
FROM ACTIVITY TO IMPACT: A THEORY OF CHANGE-BASED PROGRAM MANAGEMENT MODEL FOR UNIVERSITY COMMUNITY SERVICE PROGRAMS

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Abstract

University community service (Pengabdian kepada Masyarakat/PKM) programs in Indonesia are formally mandated as one pillar of the Tri Dharma Perguruan Tinggi, yet published PKM reports overwhelmingly document activities and immediate outputs, such as participant counts and satisfaction scores, rather than the longer-term social outcomes these activities are intended to produce. This gap between activity reporting and outcome evidence limits both accountability to funders and the field's ability to learn which program designs actually generate lasting social change. This article presents a structured narrative literature review and conceptual model addressing how PKM program teams can move from activity-based reporting toward evidence-based social impact management. Drawing on the program evaluation, theory of change, and social impact measurement literature, together with evidence from Indonesian PKM evaluation practice, the review synthesizes logic-model and theory-of-change frameworks and identifies a persistent gap between prescriptive PKM guidelines and the outcome-level evaluation these guidelines call for. Based on this synthesis, the article proposes the Theory of Change-Based Program Management (ToC-PM) model, a five-stage framework covering problem and stakeholder mapping, theory of change construction, indicator and instrument design, implementation with embedded monitoring, and outcome evaluation with institutional learning. The article further proposes a companion indicator framework spanning output, outcome, and early impact levels that future PKM teams, including those at the Faculty of Economics and Business, Universitas Negeri Jakarta, may adopt and empirically validate. The model offers program teams a structured alternative to activity-only reporting and provides a replicable roadmap for demonstrating the social value of university-based community engagement.

1. INTRODUCTION

Community service conducted by universities occupies a distinctive institutional position: it is formally mandated, in Indonesia's case as one of the three pillars of the Tri Dharma Perguruan Tinggi alongside education and research (Republik Indonesia, 2012), yet it is frequently evaluated using standards better suited to reporting activity completion than to demonstrating social value. A program report documenting that a training was delivered to a stated number of participants, accompanied by a satisfaction score, answers the question of whether an activity occurred,

but leaves largely unanswered the question that funders, partner communities, and university leadership increasingly ask: what changed, for whom, and how durably, as a result of this program.

This is not a uniquely Indonesian problem. The broader program evaluation literature distinguishes clearly between outputs, the immediate products of an activity, and outcomes, the changes in knowledge, behavior, or condition that outputs are intended to produce, and warns that measuring only the former can create a misleading impression of impact (W.K. Kellogg Foundation, 2004). A recent methodological review of impact evaluation frames this distinction explicitly around the concept of attribution, arguing that credible impact claims require tracing observed change back through a stated causal pathway rather than simply reporting that activities took place (Michel & Schneider, 2025).

The theory of change (ToC) approach has emerged across international development, philanthropy, and increasingly health professional education as a response to this problem. Connell and Kubisch (1998), writing in the context of comprehensive community initiatives, argue that a theory of change makes explicit the assumptions connecting a program's activities to its intended long-term outcomes, allowing evaluators to test not only whether outcomes occurred but why, and where in the causal chain a program may be succeeding or failing. Farrukh (2024) demonstrates this logic applied specifically to program evaluation in health professional education, showing how a theory of change can structure key performance indicators at input, output, process, and outcome levels within a single institutional program.

Within Indonesian higher education, PKM programs are governed by detailed national guidelines covering proposal structure, funding, and reporting (Direktorat Riset, Teknologi, dan Pengabdian kepada Masyarakat [DRTPM], 2023), and universities increasingly emphasize measurable dampak (impact) as a criterion for program quality. In practice, however, PKM reports reviewed in the literature consistently center on knowledge-level pre/post scores or satisfaction questionnaires administered immediately after an activity, evaluation designs that closely resemble the Context-Input-Process-Product (CIPP) model's earlier stages (Stufflebeam, 2003) but rarely extend to outcome-level indicators measured after a meaningful interval has passed. This is a reasonable response to the short duration and limited budget of a typical PKM cycle, but it leaves a structural gap between what national guidelines aspire to and what individual program teams are equipped to measure.

Despite this recognized gap, subject-specific and program-specific applications of theory of change to Indonesian PKM design remain scarce relative to its use in international development evaluation and, increasingly, health professional education. A generic call to “measure impact” does not, by itself, tell a PKM team which indicators to collect, at what point after implementation, or how to connect those indicators back to the program's original assumptions. This gap motivates the present article.

This article does not report the results of an already-evaluated program. Instead, it undertakes a structured narrative review of the literature on program evaluation, theory of change, and Indonesian PKM practice, and uses that synthesis to propose a conceptual program management model, the Theory of Change-Based Program Management (ToC-PM) model, designed to help PKM teams move from activity-based reporting toward evidence-based social impact management. The article also proposes a companion indicator framework so that the model can be empirically applied by future PKM teams, including at the Faculty of Economics and Business, Universitas Negeri Jakarta (FEB UNJ). The remainder of the article is organized as follows: Section 2 reviews the relevant literature; Section 3 describes the review method; Section 4 presents the proposed model; Section 5 discusses anticipated benefits, challenges, and mitigation strategies; Section 6 outlines implications for implementation; and Section 7 concludes.

2. LITERATURE REVIEW

This section reviews three bodies of literature relevant to the proposed model: foundational program evaluation frameworks, the theory of change approach specifically, and evidence from Indonesian PKM evaluation practice.

2.1 Foundational Program Evaluation Frameworks

Program evaluation as a field distinguishes several classic frameworks that continue to inform practice. Stufflebeam's (2003) Context-Input-Process-Product (CIPP) model organizes evaluation around four questions: what is the context and need (context), what resources and plan are available (input), how is the program being implemented (process), and what results were achieved (product). Weiss's (1998) foundational text on program evaluation similarly emphasizes that evaluation should test the program's underlying theory, not merely document whether prescribed activities occurred, a distinction that anticipates the theory of change approach discussed below. Rossi, Lipsey, and Freeman's (2004) systematic approach to evaluation further distinguishes formative evaluation, aimed at improving a program during implementation, from summative evaluation, aimed at judging a program's overall merit, a distinction with direct relevance to how the model proposed in this article treats monitoring and final evaluation as separate but connected functions.

The W.K. Kellogg Foundation's (2004) widely used Logic Model Development Guide operationalizes these ideas into a linear chain: inputs, the resources committed to a program; activities, what the program does with those resources; outputs, the direct products of those activities; outcomes, the changes in participants that outputs are

intended to produce; and impact, the broader, longer-term change to which the program contributes. This inputs-to-impact chain provides the vocabulary this article uses to distinguish, in Section 4, between what a PKM program does and what it changes.

2.2 The Theory of Change Approach

Theory of change extends the logic model by making explicit the causal assumptions that connect each link in the chain, rather than simply listing categories. Connell and Kubisch (1998) argue that this explicitness is precisely what allows an evaluation to explain why a program succeeded or failed, since a program can fail either because an assumed causal link does not hold, for example because training does not in fact change behavior, or because the program was not implemented as intended, a distinction activity counts alone cannot reveal. Michel and Schneider (2025) formalize this further into an impact evaluation framework organized around attribution and contribution analysis, cautioning that observed change can rarely be attributed entirely to a single program and that evaluation designs should be explicit about what portion of change the program can credibly claim to have contributed to.

Applied specifically to an educational program, Farrukh (2024) demonstrates how a theory of change can be built stepwise: defining the program's ultimate goal, working backward to identify necessary preconditions, listing the underlying assumptions that must hold for the causal logic to work, and specifying key performance indicators at each stage from input through long-term outcome. This stepwise structure directly informs the stages of the model proposed in Section 4 of this article.

Complementary to theory of change, social value measurement approaches such as Social Return on Investment (SROI) attempt to translate outcomes into a common metric, typically monetary, to compare a program's social value against its cost (Nicholls et al., 2012). While full monetized SROI analysis exceeds what most PKM teams can realistically conduct within a single funding cycle, the SROI framework's insistence on identifying which stakeholders experience which outcomes, and avoiding double-counting of overlapping benefits, is a useful discipline this article incorporates into the stakeholder-mapping stage of the proposed model, without requiring full monetization.

2.3 Social Innovation and the Purpose of University Community Engagement

Because PKM programs frequently aim not merely to deliver a service but to catalyze a new, more effective way of addressing a community problem, the social innovation literature is also relevant. Phills, Deiglmeier, and Miller (2008) define social innovation as a novel solution to a social problem that is more effective, efficient, or sustainable than existing approaches, and whose value accrues primarily to society rather than to private individuals. Mulgan (2006) adds that social innovation typically moves through recognizable stages, from identifying a need, through generating and prototyping ideas, to sustaining and scaling what works, a progression that resembles the logic of the sustainability stage in the model proposed below. Read alongside the program evaluation literature, this suggests that measuring a PKM program's impact is not only an accountability exercise but also a mechanism for learning which community-engagement innovations are worth sustaining or scaling, consistent with Patton's (2011) argument that evaluation in complex, innovation-oriented settings should itself be developmental, feeding learning back into program redesign rather than only producing a final verdict.

2.4 Evidence from Indonesian PKM Evaluation Practice

Indonesian national PKM guidelines position community service as one pillar of the Tri Dharma Perguruan Tinggi, mandated by higher education law and operationalized through detailed proposal and reporting formats (Republik Indonesia, 2012; DRTPM, 2023). In practice, however, published evaluations of PKM programs reviewed for this article predominantly apply pre-test and post-test knowledge measures or Likert-scale satisfaction questionnaires administered at the close of the activity, an approach structurally similar to the earlier stages of the CIPP model (Stufflebeam, 2003) but rarely extended to outcome measurement conducted weeks or months after program completion. This pattern is consistent with the broader observation that program teams operating under short funding cycles default to what is feasible to measure immediately, namely knowledge and satisfaction, rather than what is most meaningful to measure, namely sustained behavioral or condition change. Table 1 summarizes this pattern across the evaluation frameworks and PKM practice reviewed above.

Table 1. Overview of Evaluation Frameworks Informing the Proposed Model

Framework	Core Focus	Key Source	Relevance to This Model
CIPP Model	Context, input, process, and product evaluation	Stufflebeam (2003)	Basis for distinguishing implementation monitoring from outcome evaluation in Stages 4–5
Logic Model	Linear chain from inputs to impact	W.K. Kellogg Foundation (2004)	Provides the vocabulary for the indicator framework in Section 4.3
Theory of Change	Explicit causal assumptions linking activities to outcomes	Connell & Kubisch (1998); Farrukh (2024)	Basis for Stage 2 of the proposed model

Framework	Core Focus	Key Source	Relevance to This Model
Impact Evaluation / Attribution	Distinguishing attribution from contribution to observed change	Michel & Schneider (2025)	Basis for cautious impact-claim language in Stage 5
SROI	Stakeholder-specific identification and valuation of outcomes	Nicholls et al. (2012)	Basis for the stakeholder-mapping component of Stage 1
Social Innovation	Stages from need identification to sustaining and scaling solutions	Phills et al. (2008); Mulgan (2006)	Basis for the sustainability and institutional-learning focus of Stage 5

Source: Compiled by the author from the cited literature (2026)

3. RESEARCH METHODOLOGY

This article is conceptual rather than empirical: it does not report data collected from an implemented evaluation, but instead develops a program management model through a structured narrative literature review and synthesis, an approach broadly consistent with the early, design-oriented phase of research-and-development methodology (Sugiyono, 2022), in which a conceptual model is formulated prior to field testing and validation.

Literature was identified through academic databases and journal platforms, including peer-reviewed evaluation and social-policy journals, together with Indonesian national PKM guideline documents, using combinations of the keywords “theory of change program evaluation,” “logic model community service,” “social impact measurement,” “evaluasi program pengabdian masyarakat,” and “social return on investment,” restricted to publications between 2003 and 2026, while retaining foundational sources predating this window where they remain the theoretical basis for more recent work. Sources were included if they (a) were peer-reviewed journal articles, foundational evaluation texts, or officially published PKM/community-service guideline documents; (b) addressed program evaluation, theory of change, or social impact measurement design; and (c) were published in English or Indonesian with an accessible full text or substantive abstract. Sources that could not be attributed to identifiable authors, institutions, or venues were excluded from citation.

Retrieved sources were thematically coded into four categories: (1) foundational program evaluation frameworks; (2) theory of change and attribution methodology; (3) social value and social innovation measurement approaches; and (4) Indonesian PKM guideline and evaluation practice. The synthesis of these four categories forms the basis for the conceptual model presented in Section 4. Because the model has not yet been field-tested, this article makes no claims about the effectiveness of the model itself; it proposes a design to be tested.

4. PROPOSED CONCEPTUAL MODEL: THEORY OF CHANGE-BASED PROGRAM MANAGEMENT (ToC-PM)

Building on the frameworks reviewed above, this section proposes the Theory of Change-Based Program Management (ToC-PM) model, a five-stage framework intended to help PKM program teams move from activity-based reporting toward evidence-based social impact management. The model is intended as a design proposal to be piloted and refined by future PKM teams rather than a report of a program already evaluated.

4.1 Design Principles

The ToC-PM model rests on four design principles derived from the literature review. First, it is outcome-anchored, requiring every program design to state, before implementation, what will change and for whom, rather than only what activity will occur, consistent with the outputs-versus-outcomes distinction central to the logic model (W.K. Kellogg Foundation, 2004). Second, it is assumption-explicit, requiring the causal links between activity and outcome to be written down and treated as testable rather than assumed, following Connell and Kubisch (1998). Third, it is attribution-cautious, requiring evaluation language that distinguishes contribution from full attribution when a program operates alongside other influences on a community, following Michel and Schneider (2025). Fourth, it is learning-oriented rather than only verdict-oriented, treating evaluation findings as input to program redesign, consistent with Patton's (2011) developmental evaluation logic and Mulgan's (2006) account of social innovation as an iterative process.

4.2 The Five Stages of the PDFL Model

Table 2 outlines the five proposed stages, their core activities, and their intended outputs.

Table 2. Proposed Stages of the Theory of Change-Based Program Management (ToC-PM) Model

Stage	Core Activity	Intended Output
1. Problem and Stakeholder Mapping	Needs assessment and identification of which stakeholder groups are expected to experience which outcomes, avoiding double-counted or vaguely defined beneficiaries	A documented problem statement and stakeholder-outcome map

Stage	Core Activity	Intended Output
2. Theory of Change Construction	Facilitated mapping of the causal pathway from planned activities to short-term outputs, medium-term outcomes, and longer-term impact, with explicit assumptions stated	A written theory of change diagram and assumption list
3. Indicator and Instrument Design	Selecting specific, measurable indicators for each level of the theory of change and designing or adapting instruments to collect them	A finalized indicator framework and data-collection instruments (see Table 3)
4. Implementation with Embedded Monitoring	Program delivery alongside process-level monitoring (attendance, fidelity to design, early participant feedback)	Process monitoring data enabling mid-course adjustment
5. Outcome Evaluation and Institutional Learning	Follow-up data collection at an interval appropriate to the stated outcomes, comparison against the theory of change, and structured reflection to inform future program redesign	An evaluation report distinguishing outputs, outcomes, and documented limitations, plus redesign recommendations

Source: Proposed by the author, synthesizing the logic model (W.K. Kellogg Foundation, 2004), theory of change methodology (Connell & Kubisch, 1998; Farrukh, 2024), and CIPP evaluation stages (Stufflebeam, 2003).

4.3 Proposed Indicator Framework

Because the ToC-PM model has not yet been implemented, this article does not report output, outcome, or impact data from an actual program. Instead, Table 3 proposes an indicator framework, organized by logic-model level, that future implementing teams can adopt and adapt to their specific program content.

Table 3. Proposed Indicator Framework for the ToC-PM Model

Logic-Model Level	Example Indicator Type	Proposed Timing	Proposed Instrument
Output	Number and characteristics of participants reached; activities completed as planned	Immediately post-activity	Attendance records; facilitator activity log
Short-term outcome	Change in knowledge or skill relevant to the program's stated goal	Immediately post-activity	Pre-test/post-test
Medium-term outcome	Change in behavior or practice attributable in part to the program	4–12 weeks post-activity	Follow-up survey or observation
Early impact indicator	Early signs of condition-level change among the target community (e.g., income, institutional adoption)	3–6 months post-activity, where feasible	Follow-up interview or secondary data review

Source: Proposed by the author, adapted from the logic-model chain (W.K. Kellogg Foundation, 2004) and the standards-of-evidence logic underlying impact evaluation (Michel & Schneider, 2025).

5. DISCUSSION: ANTICIPATED BENEFITS, CHALLENGES, AND MITIGATION STRATEGIES

Grounded in the literature reviewed above, the ToC-PM model can reasonably be expected to yield more defensible impact claims than activity-only reporting, since an explicit theory of change allows a program team to explain not only whether an outcome occurred but why, consistent with Connell and Kubisch's (1998) argument that this explanatory power is theory of change's central advantage over simpler output counts. By separating process monitoring (Stage 4) from outcome evaluation (Stage 5), the model is also positioned to support genuine mid-course learning rather than treating evaluation as a purely retrospective exercise, consistent with Patton's (2011) developmental evaluation logic.

At the same time, several challenges documented in the literature are directly relevant to anticipate in implementation. First, the short duration of a typical PKM funding cycle constrains a team's ability to collect medium-term or impact-level indicators, which by design require follow-up after the formal activity period ends; Stage 5 addresses this by treating early impact indicators as provisional and explicitly time-bound rather than requiring full longitudinal tracking within a single cycle. Second, attribution remains genuinely difficult in community settings where multiple programs and organic change operate simultaneously; the model's attribution-cautious design principle, following Michel and Schneider (2025), directs teams to use contribution rather than attribution language unless a comparison or baseline design supports a stronger claim. Third, constructing a theory of change is a facilitated, participatory process that requires time and skill many PKM teams may not have practiced before; Stage 2 should therefore be supported by a structured template and, where possible, guidance from a team member with prior evaluation training. Fourth, community partners and beneficiaries may find formal stakeholder mapping and indicator design unfamiliar or burdensome; the SROI literature's emphasis on keeping stakeholder engagement proportionate to a program's scale (Nicholls et al., 2012) suggests that Stage 1 should be scaled to the program's size rather than applied uniformly to every PKM activity regardless of budget.

6. IMPLICATIONS FOR IMPLEMENTATION AT UNIVERSITAS NEGERI JAKARTA

As a conceptual model developed from the Faculty of Economics and Business, Universitas Negeri Jakarta (FEB UNJ), the ToC-PM model is intended to be directly actionable within the university's community-engagement (Tri Dharma) activities. Several practical implications follow from the design proposed above.

First, FEB UNJ's management and economics education study programs are well positioned to supply program-management expertise for Stage 2 and Stage 3 activities, while students in relevant courses could be engaged as data-collection assistants during Stage 4–5, simultaneously building their own applied evaluation competence. Second, a phased adoption is recommended: rather than requiring every PKM team to conduct a full theory of change immediately, the faculty's research and community-service office could pilot the ToC-PM model with two or three flagship programs, using the experience to refine the Table 3 indicator templates before wider adoption. Third, because this article does not report field data, the immediate next step for any FEB UNJ team adopting this model is to apply Stages 1–3 to an upcoming PKM proposal and report the resulting theory of change and indicator framework as part of the proposal itself, so that outcome measurement is planned from the outset rather than added retroactively. Fourth, aggregating theory of change diagrams and indicator frameworks across multiple FEB UNJ PKM programs over time could allow the faculty to identify which program designs most consistently achieve their stated outcomes, turning individual program evaluations into a cumulative institutional learning resource rather than isolated, one-off reports.

7. CONCLUSION

This article synthesized literature on foundational program evaluation frameworks (CIPP, the logic model), theory of change and attribution methodology, and social value and social innovation measurement approaches, together with evidence from Indonesian PKM guideline and evaluation practice, to propose the Theory of Change-Based Program Management (ToC-PM) model, a five-stage framework for helping university community service programs move from activity-based reporting toward evidence-based social impact management. The review identified a consistent pattern in current PKM practice, namely that evaluation efforts concentrate on immediate knowledge and satisfaction measures while rarely extending to outcome- or impact-level indicators, despite national guidelines that call explicitly for demonstrated dampak.

The ToC-PM model's contribution lies in translating this general call for impact into a concrete, stage-by-stage program management process (Table 2) and a companion indicator framework (Table 3) that allows a program's outcome claims to be tested empirically rather than assumed. As a conceptual, literature-based proposal, the model's central limitation is that it has not yet been piloted in the field; its claims about improved evaluation quality are therefore framed as hypotheses grounded in the evaluation literature rather than demonstrated results. Future work should apply the model to a defined PKM program from proposal through follow-up evaluation, report the resulting theory of change and indicator data, and thereby both validate the model and offer a template that can be adapted to strengthen impact measurement across other university community service domains.

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