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Organizations, Agents, and Networks Analysis for Understanding Obstacles in "Indonesia One Data"

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A B S T R A C T

This study aims to analyze the communication network structure among agents in the implementation of Satu Data Indonesia (SDI) and identify the strategic roles of agents that influence policy performance amid sectoral ego barriers. This study employs a network analysis approach to map communication and coordination relations between SDI agents. The theoretical framework under consideration integrates collaborative governance, organizational communication, and the Common KADS Communication Model. The results indicate three key agents. High Closeness agent values exhibit accelerated and extensive communication access. High betweenness agent values function as pivotal connectors between agencies and occupy strategic positions in the management of network fragmentation caused by sectoral ego. High authority agent exhibit robust legitimacy and structural influence in directing SDI network interactions and coordination. These findings provide empirical and practical contributions in formulating strategies to strengthen collaboration and improve the performance of Satu Data Indonesia.

INTRODUCTION

One Data Indonesia (SDI) is a cross sectoral policy that aims to integrate public data management as a basis for policy making (Bernot et al., 2024). However, the implementation of these policies is still faced with significant challenges, including sectoral ego, which manifests in the form of limited data interoperability, restricted information exchange, and inadequate inter-agency coordination (Hakim & Adiarsa, 2024; Islami, 2021). This condition indicates that SDI performance is not solely determined by regulations and technological infrastructure, but is significantly influenced by communication relations between agents in organizational structures and policy networks.

A review of international experiences reveals the presence of analogous challenges in the implementation of single data policies. In the Netherlands, institutional resistance, stemming from discrepancies in mandates and data ownership, has precipitated the fortification of coordination mechanisms and the augmentation of the role of agents that facilitate the connection between institutions (Chivu, 2019; Hulst & Van Montfort, 2007). Conversely, South Korea has exhibited a more efficacious national data system, characterized by the delineation of roles among pertinent agents, the presence of robust institutional leadership, and the establishment of interdisciplinary communication frameworks (Aljunid et al., 2012; Pauken et al., 2023). These cases substantiate the notion that the efficacy of a solitary data policy is predominantly contingent upon the configuration of agent relations and organizational communication patterns, rather than being solely determined by the formal design of the policy.

The Indonesian case exemplifies a distinct set of characteristics. The intricacies of bureaucracy, the fragmentation of authority, and the robust organizational culture that fosters sectoral authority collectively contribute to the complexity of SDI implementation (Nurdin et al., 2023; Pangaribuan, 2022). Furthermore, disparities in institutional capacity give rise to imbalanced positions and the extent of influence wielded by agents within the SDI network (Anindya, 2019; Martitah et al., 2021). Consequently, the success of SDI in Indonesia cannot be explained solely through a policy or technological approach. A more comprehensive understanding of the structure of communication networks and organizational dynamics is necessary to fully comprehend the subject.

From a Collaborative Governance perspective, SDI is conceptualized as a collaborative process involving agents with diverse interests, authorities, and resources (Bisri et al., 2024; Porcu et al., 2020). The success of this process is determined by the quality of the collaborative efforts among the agents involved. The presence of quality interactions and clarity of roles is imperative (Simões et al., 2020). Concurrently, the field of Organizational Communication underscores the significance of information flow and the strategic positioning of agents within the network (Zorlu & Korkmaz, 2021). However, extant research has historically separated these two approaches and has not empirically elucidated how sectoral ego manifests itself in the pattern of inter agent relationships in one data policy.

This study addresses this gap by employing the CommonKADS Communication Model, which posits that agents are inextricably linked to the

organizational model within which they function (Said Saleh et al., 2018; Surakratanasakul, 2017). Within this framework, communication between agents is shaped by organizational structure, division of roles, collective goals, and institutional rules (Cahyaningsih et al., 2022). Consequently, sectoral ego is comprehended not solely as an individual matter, but rather as a consequence of the absence of synchronization between agent roles, organizational structure, and collaborative networks.

Accordingly, the present study employs network analysis, as guided by the aforementioned framework, to empirically map communication and coordination relationships between SDI agents. This approach facilitates the identification of key agents, patterns of centrality, and network structures that either strengthen or hinder crosssector collaboration. The present study offers a theoretical innovation by integrating the principles of collaborative governance, organizational communication, and the CommonKADS Communication Model. This integration provides a novel framework for understanding SDI as a collaborative system based on organizational networks. In addition to theoretical contributions, the study provides practical contributions in the form of strategies for reducing sectoral ego and improving SDI performance by the agents mapping.

THEORETICAL REVIEW

The implementation of cross sectoral policies, such as One Data Indonesia (SDI), necessitates a comprehensive understanding of how agents interact within organizational structures and communication networks to achieve common goals. A comprehensive review of the extant literature indicates that the success or failure of collaborative policies is largely determined by the relationships, interaction patterns, and positions of agents within institutional networks.(Adinegoro et al., 2025; Firmansyah & Susanto, 2023).

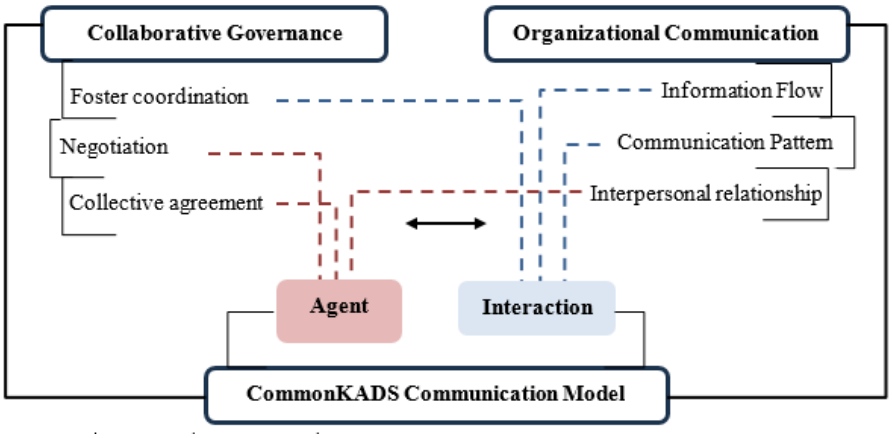
Collaborative governance constitutes the initial foundation of this review. This concept underscores the notion that cross sectoral public policy is not merely a matter of regulatory design. Rather, it is an intricate collaborative process among various agents who possess divergent mandates, resources, and objectives (Östberg et al., 2026). Collaborative governance is a system that fosters coordination, negotiation, and collective agreement as mechanisms to overcome bureaucratic fragmentation and sectoral ego (Tang et al., 2026; Wang et al., 2026). Nonetheless, the theoretical framework under scrutiny adopts a macro and normative orientation, thereby failing to provide a definitive account of the practical dynamics underlying communication patterns among agents (Subahe et al., 2026).

In order to address this discrepancy, the extant literature on organizational communication offers an operational perspective on inter-institutional interactions. This approach underscores the notion that the quality of collaboration is not solely determined by formal structures but is also influenced by information flows, communication patterns, and interpersonal relationships that either facilitate or impede coordination (Lenk, 2025; Lu & Jin, 2024). Organizational communication has been identified as a significant fagent

in understanding how message flows and relational ties influence collaborative processes, particularly in multi-agency contexts(Zorlu & Korkmaz, 2021). Nonetheless, the field of organizational communication has historically focused on internal organizational communication or communication between work teams, often neglecting to examine broader network structures (Eliwa et al., 2024; Garnett et al., 2008).

In this context, the CommonKADS Communication Model functions as a conceptual conduit, integrating the aforementioned approaches. CommonKADS, initially developed as a model for analyzing knowledge and communication systems, posits that agents invariably function within the ambit of organizational structures, rules, objectives, and institutional contexts (Surakratanasakul, 2017). This model conceptualizes communication as a relational process influenced by the organizational context, rather than merely a conduit for messages (Hoog et al., 1998). Consequently, CommonKADS integrates the logic of collaborative governance (cross-agent coordination) with the logic of organizational communication (relationship and communication flows), thereby merging the two approaches into a unified whole.

The integration of these three approaches is pertinent to the promotion of a more profound understanding of the communication network structure in SDI, detailed in Kesalahan! Sumber referensi tidak ditemukan.. Collaborative governance theory offers a framework for comprehending the necessity for interdisciplinary collaboration. The field of organizational communication is the study of how information flows and inter-agent relations influence coordination. Conversely, the CommonKADS Communication Model underscores that agents are inextricably linked to the organizational structures and regulations that enable or impede communication.



Source: (Tang et al., 2026; Wang et al., 2026); (Lenk, 2025; Lu & Jin, 2024); (Hoog et al., 1998); Modified by Author

Figure 1. Theoretical Framework

METHODOLOGY

In the methodological domain, the network analysis approach enables the operationalization of the aforementioned three theories. Network analysis facilitates the identification of strategic positions, that reflect how communication structures influence collaborative processes and policy

performance. This analysis can reveal which agents are dominant in information flows, which are critical connectors, and how the network as a whole supports or hinders collaborative goals. Consequently, network analysis emerges as an analytical instrument that integrates theories of collaboration, communication, and organizational structure into a unified conceptual framework.

Research Prosedure

The network analysis conducted in this study employed the whole network analysis method to describe the network as a whole at the agent level. The application of whole network analysis is beneficial in the examination of the characteristics and structure of the network under investigation. At the level of individual agents, the network analysis can be used to examine degree centrality, closeness centrality, betweenness centrality, and authority centrality (Feng et al., 2021). Research steps and procedure detailed in **Figure 1**.

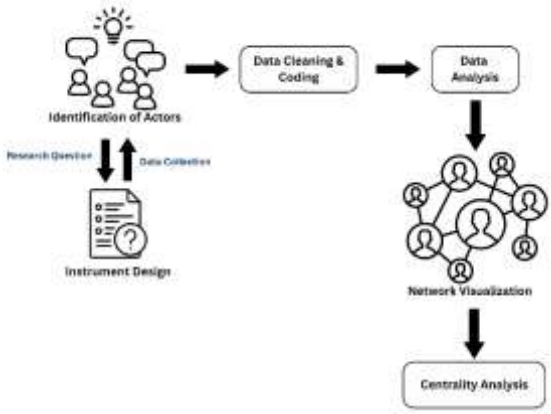


Figure 1. Research Steps

Stage first is identification of actors. This stage involves identifying the key actors relevant to the research context. These actors may include individuals and institutions that play a role in Indonesia One Data Forum. The identification process is guided by the research objectives and aims to map the social or organizational landscape in which interactions occur. Second stage is instrument design. At this stage, research instruments are developed to capture the necessary data from the identified actors. This includes designing questionnaires and interview guides. The survey items based on theoretical constructs and research questions. The instrument must ensure content validity by aligning each item with the context being measured. Then, stage of the data collection is conducted using the designed instruments. Responses are gathered from the selected participants from Province institution that related with Indonesia One Data, that chosen by sampling technique. This process follow ethical standards, ensuring informed consent, confidentiality, and data integrity.

After data collection, the dataset undergoes a cleaning process to remove errors, duplicates, and incomplete responses. Coding is then performed to transform raw data into a structured format suitable for analysis. This may include assigning identity coding to categorical responses and organizing the interaction systematically. Next is data analysis. In this stage, the coded data are

analyzed using appropriate network analysis software, called Pajek. Depending on the research design, this research involve visualization of the communication network of Indonesia One Data Forum in cross-sectoral view. The stage of visualization aims to illustrate the relationships and interactions among actors in this country organization. Nodes represent actors, while ties represent connections or interactions between them. Last, centrality analysis is final stage focuses on identifying the most influential or central actors within the network. Various centrality measures (e.g., degree, betweenness, closeness) are used to determine the importance of each actor. The results provide insights into key agent, communication flow, and structural dynamics within the network with obstacle sectoral ego. Overall, this sequence of stages ensures a systematic approach to data collection, processing, and analysis, enabling a comprehensive understanding of both structural relationships and actor-level dynamics within the studied system.

In the context of network analysis, centrality emerges as a pivotal metric. It is a measure of the position of agents (nodes) in the overall network and the centrality of the agents within the network. In the context of network analysis, the term "position" refers to the relative standing of agents within the network. The identification of agents with high centrality, closeness, betweenness, and eigenvector is a fundamental step in our research (Wen et al., 2025). The role of thumbs and interpretation of measurements detailed in **Table 1**.

Table 1. Role of Tumbs of the Analysis

Centrality Measure	What It Measures	Structural Meaning	Role of the Agent in SDI Network	Risk if Dominant or Weak
Degree Centrality	Number of direct connections an agent has	Immediate connectivity and activity level	Highly connected agent; active coordinator; frequently involved in communication and data exchange	If too dominant: centralization risk and dependency. If weak: isolation and limited participation
In-Degree Centrality	Number of incoming ties	Perceived importance or recognition by others	Agent frequently consulted or referred to; potential authority or knowledge hub	If too concentrated: bottleneck in decision-making
Out-Degree Centrality	Number of outgoing ties	Outreach and initiative level	Agent actively initiating coordination and information sharing	If weak: passive agent, low engagement
Closeness Centrality	Distance to all other agents in	Speed of access to information	Agent capable of quickly disseminating	If low: delayed information

	the network		or accessing information across sectors	flow and reduced coordination capacity
Betweenness Centrality	Frequency of being on shortest paths between agents	Brokerage and control over information flow	Boundary spanner; mediator between sectors; key agent in reducing sectoral ego	If over-centralized: vulnerability if agent withdraws; potential information gatekeeping
Authority Centrality	Connection to influential agents	Structural legitimacy and influence	Agent recognized as influential within network; policy direction setter	If weak: limited structural influence despite formal authority

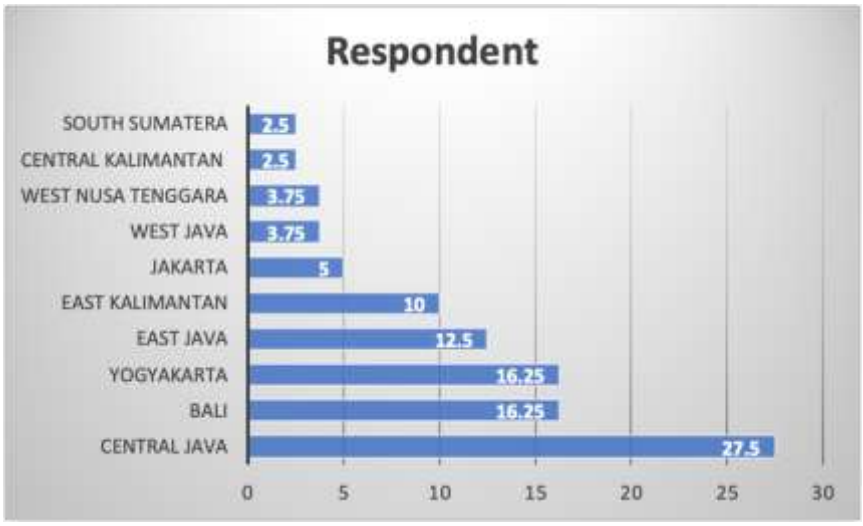
The popularity of agents on social networks is demonstrated by their degree of engagement, as measured by the number of interactions they receive. The degree of an agent is defined as the number of links from and to that agent. In a directed network, the degree of an agent is defined as either the indegree, representing the number of links or ties that lead to an agent, or the outdegree, denoting the number of links that lead away from an agent. The calculation of degree centrality, with normal centrality ranging from 0 to 1, is expressed as follows: As the centrality value approaches one, the system's performance is optimized (Bisht et al., 2021).

Research Sample

Snowball sampling is a data collection method employed in network analysis. This technique is a method of gathering information about specific individuals. Snowball sampling is a widely utilized research method in the development of community-based information systems. The method has been demonstrated to be effective in the selection of samples from sensitive populations (Naderifar et al., 2017). The snowball sampling technique has been extensively employed in network analysis research involving populations of unknown size (Maurer et al., 2023). The implementation of this technique facilitates researchers access to populations that are typically difficult to reach. However, it is capable of acquiring the necessary research data.

The Respondents of this study are comprised of members of the Indonesia One Data Forum, located in ten Provinces throughout Indonesia. The data collection process, which involved the administration of open-ended questionaires, was complete by 80 respondents, with the distribution in percent of regions among them illustrated in the accompanying **Source:** Secondary data analysis (2025)

Figure 2.

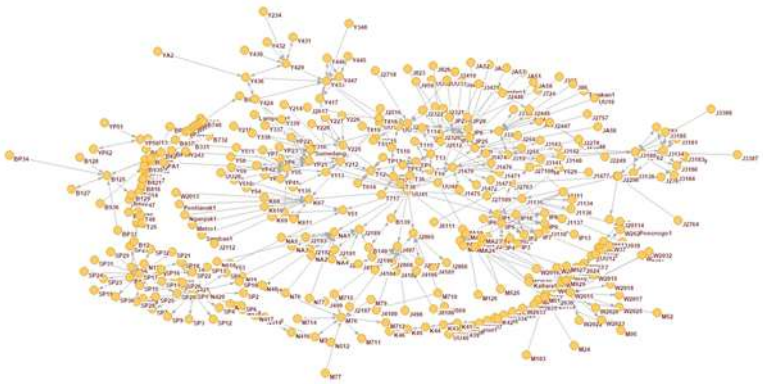


Source: Secondary data analysis (2025)

Figure 2. Respondent Distribution

RESULTS

The network structure of the Indonesia One Data (SD) Forum regarding problem solving in SDI implementation can be seen in the sociogram in Kesalahan! Sumber referensi tidak ditemukan.. Sociogram is a graphical representation of the relationships among members of a social group (Raya et al., 2024). The sociogram demonstrates the dissemination and reception of information concerning the resolution of problems encountered by members in SDI implementation. These activities can be classified into two distinct categories: in-degree and out-degree. The in-degree indicates the activity of agents in receiving information from other agents, while the out-degree indicates the activity of agents in disseminating or providing information to other agents (He & Tang, 2023).



Source: Primary data analysis (2025)

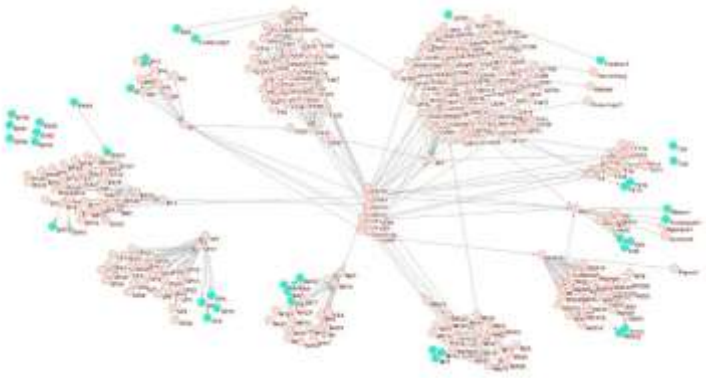
Figure 4. Sociogram of Information Exchange on Members of the Indonesia One Data Forum

The pattern of information exchange regarding problem solving in SDI implementation indicates that the SDI communication network has a considerable number of agents but a relatively low level of connectivity. Consequently, interactions between agents are not uniformly distributed

throughout the network. The network structure reveals the presence of multiple clusters of agents, which form relatively intensive communication groups within their respective groups. The existence of these clusters suggests that information exchange tends to occur within specific groups, while interactions between groups are relatively limited.

This pattern suggests that the SDI communication network remains to be fully integrated, exhibiting a propensity for network fragmentation, characterized by enhanced communication links within specific groups relative to inter-group connections. As illustrated in **Source:** Primary data analysis (2025)

Figure 3, this phenomenon is elucidated through visual representation. Conversely, the sociogram reveals that multiple agents occupy a central position within the network, exhibiting a greater number of connections compared to other agents.



Source: Primary data analysis (2025)

Figure 3. Clustering of Information Exchange on Members SDI Forum by location

Number of agents are observed to be in peripheral positions, that is, on the fringes of the network with relatively few connections. These peripheral agents exhibit a reduced level of communication participation, consequently experiencing constrained access to information flows within the network. This condition indicates that the distribution of agents involved in SDI information exchange across the network is not yet uniform.

The SDI communication network structure demonstrates a core–periphery configuration, wherein a limited number of agents occupy strategic positions within the network, while the majority of agents are positioned in relatively separate or less connected roles. This configuration suggests that the dissemination and coordination of information during the implementation of SDI may be contingent on a limited number of pivotal agents. The result of measuring the level of SDI communication network are detailed in

Table 2.

Table 2. Activeness Members of the Indonesia One Data Forum

No	Activeness Components	Value
1	Size	402

2	Line	757
3	Density	0,0047
4	Average in-degree	1,863
5	Majority in-degree	1 (42,29%)
6	Average out-degree	1,863
7	Majority out-degree	1 (71,39%)
8	Average degree	3,726
9	Component	21,39%
10	Cliques strong	13

Source: Primary data analysis (2025)

The SDI Forum communication network consists of 402 agents with 757 relationships. However, it exhibits a very low density (0.0047), thereby classifying its structure as very sparse. On average, each agent has only 1.863 incoming and outgoing ties, with the majority of agents connected to only one other agent (42.29% for in-degree and 71.39% for out-degree). This finding suggests a paucity of interaction and a deficiency in communication initiative among members. Furthermore, the network exhibits fragmentation, with only 21.39% of agents belonging to interconnected components and the presence of 13 pronounced cliques, which constitute relatively closed small groups. A comprehensive analysis of the forum's communication patterns reveals an overall indication of weak connectivity, suboptimal information diffusion, and a tendency toward silos or sectoral egos.

Table 3. Key Agent of SDI Communication Network

Forum SDI	Aktor	Number of Relationship (Out Degree)
Bappenas	UU41	21
Jawa Tengah	JP7	9
D.I Yogyakarta	YP21	9
Bali	B814	5
DKI Jakarta	IP5	8
Jawa Barat	W2015	11
Nusa Tenggara Barat	N414	4
Sumatera Selatan	SP1	15
Kalimantan Timur	M76	5
Kalimantan Tengah	K41	5
Jawa Timur	TP1	8

Source: Primary data Analysis (2025)

The results of the analysis in **Table 3**, demonstrate that a number of agents with distinct codes emerge as pivotal agents in each cluster or network region. These agents possess a greater number of outgoing connections compared to other agents, suggesting that they function as initiators of communication and drivers of information exchange within the network. This strategic positioning of the agents as key nodes fosters interaction, particularly within their respective clusters. The dynamics of information exchange within the network are

significantly influenced by the role of these individuals (Gan et al., 2018). A small number of agents with high out-degree can create imbalances in communication participation, where other agents tend to play a more passive role in the network.

Table 4. Closeness, Betweenness, and Authority Agents of SDI forum Network

Forum SDI	Closeness	Betweenness	Authority
Bappenas	UU41	UU41	UU41
Jawa Tengah	J319	JP7	J331, JP7
D.I Yogyakarta	Y212	Y212	YP21, Y212
Bali	B139	B139	B139
DKI Jakarta	IP1	IP1	IP1
Jawa Barat	W2015	W2015	W262
Nusa Tenggara Barat	N76	N414	N76
Sumatera Selatan	SP1	SP1	SP2
Kalimantan Timur	M525	M76	M52
Kalimantan Tengah	K67	K67	K67
Jawa Timur	TP1	TP1	TP1

Source: Primary data Analysis (2025)

Moreover, in

Table 4 show the results of the centrality analysis demonstrate the Closeness, betwenness, and authority agents in each region. The distinction among these three agents is determined by their respective functions. Closeness agents benefit from expedited access to information, while betweenness agents play a pivotal role in the dissemination of information within the network. Authority agents, on the other hand, are regarded as pivotal entities within the network's structure (Bisht et al., 2021).

The discussion of betweenness agents is more prominent because this position is crucial to the formation of a more robust network. This agent plays a pivotal role in the dissemination of information (Jung & Phoa, 2021). However, in this study, the findings on authority agents are considered interesting because the agents in this position do not fully hold legitimate positions. A subset of these individuals are staff members who are regarded as more adept at resolving issues during the implementation of SDI. Furthermore, staff members who have been employed for extended periods also frequently occupy positions of authority. This dynamic suggests that other workers exhibit a greater propensity to adhere to their directives compared to those directed by formal authorities.

This finding is of particular interest and is further supported by the results of this study. The Indonesian context is characterized by a pervasive phenomenon in which authority is not exclusively wielded by individuals with legitimate power. In Indonesia, the principle of politeness to seniors is upheld (Martitah et al., 2021). This phenomenon enables the rise of senior employees to a position akin to official leadership roles.

DISCUSSION

In the context of Indonesia One Data (SDI) implementation, agents with high out-degree values can be understood as drivers of operational coordination. These agents establish communication with various parties to support data and information exchange. The role of these entities is of paramount importance in ensuring the seamless flow of communication at both the cluster and regional levels. However, if communication activities are excessively dependent on specific agents, the sustainability of the network may be compromised if these agents are no longer active in the network (Zhou et al., 2025).

The results of the network analysis demonstrate that the communication structure in the SDI network manifests a pattern of non-integrated communication, characterized by the presence of communication clusters, core agents, and a number of agents occupying peripheral positions. This pattern indicates that information exchange within the network is not uniform, but rather concentrated among specific agents who occupy strategic positions within the network. The findings indicate that the efficacy of coordination in implementing SDI is significantly influenced by the dynamics of relationships among agents within the communication network.

From a collaborative governance perspective, the effectiveness of interagency collaboration is contingent upon the quality of interaction, information exchange, and connectivity between agents in the policy network (Tommy et al., 2025). The network structure, which reveals the presence of communication clusters and a reliance on a small number of key agents, suggests that collaboration mechanisms are not yet fully institutionalized across the network (Calò et al., 2024; Davies & White, 2012). This condition has the potential to result in the fragmentation of communication between agencies, whereby interactions are more intense within specific groups than between groups (Rimlinger et al., 2026). This scenario exemplifies the difficulties inherent in establishing interdisciplinary collaboration, a prerequisite for implementing integrated, data-driven policies, such as SDI.

From an organizational communication perspective, the network structure that has been formed indicates that the flow of information in cross-agency organizations does not always align with the formal bureaucratic structure (Õim & Leis, 2025). Agents with high closeness values have the ability to access information more quickly than other agents, thereby playing a role in accelerating the distribution of information within the network (Boella & Van Der Torre, 2005; Jordan et al., 2025; Lorkiewicz et al., 2012). Concurrently, agents with elevated betweenness values function as connectors between disparate groups within the network, thereby facilitating cross-cluster information exchange (Shao et al., 2025; Simões et al., 2020). This role demonstrates that communication within the SDI network is influenced not only by the formal organizational structure, but also by the relational position of agents within the communication network.

Additionally, the findings concerning agents with high authority values demonstrate that influence within communication networks is not invariably directly associated with formal positions in the organizational structure. In certain instances, individuals in positions of authority may in fact be staff members who have accumulated greater tenure within the organization (Lorkiewicz et al., 2012).

This finding suggests that, within the network, the legitimacy of communication is predominantly influenced by institutional knowledge and work experience, rather than being solely determined by formal authority (Lasagni, 2022; Zhou et al., 2025). These findings suggest that SDI communication networks evolve through the dynamics of social and professional relationships between agents that are formed through long-term interactions.

This phenomenon can be explained through the CommonKADS Communication Model, which posits that agents in an organizational system do not merely play a role based on formal structures, but also based on contextual knowledge and experience (El Said, 2015). Within this framework, the effectiveness of communication between agents is greatly influenced by their ability to understand the organizational context and manage information exchange with other agents (Lawlor & McGirr, 2017). Consequently, agents with extensive experience in the organization often become references in communication networks, as they possess a profound comprehension of coordination processes and the dynamics of inter-agency relationships (Cho et al., 2025).

CONCLUSIONS AND RECOMMENDATIONS

The findings of this study indicate that the communication network within the Indonesia One Data (SDI) Forum continues to encounter difficulties in establishing a completely integrated communication structure. The presence of communication clusters and the reliance on a number of key agents suggest that inter-agency coordination remains subject to the dynamics of inter-agent relationships and has not yet been fully institutionalized in formal governance mechanisms. This condition has the potential to reinforce sectoral ego, where communication and information exchange occur more within the scope of certain groups or agencies rather than across sectors. Therefore, the enhancement of inter-agency communication mechanisms and the equitable distribution of communication roles are imperative to facilitate the effective implementation of the SDI policy.

The present study offers three primary contributions to the field. First, from a theoretical standpoint, this study demonstrates that sectoral ego in policy implementation is not merely an institutional or regulatory concern, but also a structural phenomenon that is manifested in the pattern of communication networks between agencies. Secondly, the study demonstrates that influence within bureaucratic communication networks can emerge from informal authority stemming from organizational experience and institutional knowledge, rather than being exclusively derived from formal positions within the bureaucratic structure. Thirdly, the present study underscores the pivotal function of bridging agents in preserving the interconnectedness of cross-agency communication networks, a crucial prerequisite for the efficacy of integrated data governance.

This study recommendation is future research should advance by quantitatively testing the influence of key actors on organizational communication effectiveness. Furthermore, a phenomenological approach is recommended to

explore in depth how actors experience and actively drive communication processes within cross-sectoral organizational contexts.

FURTHER STUDY

Further studies can examine the role of digital collaborative governance and inter-agency data interoperability architecture in strengthening the effectiveness of Indonesia One Data implementation at the local government level.

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REFERENCES

Adinegoro, B., Fuad, M., Ruhuputy, A., Pambudi, I., & Arrahman, T. (2025). Kebijakan Satu Data Indonesia: Sebuah Antitesis Semangat Keterbukaan dan Informasi Publik. *Jurnal Ilmu Administrasi*, *16*(1).

Aljunid, S. M., Srithamrongsawat, S., Chen, W., Bae, S. J., Pwu, R. F., Ikeda, S., & Xu, L. (2012). Health-care data collecting, sharing, and using in Thailand, China Mainland, South Korea, Taiwan, Japan, and Malaysia. *Value in Health*, *15*(1 SUPPL.). https://doi.org/10.1016/j.jval.2011.11.004

Anindya, C. R. (2019). The deradicalisation programme for Indonesian deportees: A vacuum in coordination. *Journal for Deradicalization*, (18), 217–243. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081354487&partnerID=40&md5=21dd2c1fba3b58a41a140c3309f977f6

Bernot, A., Tjondronegoro, D., Rifai, B., Hasan, R., Liew, A. W. C., Verhelst, T., & Tiwari, M. (2024). Institutional Dimensions in Open Government Data: A Deep Dive Into Indonesia's Satu Data Initiative and Its Implications for Developing Countries. *Public Performance and Management Review*. https://doi.org/10.1080/15309576.2024.2377609

Bisht, S., Kumar, A., Goyal, N., Ram, M., & Klochkov, Y. (2021). Analysis of network reliability characteristics and importance of components in a communication network. *Mathematics*, *9*(12). https://doi.org/10.3390/math9121347

Bisri, M. H., Muluk, M. R. K., & Wijaya, A. F. (2024). COLLABORATIVE GOVERNANCE MODEL OF IPSPS (INDEPENDENT PUBLIC SERVICES PROVIDERS) OF JOINT VILLAGE-OWNED ENTERPRISES (BUMDESMA) IN INDONESIA. *Revista de Gestao Social e Ambiental*, *18*(5). https://doi.org/10.24857/rgsa.v18n5-133

Boella, G., & Van Der Torre, L. (2005). Organizations as socially constructed agents in the agent oriented paradigm. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, *3451 LNAI*, 1–13. https://doi.org/10.1007/11423355_1

Cahyaningsih, E., Silalahi, N. L. E., Rohajawati, S., & Avianti, Y. M. (2022). COMMONKADS for Knowledge Based System Development: A Literature

Study. *2022 International Conference on Information Technology Systems and Innovation, ICITSI 2022 - Proceedings*, 213–218. https://doi.org/10.1109/ICITSI56531.2022.9970920

Calò, F., Teasdale, S., Roy, M. J., Bellazzecca, E., & Mazzei, M. (2024). Exploring Collaborative Governance Processes Involving Nonprofits. *Nonprofit and Voluntary Sector Quarterly*, *53*(1), 54–78. https://doi.org/10.1177/08997640231155817

Chivu, L. (2019). Local entrepreneurship and social services in Romania. Territorial analysis. *European Research on Management and Business Economics*, *25*(2), 79–86. https://doi.org/10.1016/j.iedeen.2019.04.001

Cho, B., Noh, I. H., Roggio, A. M., & Luna-Reyes, L. F. (2025). Exploring the impact of collaboration processes on policy networks success: a case study of food policy councils. *Public Management Review*, *27*(1), 241–272. https://doi.org/10.1080/14719037.2023.2241047

Davies, A. L., & White, R. M. (2012). Collaboration in natural resource governance: Reconciling stakeholder expectations in deer management in Scotland. *Journal of Environmental Management*, *112*, 160–169. https://doi.org/10.1016/j.jenvman.2012.07.032

El Said, G. R. (2015). Understanding Knowledge Management System antecedents of performance impact: Extending the Task-technology Fit Model with intention to share knowledge construct. *Future Business Journal*, *1*(1–2), 75–87. https://doi.org/10.1016/j.fbj.2015.11.003

Eliwa, H. K., Jelodar, M. B., Poshdar, M., & Zavvari, A. (2024). Organizational Infrastructure and Information and Communication Technology Infrastructure Alignment in Construction Organizations. *Journal of Construction Engineering and Management*, *150*(7). https://doi.org/10.1061/JCEMD4.COENG-13808

Feng, P., Lu, X., Gong, Z., & Sun, D. (2021). Social network analysis model for research on organizational structure of the pyramid scheme communication network. *Physica A: Statistical Mechanics and Its Applications*, *565*. https://doi.org/10.1016/j.physa.2020.125548

Firmansyah, A. D., & Susanto, T. D. (2023). The unsuccessful of Satu Data Indonesia (SDI) implementation: a lesson learned from local government. *Jurnal Mantik*, *7*(1), 2685–4236.

Gan, X., Chang, R., & Wen, T. (2018). Overcoming barriers to off-site construction through engaging stakeholders: A two-mode social network analysis. *Journal of Cleaner Production*, *201*, 735–747. https://doi.org/10.1016/j.jclepro.2018.07.299

Garnett, J. L., Marlowe, J., & Pandey, S. K. (2008). Penetrating the performance predicament: Communication as a mediator or moderator of organizational culture's impact on public organizational performance. *Public Administration Review*, *68*(2), 266–281. https://doi.org/10.1111/j.1540-6210.2007.00861.x

Hakim, L., & Adiarsa, S. R. (2024). *Structuration in implementing Satu Data Indonesia policy in local government*. 2023. https://doi.org/10.31603/bishss.105

He, Y., & Tang, P. (2023). Understanding the Role(s) of Social Networks in the Transition from Farmers' Willingness to Behavior Regarding Withdrawal from Rural Homesteads: A Research Study Based on Typical Regions of Sichuan Province. *Land*, *12*(8). https://doi.org/10.3390/land12081505

Hoog, R. de, Martil, R., Wielinga, B., Taylor, R., Bright, C., & Velde, W. van de. (1998). *The Common KADS model set*.

Hulst, R., & Van Montfort, A. (2007). The Netherlands: Cooperation as the only viable strategy. In *Inter-Municipal Cooperation in Europe* (pp. 139–168). Springer Netherlands. https://doi.org/10.1007/1-4020-5379-7_7

Islami, M. J. (2021). Implementasi Satu Data Indonesia: Tantangan dan Critical Success Factors (CSFs) One Data Indonesia Implementation: Challenges and Critical Success Factors. *Jurnal Komunika: Jurnal Komunikasi Dan Informatika*, *10*(1), 13–23. https://doi.org/10.31504/komunika.v9i1.3750

Jordan, R., Fitzsimmons, T. W., & Callan, V. J. (2025). The maverick factor: the role of positively deviant change agents in radical organizational change. *Journal of Organizational Change Management*, *38*(8), 30–49. https://doi.org/10.1108/JOCM-05-2024-0241

Jung, H., & Phoa, F. K. H. (2021). On the effects of capability and popularity on network dynamics with applications to YouTube and Twitch networks. *Physica A: Statistical Mechanics and Its Applications*, *571*. https://doi.org/10.1016/j.physa.2020.125663

Lasagni, G. (2022). On What Makes a Social Group a Group Agent. *Philosophical Inquiries*, *10*(2), 59–81. https://doi.org/10.4454/philinq.v10i2.379

Lawlor, J. A., & McGirr, S. (2017). Agent-based modeling as a tool for program design and evaluation. *Evaluation and Program Planning*, *65*, 131–138. https://doi.org/10.1016/j.evalprogplan.2017.08.015

Lenk, T. (2025). Conflicts of Interest and Complexity in the Context of Organizational Communication. In *Conflicts of Interest and Complexity in the Context of Organizational Communication*. Springer Science+Business Media. https://doi.org/10.1007/978-3-658-48895-6

Lorkiewicz, W., Katarzyniak, R., & Kowalczyk, R. (2012). Individual semiosis in multi-agent systems. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, *7270 LNCS*, 167–197. https://doi.org/10.1007/978-3-642-32066-8_8

Lu, X., & Jin, Y. (2024). Optimizing organizational corrective communication: The effects of correction placement timing, refutation detail level, and corrective narrative type on combating crisis misinformation narratives. *Public Relations Review*, *50*(5). https://doi.org/10.1016/j.pubrev.2024.102514

Martitah, M., Arifin, S., Sumarto, S., & Widiyanto, W. (2021). CONFRONTING E-GOVERNMENT ADOPTION IN INDONESIAN LOCAL GOVERNMENT. *Journal of Indonesian Legal Studies*, *6*(2), 279–306. https://doi.org/10.15294/jils.v6i2.47795

Maurer, M., Bach, N., & Oertel, S. (2023). Changes in formal structure towards self-managing organization and their effects on the intra-organizational communication network. *Journal of Organization Design*, *12*(3), 83–98. https://doi.org/10.1007/s41469-023-00143-z

Naderifar, M., Goli, H., & Ghaljaie, F. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education*, *14*(3). https://doi.org/10.5812/sdme.67670

Nurdin, I., Sardini, N. H., & Oktaviani, J. (2023). The Origins of Indonesian Democracy and Its Implications in Indonesian Politics. *Archives of Business Research*, *11*(5), 80–98. https://doi.org/10.14738/abr.115.14703

Õim, K. E., & Leis, T. (2025). Exploring Internal Challenges in Internationalisation: A Case of a Software as a Service (SaaS) Internationaliser. *European Management Studies*, *2024*(4), 4–32. https://doi.org/10.7172/2956-7602.106.1

Östberg, L., Snyder, K., & Lilja, J. (2026). Key factors driving the co-creation of collaborative improvement and innovation in rural development ecosystems. *Journal of Service Theory and Practice*, *36*(7), 24–45. https://doi.org/10.1108/JSTP-05-2025-0177

Pangaribuan, A. M. A. (2022). *Cooperation and Non-Cooperation in Indonesian Criminal Case Processing:*

Pauken, C., Hartmann, M., & Wimmer, M. A. (2023). Open Government Data Strategies in South Korea and Japan: A Comparative Case Analysis. In J. Ubacht, C. Csaki, L. Danneels, N. Edelmann, M. Janssen, E. Kalampokis, I. Lingren, N. A.-S., P. Panagiotopoulos, P. Parycek, G. V Pereira, I. Susha, G. Schwabe, S. Virkar, E. Tambouris, & A. Zuiderwijk (Eds.), *CEUR Workshop Proceedings* (Vol. 3449). CEUR-WS. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168246208&partnerID=40&md5=3e6a656df5bb9a3c8f8999669ac481d3

Porcu, L., del Barrio-García, S., Kitchen, P. J., & Tourky, M. (2020). The antecedent role of a collaborative vs. a controlling corporate culture on firm-wide integrated marketing communication and brand performance. *Journal of Business Research*, *119*(October), 435–443. https://doi.org/10.1016/j.jbusres.2019.10.049

Raya, A. B., Kriska, M., Fatonah, S., Andiani, R., Seleky, R. N., Witjaksono, R., & Harsoyo, H. (2024). The Popularity of Extension Workers in the Exchange of Information on Yard Utilization. *Komunikator*, *16*(1), 104–117. https://doi.org/10.18196/jkm.21585

Rimlinger, J., Jaumouillé, A., Freissinet, C., Craveiro, J. L., Zózimo, A. C., Oliveira, M. M., Cruz, M. M., Bakogianni, E., Tzempelikos, D., Pavlidi, E., & Sfetsos, A. (2026). Shaping local disaster risk governance through multi-stakeholder collaboration: Insights from the public-private-civil partnership approach - Application to the case studies of the municipality of Egaleo (Greece) and Centro Region (Portugal). *International Journal of Disaster Risk Reduction*, *133*. https://doi.org/10.1016/j.ijdrr.2025.105973

Said Saleh, M., Ismail, O., Kamel, A., & Hassan, H. (2018). From CommonKADS to SOA Environment: An Adaptation Model. *Arabian Journal for Science and Engineering*, *43*(12), 7605–7619. https://doi.org/10.1007/s13369-018-3114-5

Shao, J., Su, L. Y.-F., Gong, Z., & Chen, M. (2025). Conversational Agents and Charitable Behavioral Intentions: The Roles of Modality, Communication

Style, and Perceived Anthropomorphism. *International Journal of Human-Computer Studies*, 103616. https://doi.org/10.1016/j.ijhcs.2025.103616

Simões, D., Lau, N., & Paulo Reis, L. (2020). Multi-agent actor centralized-critic with communication. *Neurocomputing*, *390*, 40–56. https://doi.org/10.1016/j.neucom.2020.01.079

Subahe, A. H., Baker, P., & Polman, R. (2026). Facilitating collaboration between public health researchers and policymakers: a scoping review of global practices, barriers and facilitators. In *Health Research Policy and Systems* (Vol. 24, Number 1). BioMed Central Ltd. https://doi.org/10.1186/s12961-026-01443-y

Surakratanasakul, B. (2017). Lightweight CommonKADS in knowledge intensive organization. *2017 9th International Conference on Information Technology and Electrical Engineering, ICITEE 2017*, *2018-January*, 1–5. https://doi.org/10.1109/ICITEED.2017.8250504

Tang, T., Ha, J., Chen, S., Wang, W., Zhang, Z., Zhong, L., & Li, M. (2026). Coupling coordination and obstacles in industrial historical spaces: the environment-value-memory framework in Shenyang. *Npj Heritage Science*, *14*(1). https://doi.org/10.1038/s40494-026-02378-x

Tommy, S., Rusli, Z., Sujianto, Herianto, M., & Saputra, T. (2025). COLLABORATIVE GOVERNANCE IN PUBLIC POLICY STUDIES: A SYSTEMATIC LITERATURE REVIEW. *Public Policy and Administration*, *24*(2), 153–172. https://doi.org/10.13165/VPA-25-24-2-02

Wang, Y., Xiang, P., Ge, Y., Yang, S., Liu, X., & Qian, Y. (2026). Strategies for improving the interconnection performance of regional transport infrastructure. *Humanities and Social Sciences Communications*. https://doi.org/10.1057/s41599-025-06480-6

Wen, T., Chen, Y. wang, Syed, T. A., & Ghataoura, D. (2025). Examining communication network behaviors, structure and dynamics in an organizational hierarchy: A social network analysis approach. *Information Processing and Management*, *62*(1). https://doi.org/10.1016/j.ipm.2024.103927

Zhou, Y., Chen, G., Pu, C., Wu, K., & Chen, Z. (2025). Distributed policy evaluation over multi-agent network with communication delays. *Neurocomputing*, *648*. https://doi.org/10.1016/j.neucom.2025.130562

Zorlu, K., & Korkmaz, F. (2021). Organizational Communication as an Effective Communication Strategy in Organizations and the Role of the Leader. In H. Dincer & S. Yüksel (Eds.), *Management Strategies to Survive in a Competitive Environment How to Improve Company Performance* (pp. 305–320). Springer.