



Strengthening Local Government Offices with Data-Based Work Planning and Performance Improvement

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Abstrak

Artikel layanan masyarakat ini membahas kesenjangan antara ideal perencanaan kerja berbasis data dan rendahnya peningkatan kinerja di pemerintah daerah. Meskipun tata kelola berbasis data sering didorong, praktik perencanaan masih berfokus pada kepatuhan dan kurang terhubung dengan hasil terukur. Program ini bertujuan memperkuat kapasitas pemerintah daerah dalam menerapkan perencanaan berbasis data untuk meningkatkan kinerja. Pendekatan yang digunakan adalah Penelitian Aksi Partisipatif (PAR), dengan melibatkan aparatur pemerintah dalam proses diagnosis masalah, perancangan ulang perencanaan, aksi, refleksi, dan evaluasi. Data dikumpulkan melalui analisis dokumen, survei, observasi partisipatif, dan catatan kinerja, lalu dianalisis secara kualitatif dan korelasional. Hasil menunjukkan pergeseran menuju perencanaan berbasis bukti, peningkatan keselarasan data dan indikator kinerja, serta hubungan positif antara intensitas perencanaan berbasis data dan capaian kinerja. Studi ini menawarkan model partisipatif yang dapat direplikasi untuk penguatan institusi pemerintah daerah.

Kata Kunci: *Perencanaan Berbasis Data, Kinerja Pemerintahan Daerah, Tata Kelola Berbasis Bukti, Layanan Masyarakat.*

Abstract

This community service article examines the persistent gap between normative expectations of data-driven work planning and the limited performance improvements observed in local government offices. Although data-based governance is widely promoted, planning practices often remain compliance-oriented and weakly linked to measurable outcomes. The program aims to strengthen local government capacity to implement data-driven planning as a strategic mechanism for performance improvement. Using a Participatory Action Research (PAR) approach, government staff were actively involved in cycles of problem diagnosis, planning redesign, action, reflection, and evaluation. Data were collected through document analysis, surveys, participatory observation, and institutional performance records, and analyzed using mixed qualitative analysis and correlation tests. The findings show a substantial shift toward evidence-based planning, improved alignment between data, targets, and performance indicators, and a positive correlation between the intensity of data-driven planning and performance achievement. The study demonstrates that participatory engagement transforms data use from procedural compliance into analytical decision-making and offers a replicable model for institutional strengthening in local governance.

Kata Kunci: *Data-Based Planning, Local Government Performance, Evidence-Based Governance, Community Service.*

INTRODUCTION

In contemporary public administration theory and practice, an ideal local government office operates through systematic, evidence-based planning that aligns organizational goals with measurable outcomes. The theoretical consensus holds that work planning anchored in reliable, timely, and relevant data supports rational decision-making, enhances organizational accountability, and increases the efficiency and effectiveness of public service delivery (Ahmad et al, 2025). In this ideal condition, data-based planning serves not merely as an informational input but as the foundation for a performance management cycle in which needs assessment, activity design, implementation monitoring, and performance evaluation are systematically interconnected, reducing resource waste and optimizing impact. The capacity to integrate diverse data sources ranging from administrative records to citizen feedback and to use them in predictive modeling and outcome forecasting epitomizes “best practice” in local governance (Cherkaoui, & El Moujahid, 2025). In such a context, work plans are evidence-informed, performance targets measurable, and organizational outputs aligned with community needs.

Despite this normative ideal, empirical findings from recent studies suggest that many local government offices remain far from achieving this model. Research on local government planning practices in Indonesia and other contexts reveals persistent gaps between the promise of data-driven governance and its actual implementation. For example, evaluations of electronic planning systems in multiple Indonesian districts indicate that while tools such as e-planning systems can improve transparency and accountability, their effectiveness is constrained by limited user capacity, inadequate training, and lack of supportive policies at higher administrative levels (Hambali, 2023). Similarly, systematic reviews of performance measurement frameworks show that though frameworks like the Balanced Scorecard and Performance Measurement Framework are conceptually integrated into local government practice, actual implementation often lacks consistency, standardization, and alignment with broader performance goals (Harte., 2025). Empirical research on big data adoption in Cirebon City also underscores technological and human resource limitations, with only moderate increases in data adoption rates and persistent challenges in digital infrastructure and data literacy (Harte, & Smith, 2025).

These empirical insights highlight a critical disjunction: while local governments are increasingly expected to adopt data-based work planning and performance management practices, actual practices remain fragmented, insufficiently integrated, and inadequately supported by institutional capacities. This gap manifests in several ways. First, many offices lack comprehensive data governance frameworks that ensure data quality, interoperability, and accessibility across departments. Second, organizational culture and staff competencies often lag behind technical requirements for data analysis and interpretation, impeding meaningful use of data in planning and evaluation

(Lukman, & Hakim, 2025). Third, existing studies on local government improvement frequently address isolated aspects such as the implementation of specific information systems, human resource development, or performance measurement models without systematically examining how data-based work planning as a holistic practice influences organizational performance outcomes. This means that although individual components of data use and performance improvement are studied, integrated models linking data-based planning → performance implementation → measurable outcomes are underdeveloped in academic and practitioner literatures.

This problem is operationally defined as the inability of local government work planning processes to utilize comprehensive and reliable data to design, monitor, and evaluate performance outputs in a way that measurably enhances service delivery and organizational effectiveness. To measure this operationally, the study will examine indicators such as data quality used in planning, frequency of evidence-based decision interactions, alignment between planned targets and outcomes, and performance improvements over time.

Existing literature on local government performance and planning exhibits key limitations. First, many empirical studies focus on single domains such as technology implementation (e.g., e-planning systems) or individual performance measurement frameworks without integrating them into an overarching model of data-based planning and performance improvement. For instance, studies on local government information systems emphasize system adoption but often do not link these systems to broader performance outcomes (Dasni, Abidin, & Ramadhan, 2025). Similarly, research on data literacy and competencies highlights the importance of these skills but rarely situates them within a planning-performance cycle that connects workforce capacities with measurable governance outcomes (Data Literacy for Improving Governmental Performance, 2023). Second, while performance measurement frameworks have been explored, there is limited empirical evidence that links planning processes using data analytics with longitudinal improvements in service delivery metrics, citizen satisfaction, and institutional accountability (Roziq et al., 2025). Third, many contributions assess the presence or adoption of technologies (e.g., e-government, information systems) but fail to interrogate how organizational, cultural, and institutional barriers influence the effectiveness of these tools in strengthening planning and performance outcomes.

This represents a research gap: although the literature recognizes multiple elements of data use in government administration, there is a lack of integrated, empirically grounded frameworks that demonstrate how data-based work planning processes causally impact performance improvement in local government offices. Moreover, existing studies often overlook context-specific barriers such as variations in local institutional capacities, resource constraints, and stakeholder engagement practices that mediate the relationship between data use and performance outcomes. Addressing this gap is essential for developing

evidence-based interventions tailored to the unique governance environments of local government offices.

The purpose of this community service article is thus to develop and empirically test a comprehensive approach to strengthening local government offices through data-based work planning and performance improvement strategies. Specifically, this study aims to identify critical enablers and barriers in current planning practices, examine how data can be systematically integrated into planning cycles, and propose actionable models for local government practitioners to enhance organizational performance. By doing so, this service will contribute to both theory and practice by providing a replicable framework that links data governance, planning processes, and performance outcomes. The benefits of this study extend to multiple stakeholders. For local government offices, adopting a data-based work planning framework can improve resource allocation, service delivery quality, transparency, and accountability to constituents.

METHOD

This community service program adopts a Participatory Action Research (PAR) approach as its primary methodological framework. PAR is highly appropriate for addressing institutional performance issues in local government offices because it combines systematic inquiry, collective reflection, and transformative action within the same intervention cycle. Unlike conventional top-down capacity-building models, PAR positions government staff not simply as beneficiaries but as co-investigators who actively participate in diagnosing problems, generating data, implementing corrective actions, and evaluating results. This methodological orientation is scientifically justified because the core problem identified in this study the ineffective translation of data-driven work planning into measurable performance improvements cannot be resolved through technical training alone but requires organizational learning, behavioral change, and iterative institutional adjustments.

The target participants (partners) of this community service program are officials and staff of the Sewaluh Village, Sidoarjo, local government office, particularly those directly involved in work planning, program implementation, and performance evaluation, such as planning unit staff, section heads, and administrative officers. These actors were strategically selected because they occupy key positions in the planning-performance relationship and directly influence how data is collected, interpreted, and used in decision-making processes. Involving them as active participants ensures that the intervention is context-sensitive, institutionally embedded, and sustainable beyond the duration of the service program.

The PAR process is implemented through a cyclical and iterative process consisting of planning, action, observation, reflection, and revision. In the planning phase, the service team conducts initial coordination and formal authorization with local government leadership to ensure institutional legitimacy and access to

internal planning and performance documents. This phase includes ethics approval, issuance of official permits, and agreement on roles, timeframes, and expected outcomes. An initial diagnostic workshop is then held to collaboratively identify existing planning practices, data use patterns, performance indicators, and perceived constraints. This diagnostic phase is analytically crucial, as it allows problems to be empirically defined rather than normatively assumed.

The preparation phase focuses on developing intervention instruments and capacity-building modules based on the diagnostic findings. These instruments include a structured observation guide, a survey questionnaire, a performance data extraction template, and participatory workshop materials designed to enhance data literacy and analytical capacity. The preparation phase ensures methodological rigor by aligning data collection tools with study objectives and operational variables, particularly those related to data quality, planning alignment, and performance outcomes.

Data collection employs a mixed-methods strategy to ensure analytical depth and methodological triangulation. Quantitative data are gathered through structured questionnaires measuring data literacy, frequency of data use in planning, and perceived performance effectiveness, as well as through secondary analysis of institutional planning documents and performance reports. Qualitative data are collected via participatory observations, reflective discussions, and document analysis to capture contextual and behavioral dimensions of change. Primary data originate from participants and institutional records, while secondary data include internal regulations, performance standards, and prior evaluation reports. Data analysis integrates descriptive statistics, correlation analysis, and qualitative thematic analysis. Pearson or Spearman correlation tests are applied depending on data distribution to examine the relationship between the intensity of data-based planning practices and changes in performance indicators.

RESULTS AND DISCUSSION

The implementation of the Participatory Action Research (PAR) approach resulted in a measurable transformation in how the partner local government office conceptualized and operationalized work planning. Prior to the intervention, planning practices were largely procedural, compliance-oriented, and weakly grounded in empirical evidence, with data used primarily as a formal requirement rather than as a strategic input. Post-intervention analysis indicates a substantive shift toward data-informed planning logic, as evidenced by improved alignment between baseline data, program objectives, and performance indicators. Comparative analysis of pre- and post-intervention planning documents shows a significant increase in the use of quantitative service data, administrative records, and performance baselines to justify activity selection and target setting. This shift demonstrates that participatory engagement and reflective cycles enabled institutional actors to reconceptualize data not merely as documentation, but as an analytical instrument for decision-making.

At the level of organizational performance, the intervention produced discernible improvements in planning coherence and outcome orientation. Correlation analysis between the intensity of data-based planning practices and selected performance indicators revealed a positive and statistically meaningful relationship, indicating that units with higher levels of data utilization exhibited clearer target articulation, more consistent monitoring mechanisms, and improved achievement rates. This finding empirically supports the argument that data-based planning is not an abstract administrative ideal but a practical determinant of performance quality. Importantly, performance improvement was not uniform across all units, suggesting that organizational readiness and leadership support functioned as moderating factors. This variation underscores the analytical insight that data-driven reforms are contingent upon institutional context rather than technologically deterministic.

The participatory process also generated qualitative changes in organizational behavior and learning capacity that extend beyond measurable performance outputs. Reflective analysis of workshop discussions and observation records indicates increased critical awareness among staff regarding data quality, indicator relevance, and the consequences of misaligned planning. Participants demonstrated a growing ability to question existing routines, revise performance assumptions, and collectively negotiate more realistic and evidence-based targets. These behavioral shifts suggest that the PAR intervention facilitated not only technical skill enhancement but also epistemic change, wherein staff began to perceive planning as an analytical and evaluative process rather than a ritualized administrative task. Such changes are analytically significant because they represent foundational conditions for the sustainability of performance improvement.

From a critical perspective, the results also reveal structural constraints that limit the full institutionalization of data-based work planning. Despite observable improvements, challenges related to data interoperability, uneven analytical capacity among staff, and limited integration between planning and evaluation units persisted. These findings indicate that while participatory intervention can substantially enhance planning practices and performance outcomes, its impact is bounded by broader governance and organizational structures. Consequently, the results argue against overly optimistic assumptions that technical interventions alone can resolve systemic performance issues. Instead, they support a more nuanced conclusion: data-based planning contributes meaningfully to performance improvement when embedded within participatory, reflective, and institutionally supported processes, as operationalized through the PAR methodology.



Figure 1. Strengthening Local Government Offices

The findings of this community service demonstrate that strengthening data-based work planning through a Participatory Action Research (PAR) approach leads to substantive improvements in organizational performance within local government offices. From a theoretical standpoint, this outcome aligns with evidence-based public management theory, which posits that organizational performance improves when decisions are grounded in systematically processed data rather than intuition or procedural compliance. The observed shift from compliance-oriented planning toward analytical and outcome-driven planning occurred because PAR directly intervenes in the epistemic practices of bureaucratic actors how they understand, value, and use data rather than merely introducing new technical tools. This finding confirms that data-based reform is fundamentally a behavioral and organizational learning process, not solely a technological one.

When compared with previous community service studies focusing on e-planning or performance system socialization, this study reveals both convergence and divergence. Prior PkM initiatives have reported increased awareness of performance indicators and improved documentation quality following training or system implementation. However, many of these initiatives concluded that improvements were largely administrative and short-term, with limited impact on actual performance outcomes. In contrast, the present study demonstrates a stronger linkage between planning practices and measurable performance improvement (Arintawati et al, 2023). This difference can be explained by the participatory and iterative nature of PAR, which allows participants to repeatedly test, reflect upon, and refine planning decisions using real institutional data. Unlike one-off training models, PAR embeds data use into everyday organizational routines, thereby increasing the likelihood of sustained behavioral change.

The positive correlation identified between the intensity of data-based planning and performance indicators corroborates earlier empirical findings in public sector performance management literature, which suggest that data

utilization mediates the relationship between planning quality and organizational effectiveness. However, this study adds an important nuance: performance improvement was uneven across organizational units, indicating that data-based planning is a necessary but insufficient condition for performance enhancement. Units with supportive leadership and higher baseline analytical capacity benefited more substantially from the intervention. This finding diverges from more technocratic studies that assume uniform impact from data adoption and instead supports contingency theory, which emphasizes the role of contextual and organizational variables in shaping reform outcomes.

Qualitative findings further reveal that the intervention triggered a deeper form of organizational change namely, a transformation in how staff interpret the meaning and purpose of planning itself. This epistemic shift is consistent with theories of organizational learning, particularly Argyris and Schön's concept of double-loop learning, where actors question underlying assumptions rather than merely adjusting procedures (Mohangi, & Nyika, 2023). Similar outcomes have been reported in recent PAR-based governance interventions, which found that participatory reflection enhances critical awareness and institutional reflexivity (Rajagukguk et al., 2025). The present study reinforces this insight by showing that data literacy improved not simply in technical terms, but as an analytical disposition toward questioning data relevance, indicator validity, and planning logic.

Nevertheless, the persistence of structural constraints such as limited data interoperability and fragmented coordination between planning and evaluation units mirrors challenges identified in previous community service and applied governance studies (Fahlevvi, 2025; Roziq et al., 2025). This similarity suggests that while participatory methods can effectively address micro-level behavioral and procedural issues, they have limited capacity to resolve macro-level institutional and policy constraints without broader governance reform. Scientifically, this finding challenges overly optimistic narratives in some PkM literature that portray community service interventions as standalone solutions to systemic administrative problems. Instead, it supports a more critical interpretation: participatory, data-based interventions are most effective when complemented by structural reforms in data governance, human resource policy, and inter-unit coordination (Al Qordhowi, 2021).

From an academic perspective, the key contribution of this study lies in its integration of PAR methodology, data-based planning theory, and performance management analysis within a community service framework. Unlike prior studies that treat these elements separately, this research demonstrates their interdependence and provides empirical evidence that participatory data practices can function as a mechanism linking planning quality to performance outcomes (Alifan et al, 2024). This integration advances the scientific understanding of how community service interventions can move beyond capacity building toward institutional performance transformation.

In comparison with existing PkM studies, the findings of this research suggest a conceptual shift in how success should be evaluated. Rather than focusing solely on output indicators such as training attendance or system adoption, this study emphasizes processual and relational indicators, including changes in planning logic, data interpretation practices, and collaborative decision-making. This perspective has important implications for future community service design and evaluation, suggesting that impact should be assessed through organizational learning and performance trajectories, not merely immediate outputs.

In summary, the results occurred not because data tools were introduced, but because participatory processes altered how institutional actors engaged with data, planning, and performance accountability. The comparison with prior studies reveals that methodological choice specifically the use of PAR plays a decisive role in determining whether data-based planning reforms produce superficial compliance or substantive performance improvement. Scientifically, this underscores the importance of aligning methodological design with the epistemological and organizational nature of the problem being addressed.

CONCLUSION

This community service has demonstrated that strengthening local government offices through data-based work planning is most effective when implemented as a participatory, reflective, and action-oriented process, rather than as a purely technical or administrative intervention. Responding directly to the central problem formulation, the findings confirm that the limited translation of data-based planning into performance improvement is not primarily caused by the absence of data or planning instruments, but by weaknesses in how data are interpreted, internalized, and operationalized within organizational routines. By employing a Participatory Action Research (PAR) approach, this service succeeded in repositioning data from a procedural requirement into a strategic analytical resource that informs planning decisions and performance accountability.

From a scientific perspective, the principal contribution of this article lies in its empirical validation of the causal linkage between participatory data-based planning practices and measurable performance improvement within a local government context. Unlike many previous community service studies that emphasize outputs such as training completion or system adoption, this study advances the field by demonstrating that organizational performance improvement emerges through epistemic and behavioral change among institutional actors. The integration of PAR with data-based governance and performance management theory provides a conceptual and methodological contribution to community service scholarship, particularly by showing how participatory inquiry functions as a mediating mechanism between planning reform and performance outcomes. This contribution strengthens the argument that community service can serve as a site of applied knowledge production, not

merely knowledge transfer. Future community service initiatives should move beyond short-term capacity-building models and adopt longitudinal, cycle-based interventions that allow sufficient time for organizational learning and institutionalization of data-based practices.

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