

Analysis of Communication Integrity on Loyalty Mediated by Trust at the UPTD Lanjut Usia Binjai

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ABSTRACT

The objective of this research is to study the influence of communication integrity on the loyalty of the residents of UPTD Lanjut Usia Binjai, with trust acting as the mediator. The study employed the quantitative method under Structural Equation Modeling–Partial Least Squares (SEM-PLS). The outer model test results indicate that all the indicators are valid and reliable. The inner model test result shows that communication integrity significantly affects trust and loyalty, while trust significantly affects loyalty. The test results on mediation show that trust partially mediates communication integrity's influence on loyalty. The R-squared measure of 0.750 for loyalty and 0.817 for trust indicates the good explanatory capability of the model. The significance of this study is the realization that there is the need to strengthen communication integrity to boost trust and loyalty among the elderly residents. The implication of these findings underscores the necessity for the UPTD management to proactively build and maintain communication integrity in every interaction, in order to foster trust which ultimately forms a solid foundation for sustainable loyalty among the elderly residents.

Keywords: Communication Integrity; Trust; Loyalty; SEM-PLS



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INTRODUCTION

The growing elderly population presents an increasingly significant social and economic challenge in Indonesia (Adioetomo & Pardede, 2025; Sakamoto, 2025). According to Statistics Indonesia (BPS, 2023), individuals aged 60 years and above constitute about 11.8% of the total population, a figure projected to surpass 20% by 2045. This demographic shift indicates the country's transition into an ageing society, highlighting the urgency of ensuring adequate social, health, and welfare services for older adults (Gianfredi et al., 2025; Ngoc Pham, Thi Le, & The Tran, 2025). The UPTD Lanjut Usia Binjai or UPTD Social Service Center for Older Adults, as an institution responsible for social and long-term care, faces challenges in sustaining positive relationships with its residents. Resident loyalty—reflected in

their willingness to stay, participate in programs, and recommend the institution—serves as a critical indicator of service success (Han & Hyun, 2020).

In the context of service management, loyalty extends beyond repeated behaviors to encompass emotional attachment and positive attitudes toward the service provider (Choi & Kim, 2022). Previous studies have shown that loyalty in social services is shaped by factors such as service quality, satisfaction, trust, affective commitment, and communication integrity (Han & Hyun, 2020; Loureiro, 2021). More recent findings suggest that in health and social care sectors, trust plays a mediating role between communication experience and user loyalty (Zhang et al., 2023; Rahman & Memon, 2022). When service users perceive honesty, openness, and consistency in communication, they are more likely to develop trust and long-term loyalty (Kim, Lee, & Park, 2023).

Communication is central to service interactions between staff and elderly residents (Macalupu, Miller, Martin, & Caldwell, 2025; Petrovici & Vlaicu, 2024). However, such interactions often involve challenges related to hearing limitations, perceptual differences, and emotional sensitivity. Hence, informative communication alone is insufficient; communication integrity—defined as the alignment between expressed messages and actual behavior—is essential (Kim & Park, 2022). It embodies honesty, transparency, empathy, and moral responsibility (Loureiro, 2021). In social care settings like the UPTD Lanjut Usia Binjai, failure to maintain communication integrity may undermine trust and satisfaction, reducing residents' loyalty toward the institution.

A preliminary survey conducted in July 2025 among 30 residents of the UPTD Lanjut Usia Binjai revealed that 43% perceived inconsistency between staff members' words and actions, while 36% found some information incomplete or unclear. Nevertheless, 62% acknowledged that staff demonstrated high empathy and care. These findings indicate potential gaps in communication integrity that may influence residents' trust and loyalty. Drawing from this background, the present study investigates the influence of communication integrity on resident loyalty, with trust as a mediating variable. Theoretically, it extends the Stimulus–Organism–Response (SOR) framework to the context of elderly social care, positioning communication integrity as the stimulus, trust as the organism (psychological response), and loyalty as the behavioral response (Mehrabian & Russell, 1974; Loureiro, 2021). Practically, the study aims to provide actionable insights for the management of the UPTD Social Service Center for Older Adults in Binjai in developing integrity-based communication strategies that strengthen trust and foster loyalty among residents.

RESEARCH METHOD

This study adopted a quantitative explanatory approach employing Structural Equation Modeling – Partial Least Squares (SEM-PLS) as the primary analytical method. This approach was selected because it was suitable for examining complex causal relationships among latent variables and for assessing both direct and indirect effects through mediating variables (Hair et al., 2021). The research model investigated the relationships between communication integrity, trust, and resident loyalty at UPTD Pelayanan Sosial Lanjut Usia Binjai, with trust serving as a mediating variable.

The study was conducted at UPTD Pelayanan Sosial Lanjut Usia Binjai in North Sumatra, a government-managed social institution providing long-term care and social services for older adults. The research took place from August to October 2025, encompassing the stages of instrument preparation, field data collection, and data analysis. The site was chosen due to its stable elderly population and its intensive interpersonal communication environment between staff and residents—conditions that made it an appropriate setting for examining communication integrity and social loyalty.

The population of this study comprised all 160 elderly residents of UPTD Lanjut Usia Binjai, all aged 60 years and above, with the majority between 70 and 79 years old. Given the relatively small and homogeneous population, the study applied a census (total sampling) method, in which the entire population was included as research participants (Sugiyono, 2022). The use of a census minimized selection bias and enhanced the internal generalizability of the analytical results.

To avoid ambiguity in the interpretation of concepts, each variable in this study was operationally defined based on relevant theories and previous empirical research. The study consisted of three main latent constructs: Communication Integrity (X), Trust (Z), and Loyalty (Y). Each construct was measured using reflective indicators on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Table 1. Operational Definition of Research Variables

Variable	Operational Definition	Dimension	Indicator (Questionnaire Item)	Source
Communication Integrity (X)	Residents' perceptions of staff honesty, openness, and consistency in providing information and care.	1. Honesty	X1: Staff are always honest when providing information.	Kim et al. (2023); Loureiro (2021)
		2. Transparency	X2: Information is communicated clearly and openly.	

Variable	Operational Definition	Dimension	Indicator (Questionnaire Item)	Source
Trust (Z)	Residents' belief that staff and the institution act with competence, honesty, and goodwill to ensure their well-being.	3. Consistency	X3: Staff behavior and actions are consistent.	Choi & Kim (2022); Han & Hyun (2020)
		4. Empathy	X4: Staff show empathy toward residents' needs.	
		1. Competence	Z1: Staff are competent in providing services.	
		2. Integrity	Z2: Staff always keep their promises.	
			Z3: Staff treat residents fairly.	
		3. Benevolence	Z4: I believe staff have good intentions toward residents.	
Loyalty (Y)	Residents' attitudes and intentions to remain, not switch institutions, and recommend the institution to others.	1. Retention	Y1: I intend to continue living at <i>UPTD Binjai</i> .	Kim, Lee, & Park (2023); Loureiro (2021)
		2. Emotional Commitment	Y2: I feel emotionally attached to this institution.	
		3. Recommendation	Y3: I would recommend this institution to my family.	
			Y4: I would recommend this institution to others.	

Source: Secondary Data, Processed by the Researcher (2025)

Data for this study were collected using a structured questionnaire distributed directly to all residents, with assistance from staff facilitators to ensure readability and comprehension among elderly respondents. In addition, non-participant observation was conducted to capture the daily interactions between staff and residents, thereby complementing and strengthening the interpretation of the quantitative findings. Content validity of the questionnaire was established through expert judgment from researcher, while instrument reliability was assessed using Cronbach's Alpha and Composite Reliability values analyzed through SmartPLS 4 software.

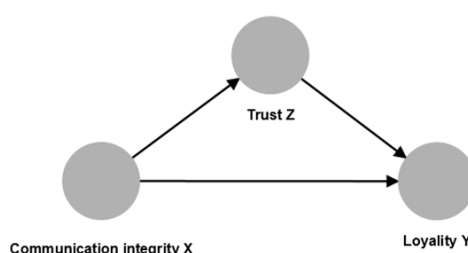


Figure 1. Framework

Source: SEM PLS (2025)

The collected data were analyzed using Structural Equation Modeling – Partial Least Squares (SEM-PLS), an approach suitable for handling relatively small sample sizes, complex structural relationships, and reflective latent constructs (Hair et al., 2021). The analysis was conducted in two primary stages: the outer model and the inner model. The outer model assessment included tests of convergent validity, indicated by factor loadings of ≥ 0.70 and Average Variance Extracted (AVE) values of ≥ 0.50 ; discriminant validity, evaluated through the Fornell–Larcker Criterion; and construct reliability, verified using Composite Reliability values of ≥ 0.70 . The inner model evaluation examined the causal relationships among latent variables using path coefficients to determine direct effects and specific indirect effects to test mediation relationships. Statistical significance was assessed through t-statistics (≥ 1.96) and p-values (< 0.05), while R^2 values were used to measure the explanatory power and robustness of the model. Hypothesis testing was performed using the bootstrapping method with 5,000 resampling iterations. A hypothesis was accepted when the path coefficient demonstrated a positive direction and the p-value was less than 0.05, indicating a statistically significant relationship between the tested constructs.

RESULTS AND DISCUSSION

Convergent validity and reliability of the model were assessed using loading factors, Average Variance Extracted (AVE), Cronbach's Alpha, and Composite Reliability. The analysis results (Table 1) reveal that all loading factors for each indicator exceeded the threshold value of 0.70, confirming that all indicators are valid and adequate for measuring their respective constructs (Hair et al., 2022).

The AVE values for all constructs also significantly surpassed the critical value of 0.50. This indicates that these constructs are able to explain more than 50% of the variance of their indicators, thus fulfilling the requirements for convergent validity (Sarstedt et al., 2022). The AVE values for all constructs also significantly surpassed the critical value of 0.50. This indicates that these constructs are able to

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Table 2. Results of Reliability and Convergent Validity Tests

Construct	Indicator	Loading Factor	Cronbach's Alpha	Composite Reliability	AVE
Communication Integrity (X)	COM1	0.904	0.942	0.958	0.851
	COM2	0.938			
	COM3	0.892			
	COM4	0.955			
Loyalty (Y)	LOY1	0.953	0.964	0.974	0.903
	LOY2	0.951			
	LOY3	0.938			
	LOY4	0.959			
Trust (Z)	TRS1	0.965	0.975	0.981	0.929
	TRS2	0.959			
	TRS3	0.969			
	TRS4	0.963			

Source: SEM PLS (2025)

Furthermore, in terms of reliability, the Cronbach's Alpha and Composite Reliability values for all constructs were above 0.90. This demonstrates a very high level of internal consistency and proves that the research instrument is highly reliable in measuring its latent variables (Hair et al., 2022).

Discriminant validity was tested using the Fornell-Larcker Criterion. The results in Table 2 show that the square root of the AVE for each construct (values on the diagonal) is greater than the correlations between that construct and other constructs in the model. This finding proves that each construct in the model is unique and empirically distinct from the others, thereby satisfying the requirements for discriminant validity (Sarstedt et al., 2022).

Table 3. Results of Discriminant Validity Test (Fornell-Larcker Criterion)

Construct	Communication Integrity	Loyalty	Trust
Communication Integrity	0.923		
Loyalty	0.841	0.950	
Trust	0.904	0.849	0.964

Note: Diagonal values (in bold) represent the square root of the AVE.

Source: SEM PLS (2025)

The R-square value for the endogenous variable Trust (Z) is 0.817, indicating that 81.7% of the variance in Trust can be explained by Communication Integrity. Meanwhile, the endogenous variable Loyalty (Y) shows an R-square value of

0.853, suggesting that 85.3% of the variance in Loyalty is jointly explained by Communication Integrity and Trust. According to Hair et al. (2022), an R-square value exceeding 0.75 falls within the substantial category, implying that the model exhibits a very strong Communication Integrity can explain 81.7% of the variance in Trust capability.

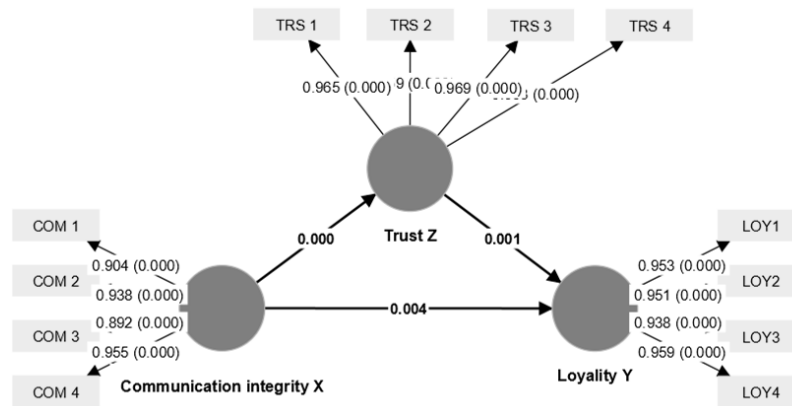


Figure 2. Bootstrapping Results of the Inner Model

Source: SEM PLS (2025)

The results of hypothesis testing for both direct and indirect effects are presented in Table 4. A hypothesis is considered supported when the T-statistic > 1.96 and the p-value < 0.05 (Hair et al., 2022).

Table 4. Hypothesis Testing Results

Hypothesis	Path Coefficient	T-Statistic	p-value	Conclusion
H1: $X \rightarrow Y$ (Direct Effect)	0.404	2.890	0.004	Supported
H2: $X \rightarrow Z$ (Direct Effect)	0.904	43.406	0.000	Supported
H3: $Z \rightarrow Y$ (Direct Effect)	0.483	3.430	0.001	Supported
H4: $X \rightarrow Z \rightarrow Y$ (Mediating Effect)	0.437	3.491	0.000	Supported

Source: SEM PLS (2025)

Based on Table 4 the following interpretations can be made: Hypothesis 1 (H1) is supported. Communication Integrity has a positive and significant effect on Loyalty ($\beta = 0.404$, $p < 0.05$). Hypothesis 2 (H2) is supported. Communication Integrity has a strong positive and significant effect on Trust ($\beta = 0.904$, $p < 0.001$). Hypothesis 3 (H3) is supported. Trust has a positive and significant effect on Loyalty ($\beta = 0.483$, $p < 0.01$). Hypothesis 4 (H4) is supported. Trust significantly mediates the relationship between Communication Integrity and Loyalty, with a specific indirect effect coefficient of 0.437 ($p < 0.001$). These results confirm that Trust acts as a key mediating mechanism linking Communication Integrity to residents' Loyalty, emphasizing the psychological and relational importance of

trustworthy and ethical communication within social service institutions such as UPTD Lanjut Usia Binjai.

The findings of this study provide strong empirical support for the Stimulus–Organism–Response (SOR) theoretical framework (Li et al., 2023; Zhang & Wang, 2024). Overall, all proposed hypotheses were found to be statistically significant, reinforcing the robustness of the conceptual model. First, the confirmation of H1 demonstrates that Communication Integrity directly enhances Resident Loyalty. This result aligns with the work of Chen et al. (2023), who emphasize that in social service contexts, ethical, honest, and transparent communication acts as a direct stimulus fostering loyalty-related behavioral responses. Specifically, among elderly residents, when information is conveyed clearly and staff behavior remains consistent, they experience greater respect, comfort, and psychological security factors that ultimately drive their willingness to remain and recommend the institution to others (Park & Kim, 2024).

Second, the strong statistical support for H2 ($\beta = 0.904$) highlights that Communication Integrity serves as the foundational driver of Trust. This result is consistent with recent studies identifying reliable and transparent communication as a core antecedent of trust in provider–client relationships (Lee et al., 2024). As Gupta and Sharma (2023) assert, within highly interactive social care environments, alignment between words and actions represents a critical signal that shapes residents' confidence in the institution's integrity and benevolent intentions.

Third, the findings supporting H3 confirm that Trust acts as a powerful predictor of Loyalty. This conclusion resonates with contemporary research asserting that trust serves as a direct antecedent of loyalty within healthcare and social service domains (Wang et al., 2024; Kim & Lee, 2023). When elderly residents believe that staff and the institution genuinely act in their best interest, emotional attachment and long-term commitment naturally emerge, reinforcing their intention to remain loyal.

Most importantly, the findings for H4 elucidate the underlying psychological mechanism linking Communication Integrity to Loyalty. Trust not only emerges as a consequence of ethical communication but also functions as a critical organismic mediator within the SOR framework (Li et al., 2023). The indirect effect ($\beta = 0.437$) exceeding the direct effect ($\beta = 0.404$) suggests that the majority of Communication Integrity's influence on Loyalty is transmitted through the formation of Trust. In other words, integrity-driven communication first evokes a psychological state of trust among residents, which subsequently manifests as behavioral loyalty. This pattern reinforces the findings of Zhang and Wang (2024), who also identified trust as a significant and robust mediator in public and non-profit service settings. Taken together, these results confirm that trust operates as a psychological bridge between

ethical communication and resident loyalty, validating the theoretical assumptions of the SOR model in the context of elderly social care services.

CONCLUSION

Based on the analytical results and discussion, several key conclusions can be drawn: Communication Integrity has a direct, positive, and significant effect on Resident Loyalty in UPTD Lanjut Usia Binjai. Communication Integrity exerts a direct, positive, and significant effect on Trust among residents. Trust has a direct, positive, and significant influence on Resident Loyalty. Trust partially and significantly mediates the relationship between Communication Integrity and Loyalty, validating the SOR theoretical framework, wherein Trust functions as the organism that bridges the stimulus (Communication Integrity) and the response (Loyalty). This study, however, has several limitations. The geographical scope is restricted to a single UPTD in Binjai, which may constrain the generalizability of the findings beyond this specific institutional and cultural context. Moreover, the research exclusively examines trust as the mediating variable, while other potential mediators such as affective commitment, satisfaction, or perceived value—could provide additional explanatory depth and a more nuanced understanding of the underlying mechanisms. Future studies are therefore encouraged to replicate this research across multiple UPTDs in Indonesia to validate the consistency of the findings, integrate additional mediating or moderating variables such as satisfaction or social support to construct a more comprehensive behavioral framework, and employ longitudinal designs to trace how the interplay among communication integrity, trust, and loyalty evolves over time. Overall, this study advances theoretical insight by establishing communication integrity as a pivotal ethical stimulus that cultivates trust and loyalty within elderly social care institutions, thereby offering meaningful theoretical contributions and practical implications for strengthening the sustainability, ethical climate, and relational quality of social welfare organizations.

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