

The Impact of Advertising Personalization and Data Privacy on Consumer Loyalty at JNE Company

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ABSTRACT

This conceptual article aims to develop a theoretical framework on how advertising personalization and data privacy management can affect JNE's consumer loyalty. Based on the theories of privacy calculus, communication privacy management, advertising value, and customer loyalty, this paper integrates the argument that personalized messages that are informative, contextual, and non-intrusive will increase advertising value and positive attitudes towards services, while privacy practices that are transparent, clearly defined, and give customers space of control will strengthen trust as the foundation of long-term loyalty. Theoretically, this article fills the gap in the study of personalization, and privacy in the context of domestic logistics, while practically offering a guide to designing data-driven communications that are effective while still adhering to the principles of personal data protection.

INTRODUCTION

Jalur Nugraha Ekakurir (JNE) is one of the largest logistics companies in Indonesia that serves domestic and international shipments and is an important infrastructure for the digital economy, ranging from MSMEs to large marketplaces. JNE's presence on digital channels, especially Instagram @jne_id with a base of more than 2.26 million followers, shows the company's commitment to building closeness with customers through content-based marketing communication (HypeAuditor, 2025). Research on TikTok users in Indonesia shows that the existence of influencer content as a form of digital marketing stimulus is significantly able to encourage purchase intent while increasing *brand loyalty* in generation Z. These findings illustrate that marketing communication tailored to audience preferences can build brand loyalty in the long term, so a similar approach has the potential to be applied in advertising personalization in the long term. logistics service companies such as JNE (Rachmawati & Nazhifah, 2025). However, this is not the case, the performance of the latest content engagement rate (ER) $\approx 0.01\%$, the growth of followers of 0.00% over the horizon of 30 days/1 year, and the average interaction is relatively low, indicating the challenge of message relevance and *call-to-action* in front of a very large audience (HypeAuditor, 2025). This situation intersects directly with one of the variables, namely ad personalization. Without precise message adjustments to customer segments and *use cases*, such as service education, delivery status, package protection, content at risk of not "hitting", it results in *ad fatigue* and *ad irritation* that weakens communication *value* and hinders the formation of positive attitudes towards brands and buy/repeat intentions (Schembri & De Battista, 2024). At the same time, JNE's *digital trust* reputation is facing pressure due to a data leak case that emerged on the *dark forum* in August 2025, at the *dark forum*, 81.47 million lines of data containing receipt numbers, names, addresses, mobile phone numbers, and details of goods were sold (Suara Merdeka, 2025). Conceptually, the two variables are mutually appealing: cutting-edge literature suggests the benefits of personalization can elevate *brand attitudes* and even loyalty if perceptions of relevance are high, but data privacy concerns and violations of "boundaries" (channels, platforms, devices, time, data destinations) lower acceptance and trigger *avoidance* (McKee, Dahl, & Peltier, 2023; Zhu, Kanjanamekanant, & Chiu, 2023). For JNE, the implications are clear, namely effective advertising personalization based on the informational and emotional needs of logistics customers is needed to improve *engagement* performance and build brand preferences, then strict data privacy management, *privacy by design*, and proactive risk mitigation communication are prerequisites to maintain and restore consumer loyalty amid public sensitivity to data security (DLA Piper, 2025; Suara Merdeka, 2025). In other words, the success of JNE's communication strategy is not only determined by how relevant and personal the content is, but also by customers' trust that their data is processed securely, legitimately, and transparently.

The latest public data shows that JNE's digital communication performance is facing pressure on two sides that are directly related to the research variables, namely advertising personalization and data privacy. On

@jne_id's official Instagram channel, JNE has a very large audience base, around 2.26 million followers, but the engagement rate is only around 0.01%, with 30-day/1-year follower growth of ~0.00% and an average engagement of ± 257 likes and ± 29 comments per upload; additional metrics such as *the likes-to-followers ratio* $\approx 0.01\%$ and *a likes-comments ratio* of 8.86 are also categorized as "need to be improved" (HypeAuditor, 2025). In the context of ad value, a combination of large scale plus low participation is a classic indicator of *ad fatigue* or *ad irritation*, large audiences are exposed to content, but the perception of informative or entertainment "value" is not enough to trigger a response which in turn decreases the effectiveness of paid/organic advertising and erodes *brand attitude* and buy/repeat intent (Schembri & De Battista, 2024). Directly, this implies the implications of ad personalization on JNE's performance data: without increasing the relevance/personality of the message, for example segmentation of delivery needs, solution of delivery issues, security education, and the format of Reels on Instagram that invites comments. *Very low engagement rates* have the potential to last, weakening the organic *reach* and *conversion assist* of content channels. Research on telecommunication companies conducted by Sugiat and Sudirman shows that the implementation of well-managed *Customer Relationship Management*, accompanied by a positive company reputation, contributes to increased customer satisfaction and loyalty. In the CRM concept, customer data is used to develop services that are more personalized and relevant to individual needs. These findings reinforce the suspicion that the appropriate use of customer data, for example through advertising personalization, can be one of the strategic ways to build consumer loyalty, as long as data management remains transparent and able to maintain customer trust (Sugiat & Sudirman, 2024). In the context of the national health insurance claims system, research shows that non-transparent data management processes and lack of control over policyholders over their personal information can trigger major concerns regarding privacy protection. As a solution, Alamsyah and Setiawan proposed the use of blockchain technology so that data owners have stronger authority over their data access while allowing for clearer traceability of data flows. The findings confirm that security and openness in the management of personal data are important foundations for maintaining the trust of service users, which in the context of logistics companies such as JNE has the potential to affect the level of consumer loyalty (Alamsyah & Setiawan, 2025). On the other hand, in August 2025, claims of leakage of 81.47 million lines of JNE customer/logistics data on dark forums were *circulating*, including names, addresses, mobile phones, receipt numbers, and package details that triggered calls for public clarification and increased *privacy concerns* to the management of company data (Suara Merdeka, 2025). Due to the phenomenon that occurs, it has two simultaneous consequences for data privacy on JNE's performance data. The first one is related to **trust/loyalty** can decrease because consumers perceive the risk of personal information increasing, so they tend to avoid communication channels (spam-report, unfollow, reject interaction) that suppress *engagement rate* metrics further, and in the PDP Law regime, JNE is obliged to ensure a lawful processing basis (especially for direct marketing), transparency, The right to withdraw consent,

breach notifications, and *the principle of privacy by design*, non-compliance will pose the risk of legal sanctions as well as long-term reputational losses reflected in data engagement or growth (DLA Piper, 2025). From the problems that have been explained in the previous explanation, the implementation of advertising personalization and data privacy without preparation can affect consumer loyalty. If companies can implement relevant, transparent, and controlled ad personalization, it can potentially improve *engagement rates* and interaction quality, while if data privacy is addressed through PDP compliance and proactive mitigation communication, it can withstand the effects of diminishing trust post-leak issues, and vice versa, personalization whose legal basis is unclear actually increases *reactance/ad avoidance*, suppresses engagement metrics that are now low and risk reducing consumer loyalty to the company in a sustainable manner (HypeAuditor, 2025; Suara Merdeka, 2025; DLA Piper, 2025; McKee et al., 2023; Zhu et al., 2023; Schembri & De Battista, 2024).

In the context of JNE, advertising personalization and data privacy interact in a sensitive tug-of-war, i.e. the further JNE encourages data-based message customization, for example targeting specific sender or recipient segments, locations, or *use cases* (claims, receipt checks, packing tips), the greater the potential for increased privacy concerns if the customer assesses the data collection and linking practices to cross the "boundaries" deemed reasonable (channel, platform, device, time, and processing purpose) (Zhu, Kanjanamekanant, & Chiu, 2023). This sensitivity is even higher after the alleged leak of 81.47 million lines of JNE customer or logistics data that was widely reported in August 2025 (Suara Merdeka, 2025). In Indonesia's regulatory landscape, the PDP Law requires a legitimate processing basis, especially for direct marketing, transparency, the right to withdraw consent, and *breach notifications*, so that advertising personalization strategies that are not supported by *privacy by design* risk increasing data privacy and triggering *reactance/ad avoidance* (DLA Piper, 2025). On the other hand, the relationship between ad personalization and JNE consumer loyalty remains a strategic lever: when personalization results in high ad value, informative, entertaining, and minimal irritating content, brand attitudes and *intentions* are boosted, which is the foundation of behavioral loyalty (Schembri & De Battista, 2024). This effect can be seen in JNE's communication performance data on Instagram @jne_id with a very large audience base (~2.26 million) but an engagement rate of ~0.01% and stagnant growth indicate relevance or trust that has not yet driven organic interactions; without improved ad personalization relevance and strengthened trust in data privacy, these metrics are unlikely to improve (HypeAuditor, 2025). Research gaps that arise on ad personalization, there has been no direct testing of ad personalization on consumer loyalty in the context of Indonesian logistics; existing studies are more general or cross-category so that the threshold "tipping point" between relevance and irritation triggers *ad avoidance* not yet assigned to JNE (Schembri & De Battista, 2024; HypeAuditor, 2025); Then on data privacy, the privacy study in personal advertising focuses more on the conceptual framework of *privacy boundaries* and the international population, while the operationalization of boundaries is channels, platforms, devices, temporal, and

their purpose and impact on JNE customer loyalty, especially post-leak issues and under the PDP regime that have not been quantitatively tested in the Indonesian population (Zhu et al., 2023; DLA Piper, 2025; Suara Merdeka, 2025); and furthermore on an integrative model of ad personalization, data privacy, and consumer loyalty that tests ad personalization against data privacy, ad personalization against consumer loyalty, and data privacy against consumer loyalty simultaneously with the *readout* of JNE's communication business metrics, such as *engagement rate*, audience growth, and *conversion assists* not yet available. Thus, this study closes the gap by designing an empirical test that balances the value of personalization and privacy guarantees so that the net effect on JNE consumer loyalty can be scientifically and practically ascertained. From the results that can be concluded that advertising personalization, data privacy on consumer loyalty at JNE based on existing phenomena, including research gaps, the author will conduct a study entitled "The Impact of Advertising Personalization and Data Privacy on Consumer Loyalty at JNE Company".

Problem Statement

The growth of online shopping in Indonesia has pushed the volume of shipments to increase sharply and expand the digital touchpoint between courier companies and customers, from pick-up requests, tracking, to claims settlement. On the customer side, the most prominent expectations are the clarity of information and communication that feels relevant without being intrusive; service and retail research shows that the quality of messages that are informative, moment-appropriate, and minimal irritation greatly influence customer attitudes and behaviors (Journal of Retailing and Consumer Services, 2021; 2023; 2024). In practice, many brands use content/time/channel adjustments to boost engagement, but the literature also notes the risk of communication saturation and message rejection if the frequency is excessive or the context is inappropriate (Journal of Research in Interactive Marketing, 2025; Journal of Retailing and Consumer Services, 2020; 2022). At the same time, consumers are increasingly sensitive to the treatment of personal data, meaning transparency of purpose, channel/frequency fairness, and clear choice of preferences play a major role in the reception of data-based communications (Information Processing & Management Reports, 2025; Journal of Systems and Information Technology, 2024). When this general phenomenon is narrowed down to JNE, which is one of the largest courier players, two interrelated needs are seen, the first is to improve the accuracy and usability of service communication in order to really help customers in critical moments of delivery, and the second to manage privacy convenience through simple explanations and real preference controls, so that the closeness that communication builds does not turn into intrusion (Journal of Retailing, 2023; Heliyon, 2024; Journal of Business & Industrial Marketing, 2024). In other words, JNE's challenge is not just to get the message to the point, but to strike a balance between relevant communication and the treatment of data that feels natural, because both ultimately relate to customer loyalty to the delivery service.

The existing findings still leave important gaps in the context of Indonesian couriers and especially JNE. First, most studies on the effectiveness of personalized communication and reception still focus on retail or *e-commerce*, while typical courier event-based scenarios (receipt updates, schedule changes, failed delivery, claim instructions) are relatively rarely tested quantitatively as a set of customer experiences (Journal of Retailing and Consumer Services, 2025; Journal of Systems and Information Technology, 2024). Second, the study of privacy convenience is generally discussed on social media or advertising in general, namely the operationalization of "reasonable limits" (channel, time, frequency, destination) in the context of courier service notifications and its consequences for loyalty are still lacking evidence in the Indonesian population (Information Processing & Management Reports, 2025; Heliyon, 2024). Third, there has not been much research that integrates three key relationships in one courier service brand, the impact of communication adjustments on customer privacy convenience, the impact of communication adjustments on loyalty, and the impact of privacy convenience on loyalty, even though these relationship maps are needed to design effective communication policies while still respecting customer data (Journal of Retailing, 2023; Journal of Business & Industrial Marketing, 2024). Therefore, the paper entitled "The Impact of Advertising Personalization and Data Privacy on Consumer Loyalty in JNE Company" is crucial to fill the gap in this phenomenon with concrete, contextual, and actionable evidence on courier service communication practices in Indonesia.

Significance of Study

Based on the discussion above, the significance of this study can be seen from two perspectives, namely theoretically and practitioner from the perspective of the logistics sector in Indonesia.

From a knowledge or theoretical perspective, this paper compiles a more complete picture of how JNE communicates with its customers, starting from receipt notifications, schedule changes, to claim information that can help shape customer loyalty. So far, many theories have been spoken at the general level; This writing reduces it to the size that can be used in a courier service: the content of the message that the customer really needs, the right moment to send it, the reasonable limit of the frequency, and the extent to which personal information should be used. Research also emphasizes that the effects of communication are not always straight, as too often or too sharp will make people saturated. Thus, the results provide a more "grounded" theoretical basis for the effective limits of helpful, rather than disruptive, communication.

From the perspective of practitioners, this writing can be translated directly into a neater and more effective way of working. This research provides the foundation for designing communication that is truly helpful with message content that is relevant to the delivery situation, the right delivery moment (event-based, not just routine), and frequency that does not tire customers. The language used is simplified so that transparency about data use does not feel patronizing for customers to understand what data is used for, how they can set preferences, and where to complain if there is a problem. At the operational level,

the study led to the creation of indicators that link communication performance to loyalty signals, so that improvement decisions can be made based on data, not estimates. Even when there is a disruption, for example a delay in sending or a data issue. *The significance of this study* can guide the preparation of a fast, empathetic, and consistent response across teams (marketing, customer service, operations, and compliance). Practically, JNE obtains a "roadmap" to build a reasonable closeness, including messages that feel useful, data is treated with respect, and customers are calmer to continue using the service.

THEORETICAL REVIEW

Theoretical Foundations

The basic theory of this study is the view of the Privacy Calculus Theory that individuals will accept or reject the practice of using or exchanging personal data by weighing the perceived benefits versus the perceived risks and costs. If the perceived benefits outweigh the risks, they are more likely to accept the use of the data and continue the relationship with the organization, but if it is otherwise, they are more likely to reject or withdraw. (Culnan & Armstrong, 1999; Dinev & Hart, 2006).

Consumer Loyalty in Courier Services

Consumer loyalty is understood as a deep commitment to make consistent purchases or reuse in the future, despite the situational influence and marketing efforts of competitors (Oliver, 1999). In the field of services, including logistics or couriers, loyalty is not only reflected in the intention of reuse, but also the preference to choose a brand, recommendations, as well as tolerance for service interruptions when previous experience is considered fair, reliable, and easy (Dick & Basu, 1994; Zeithaml, 1988). The relational marketing perspective emphasizes that trust and commitment are the foundations of long-term relationships that lead to test-resistant loyalty (Morgan & Hunt, 1994). In the context of couriers, the quality of service, for example, the reliability of shipment status information, the clarity of instructions when failing to deliver, and the ease of claim become the "fuel" that maintains a positive attitude of customers, so that the preference for certain providers, such as JNE, is getting stronger (Parasuraman, Zeithaml, & Berry, 1988).

Ad Personalization: Message Value, Relevance, and Effective Limits

The advertising value framework asserts that a positive attitude towards communication is determined by the extent to which the message is informative, pleasant, and minimally irritating, meaning that when the perceived value is high, behavioral responses that will benefit the brand are likely to emerge (Ducoffe, 1995). In the digital context, personalization serves as a relevance-forming "machine" that aligns the content, timing, and message channels with the real needs of the customer (Petty & Cacioppo, 1986). However, personalization effects are not always linear. The psychological *reactance theory* explains that communication interventions that are perceived to be too restrictive of freedom, such as too often, too sharp, or appear at inappropriate moments will

trigger resistance and avoidance (Brehm, 1966). Research on *perceived intrusiveness* also shows that when customers consider a message to be too intrusive, the value of the ad decreases even though the content is relevant, because the way it is delivered violates the norm of convenience (Li, Edwards, & Lee, 2002). Thus, personalization is effective when optimizing three things, the first is usability, includes clear shipment status information, concise instructions, the next is the moment that is based on the delivery event, not just the frequency, and then the third and last is reasonableness, i.e. the tone and channel that are appropriate to the context.

Data Privacy: Calculating Benefits-Risks, Privacy Boundaries, and Trust

In data-driven interactions, customers tend to do a "privacy calculus", weighing the benefits gained from data sharing versus the risk of losing control or misusing information (Culnan & Armstrong, 1999; Dinev & Hart, 2006). *Communication Privacy Management* adds that individuals establish "boundaries" to manage personal information, those boundaries are influenced by the rules of context and who communicates, through what channels, when, and for what purposes (Petronio, 2002). When data collection or use practices are considered transparent and within reasonable limits, e.g. clear notifications, easy choice of preferences, and only at relevant moments, and increased perception of control, it will promote convenience and acceptance of communication (Malhotra, Kim, & Agarwal, 2004). On the other hand, when these limits are violated, namely high frequencies, unpreferred channels, and unclear destinations, then concerns will grow and have an impact on declining message receipts. In courier services that touch on identity, addresses, contact numbers, and location traces, clarity of the purpose of data use and consistency of brand behavior will be key to building trust (Mayer, Davis, & Schoorman, 1995), which in turn will sustain loyalty.

Relationships Between Variables

Personalization of Ads to Consumer Loyalty

Theoretically, ad personalization will increase loyalty because it makes messages more relevant, useful, and easy for customers to process. In the framework of advertising value, the value of the message is formed from the level of informativeness, which will help and provide certainty, and adequate entertainment or appeal and low irritation (Ducoffe, 1995). When JNE presents customized messages, such as timely receipt status updates or concise instructions when they *fail to send*, customers will assess valuable communications, so that positive attitudes towards the service are formed and encourage repetitive behavior (Oliver, 1999).

In courier services, the quality of the experience is largely determined by the moment, which means the moment is when the customer urgently needs information when the package moves warehouse, *out for delivery*, withheld, or after delivery. Event-based personalization such as when the package moves from warehouse or *out for delivery* will make the content and time of the message right on target, will reduce the confusion and anxiety of customers who ask where the package has arrived. The combination of useful content coupled with the right moment will result in higher perceived value, which according to the

logic of value, and loyalty will increase reusability and willingness to recommend (Zeithaml, 1988; Oliver, 1999).

Hypothesis 1: The Impact of Ad Personalization on Consumer Loyalty

Data Privacy to Consumer Loyalty

Theoretically, the influence of data privacy on loyalty is strongly explained by Privacy Calculus, where consumers weigh the benefits they receive from data-driven interactions versus perceived risks (Culnan & Armstrong, 1999; Dinev & Hart, 2006). Clear and reasonable privacy practices, such as a brief explanation of the purpose of data usage, message frequency caps, selectable channels, and easy preference options, will reduce the perception of risk in the calculation, increasing acceptance of JNE communications and in turn driving loyalty (reuse, recommendations, and preferences).

The foundation of the concept of control over personal information confirms this logic. Westin (1967) views privacy as individual control over how and to what extent data is disclosed, while Altman (1975) defines privacy as a dynamic boundary regulation process. When JNE presents a mechanism that makes customers understand the purpose of data usage and can set notification preferences, customers feel controlled, which will reduce the sense of threat and increase the convenience of receiving service messages.

Hypothesis 2: The Impact of Data Privacy on Consumer Loyalty

Consumer Loyalty to Ad Personalization

More loyal consumers tend to rate tailored messages as more valuable, meaning higher *informativeness* or *appeal*, and lower irritation, then the next, are more willing to reveal preferences from channels, frequencies, and types of content so as to increase the accuracy of subsequent personalization, and the latter shows a looser "reasonable" threshold for personalization practices as long as there is transparency and privacy controls. This conceptual foundation refers to the strength of the brand's attitude and commitment to loyal customers (Oliver, 1999; Dick & Basu, 1994), the logic of advertising value (Ducoffe, 1995), as well as the finding that intrusiveness lowers the value and acceptance of messages (Li, Edwards, & Lee, 2002). In *commitment-trust theory*, trust-supported loyalty increases the willingness to share preferences (Morgan & Hunt, 1994). Meanwhile, *privacy calculus* and *communication privacy management* explain that when the benefits of personal communication are tangible and privacy boundaries are managed (transparency of purpose, choice of preferences), loyal customers are more likely to accept personalization (Culnan & Armstrong, 1999; Dinev & Hart, 2006; Petronio, 2002; Malhotra, Kim, & Agarwal, 2004). This set of arguments has been laid out in *previous literature reviews* on message value, intrusiveness, trust, and privacy calculus relevant to the context of courier/logistics services (Ducoffe, 1995; Li et al., 2002; Parasuraman, Zeithaml, & Berry, 1988).

Hypothesis 3: The Impact of Consumer Loyalty on Ad Personalization

Consumer Loyalty to Data Privacy

It is reflected in the perception of fairness/procedural fairness, trust in data management, and willingness to disclose preferences (data disclosure) under clear control. Loyal consumers tend to value the benefits of data-driven interactions as greater than the risks (*privacy calculus*), so they are more receptive to transparent and controlled data collection/use (Culnan & Armstrong, 1999; Dinev & Hart, 2006).

Hypothesis 4: The Impact of Consumer Loyalty on Data Privacy

Theoretical Framework

The framework of this writing is based on the basic theory that has been explained in the *literature review* above.

Based on the literature review above, the *research framework* will be presented in Figure 1.

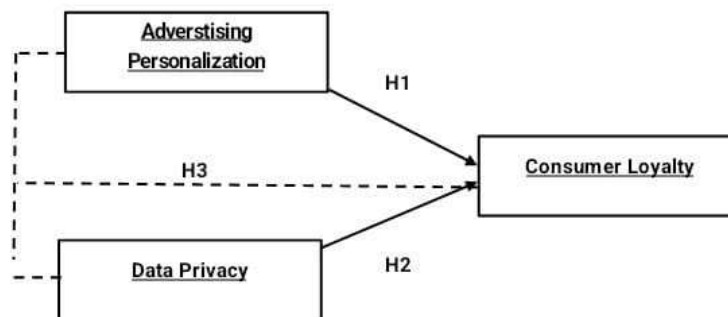


Figure. 1 Theoretical Framework

H1: Ad personalization partially impacts consumer loyalty

H2: Data privacy partially impacts consumer loyalty

H3: Ad personalization, and data privacy impact consumer loyalty simultaneously

METHODOLOGY

This study aims to find out how the influence of one variable is related to other variables. The questionnaire will be specifically designed to achieve the research objectives, in particular to measure the influence of consumer loyalty on data privacy, and advertising personalization. This research will be conducted on JNE companies. The respondents are JNE users in Indonesia. They will answer questions that refer to JNE's performance in serving customers based on their perception of the key variables hypothesized in this study.

RESULTS

Because this article is conceptual, the “results” are presented in the form of theoretically derived propositions rather than numerical findings. By synthesizing the literature on advertising value, privacy calculus, communication privacy management, and service loyalty, three main patterns can be inferred for the JNE context. First, personalization that focuses on usefulness and timing, such as event-based notifications about receipt status,

delivery problems, and claim procedures tends to be evaluated as more valuable advertising and is therefore expected to strengthen consumer loyalty indicators, including reuse intention, recommendation, and preference for JNE over competing courier services (Ducoffe, 1995; Zeithaml, 1988; Oliver, 1999).

Second, the review of privacy studies indicates that clear, transparent, and controllable data practices will reduce perceived risks in the privacy calculus and reinforce trust in JNE's digital communication. When customers understand what data is collected, for what purposes, through which channels, and how they can adjust preferences or withdraw consent, the perceived fairness of data handling increases and supports a more stable loyal relationship (Culnan & Armstrong, 1999; Dinev & Hart, 2006; Malhotra et al., 2004).

Third, the model suggests that the interaction between ad personalization and data privacy is critical. Personalization that is perceived as intrusive or boundary-crossing (for example, too frequent messages, irrelevant channels, or vague purposes) will weaken, or even reverse, the positive effect of personalization on loyalty. Conversely, when personalization is implemented within clearly communicated privacy boundaries, its positive impact is likely to be amplified. In the case of JNE, the very low engagement rate on @jne_id and the heightened public concern following the alleged data leak can be interpreted as early signals that perceived relevance and trust have not yet been aligned; the proposed framework predicts that improving both personalization relevance and privacy assurance should be reflected over time in better engagement, audience growth, and loyalty-related behaviours.

Overall, the conceptual synthesis leads to three core propositions that will guide future empirical testing in JNE: (1) higher perceived relevance and value of personalized communication will be associated with higher consumer loyalty; (2) more positive perceptions of JNE's data privacy practices will be associated with higher consumer loyalty; and (3) the positive influence of personalization on loyalty will be stronger when customers feel that their data is processed in a transparent, legitimate, and controllable manner.

DISCUSSION

The conceptual results above underline that JNE's loyalty problem in the digital logistics ecosystem cannot be solved by "more content" alone, but by redesigning how messages and data are managed as one integrated system. From the perspective of advertising value, many of JNE's current communications on Instagram and other digital channels can be interpreted as having low perceived informativeness and high fatigue: content reaches a very large audience but does not sufficiently reduce uncertainty about shipment status or provide concrete solutions in critical moments. In this situation, personalization is not merely about inserting the customer's name, but about structuring content around the delivery journey pick-up, in-transit, exception, and completion, so that each message feels timely, necessary, and easy to act on (Ducoffe, 1995; Parasuraman et al., 1988).

At the same time, privacy calculus and communication privacy management theories remind us that every attempt to increase personalization inevitably raises questions about "how far" data use remains acceptable. In courier

services, the data involved names, addresses, phone numbers, and package details are sensitive because they relate directly to the customer's physical space and consumption patterns. If these data are reused for communication without clear explanation, or if customers feel they have no control over channel and frequency, the perceived risks in the privacy calculus will overshadow the perceived benefits, pushing customers towards avoidance behaviours such as unfollowing, ignoring messages, or complaining about data misuse (Culnan & Armstrong, 1999; Petronio, 2002). The alleged leak of 81.47 million JNE customer data makes this sensitivity even sharper and reinforces the need for visible, not only formal, compliance with the Indonesian PDP Law.

From a relationship-marketing viewpoint, trust and commitment are the main levers that connect personalization and privacy to loyalty. When JNE is able to demonstrate that its personalized messages genuinely help customers by clarifying delivery problems faster, reducing uncertainty, and offering fair claim solutions while simultaneously showing that data is collected and processed within reasonable, well-communicated limits, then trust is likely to grow and form loyalty that is more resistant to service disruptions (Morgan & Hunt, 1994; Mayer et al., 1995). In contrast, personalization that is experienced as "too much" or "too opaque" in terms of data use will erode trust and make customers more sensitive to competitors' offers, even if operational service quality is relatively similar.

For practitioners, the discussion implies that JNE needs an integrated redesign of its communication and data policies rather than isolated campaign-by-campaign adjustments. Concretely, the conceptual framework suggests at least three directions. First, redesign message flows to be event-based, focusing on moments when information is most needed and limiting communication at less critical times. Second, embed privacy-by-design principles in every digital touchpoint: short and clear privacy notices, easy preference settings, and consistent explanations when data is reused for marketing purposes. Third, link digital communication indicators (engagement rate, complaint volume about data, opt-in/opt-out behaviour) with loyalty indicators (repeat use, recommendation, and cross-service usage) so that personalization and privacy policies can be evaluated from a business as well as an ethical perspective.

Thus, the discussion reinforces the main argument of this conceptual study: in JNE's case, efforts to revive digital communication effectiveness through ad personalization will only be sustainable if they are supported by strong, transparent data privacy management. Personalization without credible privacy will tend to trigger resistance; privacy without relevant communication will fail to generate differentiation. The real strategic advantage lies in balancing both so that customers feel helped and respected at the same time, which in the long run is expected to translate into stronger consumer loyalty to JNE's logistics services.

CONCLUSIONS AND RECOMMENDATIONS

In summary, this conceptual writing places the problem of JNE in the digital logistics ecosystem on two interrelated axes, namely efforts to revive the effectiveness of communication through advertising personalization and the need to enforce data privacy protection amid the issue of leaking 81.47 million lines of

customer data. Based on the theory of privacy calculus, communication privacy management, advertising value, and customer loyalty, the framework is developed that personalized messages that are reasonable, informative, moment-appropriate, relevant to the delivery journey can raise advertising value, form positive attitudes, and encourage reuse intentions, while transparent, clearly delimited data privacy management (channels, frequency, destinations), and giving customers control space is a prerequisite for its birth long-term trust and loyalty. This conceptual also closes the research gap in the context of Indonesian couriers, because most of the previous studies still focused on retail or *e-commerce* and have not tested the limits of personalization and privacy in typical delivery service scenarios (receipt updates, schedule changes, failed delivery, claims) with business metrics such as engagement rate and audience growth.

Based on this framework, several practical and realistic recommendations can be suggested for JNE. First, the company should redesign its digital communication flows to be truly event-based along the delivery journey, prioritizing messages that directly help customers when parcels move, are delayed, or require action, while reducing routine content that adds little value. Second, JNE is advised to implement personalization gradually through controlled pilots for example, starting with specific customer segments or use cases, and to systematically monitor changes in engagement, complaint patterns, and loyalty related behaviours before scaling up. Third, JNE needs to institutionalize privacy by design in all communication initiatives by preparing short and easy to understand privacy explanations, creating a preference centre that allows customers to choose channels and frequency, and ensuring that consent and withdrawal mechanisms are simple and visible. Fourth, it is recommended that JNE establish a cross-functional team (marketing, customer service, operations, IT, and legal/compliance) responsible for aligning personalization strategies with the requirements of the Indonesian PDP Law, including lawful basis for processing, transparency, and breach notification procedures. Finally, communication performance metrics (engagement rate, opt-in/opt-out, data-related complaints) should be systematically linked to loyalty indicators (repeat usage, recommendations, and brand preference) so that decisions about personalization and privacy are guided by data and long-term relationship outcomes, rather than short-term campaign results alone.

These recommendations are intended to be implementable within JNE's current business reality: they do not require extreme technological disruption, but focus on reorganizing message flows, clarifying data practices, and integrating communication and privacy governance. If executed consistently, the balance between relevant personalization and credible data protection is expected to contribute to more resilient consumer loyalty to JNE's logistics services.

FURTHER STUDY

Like any study, this conceptual paper has several limitations that need to be acknowledged and that open space for further research. First, the model developed here is purely theoretical and has not yet been tested with empirical data from JNE customers or other logistics users. As a result, the strength and

direction of the relationships proposed between ad personalization, data privacy, and consumer loyalty remain indicative rather than conclusive. Second, the discussion is centred on the Indonesian courier service context and specifically uses JNE as an illustrative case; this focus enriches contextual relevance but may limit the generalizability of the framework to other industries, countries, or regulatory environments. Third, the paper does not differentiate between specific customer segments (such as age groups, digital literacy levels, or risk perceptions), even though past research suggests that these factors may shape how personalization and privacy are evaluated.

studies are therefore encouraged to design quantitative and qualitative research that can empirically test and refine the propositions put forward in this paper. Survey based studies, for example, could measure perceived personalization, privacy concerns, trust, and loyalty among JNE customers and analyse whether the patterns align with the proposed model. Experimental or A/B testing designs on digital platforms could also be used to compare different message formats, levels of personalization, and types of privacy explanations, in order to identify combinations that are most effective in improving engagement and loyalty while maintaining acceptable privacy boundaries. In addition, comparative studies between JNE and other logistics providers or digital service firms (e.g., e-commerce, ride-hailing, or financial technology platforms) would be valuable to see whether the same mechanisms operate across different service categories.

Further research may also adopt a longitudinal approach to observe how changes in personalization strategies and privacy policies over time influence customer perceptions and behaviour, especially in the aftermath of data incidents or regulatory changes. Qualitative work such as in depth interviews or focus group discussions, could explore how customers narrate their experiences of feeling “helped” versus “watched” by personalized communication, and how they interpret privacy notices in real decision-making situations. By combining these different methods and contexts, future investigations can validate, modify, or extend the conceptual framework proposed in this article, and provide richer guidance for organisations like JNE that are seeking to balance relevant personalization with credible data protection.

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