Proceeding of International Bussiness and Economic Conference (IBEC) Vol. 5 No. 1, pp. 850-861, November, 2026
http://conference.eka-prasetya.ac.id/index.php/ibec

Delivery Speed and Social Media Marketing: Their Impact on Customer Loyalty at Lion Parcel's MMTC Branch in Medan

Dewi Melati[1], Ihdina Gustina[2], Vanessa Sinaga[3], Renatha Agatha Kharitoo[4]
Sekolah Tinggi Ilmu Ekonomi Eka Prasetya[1,2,3,4]
Jl. Merapi No.8, Pusat Pasar., Kec. Medan Kota, Kota Medan, North Sumatera, 20212, Indonesia

*Corresponding author: dewilie0405@gmail.com

ABSTRACT

This study examines the associations of Delivery Speed and Social Media Marketing with an adapted Customer Loyalty score at the Lion Parcel MMTC branch in Medan, Indonesia. A quantitative research design was used, involving 130 customers selected through incidental sampling. The instrument contained eight Delivery Speed items, ten Social Media Marketing items, and eight Customer Loyalty items. The Customer Loyalty score included items concerning recommendations, positive word of mouth, perceived transaction value, and future service preference. Delivery Speed ($B = 0.487$; $t = 9.602$; $p < 0.001$) and Social Media Marketing ($B = 0.376$; $t = 4.715$; $p < 0.001$) were positively associated with the outcome. The overall regression model was statistically significant, $F(2, 127) = 154.691$, $p < 0.001$, with $R^2 = 0.709$. The Social Media Marketing score included an item concerning customers' intention to share content, which overlaps with the outcome's word-of-mouth content. This overlap may affect the observed associations, while the inclusion of perceived transaction value limits the interpretation of the outcome as a pure measure of loyalty. The findings describe associations among the sampled customers and do not establish causal effects or represent all Lion Parcel customers.

Keywords: Customer Loyalty; Delivery Speed; Logistics Services; Relationship Marketing; Social Media Marketing.

INTRODUCTION

The growth of e-commerce has driven an increasing demand for logistics services that are fast, reliable, and supported by effective information delivery. Amidst intensifying competition in the logistics sector, customers consider not only price but also delivery speed and punctuality, ease of accessing information, and responsive digital communication (Budiarsi et al., 2021; Su et al., 2022). These conditions compel logistics companies to continuously enhance service performance while leveraging digital media for communication and customer interaction. A company's ability to meet service expectations and maintain customer relationships is increasingly critical, given that customers have access to various shipping alternatives and may switch providers if the service received falls short of expectations.

The logistics industry in Indonesia is experiencing rapid evolution, driven by the growth of e-commerce and inter-regional goods distribution. Meanwhile, the number of freight transport companies has fluctuated due to shifting economic conditions, rising operational costs, and intensifying business competition. Data from Statistics Indonesia (BPS) reveals fluctuations in air cargo loading and unloading volumes at five major airports (Kualanamu (North Sumatra), Soekarno-Hatta (Tangerang), Juanda (East Java), Sultan Hasanuddin (South Sulawesi), and I Gusti Ngurah Rai (Bali)) in Indonesia between 2019 and 2023, reflecting the highly dynamic nature of the national logistics

industry (Badan Pusat Statistik, 2023). Nevertheless, the rise of digital trade continues to offer significant opportunities for shipping companies to expand their market share by improving service quality and utilizing digital technology (Statistics Indonesia, 2025).

This situation also prevails in Medan, one of Indonesia's major trade hubs. As the distribution of goods via air and land routes continues to rise, public demand for shipping services has grown (Statistics Indonesia, 2026). Competition among shipping companies in Medan is intense, given that nearly all national carriers maintain operational networks in the area. With an increasing number of service options available, customers are free to select the company that best meets their expectations.

One company operating within this competitive landscape is the Lion Parcel MMTC Medan branch. Located in the MMTC commercial district, a key center of economic activity in Medan, this branch faces direct competition from various other national shipping companies. Preliminary observations, Google Reviews, and a pre-survey of customers reveal ongoing complaints regarding delayed package deliveries, suboptimal communication with customers, and limited digital marketing activity on the company's social media channels. If not addressed promptly and effectively, these issues could potentially diminish customer satisfaction and loyalty (Google Review, accessed August 30, 2026). Beyond the indications derived from preliminary observations, customer reviews, and the pre-survey, the branch's performance dynamics are also reflected in the revenue trends of the Lion Parcel MMTC Medan branch from 2021 to 2025. These data are presented in Table 1.

Table 1.
Revenue of Lion Parcel MMTC Medan Branch (2021–2025)

Year	Revenue (rupiah)	Percentage
2021	456.000.000	-
2022	439.000.000	-3,73%
2023	578.000.000	31.66%
2024	534.000.000	-7.61%
2025	479.000.000	-10.30%

Source: Lion Parcel MMTC Medan branch, 2026

Table 1 shows that the revenue of the Lion Parcel MMTC Medan branch fluctuated during the 2021–2025 period. After increasing in 2023, revenue declined in 2024 and fell again in 2025. This decline cannot be directly attributed to Delivery Speed or Social Media Marketing activities, as revenue can be influenced by various operational and market factors. However, this pattern reinforces the relevance of identifying factors related to the company's ability to retain customers specifically Delivery Speed and social media marketing. In the highly competitive logistics industry, customer loyalty serves as a crucial indicator of corporate sustainability, given that the cost of retaining existing customers is generally lower than that of acquiring new ones (Kholishoh & Ismail, 2026; Koay et al., 2022; Wahyuni & Pramitasari, 2022).

Various prior studies indicate that Delivery Speed is a key determinant of customer loyalty, as timely delivery enhances customer satisfaction and trust in the company. The faster and more accurately goods are received, in accordance with the promised timeframe, the greater the likelihood that customers will continue to use the company's services (Koay et al., 2022; Su et al., 2022).

Furthermore, previous research demonstrates that Social Media Marketing plays a vital role in fostering long-term customer relationships by facilitating rapid information sharing, two-way communication, increased interaction, and easy access to company services. The effective use of digital media not only boosts brand awareness but also strengthens customer loyalty (Budiarsi et al., 2021; D'Agostini, 2022; Fetais et al., 2023; Sadli et al., 2022).

Numerous prior studies have demonstrated that delivery service performance aspects, such as speed and timeliness, are linked to customer satisfaction and loyalty across various logistics and delivery service contexts (Akil & Ungan, 2022; Koay et al., 2022; Su et al., 2022; Yeronica & Laulita, 2024). Meanwhile, research on Social Media Marketing indicates that social media activities encompassing interaction, customer engagement, personalization, and electronic word-of-mouth can contribute to various relational outcomes, including brand loyalty and reuse intention (Budiarsi et al., 2021; Fetais et al., 2023; Lin et al., 2024). However, these two aspects have largely been examined in isolation or within differing contexts and outcome frameworks. Empirical evidence integrating Delivery Speed (as an operational performance aspect) and Social Media Marketing (as a digital relational interaction aspect) to explain customer loyalty at the delivery service branch level remains limited. Addressing this gap, this study contributes by integrating Delivery Speed and Social Media Marketing into a single customer loyalty model focused on clients of the Lion Parcel MMTC Medan branch. Customer Loyalty is operationalized here as a broader adapted composite that also includes perceived transaction value; the contribution of the study is interpreted within this measurement scope.

LITERATURE REVIEW

Relationship Marketing

Relationship marketing emphasizes the importance of building, maintaining, and developing valuable long-term relationships between a company and its customers. From this perspective, marketing success is determined not only by a company's ability to acquire customers but also by its capacity to fulfill promises, deliver value, and sustain interactions that support the continuity of the customer relationship (Grönroos, 1994; Morgan & Hunt, 1994).

In this study, Delivery Speed represents the fulfillment of service promises through rapid, consistent, and reliable delivery, while Social Media Marketing represents the company's communication and interaction activities with customers via social media. These two aspects provide a theoretical basis for explaining the formation of customer loyalty within the relationship between customers and logistics service providers.

Customer Loyalty

Customer loyalty reflects a customer's inclination to maintain a relationship with a company through behaviors such as reusing services, sharing positive experiences, and recommending the company to others (Sari et al., 2024). In the context of logistics services, loyalty is crucial as it signifies the continuity of the customer-provider relationship following a transaction. Empirical evidence within the delivery service sector also highlights the importance of service quality and punctuality in retaining customer loyalty (Akil & Ungan, 2022; Yeronica & Laulita, 2024). Justavino-Castillo et al. (2023) examined long-term orientation in a business-to-business maritime setting; their work provides a relational basis for adaptation rather than automatic validation of the present eight-item composite. All eight outcome items are retained to report the breadth of the instrument used, without treating perceived value and loyalty as interchangeable.

Delivery Speed

Delivery Speed is a crucial aspect of logistics service performance, as it relates to a service provider's ability to meet customer expectations regarding delivery timing. For customers, speed encompasses not only the brevity of the time required to receive a shipment but also the company's consistency in adhering to promised delivery estimates. Research in the delivery service sector indicates that timeliness and the quality of delivery execution are linked to customer evaluations of the service and the continuity of the relationship with the service provider (Akil & Ungan, 2022; Yeronica & Laulita, 2024).

From a relationship marketing perspective, the ability to meet delivery schedules can be viewed as a way of fulfilling service promises made to customers.

Social Media Marketing

Social Media Marketing refers to the use of social media by companies to disseminate information, foster interaction, tailor communication, and drive customer engagement. In the context of logistics services, social media serves not only as a promotional tool but also as a communication channel that enables companies to maintain interactions with customers before, during, and after service usage. Research within the delivery services sector also indicates that Social Media Marketing activities are relevant to building relationships and fostering customer loyalty toward service providers (Angelina et al., 2025; Budiarsi et al., 2021; Lazuardi et al., 2022; Lin et al., 2024; Lorensius et al., 2024). This role aligns with the relationship marketing perspective, as continuous communication and interaction support the maintenance of company-customer relationships. Lin et al. (2024) include electronic word of mouth within their social media marketing framework. In the present questionnaire, however, the willingness to share positive experiences reflects a customer intention rather than solely an evaluation of company marketing activity.

Hypothesis Development

H_1 — Delivery Speed towards Customer Loyalty.

In the logistics sector, Delivery Speed reflects a company's capacity to meet customer expectations through fast, consistent delivery that adheres to promised timeframes.

Empirical studies by Akil & Ungan (2022) demonstrate that logistics service quality; including delivery timing; is linked to customer satisfaction and loyalty. Similar findings regarding the importance of timeliness and service quality for customer outcomes have been reported by Su et al. (2022) and Yeronica & Laulita (2024). This evidence indicates that a service provider's ability to meet time-related expectations is a crucial component of the customer experience in delivery services. Based on these theoretical arguments and empirical findings, the first hypothesis is formulated as follows:

H_1: Delivery Speed has a positive effect on Customer Loyalty at the Lion Parcel MMTC Medan branch.

H_2 — Social Media Marketing towards Customer Loyalty.

In the digital landscape, Social Media Marketing provides a platform for companies to disseminate information, respond to customers, deliver relevant content, and foster electronic word-of-mouth.

Lin et al. (2024) demonstrated that Social Media Marketing activities comprising entertainment, interaction, trendiness, customization, and electronic word-of-mouth play a role in shaping customer outcomes within the logistics service sector. Fetais et al. (2023) also identified a link between social media marketing activities and brand loyalty, while Budiarsi et al. (2021) provided evidence specifically regarding J&T Express delivery services that Social Media Marketing is associated with brand-related loyalty outcomes. Based on this reasoning, the second hypothesis is formulated as follows:

H_2: Social Media Marketing has a positive effect on customer loyalty at the Lion Parcel MMTC Medan branch.

H_3 — Delivery Speed and Social Media Marketing simultaneously.

Delivery Speed and Social Media Marketing represent two distinct yet complementary aspects of the company-customer relationship. From a Relationship Marketing perspective, fulfilling service promises and engaging in relational interactions are two mechanisms that support the sustainability of the customer-company relationship.

Prior research provides evidence that delivery service performance is linked to customer-related outcomes (Akil & Ungan, 2022; Su et al., 2022), while Social Media Marketing activities are associated with loyalty-related outcomes and reuse intention (Fetais et al., 2023; Lin et al., 2024). Based on this reasoning, the third hypothesis is formulated as follows:

H_3: Delivery Speed and Social Media Marketing simultaneously influence Customer Loyalty at the Lion Parcel MMTC Medan branch.

RESEARCH METHOD

This study employs a quantitative approach with an explanatory research design to examine the relationships of Delivery Speed and Social Media Marketing with the adapted Customer Loyalty composite through hypothesis testing (Hidayat et al., 2025; Syamsuddin et al., 2023). The research was conducted at the Lion Parcel MMTC Medan branch, with data collection taking place between June and August 2026. The study utilizes both primary and secondary data sources (Hidayat et al., 2025; Sugiyono, 2022). The study population consisted of customers who had used the services of the Lion Parcel MMTC Medan branch. Because the exact population size was unknown, respondents were selected using incidental sampling from customers encountered at the branch who met the study criteria (Sahir, 2022). Eligible respondents had used the branch's services at least once in the previous six months and were willing to participate. A total of 130 responses were received, all of which were valid and included in the main analysis. The 30 pilot participants were excluded from the main sample.

The study involves three constructs that were measured using 13 indicators, which were operationalized into 26 statement items. Sample size planning considered the recommendation of Hair et al. (2022) of five to ten respondents per indicator. Based on the 13 indicator areas, the study included 130 respondents. This ratio was used as an initial planning guideline and does not by itself establish population representativeness or statistical power. Data were analyzed using IBM SPSS Statistics. The analysis stages included instrument validity and reliability testing; classical assumption testing comprising tests for normality, multicollinearity, and heteroscedasticity; and multiple linear regression analysis (Ghozali, 2021; Sahir, 2022).

RESULTS

Respondent Characteristics

Respondent characteristics are presented to provide an overview of the profile of the customers who participated in the study.

This study involved 130 customers of the Lion Parcel MMTC Medan branch who met the research criteria. As shown in Table 6, the respondents were predominantly female, aged 31–40, held a bachelor's degree, and worked as private-sector employees. Regarding service usage, the largest proportion had used the service more than five times and had been customers for over a year. These characteristics provide an

overview of the research sample profile and are not used as a basis for establishing causal relationships with the research variables.

Validity and Reliability Test

Prior to primary data collection, the research instrument was pilot-tested with 30 respondents to evaluate the validity and reliability of the items. The results of the instrument testing are presented in Table 2.

Table 2.
Summary of Validity and Reliability Test Results.

Contruct	N	Corrected Item – Total Correlation	Cronbach's Alpha
Delivery Speed (X_1)	8	0,406-0,801	0,874
Social Media Marketing (X_2)	10	0,489-0,857	0,779
Customer Loyalty (Y)	8	0,722-0,923	0,939

Source: Processed research data (2026).

The instrument contained eight items for Delivery Speed, ten items for Social Media Marketing, and eight items for Customer Loyalty. Item screening was conducted using corrected item–total correlations obtained from the reliability analysis. The reported correlations ranged from 0.406 to 0.801 for Delivery Speed, 0.489 to 0.857 for Social Media Marketing, and 0.722 to 0.923 for Customer Loyalty. The reported Cronbach's alpha values were 0.874, 0.779, and 0.939, respectively, indicating acceptable internal consistency for the three scales. However, internal consistency alone does not establish that the content of the constructs is free from overlap.

Normality Test

A normality test was conducted to assess whether the regression residuals departed from a normal distribution. The One-Sample Kolmogorov–Smirnov test was used, and the results are presented in Table 3.

Table 3.
One-Sample Kolmogorov-Smirnov Test Results.

	Unstandardized Residual
N	130
Asymp.sig (2-tailed)	0,099

Source: Processed research data (2026).

Based on Table 3, the normality test of the regression residuals produced a p-value of 0.099. At the 0.05 significance level, there was no clear evidence of a departure from normality in the residuals.

Multicollinearity Test

The multicollinearity test is conducted to evaluate the presence of high correlation among independent variables within the regression model. The test is performed based on tolerance and Variance Inflation Factor (VIF) values, with the results presented in Table 4.

Table 4.
Multicollinearity Test Results.

	Tolerance	VIF
Delivery Speed (X_1)	0,563	1,775
Social Media Marketing (X_2)	0,563	1,775

Source: Processed research data (2026).

Based on Table 4, Delivery Speed and Social Media Marketing have tolerance values of 0.563 and VIF values of 1.775, respectively. Tolerance values greater than 0.10 and VIF values less than 10 indicate the absence of multicollinearity issues among the independent variables in the regression model.

Heteroscedasticity Test Results

The heteroscedasticity test was conducted to evaluate whether the residual variance in the regression model remains constant across all observations, as shown in Figure 1.

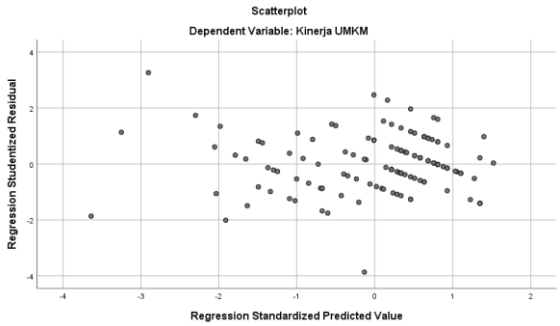


Figure 1. Heteroskedasticity Test Results / Scatterplot (Source: processed research data, 2026)

As shown in Figure 1, the residuals were distributed above and below zero, with no clear funnel-shaped or other systematic pattern. Therefore, the scatterplot did not provide clear visual evidence of heteroscedasticity.

Multiple Linear Regression Analysis & Partial Significance Test

Multiple linear regression analysis was used to examine the influence of Delivery Speed and Social Media Marketing on Customer Loyalty. Partial testing was conducted to evaluate the effect of each independent variable on Customer Loyalty. The results of the multiple linear regression analysis and partial significance test are presented in Table 5.

Table 5.
Multiple Linear Regression Analysis & Partial Significance Test

		Unstandardized Coefficients			
		B	**Std. Error**	t	Sig
1	(Constant)	0,955	2,106	0,453	0,651
	Delivery Speed (X_1)	0,487	0,051	9,602	<0,001
	Social Media Marketing (X_2)	0,376	0,080	4,715	<0,001

Source: Processed research data (2026).

Based on Table 5, the regression equation obtained is:

Customer Loyalty = 0.955 + 0.487 Delivery Speed +

0.376 Social Media Marketing + e

Table 5 shows that Delivery Speed was positively associated with the measured Customer Loyalty outcome (B = 0.487; t = 9.602; p < 0.001). Social Media Marketing was also positively associated with the outcome (B = 0.376; t = 4.715; p < 0.001).

Simultaneous Significance Test

The simultaneous significance test was conducted to evaluate whether Delivery Speed and Social Media Marketing jointly make a significant contribution to explaining Customer Loyalty. The results of the simultaneous test using the F-test are presented in Table 6.

Table 6.
F-test Results

Model		F	Sig
1	Regression	154,691	<0,001

Source: Processed research data (2026).

Table 6 shows that the overall regression model was statistically significant, $F(2, 127) = 154.691$, $p < 0.001$. This result indicates that Delivery Speed and Social Media Marketing were jointly associated with the measured Customer Loyalty outcome.

Coefficient of Determination (R^2) Test

The coefficient of determination is used to evaluate the ability of Delivery Speed and Social Media Marketing to explain the variation in Customer Loyalty within the research model. The results of the coefficient of determination test are presented in Table 7.

Table 7.
Coefficient of Determination (R^2) Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,842	0,709	0,704	2,533

Source: Processed research data (2026).

Based on Table 7, an R^2 value of 0.709 and an adjusted R^2 value of 0.704 were obtained. The model explained 70.9% of observed variation in the measured outcome; 29.1% remained unexplained. The measured outcome includes perceived transaction value as well as loyalty-related intentions. The shared word-of-mouth content across predictor and outcome should therefore be considered when interpreting model fit; R^2 is not interpreted as explanatory power for pure loyalty

DISCUSSION

The Influence of Delivery Speed on Customer Loyalty at Lion Parcel's MMTC Medan Branch

Delivery Speed was positively associated with the adapted Customer Loyalty composite among Lion Parcel customers at the MMTC Medan branch ($B = 0.487$; $t = 9.602$; $p < 0.001$), supporting H_1 within the operationalization used. Customers reporting more favorable delivery speed also reported higher outcome scores after accounting for Social Media Marketing. Because the outcome includes recommendation, positive word of mouth, perceived transaction value and future preference, the result does not identify which component accounts for this association.

From a relationship marketing perspective, these findings can be explained by the company's ability to fulfill service promises. Grönroos (1994) emphasizes that long-term customer relationships are built not only through efforts to attract customers but also through the company's ability to honor promises made during the service process.

The findings of this study align with Akil & Ungan (2022), Koay et al. (2022) and Yeronica & Laulita (2024), highlighting the importance of timeliness and service quality in delivery operations regarding various customer outcomes, including satisfaction and loyalty.

The Impact of Social Media Marketing on Customer Loyalty at Lion Parcel's MMTC Medan Branch

Social Media Marketing was positively associated with the adapted Customer Loyalty score among customers of the Lion Parcel MMTC Medan branch ($B = 0.376$; $t = 4.715$; $p < 0.001$). More favorable evaluations of social media activities were associated with higher outcome scores after accounting for perceived delivery speed. The finding is

compatible with relationship marketing, although trust, commitment, and causal mechanisms were not tested.

From a relationship marketing perspective, Social Media Marketing serves as a medium for communication and interaction that helps companies maintain customer relationships. Through the dissemination of information and ongoing interaction, social media enables companies to sustain customer engagement beyond the scope of service transactions.

These findings align with studies by Budiarsi et al. (2021), Fetais et al. (2023), and Lin et al. (2024), all of which highlight the importance of Social Media Marketing regarding various customer outcomes, including satisfaction and loyalty.

Joint Associations of Delivery Speed and Social Media Marketing with the Adapted Customer Loyalty Composite at the Lion Parcel MMTC Medan Branch

Simultaneous testing results indicate that the model incorporating Delivery Speed and Social Media Marketing is significant in explaining the adapted Customer Loyalty composite, $F(2,127) = 154.691$; $p < 0.001$. An R^2 value of 0.709 indicates that these two predictors explain 70.9% of the variation in the adapted composite within the sample; this does not imply that 70.9% of any individual customer's loyalty is causally determined by these two variables. Substantively, Delivery Speed represents the fulfillment of service promises regarding operational aspects, whereas Social Media Marketing represents digital communication and interaction regarding relational aspects. Both operate within different segments of the customer experience yet complement one another. The value-related content of the outcome and the customer-sharing intention contained in Social Media Marketing limit interpretation of these results as a test of marketing activity against pure loyalty.

Findings from previous research support each aspect of the model. Akil and Ungan (2022), Koay et al. (2022), Yeronica and Laulita (2024) demonstrate the importance of delivery service performance and accuracy regarding various customer outcomes. Meanwhile, Budiarsi et al. (2021), Fetais et al. (2023) and Lin et al. (2024) highlight the relevance of Social Media Marketing activities to loyalty-related outcomes and the sustainability of customer relationships. Thus, this study contributes by integrating operational and digital interaction aspects into a model of the adapted Customer Loyalty composite within the context of the Lion Parcel MMTC Medan branch. Comparisons with studies using narrower loyalty measures should account for these measurement differences.

Measurement limitations

The adapted outcome combines recommendation, word of mouth, perceived transaction value and future preference; the Social Media Marketing score also contains a customer-sharing intention item. These features limit a pure loyalty interpretation and may inflate associations. The value-related statements evaluate service benefits, while the sharing-intention statement has similar content to the outcome's word-of-mouth and review intentions. The extent to which these features affect the reported estimates remains unknown. The reported internal consistency and the disclosure of these limitations do not by themselves establish construct validity.

CONCLUSION

Among 130 incidentally sampled customers of Lion Parcel's MMTC Medan branch, Delivery Speed and Social Media Marketing scores were positively associated with the adapted Customer Loyalty outcome. The regression model explained 70.9% of the observed variation in the measured outcome ($R^2 = 0.709$); the remaining 29.1% was not explained by the model. The findings are based on questionnaire responses from one branch and do not establish causation or representativeness of all Lion Parcel customers.

The outcome included perceived transaction value, and the Social Media Marketing score shared word-of-mouth content with the outcome. These measurement characteristics should be considered when interpreting the results. Future research could use probability sampling, include several branches, and examine changes over time.

RECOMMENDATION

Based on the research findings, the Lion Parcel MMTC Medan branch is advised to maintain and enhance its delivery performance by ensuring shipments arrive within the promised timeframe, minimizing delays, and maintaining consistency between estimated and actual delivery times. These efforts can be supported by monitoring the sources of delays and periodically evaluating delivery punctuality.

Improvements in delivery performance and social media management should be implemented in an integrated manner. Information shared via social media must align with actual service conditions and capabilities so that corporate communication reflects the experience received by customers. Integrating the fulfillment of service promises with consistent digital communication is expected to support the company's efforts to maintain customer loyalty.

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