



Typology-Based Counter-Terrorism Prevention Implementation in Bima City: A Soft Systems Methodology Approach and the SAKTI MARA Model, West Nusa Tenggara Province

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Abstract

Background: Effective terrorism prevention had depended on public policies that were adaptive, evidence-oriented, and institutionally sustainable, particularly in localities characterized by social vulnerability and latent network dynamics. Yet, empirically tested cross-ministerial implementation models at the sub-national level with explicit evaluation criteria remained understudied.

Objective: This study examined the implementation of terrorism prevention through the Inter-Ministerial/Agency Synergy Programme in Bima City, West Nusa Tenggara, which had been designated as a vulnerability-based priority locus. The study analyzed the determinants associated with suboptimal implementation and formulated a context-sensitive implementation model.

Methods: A descriptive qualitative design was employed. Data were collected through in-depth interviews, focus group discussions, field observation, and document review, and were validated through methodological triangulation. The analysis integrated implementation determinants policy substance, implementer behavior, network interaction, target-group participation, and resources—using Soft Systems Methodology (SSM) to translate the diagnostic findings into feasible improvements.

Results: The findings indicated that interventions had remained generic; success standards and performance indicators had not been differentiated by target typology; network coordination had been weak and partially siloed; participation had varied across groups and perceived benefits; and resource and data governance had not yet supported evidence-based evaluation. Based on the SSM stages, the study formulated the SAKTI MARA model (Synergy between Ministries/Agencies Based on Radical Community Typology) to strengthen targeting, indicator design, and stratified resource allocation for local-level program implementation.

Conclusion: The SAKTI MARA model provides a context-sensitive and adaptive implementation framework for strengthening typology-differentiated counter-terrorism prevention at the local level.

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INTRODUCTION

The modern state has been expected to guarantee citizen security and social order through defense and law-enforcement functions. Hamdi (2014) argued that security and order were not incidental conditions, but governance outputs produced through planned public policy. Within Indonesia's administrative system, citizen protection and public order enforcement had constituted constitutional mandates implemented across government levels, including peace and public order affairs.

In the Indonesian context, this argument is reflected in Law No. 23 of 2014 concerning Regional Government, which requires the central and regional governments to maintain public peace and order, and Presidential Regulation No. 46 of 2010, which establishes BNPT as a coordinating institution for countering terrorism reflecting security as a planned governance output. In the Indonesian context, the "modern state" refers to a unitary state grounded in Pancasila and the 1945 Constitution, mandating the government to protect all citizens and maintain public order through a constitutional governance system involving central and regional governments and security institutions operating under the rule of law (*UU No. 23 Tahun 2014 tentang Pemerintahan Daerah*).

Within national security policy, terrorism had occupied a critical position because it had challenged the state's protective mandate its *raison d'être*. Crenshaw (1981) conceptualized terrorism as calculated political violence, while Indonesia's Law No. 5 of 2018 legally defined terrorism as violence or threats of violence that created widespread terror, caused potential mass casualties, or damaged strategic vital objects, public facilities, or other protected assets for ideological, political, or security-disruptive motives.

In Indonesia, the threat environment had transformed over several decades, shifting from earlier regional jihadist networks towards the dynamics of pro-ISIS groupings. Institute for Policy Analysis of Conflict (2021) documented the persistence of local dynamics and regeneration risks, while Fitriani & Yuniar (2023) highlighted recent trends in patterns and strategic adaptation. This transformation had been reflected in decentralized cells, lower-intensity actions, and shifts in targets from foreign symbols to security forces and civilian/public spaces.

Terrorism had generated mutually reinforcing physical and non-physical impacts. On the physical dimension, attacks had disrupted socio-economic stability and weakened social capital. On the non-physical dimension, terrorism had sought to erode state legitimacy through counter-narratives directed at vulnerable groups (Bardwell & Iqbal, 2021; Meng & Ghafoori, 2024; Owens & Johnson, 2024). Accordingly, prevention had not functioned merely as a policy preference, but as a systematic state obligation reinforced by Law No. 5 of 2018, which placed responsibility for prevention on both central and regional governments. The non-physical dimension specifically encompasses the systematic erosion of state legitimacy through counter-narratives targeting vulnerable groups, declining public trust in government and security institutions, and widening societal polarization processes that collectively undermine governance capacity, social cohesion, and institutional credibility in affected localities.

During the previous decade, law-enforcement operations (hard approaches) had been associated with reductions in overt attack incidents. However, declining incidents had not necessarily implied the absence of threat because network activity had frequently shifted to latent phases recruitment, financing, and low-visibility propaganda particularly via digital platforms (Jacobsen, 2021). At the same time, strategies relying disproportionately on coercive approaches had tended to be reactive and could generate backlash when communities perceived rights violations, thereby undermining trust and cooperation. Horgan (2009) emphasised the need for complementary upstream prevention, while evidence on victim experiences highlighted governance and legitimacy risks when counter-terrorism generated rights harms (Okoye & Adejoh, 2025).

Sustainable prevention had required whole-of-government and whole-of-society arrangements, implying coordinated involvement of central and local government institutions, security agencies, religious leaders, educational institutions, private-sector actors, and communities within an integrated ecosystem (UNODC, 2016). Implementation obstacles, however, had often emerged from coordination and information frictions rather than institutional absence. Evidence on interoperability in Indonesian governance showed that disparities between

central and regional actors constrained shared data exchange (Wahyuni et al., 2023), while collaborative governance research stressed that sustained synchronisation around shared objectives and agreed mechanisms was necessary for coherent delivery (Alfiandri et al., 2024). Consequently, prevention strategies had required local adaptation because uniform templates risked disregarding socio-cultural dynamics and local trust structures that shaped participation and compliance.

Within Indonesia's prevention prioritization, West Nusa Tenggara Province particularly Bima City had been treated as a strategic locus due to indications of social vulnerability, historical network dynamics, and the urgency of strengthening community-level prevention. Against this context, the present study examined counter-terrorism policy implementation in Bima City, focusing on the prevention dimension of the Inter-Ministerial/Agency Synergy Program coordinated by BNPT.

Problem identification had centered on three issues. First, zero attacks had not equated to zero risk because incident-based indicators had not captured latent threat dynamics. Second, preventive intervention design had not yet been sufficiently specific to changes in terrorism patterns and local target dynamics. Third, a theoretically grounded and operationally tested implementation model tailored to Bima City had not yet been made available. The scope of the study was therefore limited to the prevention dimension of the Synergy Program as the empirical basis for diagnosis and model formulation.

Prior research had been positioned as both a source of lessons learned and an articulation of remaining gaps. A first cluster had criticized repressive/militaristic approaches for their potential to restrict civil rights and weaken legal governance (Findlay, 1986). A second cluster had emphasized cross-institutional collaboration, arguing that effective countermeasures required strong coordination to mitigate sectoral egoism (Prasetyo, 2016). A third cluster highlighted spatial-local context, underscoring the need for geographically sensitive risk mapping; in Indonesia, regeneration risk could persist latently and therefore required prevention sensitive to local characteristics (Institute for Policy Analysis of Conflict, 2021). A fourth cluster stressed a humanistic-preventive approach, positioning counter-radicalisation as soft power requiring measurable indicators of success (Horgan, 2009).

Although these strands converged on collaboration, contextual sensitivity, and humanistic prevention, implementation studies had not sufficiently tested cross-ministerial synergy with explicit evaluative measures at the regional level. This study addressed that gap by examining implementation in Bima City and formulating context-sensitive improvements. Two research questions guided the analysis:

1. Why had the implementation of counter-terrorism policy in Bima City, West Nusa Tenggara Province, not been optimal?
2. How could a context-sensitive and adaptive implementation model be formulated for local dynamics?

The study aimed to develop an integrated understanding of prevention-oriented implementation by diagnosing determinants that constrained optimisation and by formulating an implementation model responsive to the policy and socio-political conditions of Bima City. The study was expected to contribute in two ways. Theoretically, it was intended to advance understanding of prevention-oriented counter-terrorism implementation at the sub-national level and of mechanisms through which implementation designs had been adapted to local contexts. In practice, the study was intended to provide an evidence base for BNPT and partner ministries/agencies on structural obstacles and coordination opportunities, and to support local governments in strengthening cross-sector coordination, institutional capacity, and participation strategies. The resulting model was expected to inform more precise governance of prevention programmes in Bima City. Specifically, the study contributes an original model-SAKTI MARA-grounded in Hamdi's (2014) implementation framework and Soft Systems Methodology, demonstrating how typology-based differentiation improves implementation precision, coordination effectiveness, and evidence-based evaluation in non-military security governance at the sub-national level.

In the long term, the SAKTI MARA model is expected to be incorporated into BNPT's national prevention framework through phased piloting in Bima City, followed by cross-site adaptation to other vulnerability-based priority loci. Local governments are expected to operationalise the model through integration with Government Work Plans (RKP), typology-specific programme design, and inter-agency coordination forums with clear mandates and performance metrics. Institutionalisation will require sustained commitment beyond the research period, including capacity building for local facilitators and regular multi-stakeholder review cycles to adapt interventions to evolving threats.

Therefore, this study aims to: (1) analyse the implementation of terrorism prevention policies in Bima City through the Inter-Ministerial/Agency Synergy Programme coordinated by BNPT; and (2) formulate a context-sensitive and adaptive implementation model using Soft Systems Methodology (SSM) grounded in radical community typology (SAKTI MARA).

LITERATURE REVIEW

The review of prior research was used to synthesise accumulated evidence and to delineate unresolved implementation problems. The literature indicated four dominant clusters: (a) critiques of repressive or militarised counter-terrorism and the attendant implications for civil liberties and legality; (b) the role of cross-institutional collaboration in managing complex security policy; (c) the effect of spatial-local contexts on terrorism dynamics and intervention efficacy; and (d) the consolidation of preventive and humanistic approaches through deradicalisation and counter-radicalisation.

Early critiques underscored governance and rights risks associated with counterterrorism grounded in counter-insurgency logic. Hocking (1988) reported that such approaches had tended to normalize militarization, emergency legal regimes, and surveillance practices, while Findlay (1986) warned that legitimizing coercive measures risked weakening legal safeguards and enabling routinised rights violations. Recent evidence similarly indicated that counter-terrorism could generate legitimacy risks through expanded surveillance/data infrastructures and through perceived rights harms that reduced community trust. Jacobsen (2021) analysed how risk politics shaped counter-terrorism practice, while qualitative evidence from victim experiences illustrated the governance costs of rights-violating enforcement (Okoye & Adejoh, 2025).

A second strand emphasised the spatial dimension of terrorism and its implications for policy targeting. Bahgat & Medina (2013) argued that geographic perspectives improved explanatory leverage by linking governance conditions, spatial patterns of attacks, and perception gaps. In Indonesia, the persistence of latent risks and the possibility of new cell formation despite declining open attacks reinforced the need to prioritise the latent phase (Institute for Policy Analysis of Conflict, 2021).

A third cluster focused on institutional design and inter-agency coordination in Indonesia's counter-terrorism governance. Hasibuan (2017) argued that deradicalization policy required revision and that BNPT's institutional capacity should be strengthened to minimize overlapping authority, while Larasati (2014) documented internal and external barriers in BNPT's multi-agency prevention coordination.

Related governance debates also addressed the involvement of security institutions and the need for accountability safeguards. Rosadi, (2018) stressed maintaining a criminal-justice orientation in the OMSP framework, while synergy studies emphasised structured mechanisms to reduce sectoral ego and operational friction (Sihotang et al., 2021).

Complementing these perspectives, institutional collaboration in deradicalisation had been repeatedly linked to sustained communication and coordination rather than ad hoc cooperation. Prasetyo (2016) underscored integrated coordination as a determinant of outcomes, while soft-power orientations highlighted the value of preventive-humanistic approaches in reducing grievances and escalation (Paikah, 2019).

Across these strands, four consistent propositions emerged. First, cross-institutional collaboration had been a necessary condition for effectiveness in complex security domains. Second, local socio-spatial contexts had shaped radicalization pathways and thus intervention performance. Third, preventive-humanistic approaches had required careful balancing with law-enforcement functions to preserve legitimacy and proportionality. Fourth, policy design needed

to reduce mandate overlap and clarify authority. However, a substantive gap remained in empirical research on cross-ministerial implementation at sub-national sites with explicit evaluation metrics and adaptive target-refinement mechanisms.

This study employed Hamdi's (2014) policy implementation model as the primary analytical framework, conceptualising implementation as a strategic process through which policy objectives were realised under authority, constraints, and accountability expectations. Productivity refers to the extent to which outputs are delivered to intended target groups and translated into measurable change aligned with intervention objectives. Linearity captures the extent to which implementation conforms to predefined standards procedures, timelines, costs, locations, implementer roles, and working mechanisms. Efficiency assesses whether resources are utilised to generate maximal results and whether inter-agency synergy reduces duplication and improves outcome yield. Hamdi (2014) further specified that implementation quality is shaped by five determinants: policy substance, implementer task behaviour, work-network interaction, target-group participation, and resources. These determinants provided the diagnostic structure for explaining variation in productivity, linearity, and efficiency.

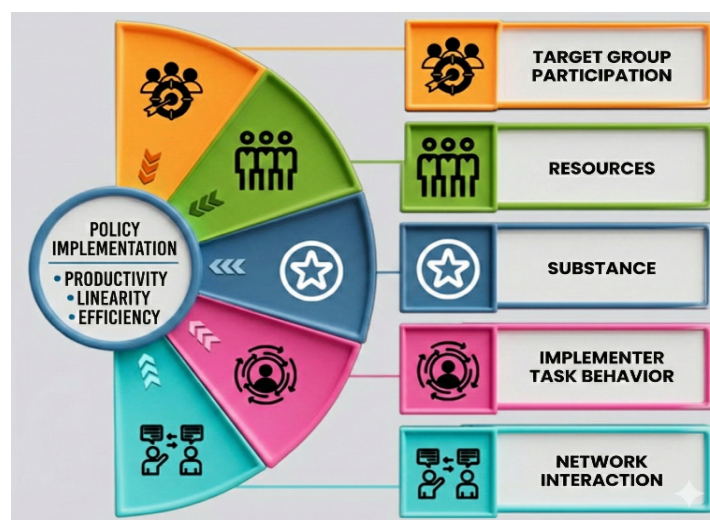


Figure 1. Hamdi's Policy Implementation Model

Source: Hamdi, M. (2014). *Kebijakan publik: Proses, analisis, dan partisipasi*.

The study adopted a radical-society typology to refine prevention targets and align interventions with differentiated risk profiles. BNPT classified trajectories into sympathisers, supporters, militants, and core members, often described through an “iceberg” analogy that highlights the larger population beneath visible violence. To strengthen interpretation of transition dynamics, the study integrated BNPT's typology with the Two-Pyramids Model, which distinguishes a pyramid of opinion (radical beliefs) from a pyramid of action (radical behaviour). McCauley & Moskalenko (2017) argued that movement from sympathy to violent action is not necessarily linear, and that the number of individuals decreases as extremity increases. Distinguishing cognitive and behavioural dimensions supported proportional targeting and reduced over-broad intervention design. This separation was consistent with proportionality arguments in counter-narrative strategy (Leuprecht et al., 2010) and was reinforced by systematic evidence that differentiating cognitive versus behavioural radicalisation improves identification of relevant risk and protective factors (Wolfowicz et al., 2021).

METHOD

Type of Research

A descriptive qualitative design was used to document the implementation phenomenon without manipulating variables or testing hypotheses. Qualitative inquiry was adopted to examine meanings, processes, and interaction dynamics among central government, local government, and community actors engaged in sensitive and complex prevention policies (Creswell & Poth, 2024; Miles et al., 2020).

Time and Location

The research was conducted in Bima City, West Nusa Tenggara Province, with emphasis on programme implementation areas in Penatoi, Matakando, and Melayu sub-districts. The analytic period was delimited to 2020–2023 to maintain focus and comparability across implementation cycles.

Research Subjects

Informants included actors directly involved in implementation and those affected by the programme: BNPT and relevant ministry/agency representatives; local government officials; local facilitators; community/religious/youth leaders; and representatives of target groups. Informants were selected through purposive sampling and further recruited through snowball sampling to ensure information richness and diversity of perspectives (Creswell & Poth, 2024).

Procedure

The research proceeded in six stages: (1) initial mapping of implementation context and actors; (2) collection of primary data through in-depth interviews and FGDs to capture processes, coordination practices, and perceived benefits; (3) field observation to verify reported practices; (4) document review to assess policy consistency, standards, and reporting; (5) diagnostic analysis using Hamdi's implementation determinants; and (6) improvement modelling using SSM, including system overview, root definition, CATWOE, conceptual modelling, and formulation of desirable and feasible changes (Hamdi, 2014).

Data and Data Collection Techniques

Primary data were obtained via interviews, FGDs, and observation. Interviews elicited detailed accounts of implementation practices and coordination dynamics. FGDs captured variation in community experiences and participatory assessments among youth, women, and target communities. Observation assessed implementation forums and coordination mechanisms to verify consistency between documentation and practice. Document analysis covered programme guidelines, activity reports, and regional planning documents. Methodological triangulation was applied to minimise bias through cross-validation across techniques and sources (Denzin, 2017).

Analytical Framework

Hamdi's (2014) implementation theory guided the diagnosis, conceptualising implementation as a strategic process in which authority was exercised over implementers within defined limits to achieve objectives without creating new problems. Five determinants were examined: policy substance, implementer behaviour, network interaction, target-group participation, and resources. Given heterogeneous prevention targets, BNPT's (2019) radical community typology (sympathisers–supporters–militants–core) was incorporated. The Two-Pyramids Model (McCauley & Moskalenko, 2017) further differentiated radical opinion from radical action, indicating that the movement from ideological sympathy to violence was not linear and therefore required a proportional interpretation in programme targeting.

Operationalisation, Coding Scheme, and Analytic Matrices

To ensure that the empirical evidence could be interpreted consistently across actors and implementation cycles, the study operation aliased the analytical framework into a structured coding scheme and a set of analytic matrices. First, the five implementation determinants (policy substance, implementer behavior, work-network interaction, target-group participation, and resources) were treated as deductive "parent" categories. Each determinant was then translated into sub-codes reflecting observable implementation attributes (e.g., clarity of objectives and target criteria; competency alignment and role clarity; coordination routines and information exchange; participation form and perceived benefits; resource sufficiency, allocation logic, and data governance). Second, to capture the heterogeneity of prevention targets, each coded segment was additionally tagged by target typology (sympathisers, supporters, militants, core actors) so that determinant-based findings could be examined within and across typologies. This two-layer

structure (determinant \times typology) reduced the risk that the diagnosis would collapse into a single "average" account and provided an empirical basis for typology-differentiated intervention logics and indicators. Third, the analysis used matrix-based displays to support cross-source integration and to improve transparency of inference. Evidence from interviews, FGDs, observation notes, and documents was summarised into (a) within-case matrices (per village/implementation area) and (b) cross-case matrices (comparing Penatoui, Matakando, and Melayu). Each matrix recorded: (i) the determinant and sub-code, (ii) typology tag, (iii) data source type, (iv) a short evidence summary, and (v) the implied implementation consequence for productivity, linearity, and efficiency (Miles et al., 2020). Finally, thematic consolidation was performed within the determinant \times typology structure. Consistent with thematic analysis principles, the study treated codes as analytic tools rather than results, and iteratively refined code definitions to ensure that themes captured patterned meanings relevant to the research questions (Braun & Clarke, 2021).

Integration of SSM into the Analytical Procedure

SSM was integrated not as an "add-on," but as an interpretive and design bridge between diagnostic findings and feasible improvements. Operationally, determinant-based coding functioned as the empirical input for successive SSM stages (Checkland & Scholes, 1990). First, the coded diagnosis was used to describe the problem situation in a way that preserved multiple perspectives and avoided prematurely privileging a single institutional viewpoint. Second, the rich picture translated recurring relational patterns into a system map: actor roles, communication routes, resource flows, conflict points, and zones of dependency. Third, the root definition and CATWOE were developed by typology to reflect that prevention targets required differentiated intervention logics and success standards. The determinant \times typology findings guided what "Transformation" meant for each segment (e.g., reduced susceptibility among sympathisers versus disengagement and recidivism prevention among higher-risk groups). Fourth, conceptual modelling translated typology-differentiated CATWOE into logically necessary activities starting from target identification and assessment, continuing through intervention selection and delivery, and ending with monitoring and evaluation using typology-specific indicators. Fifth, comparison between the conceptual model and empirical reality specified where the system broke: which activities were absent, which existed only as administrative formality, and which were constrained by mandate ambiguity, siloed coordination, or weak data governance. Finally, stages 6–7 (desirable and feasible changes; action proposals) were formulated using two screening criteria. Desirability was assessed against governance principles embedded in the implementation framework (e.g., indicator clarity, role differentiation, accountability, and learning). Feasibility was assessed against contextual constraints identified during coding and rich picture mapping (e.g., local trust dynamics, capacity constraints, confidentiality requirements, fiscal-year programming limits).

Trustworthiness, Quality Criteria, and Ethical Considerations

Given the sensitivity of terrorism prevention policy and the diversity of actors involved, the study strengthened its methodological quality by explicitly outlining procedures for trustworthiness. First, credibility was supported through multi-source triangulation (interviews, FGDs, observations, and documents) and through deliberate comparison of actor accounts expected to diverge (e.g., central agencies versus local implementers; implementers versus target communities). Rather than treating differences as "error," divergent accounts were analysed as governance signals often indicating mismatched expectations, inconsistent standards, or contested interpretations of programme purpose. This approach aligned with contemporary criteria emphasising transparency of inference, evidence adequacy, and coherence between claims and data (Yadav, 2022).

Second, dependability was strengthened by maintaining an audit trail of (i) sampling logic, (ii) interview/FGD guides and revisions, (iii) coding decisions and code definition changes, and (iv) matrix construction rules. This documentation supported analytic consistency across the study period and enabled systematic re-checking of how conclusions were derived from evidence (Miles et al., 2020). Third, confirmability was supported by reflexive memoing to separate (a) descriptive accounts, (b) interpretive claims, and (c) normative recommendations. Because the

study engaged security-sector actors and policy stakeholders, reflexive memoing was used to reduce the risk that institutional narratives would be reproduced uncritically or that the analysis would over-privilege administrative outputs as indicators of impact.

Fourth, transferability was addressed through contextual specification. The study described the local setting (implementation areas, institutional arrangements, and community dynamics relevant to prevention) so that readers could judge whether the proposed model applied to other localities with similar vulnerability patterns and governance constraints (Creswell & Poth, 2024). Transferability was treated as analytic generalisation: the contribution was not statistical representativeness, but the provision of a theoretically grounded model and the conditions under which it was likely to be relevant.

Ethical safeguards were incorporated because data collection involved sensitive experiences, potential stigma, and security-related information. Participation was voluntary and based on informed consent; individuals were informed of the research purpose, how data would be used, and their right to decline participation or withdraw from the study. To minimise risk, the study prioritised confidentiality by de-identifying participant information and carefully handling potentially identifying contextual details in reporting. In addition, interviewing and group discussion protocols were designed to reduce distress and social risk for participants by avoiding coercive questioning, maintaining respectful language, and allowing participants to skip topics they considered unsafe or uncomfortable. This approach followed established guidance for interviewing on sensitive topics, including anticipating distress, managing power dynamics, and adopting risk-mitigation strategies during data collection (Westland et al., 2025).

Finally, because prevention governance frequently involves "need-to-know" constraints, the study treated information governance as an ethical and analytic issue. The analysis did not seek to disclose operational security details; rather, it evaluated whether minimum-necessary information sharing and interoperable reporting arrangements existed to enable accurate targeting, continuity of assistance, and evidence-based evaluation. This framing supported the study's central objective: strengthening prevention implementation without undermining legitimate security constraints.

Data Analysis

The analysis followed a staged thematic procedure supported by matrix displays. Evidence from interviews, FGDs, observation, and documents was coded deductively using the five implementation determinants, then refined iteratively into sub-themes to capture patterned constraints and mechanisms across actors and implementation areas (Miles et al., 2020). Coded segments were additionally tagged by target typology to enable within- and cross-typology comparison. The determinant-typology findings were subsequently translated into SSM stages, including rich picture construction, root definition and CATWOE development, conceptual modelling, comparison between the conceptual model and empirical reality, and the formulation of desirable and feasible change proposals (Checkland & Scholes, 1990; Hamdi, 2014). Trustworthiness was strengthened through multi-source triangulation and interpretive checks with key informants, with documentation of coding and analytic decisions to support auditability (Denzin, 2017; Miles et al., 2020).

RESULT AND DISCUSSION

Result

The analysis examined how policy substance, implementer behaviour, network interaction, target-group participation, and resources shaped the implementation of the Inter-Ministerial/Agency Synergy Programme in Bima City. These findings subsequently informed model improvement through SSM.

Effects of Implementation Determinants on the Synergy Programme

Policy substance had required more than an inventory of activities; it had required a coherent theory of change linking objectives, mechanisms, indicators, and constraints to target characteristics. The findings indicated that objectives and target criteria were not sufficiently specified by typology, leading to prioritization of administrative outputs rather than measurable

change (Hamdi, 2014). From an evaluation standpoint, interventions should be linked to testable change mechanisms and measurable indicators, so implementers can learn and adjust rather than only report activities (Chen, 1990). This bridging logic clarified why typology-specific indicators became necessary. In prevention governance, legitimacy and proportionality remained central so that measurement and targeting did not generate new governance problems. This requirement aligned with prevention guidance that emphasises upstream resilience and accountable design (UNODC, 2016).

Implementer capacity had required alignment with target complexity: community facilitators for general populations; case managers for supporters requiring needs assessment and responsiveness; and specialized teams for militants and core actors requiring security competence and psychosocial capability (Hamdi, 2014). The rehabilitation literature has emphasised needs-based matching and referral mechanisms to prevent service discontinuity for high-risk groups (Andrews & Bonta, 2010). This implies that “one capacity fits all” weakened continuity and outcomes, especially for higher-risk segments.

Cross-ministerial programs addressing complex policy problems had required structured yet adaptive collaboration, including clear role differentiation, standardized information exchange, and decision-making processes insulated from sectoral egoism. Collaborative governance research has shown that effective networks are sustained through role negotiation, trust, collaborative leadership, and rules that reduce coordination costs (Sienkiewicz-Małyjurek, 2022). In addition, emergency-management network studies suggested that communication and coordination are complementary and must be institutionalised, not only practiced informally (Sienkiewicz-Małyjurek & Owczarek, 2021). This helps explain why “synergy” could persist as rhetoric while delivery remained fragmented. Evidence from Indonesian local governments further suggested that collaboration tended to underperform when shared commitment and trust were weak and routines were not institutionalised, risking ceremonial coordination rather than problem solving (Kurniasih et al., 2023). Interoperability research likewise indicated that standardised data governance and maturity were prerequisites for reliable inter-agency information exchange (Wahyuni et al., 2023).

Participation had varied by typology and could not be assumed uniform. Sympathisers were better suited to mass and deliberative participation mechanisms, while higher-risk segments required more selective and structured engagement (Hamdi, 2014). Participation design also needed to integrate social capital considerations, because trust and civic ties shaped willingness to engage and comply. This logic follows the argument that social capital sustains collective action and institutional performance (Feinstein & Poleacovschi, 2023; Putnam et al., 2021).

Resource constraints had not been limited to funding alone. The principal issue concerned the allocation design and governance, which had not followed typology-based risk stratification, resulting in uniform intervention intensity across segments with very different needs and costs. Empirical work on collaborative management in Indonesian local governments has shown that multi-actor arrangements frequently face constraints, such as complexity and limited resources, which can weaken sustained coordination and accountability unless governance routines and enabling capacities are strengthened (Kurniasih et al., 2023). In this study, the absence of longitudinal, case-based tracking and weak information governance limited the evidence-based evaluation especially for higher-risk segments that require continuity of support. The public management reform literature has linked spending quality and data/technology capacity (interoperability, lawful access, and information governance) to accurate targeting, monitoring, and evaluation; without these enabling systems, coordination can yield high absorption but low impact (Hamdi, 2014; Pollitt & Bouckaert, 2023). Consistent with this, KPI-based evaluation practice underscores the need to operationalise performance measurement beyond activity counts so that programmes can support learning and strategic correction (Ali & Rahmawati, 2024).

Table 1. Findings on Policy Implementation Determinants

Aspect	Key Findings	Implications
Policy substance	objectives and target criteria were insufficiently specific; the theory of change was weak	implementers relied on improvisation; indicators remained generic
Implementer behaviour	competencies did not consistently match target typology	effectiveness declined in resistant/high-risk segments
Working Network	coordination was not institutionalised; information silos persisted	interventions were weakly synchronised and lacked focus
Target Group Participation	participation varied by typology; shaped by trust and perceived benefits	typology-specific participation strategies were required
Resources	resources, data, and technology were not integrated	accountability and policy learning remained weak

Collectively, these findings indicated that cross-actor implementation on complex issues had required two complementary elements: (1) a diagnostic framework capable of assessing implementation quality, and (2) a modelling approach able to capture multiple perspectives and translate diagnosis into feasible change. Integrating Hamdi's determinants with SSM enabled the analysis to move from problem enumeration to a system-level improvement design sensitive to local context.

SSM Modelling and Formulation of The Sakti Mara Model

SSM was adopted because the implementation of terrorism prevention had constituted an unstructured problem situation characterised by multiple actors, divergent interests, and competing interpretations of both "problem" and "solution" (Checkland & Scholes, 1990).

Stage 1: Exploration of the Unstructured Problem Situation

Triangulation assessed the consistency of determinant-based issues across sources and techniques (Denzin, 2017; Miles et al., 2020). Most issues converged, strengthening diagnostic validity. Convergent issues included ambiguous objectives and target criteria, absence of a coherent theory of change, constraints in authority and budget allocation, dual communication channels, and fragmented implementer focus. These patterns reflected determinant-level weaknesses that constrained implementation quality (Hamdi, 2014). These results indicated that target heterogeneity had not been adequately accounted for, increasing the risk of over coverage of lower-risk groups and underreach to groups most in need (BNPT, 2019). A related implication was that distinguishing cognitive and behavioural pathways helped refine targeting and avoid misclassification (Wolfowicz et al., 2021).

Stage 2: Rich Picture

The rich picture mapped the implementation system involving central actors (BNPT and ministries/agencies), local government actors, local facilitators, religious/community leaders, and target groups. This mapping captured relationship patterns and interest differences that had not been evident in formal descriptions (Checkland & Scholes, 1990). The mapping suggested non-linear actor relationships, fragmented information/resource flows, contested interest zones, and a dependence on local actors' proximity to communities for legitimacy. These dynamics reinforced the need for clear, standardised, and documented communication channels through which compliance with implementation standards could be demanded (Hamdi, 2014).



Figure 2. Rich Picture of the Implementation of Ministry/ Agency Synergy Policies in Bima City, West Nusa Tenggara Province

Stage 3: Root Definition and CATWOE by Target Typology

Root definitions and CATWOE analyses were constructed by typology because needs, resistance, and service logic differed across segments. CATWOE clarified Customers, Actors, Transformation, Weltanschauung, Owners, and Environment (Checkland & Scholes, 1990). Differences in risk and service needs across typologies shaped CATWOE configurations and ruled out one-size-fits-all intervention designs (McCauley & Moskalenko, 2017). Therefore, needs-based assessment became a necessary entry point for intervention selection.

Interventions were structured along two spectrums. On the preventive and empowerment spectrum, sympathisers called for mass preventive interventions focused on social cohesion, literacy, and community resilience through deliberative mechanisms (Feinstein & Poleacovschi, 2023; Putnam et al., 2021). Supporters required individual assessment and competency-relevant empowerment delivered through case management, consistent with Risk-Need-Responsivity principles (Andrews & Bonta, 2010). In the high-risk spectrum, militants required specialised teams capable of ideological engagement, psychosocial intervention, and long-term monitoring to prevent escalation to core actors (McCauley & Moskalenko, 2017). Core actors required integrated multi-actor interventions addressing rehabilitation, reintegration, and recidivism prevention (Horgan, 2009; UNODC, 2016).

Differentiated objectives were then articulated to enable testing of change mechanisms (Chen, 1990), including: reducing susceptibility among sympathisers; increasing sustainable income outcomes among supporters; preventing escalation and increasing disengagement among militants within defined time horizons; and preventing recidivism among core actors over longer horizons (Horgan, 2009).

Stage 4: The SAKTI MARA Conceptual Model

The modelling process produced SAKTI MARA (Synergy between Ministries/Agencies Based on Radical Community Typology) as a conceptual model for typology-differentiated synergy. Target typology operated as a contextual parameter to recalibrate relationships among the five determinants and refine operational indicators by typology (Hamdi, 2014). Resource stratification became necessary because intervention intensity and per-capita costs could not be uniform across typologies, particularly when needs-based matching and long-horizon support were required for higher-risk segments (Andrews & Bonta, 2010; UNODC, 2016).



Figure 3. The “SAKTI MARA” Conceptual Model

Stage 5: Comparison between the Conceptual Model and Empirical Reality

Comparison identified gaps at the conceptual, implementation, and paradigm levels. These gaps cumulatively contributed to: limited effectiveness for high-risk groups (including insufficient support for some former terrorist prisoners); reduced efficiency due to resource misallocation under uniform interventions; and weak compliance with performance criteria because success measures had remained dominated by activity counts rather than typology-specific transformation (Hamdi, 2014; Horgan, 2009; Pollitt & Bouckaert, 2023; UNODC, 2016). The core constraint had been a one-size-fits-all paradigm oriented toward administrative compliance, reinforcing “high volume, low impact” dynamics (Pollitt & Bouckaert, 2023).

Stages 6–7: Desired and Feasible Changes and Action Proposals

Proposed changes were required to be normatively desirable and socio-culturally feasible (Checkland & Scholes, 1990). In Bima City, feasibility depended on trusted local actors, religious and cultural sensitivities, and protection mechanisms for vulnerable groups. Information governance required proportionality: confidentiality constraints were not removed, but minimum-necessary access arrangements were designed to enable accurate targeting while maintaining security requirements.

Overall, the study formulated SAKTI MARA as a context-sensitive implementation model. Synergy was defined not merely as the involvement of multiple actors, but as synchronised programme logic anchored in target typology, supported by tailored indicators and stratified resources. Six components were specified:

- 1) Target segmentation (MARA) into sympathisers, supporters, militants, and core actors to reduce over- and under-coverage (Wolfowicz et al., 2021).
- 2) Typology-specific theories of change linking inputs–activities–outputs–outcomes to segment needs (Chen, 1990; Horgan, 2009).
- 3) Differentiated performance indicators (process, output, and outcome) by typology to improve measurement of effectiveness and efficiency (Pollitt & Bouckaert, 2023).
- 4) Network orchestration through an operational coordination forum with mandates, SOPs, and problem-solving mechanisms, supported by need-to-know information management (Sienkiewicz-Małyjurek, 2022; Sienkiewicz-Małyjurek & Owczarek, 2021).
- 5) Competency-aligned implementer capacity, ranging from deliberative facilitators and literacy strengthening to case management and specialised high-risk teams with psychosocial and security protocols (UNODC, 2016).
- 6) Resource and data governance for evidence-based evaluation, including standardisation, interoperability, cross-year reporting, and technology-enabled coordination and accountability (Fountain, 2001).

Discussion

Limitations and Future Research

This study had several limitations that should be considered when interpreting the findings and the proposed SAKTI MARA model. First, the research was conducted as a single-site qualitative case in Bima City. Although the study developed thick description and triangulated evidence across interviews, FGDs, observation, and documents, the results were intended as analytic generalisation rather than statistical representativeness. The model's applicability to other localities may depend on whether those areas share similar vulnerability patterns, actor configurations, and institutional constraints, particularly in relation to local trust structures and capacity for inter-agency coordination. Second, the analysis period was delimited to 2020–2023, which supported comparability across implementation cycles but also limited the ability to observe longer-term outcomes associated with prevention, reintegration, and recidivism reduction outcomes that often require multi-year measurement horizons (UNODC, 2016).

Third, data collection involved a sensitive policy domain in which access, confidentiality, and reputational risk could influence what participants are willing or able to disclose. Although methodological triangulation was applied, some accounts may have been affected by social desirability bias or institutional framing, particularly regarding program performance and coordination quality. Fourth, because the program's existing monitoring system relied heavily on activity-based reporting, the study could not fully quantify changes in outcomes or conduct rigorous causal attribution. Instead, the analysis emphasized implementation mechanisms, governance constraints, and feasibility conditions for strengthening evidence-based evaluation through typology-sensitive indicators and longitudinal tracking.

Future research could extend this study in several directions. Comparative studies across multiple vulnerability-based loci would help test the robustness and boundary conditions of SAKTI MARA under varying sociocultural contexts and intergovernmental arrangements. Longitudinal designs could evaluate whether typology-differentiated interventions produce sustained changes in vulnerability indicators, disengagement trajectories, reintegration stability, and recidivism prevention over multiyear horizons. Additional work could also integrate network analysis to measure coordination structure and information flow quality across agencies, and combine this with implementation metrics to identify which network features most strongly predict effective prevention delivery. Finally, future studies could incorporate economic evaluation (e.g., cost-effectiveness or cost-benefit analyses) to assess whether stratified resource allocation by typology yields improved prevention outcomes relative to uniform intervention designs, thereby strengthening the evidence base for performance-informed budgeting at the local level for counter-terrorism prevention.

CONCLUSION

The implementation of counterterrorism measures in Bima City has not been optimal due to several fundamental weaknesses: policy content has not been formulated with sufficient typological specificity; the competencies of implementers do not align with the needs of the target audience; network interactions remain fragmented along sectoral lines; and resource allocation has not been designed based on SMART indicators. In response to these conditions, the SAKTI MARA model a Model of Synergy Among Ministries/Agencies based on radical community typologies was formulated as a context-sensitive implementation framework oriented toward typological differentiation at the local level.

Practically, the findings of this study support three interrelated incremental improvements: first, phased and adaptive implementation with typological differentiation tailored to local institutional capacity; second, integrated information governance through an interoperable case-based database that maintains institutional autonomy; and third, the integration of the SAKTI MARA model into the government's planning and budgeting cycle (RKP) through typology-specific program design, measurable performance indicators, and phased budgeting aligned with national priorities and fiscal capacity.

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AUTHOR CONTRIBUTION STATEMENT

Bangbang Surono was responsible for the conceptualization, methodology, formal analysis, and investigation. He also wrote the original draft and reviewed and edited the manuscript. Muchlis Hamdi contributed to the conceptualization, methodology, data curation, and critical revision of the manuscript. Dahyar Daraba assisted with the methodology, data collection, and analysis, as well as reviewing the manuscript for intellectual content. Kusworo contributed to data curation and validated the findings, while Muhammad Unggul Abdul Fattah provided support in data interpretation and the final manuscript preparation. All authors have read and agreed to the published version of the manuscript.

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