviews with our CEO, Elffien Goentoro, or other members of the board of directors. Regarding news content, since August 16, 2017, we have focused on the publication of the N219 aircraft.”*

Nevertheless, researchers found obstacles in internal coordination. The flow of information from the technical or engineering division to the communications division often encounters procedural hurdles, which in turn affect the speed with which the PR team responds to public issues. As Informant 1 explained:

*“For example, there was a case where incorrect information was disseminated by our partner from LAPAN, who mistakenly stated the month and date of the N219 aircraft’s readiness. Once the deadline had passed, journalists immediately swarmed us. This was due to our lack of coordination.”*

**Actuating.** Implementation is the process of ensuring that all group members work toward achieving objectives aligned with managerial planning and organizational efforts. At this stage, PTDI acts by executing programs in accordance with the established plans. Regarding social media activities, Informant 1 explained:

*“We regularly post updates on the development of the N219 aircraft. Sometimes we also simply post content related to the N219 to refresh the public’s memory about this product.”*

Promotional activities are also carried out through internal media. These serve to validate the company’s credibility and maintain employee morale as brand ambassadors. These activities involve publishing news about the N219 on PTDI’s official website, as explained by Informant 1 below:

*“As the person in charge of the company’s official website, I am responsible for the content that is published. In line with the company’s policy of focusing on the promotion and publication of the N219 aircraft, there is quite a lot of content about it on the company’s official website.”*

Research findings indicate that exhibitions are the most effective tool. In the aviation industry, tangible evidence is far more valuable than digital narratives.

Regular participation in aviation exhibitions has been key for PTDI to demonstrate that the N219 is a real, operational-ready product, not merely a prototype. Regarding the execution of exhibitions, Informant 2 explained:

*“For exhibitions, the promotions division always coordinates with other departments as well as other relevant parties. We are also aware of our limited resources, so I make the most of the resources available within the Corporate Communications and Promotions Department. To attract attention, we also provide an N219 aircraft cockpit simulator to give visitors the opportunity to experience flying the N219 firsthand.”*

The resource optimization referred to here means that all staff in the Corporate Communications and Promotion Department are required to multitask when their contributions are needed for exhibition activities. Regarding the demonstration aircraft, visitors will receive a certificate if they successfully fly and land the aircraft. The process of testing the demonstration aircraft is directly supervised by the Chief Test Pilot. Regarding the execution of the exhibition, Informant 1 stated the following.

*“The external communications division always contributes to the success of exhibition activities. One way is by issuing press releases. Additionally, we promote the exhibition creatively through social media.”*

**Control.** At this stage, PTDI’s Corporate Communications and Promotion Department monitors the progress of the planned program. Regarding social media activities, Informant 1 explained:

*“I usually monitor things daily via my phone. My monitoring consists solely of tracking the number of likes and comments on the posts that have been uploaded.”*

The research findings reveal that PTDI's Corporate Communications and Promotion Department consistently monitors social media activity. If negative comments from other social media users are identified, they serve as a learning opportunity to present information in an engaging format. Meanwhile, regarding exhibition activities, Informant 2 stated:

*"After every exhibition, we immediately review the results of the event. Typically, we sort the list of exhibition visitors to categorize them into a list of potential customers, which serves as the basis for our sales department's reports."*

**Challenges in Marketing Support for The N219 Aircraft.** By effectively carrying out communication management functions, public relations practitioners are expected to be able to build a public sphere that provides a channel for balanced communication and interaction between the government and the public. However, public relations practitioners may find themselves in situations where they are unable to do much or are unable to perform their duties and functions effectively. These constraints can stem from various factors, such as challenges in coordination, institutional issues, human resource competencies, infrastructure, limited access or authority, and a lack of commitment from top management.

In this regard, PTDI has also faced a number of challenges. One of them is limited funding for publications and promotions. Expenses are items that are recorded, classified, summarized, and presented in accounting. In cash flow, however, expenses are the sacrifice of economic resources measured in monetary units, whether they have already occurred or are likely to occur. The sacrifice of economic resources that does not yield benefits is considered a loss;

conversely, if the sacrifice yields benefits, it is called a profit.

In carrying out its activities, the Corporate Communications and Promotion Department often encounters funding constraints. Informant 1 explained as follows:

*"That is why we are very pleased to see the media's interest in the company and its products. We need ongoing publicity that is cost-effective."*

This study found that budget constraints are also the reason why the Corporate Communications and Promotion Department focuses its publicity efforts on social media channels. As Informant 2 stated:

*"Budget constraints are a fundamental issue that significantly impacts our capacity, efforts, and flexibility to publicize and promote the N219 aircraft. Therefore, the presence of the mass media is considered highly beneficial for our publicity and promotional activities."*

Informant 2, an Assistant Manager in the Promotion Department, added that another challenge is the public's lack of loyalty toward domestic products. There remains a tendency to distrust the quality of goods—or even the technology—produced by Indonesians. The enthusiasm that arises also tends to be fleeting, or even purely transactional. Indonesian people flocked to attend the N219 aircraft exhibition, seemingly only to experience the cockpit demonstrator, but did not truly support or promote the performance and capabilities of the N219 aircraft. As Informant 2 stated:

*"I've also noticed that our social media following always grows during our exhibitions because so many people are*

*eager to try out the cockpit demonstrator, but after the exhibition, we often lose followers.”*

**Discussion**

**Table 1.** Excellence Theory Evaluation Matrix

Strategic Role of PR	Success Indicators (Excellence Theory)	Field Findings (2019)	Status	Managerial Implications
Expert Prescriber	Determining strategic solutions to communication issues.	PR chose physical exhibitions to address product skepticism.	Met	PR has authority in decision-making.
Communication Facilitator	Serving as a mediator between the organization and the public.	There is coordination barrier between institutions (PTDI - LAPAN).	Not Met	Weak external synergy hinders public loyalty.

Problem-Solving Facilitator	Overcoming budget and operational challenges.	Choosing low-cost digital media but failing to build deep loyalty.	Unmet	Cost efficiency does not always correlate with effectiveness.
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Source: Research Findings, 2019

**Excellence Theory Analysis: Evaluating the Strategic Role of PR .** This study uses the three PR roles in Excellence Theory to evaluate the effectiveness of PTDI’s PR management. The results reveal a contradiction between the company’s strategic capabilities and the structural barriers it faces.

The Expert Prescriber Role: Success in Strategic Decision-Making

In an effort to achieve its established goals, PTDI’s Corporate Communications and Promotion Department operates in an orderly and systematic manner in accordance with its managerial role. The department has also been successful in identifying alternative activities designed to facilitate the achievement of these goals. This demonstrates that the company possesses a clear organizational structure and understands the chain of command among its divisions and subdivisions. The Corporate Communications and Promotion Department offers a wide range of publication and promotional activities, including: 1) Publications via various social media platforms such as Facebook, Twitter (X), YouTube, and Instagram; 2) News coverage through the company’s official website; 3) News dissemination through media relations; 4) Utilizing the company’s internal magazine to foster a sense of pride and

affection among internal stakeholders toward the company's products; and 5) Actively participating in domestic and international trade shows.

The most effective way to support the marketing of the N219 aircraft is through promotional activities at trade shows or exhibitions. Although the aircraft has not yet entered mass production or been made commercially available, there have been a significant number of orders for the N219. According to interview results, approximately 37 aircraft units were ordered by PT. Aviastar Mandiri, Turkey, Singapore, and Mexico in 2019.

This role has been fulfilled effectively. PTDI's Corporate Communications and Promotion Department has successfully positioned itself as an expert, recognizing that while social media is popular, trade shows remain the channel that provides the most significant support for the marketing of the N219. The decision to continue allocating resources to physical trade shows, despite the high costs involved, demonstrates that PTDI's PR team possesses a deep understanding of the market psychology within the aerospace industry. They were able to formulate the right objectives amidst limited activity options.

This finding suggests a broader analytical pattern in high-tech industries, where the effectiveness of the expert prescriber role is not solely determined by strategic planning capabilities, but by the ability to align communication channels with the epistemic needs of the market. In contexts characterized by high uncertainty and technical complexity, physical interaction functions as a mechanism of epistemic validation, enabling stakeholders to directly assess product credibility beyond mediated information.

### **The Role of the Communication Facilitator: Failure in the Mediation**

**Function.** PR practitioners must be able to act as communicators or mediators to assist management in understanding the public's expectations and desires and vice versa, thereby fostering mutual understanding, trust, respect, support, and tolerance on both sides (Topić, 2024). In carrying out its activities as a mediator, PTDI's Corporate Communications and Promotion Department has experienced failures. Based on interviews with informants, these failures include miscommunication between institutions and a failure to foster loyalty among the Indonesian public.

The N219 aircraft is a joint project between PTDI and LAPAN. Throughout the development process, every update on the N219 has been eagerly awaited by the media and the public, and both organizations have frequently been bombarded with questions from the media regarding the project's completion timeline. Due to a lack of coordination and transparency between the two organizations, conflicting information circulated among the media regarding the completion date of the N219 project. The perception of delays in the project's progress has led to negative media coverage for the N219 aircraft.

In contrast to previous successes, the role of communication facilitator was not fulfilled optimally. Researchers found a failure in communication coordination among institutions. Although there has been cooperation with agencies such as the Ministry of Tourism, the lack of alignment in narratives among government agencies often led to media coverage that was detrimental to the image of the N219. This indicates that PTDI's PR has not yet been fully capable of fulfilling its role as a mediator that harmoniously bridges the organization's interests with external dynamics. This failure made it difficult to foster widespread public loyalty in 2019.

This finding reflects a broader analytical pattern in high-tech and state-led industries, where the effectiveness of the communication facilitator role is highly contingent upon inter-organizational alignment rather than solely on the communicative competence of a single PR unit. In complex institutional ecosystems, such as those involving multiple government agencies and regulatory bodies, public communication becomes a distributed process in which consistency of narrative functions as a critical determinant of credibility. Fragmented messaging, even when originating from formally legitimate institutions, can generate what may be termed institutional noise, reducing message clarity and amplifying public uncertainty. As a result, the role of PR as a communication facilitator extends beyond mediating between the organization and the public, toward orchestrating a single narrative coherence across institutional actors. This suggests that in high-risk technological contexts, trust is not only built through the quality of communication, but also through the consistency of communication across actors. Failure to achieve such alignment systematically weakens trust formation and limits the effectiveness of otherwise well-designed PR strategies.

**The Role of the Problem-Solving Facilitator: The Paradox of Efficiency and Loyalty.** The role of PR is to assist company leadership, both as an advisor and by participating in the decision-making process, in addressing issues that arise in a rational and professional manner (Segarwati & Rakhmaniar, 2021).

In carrying out public relations management activities to support the marketing of the N219 aircraft, PTDI's Corporate Communications and Promotion Department faced several challenges, such as: 1) limited promotional and publication

budgets; 2) low public loyalty toward local products; and 3) miscommunication and coordination issues among institutions.

As mentioned in the interview excerpt above, PTDI's Corporate Communications and Promotion Department has addressed the issue of limited promotional budgets by focusing more on publicity efforts through social media channels, internal company media including the company website, and promotional activities at trade shows. Specifically, to reduce promotional costs, PTDI's PR team also maximizes the involvement of all staff within the Corporate Communications and Promotion Department to participate directly.

This role is also categorized as unfulfilled. In an effort to address limited publication budgets, PR has taken the safe route by relying on social media and relatively inexpensive internal media. However, research findings show that this strategy is not strong enough to foster public loyalty toward domestic high-tech products. The public still needs tangible evidence through exhibitions to feel loyal and trust the N219. Here lies a paradox: efforts to solve the problem (budget constraints) through digitalization do not yield results comparable to investments in expensive physical promotional activities.

The findings suggest that the effectiveness of public relations cannot be fully explained by the traditional assumptions of efficiency and message reach. Instead, this study identifies a structural tension between communication efficiency and trust formation, referred to as the Efficiency Paradox. In this paradox, digitally efficient channels such as social media and organizational publications, offer scalability and cost advantages, yet they remain limited in their ability to generate deep trust in contexts where products are complex, high-risk, and difficult for the public to evaluate. Conversely, physically intensive

communication channels such as exhibitions and live demonstrations, despite requiring substantial resources, play a critical role in enabling what can be termed experiential validation, where stakeholders directly assess the credibility of the product.

Based on this pattern, the study proposes a contextualized analytical model of PR effectiveness in high-tech industries. The model consists of three interrelated components. First, communication channels are divided into digitally efficient channels and physically rich channels. Second, contextual factors, particularly perceived risk and product complexity, act as moderating variables that shape how communication is received and interpreted by the public. Third, trust formation functions as a mediating mechanism that links communication strategies to long-term outcomes such as public acceptance and loyalty. Within this framework, physical interaction becomes increasingly critical as levels of uncertainty and risk increase.

**Table 2.** Retrospective Synthesis 2019–2026

Strategic Dimensions	Current Status /PR Steps (2019)	Long-Term Impact (2026)	Sustainability Status
Branding	The "Karya Anak Bangsa" narrative begins.	N219 is recognized as an icon of national technological independence.	Successful

Market Trust	Education through intensive physical exhibitions.	Interest in and orders for the N219 aircraft from several stakeholders, as well as the N219 aircraft itself, are beginning to gain public acceptance.	Successful
Internal	Lack of coordination between agencies.	Digital transformation in the communication bureaucracy of state-owned enterprises.	Improvement

Source: Data processed by the researcher.

**Retrospective Reflection and Long-Term Implications (2019–2026) Why Is Public Loyalty Low?.** An analysis of the challenges faced by PTDI’s Public Relations (PR) management in 2019 revealed a paradoxical reality within a national strategic industry:

building an aircraft turned out to be far more measurable than rebuilding public loyalty that had suffered a historical heartbreak. The low public loyalty toward the N219 during that period was not merely a common marketing phenomenon, but rather the residue of a deep-seated sociopsychological collective trauma. The Indonesian public harbors a painful collective memory regarding the termination of the N250 project during the 1998 crisis an event frequently cited in development communication literature as the nadir of public trust in national technological self-reliance. Consequently, in 2019, every technical delay or certification issue regarding the N219 aircraft was often cynically interpreted by the public as a potential repeat failure, rather than a standard aviation safety procedure.

This skepticism is exacerbated by the strong negative country of origin effect, whereby consumers in developing countries tend to doubt the reliability of domestically produced high-tech products compared to dominant Western brands such as Boeing or Airbus. Data indicates that the “Karya Anak Bangsa” narrative promoted by PTDI’s PR team in 2019 frequently clashed with the wall of public skepticism (Djarab, 2017). PTDI’s PR management at the time was forced to swim against the tide of this massive skepticism with extremely limited resources. Within the budget structure of strategic industrial state-owned enterprises, funding allocation has traditionally prioritized research, development, and material certification which incur astronomical costs, so that publication and promotion budgets are often treated as cost centers rather than reputation investments.

These budget constraints have caused the N219’s nationalist campaign to lose its edge outside of physical exhibition venues. While global competitors are able to flood the public sphere with narratives of reliability through various paid media

channels, PTDI’s PR team has had to make do with organic channels that have limited reach. As a result, the messages conveyed often feel flat and fail to resonate emotionally with the general public, who are accustomed to the visual communication standards and narratives of the world’s aviation giants. This phenomenon aligns with Exposure Theory, which states that in high-risk industries, the frequency and quality of information exposure are key to mitigating risk perception in the eyes of consumers (Jackson et al., 2018)

Furthermore, coordination challenges or sectoral egos among agencies have become structural barriers that undermine the effectiveness of communication. As part of the State-owned Enterprises ecosystem, PTDI is highly dependent on aligning its narrative with relevant ministries and regulatory agencies. However, field findings indicate that in 2019, there were frequent discrepancies in information regarding operational targets and the progress of N219 certification between the company and government stakeholders. The inconsistencies in data appearing in the mass media created public confusion and reinforced assumptions of management’s unpreparedness. This breakdown in coordination prevented existing political support from automatically translating into solid public support. Ultimately, the 2019 “Karya Anak Bangsa” campaign must be acknowledged as a heroic yet limited effort; it succeeded in maintaining a positive public image on the surface, but still struggled to instill substantial grassroots loyalty due to the weight of historical baggage, limited communication resources, and an unintegrated information bureaucracy.

**The Importance of Inter-Agency Collaboration.** The instances of information disconnects and coordination errors with partner institutions, such as LAPAN, during

the initial phase of the N219 project in 2019 served as a fundamental managerial lesson in this study. Within a strategic industrial ecosystem, the Public Relations department of a state-owned enterprise cannot afford to operate in isolation within organizational silos. The marketing of domestically produced aircraft is not merely a routine commercial activity but a representation of technological sovereignty and national dignity on the global stage (Ersyad et al., 2018). Therefore, a cohesive communication strategy is required to establish a “single voice” in the national public narrative. The phenomenon of data inconsistencies between PTDI and its partners during that period demonstrates that contradictory messages in the public sphere can instantly undermine the credibility of a product that the technical team has worked so hard to build.

Sectoral egos among institutions often emerge as the primary obstacle in the process of shaping the national product image. When a government institution prioritizes its sectoral agenda without considering alignment with the broader narrative of national development, the result is a fragmentation of messages that confuses potential consumers and international stakeholders. In the aerospace industry, which is highly dependent on trust, information integrity is paramount. Coordination failures in 2019 serve as empirical evidence that a lack of inter-institution synergy can create the perception that the state lacks managerial readiness to manage high-level innovation. This aligns with strategic management principles that emphasize that in complex public organizations, a failure of horizontal synchronization leads to costly reputational inefficiencies (Wahyudi & Syauqillah, 2022).

The urgency of this synergy demands an integrated communication model that transcends the boundaries of traditional

bureaucracy. Public relations in state-owned enterprises must be able to act as a conductor, uniting the various interests of state institutions into a coherent symphony of narratives (Rafi, 2020). The success of the N219 in gaining widespread acceptance ultimately depends not only on the reliability of the aircraft in the air, but also on the power of the narrative on the ground that can provide assurance of certainty and reputational stability. Without strong synergy, efforts to build the image of a “Karya Anak Bangsa” will always be threatened by bureaucratic obstacles that run counter to national strategic interests.

**From 2019 to 2026: Validating Past Strategies.** A deep reflection on the timeline from 2019 to 2026 presents a compelling narrative of empirical validation regarding how past managerial decisions have shaped the reality of today’s success. When we observe the state of the national aerospace industry in 2026—where the N219 aircraft has successfully captured the attention of potential customers and holds the potential to support flagship domestic tourism connectivity—it is clear that this achievement is not merely a matter of serendipitous momentum. Rather, this success is the result of the strategic role of the Expert Prescriber executed by the Public Relations (PR) management of PT Dirgantara Indonesia in 2019. At that time, amidst public skepticism and unresolved technical challenges, PTDI’s PR team made a risky yet visionary decision to prioritize physical exhibitions and aerospace events as the cornerstone of their communication strategy. The decision to allocate significant resources to exhibition channels—even though it was far more costly than digital campaigns—proved to lay the first stone in the foundation of trust among buyers and stakeholders, the results of which were only reaped on a massive scale years later.

The sustained positive image of the N219 through 2026 offers valuable lessons regarding the hierarchy of communication channel effectiveness in the high-tech industry. Although the 2019 evaluation identified shortcomings in the roles of communication facilitators and problem solvers—particularly regarding inter-institutional coordination barriers and limitations on mass media budgets—the N219’s reputation remained resilient. This phenomenon demonstrates that within the heavy manufacturing ecosystem, selecting the right promotional channels has a far more lasting impact than merely the frequency of social media posts, which tend to be superficial (Muniroh et al., 2020). Physical exhibitions offer something digital screens cannot: sensory validation. Through direct interaction with the aircraft unit in the hangar or on the airport apron, prospective operators and the public receive visual and technical assurances capable of dispelling skepticism. This success underscores that an effective PR strategy in strategic industries is not about how much content is produced, but rather about how deeply trust is instilled through tangible, physical evidence.

Academically, these retrospective findings offer a new theoretical contribution that enriches the discourse on Excellence Theory within the context of the advanced manufacturing industry. This study provides an initial theoretical proposition that extends Excellence Theory by highlighting the importance of channel-specific validation mechanisms in high-tech contexts. Rather, the effectiveness of PR in the high-tech industry must be measured through strategic acumen in selecting communication channels capable of providing physical validation of product quality. This contribution shifts the old paradigm, which placed too much emphasis on symmetrical two-way communication, toward a validated communication paradigm. In industries

involving life-threatening risks and massive capital investments, PR must be able to act as an agent that presents the physical reality of the product to the public in order to build brand authority.

Thus, the commercial success of the N219 in 2026 serves as validation of the bold managerial decisions made by the PR team in 2019 in addressing the Efficiency Paradox. Although they failed to resolve all bureaucratic coordination issues at the time, their strategic insight in positioning the exhibition as a key instrument successfully secured the N219’s place in the market’s memory. This lesson is highly relevant for the PR management of other strategic state-owned enterprises: investing in direct experiences and tangible proof—is a reputation investment that stands the test of time, even as digital support and sectoral coordination experience ups and downs.

Rather than being understood as a unique success story, the N219 case can be interpreted as an instance of analytical generalization. It demonstrates that in high-risk industrial contexts, trust is not primarily constructed through message frequency or digital reach, but through mechanisms of physical validation that reduce uncertainty. This shifts the theoretical understanding of PR effectiveness from communication efficiency toward experiential credibility. These findings resonate with broader discussions in public relations and risk communication literature, which emphasize the role of uncertainty reduction and credibility signaling in shaping public trust in complex innovations (Maxim et al., 2021). This insight complements the Efficiency Paradox by showing that even physically rich or strategically designed communication efforts can lose their effectiveness when institutional coherence is not achieved.

## CONCLUSION

This study suggests that the effectiveness of public relations management during the product launch phase of high-tech innovations plays an important role in shaping long-term organizational reputation. From a retrospective perspective, the findings indicate that the managerial foundation established by PT Dirgantara Indonesia in 2019 contributed to the subsequent recognition of the N219 aircraft in later years. In particular, the strategic role of the Expert Prescriber in prioritizing physically rich communication channels such as exhibitions, appears to have supported early trust formation in a context characterized by high technological complexity and public scepticisms.

At the same time, the study also highlights those limitations in inter-agency coordination and budget constraints affected the effectiveness of other PR roles, particularly in facilitating communication and addressing emerging issues. These findings point to a broader pattern in which communication effectiveness in high-risk industries is not determined solely by efficiency or message reach, but by the ability to provide credible forms of validation. In this context, the notion of the Efficiency Paradox is proposed as an analytical lens to understand the tension between digitally efficient communication and trust-building mechanisms that require more resource-intensive, physically grounded interactions.

However, these theoretical insights should be interpreted with caution. As this study is based on a single-case analysis within a specific national and industrial context, the findings do not aim for statistical generalization. Instead, they offer an analytical generalization that may be relevant to similar high-tech and high-risk environments, particularly those involving

strong institutional complexity and public sensitivity to technological uncertainty.

From a practical perspective, this study suggests that public relations in State-Owned Enterprises should be positioned not merely as a cost centre, but as a strategic investment in long-term reputation building. Organizations are encouraged to adopt a more balanced communication strategy that integrates both digital efficiency and experiential validation. The use of emerging technologies such as Augmented Reality (AR) and Virtual Reality (VR) may provide alternative pathways to simulate physical validation while managing resource constraints. In addition, strengthening inter-institutional coordination through integrated communication frameworks is essential to ensure narrative consistency and maintain public trust.

For future research, further studies are needed to test and refine the proposed analytical model across different industries and contexts. Longitudinal and comparative research designs may provide deeper insights into how public relations strategies evolve over time and how trust is constructed in various high-risk technological environments. Such efforts will contribute to the development of a more context-sensitive and empirically grounded understanding of public relations effectiveness in strategic industries.

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