

Academic Article

Integrating Evaluation Models for Comprehensive Project Assessment: A Case Study of Mae Khri, Patthalung, Thailand

Nattha Lertpanyawiwat^{1*}, Kanokkul Phetuthai², Irisa Prommachan³, Suttichai Rakjan⁴,
Athisa Pankong⁵, Wannisa Junhom⁶, Wanchai Dhammasaccakarn⁷, and Uthis Sangkarat⁸

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Abstract

Effective project evaluation is crucial for the success of government initiatives. This study investigates the potential of integrating multiple evaluation models into a unified framework for a more holistic assessment. It employs a phased approach, to explore projects within a municipality in Thailand. This study utilizes six evaluation models Needs Assessment, CIRO, CIPP, PDCA, Discrepancy, and Alkin at various stages of the project. In the initial phases, the CIRO and CIPP models are employed for needs assessment and project design, which helps ensure a thorough understanding of community needs and alignment with project objectives. The PDCA cycle is adopted during implementation, facilitating continuous monitoring and iterative adjustments. Discrepancy evaluation is implemented concurrently, identifying deviations from planned outcomes. The Alkin Model takes center stage during the evaluation phase, offering a multifaceted assessment through various tools such as interviews, surveys, and project data.

Findings from each model are integrated, providing a comprehensive understanding of the project's strengths, weaknesses, and impacts. This integrated approach may require intensive data collection. However, the benefits outweigh the challenges, as the gained insights

¹ Kenan Foundation Asia, Bangkok, Thailand

² Faculty of Humanities and Social Sciences, Surat Thani Rajabhat University

³ Faculty of Education, Thailand National Sports University, Trang Campus

⁴ Department of Politics and Government, Faculty of Political Science, Hatyai University

⁵ General Education, Yala Rajabhat University

⁶ Green South Foundation, Songkhla, Thailand

⁷ Faculty of Liberal Arts, Prince of Songkla University

⁸ Mae Khri Sub-district Municipality, Patthalung

* Corresponding e-mail: lertpanya.nattha@gmail.com

contribute to improved project planning, implementation, and future iterations. The implications offer valuable guidance for government agencies, highlighting the potential of integrating evaluation models to maximize project success and community development.

Keywords: *Evaluation Model, Project Evaluation, Thailand, Integrating Evaluation, Holistic Assessment*

Introduction

In contemporary governance, effective project evaluation is indispensable for ensuring the efficient allocation of resources and achieving desired outcomes (Haass & Guzman, 2020). However, conventional evaluation approaches often focus on isolated aspects of projects, leading to fragmented assessments and suboptimal decision-making. Recognizing this limitation, the integration of multiple evaluation models has emerged as a promising strategy to enhance the comprehensiveness and effectiveness of project assessments (Lloyd & Wait, 2005). By synthesizing diverse perspectives and methodologies, integrated evaluation frameworks offer a more nuanced understanding of project dynamics and facilitate informed decision-making (Hanberger, 2012).

In the context of government initiatives, where the stakes are high and resources are finite, the need for rigorous and comprehensive project evaluation is particularly acute (Iddi & Nuhu, 2018). Whether it involves infrastructure development, social welfare programs, or environmental conservation efforts, government projects play a pivotal role in shaping the well-being of communities and the sustainability of ecosystems. Consequently, there is a growing imperative to adopt innovative evaluation approaches that can capture the multifaceted nature of these projects and provide actionable insights for policymakers and stakeholders (Chawla, Chandab, Angra, & Chawla, 2018).

This article seeks to address this imperative by investigating the integration of evaluation models within the context of municipal projects in Thailand. By examining the application and integration of six distinct evaluation models across different stages of project development and implementation, this study aims to elucidate the potential benefits, challenges, and implications of adopting an integrated evaluation (Anantanatorn, 2022). Through a detailed analysis of empirical findings and theoretical frameworks, this article contributes to the broader discourse on project evaluation methodologies and offers practical recommendations for enhancing the effectiveness of government initiatives (Yang, Hu, Ding, Gao, & Li, 2023).

Fragmented assessments and suboptimal decision-making: Conventional evaluation approaches often suffer from a siloed perspective, where different aspects of a project are evaluated independently, leading to fragmented assessments (Cao & Hoffman, 2011). For instance, while financial aspects might be thoroughly evaluated, social or environmental impacts may receive less attention. This fragmented approach can result in suboptimal decision-making, as it fails to capture the interconnectedness of various project components and their cumulative effects on outcomes (Anantanatorn, 2022).

Integration of multiple evaluation models: Recognizing the limitations of isolated evaluation methods, there has been a shift towards integrating multiple evaluation models into a unified framework. This integration allows for a more comprehensive and holistic assessment of projects by synthesizing diverse perspectives and methodologies. By combining quantitative and qualitative approaches, as well as considering different stakeholder viewpoints, integrated evaluation frameworks provide a more nuanced understanding of project dynamics (Dyckhoff & Souren, 2022).

Importance in government initiatives: Government projects carry significant implications for societal well-being and environmental sustainability (Holden & Zimmerman, 2009). Whether it's infrastructure development, social welfare programs, or environmental conservation efforts, the outcomes of these projects have far-reaching effects on communities and ecosystems. Therefore, rigorous, and comprehensive project evaluation is crucial to ensure that resources are allocated efficiently, and desired outcomes are achieved. Integrated evaluation approaches offer a means to address this need by providing policymakers and stakeholders with actionable insights derived from a holistic assessment of projects (Office of the National Economic and Social Development Board Office of the Prime Minister, Thailand, 2017).

The specific focus of this article is on municipal projects in Thailand. Municipalities often undertake a variety of initiatives ranging from infrastructure improvements to social services provision. Given the diverse nature of these projects and their impact on local communities, there is a pressing need to develop innovative evaluation approaches tailored to the context of municipal governance (Asian Development Bank, 2019). By examining the application and integration of six distinct evaluation models across different stages of project

development and implementation, this article aims to fill this gap and contribute to the enhancement of project evaluation practices in Thailand (Kumar, Patel, & Lee, 2019).

Benefits, Challenges, and Implications. Through empirical findings and theoretical frameworks, this article aims to elucidate the potential benefits, challenges, and implications of adopting an integrated evaluation approach (Peck & Gorzalski, 2009). While such an approach offers the promise of a more comprehensive understanding of project dynamics and better-informed decision-making, it also presents challenges, such as data collection and analysis complexities. Understanding these trade-offs is essential for policymakers and practitioners seeking to implement integrated evaluation frameworks effectively (Anantanatorn, 2022).

Overall, this article contributes to the broader discourse on project evaluation methodologies by highlighting the importance of integration and comprehensiveness in assessing the effectiveness of government initiatives (Anantanatorn, 2022). By providing practical recommendations based on empirical evidence, this study aims to enhance the effectiveness of project evaluation practices and ultimately contribute to the sustainable development of communities in Thailand and beyond.

Evaluation from Various Forms

This article integrates key concepts and frameworks from project evaluation, systems thinking, and organizational learning to provide a comprehensive understanding of government projects. Guided by the principle of holism, which emphasizes the interconnectedness and interdependencies among various project elements, an integrated approach to evaluation is adopted to fully grasp the complexity of government initiatives. We will examine each evaluation model in detail:

1. **Context, Input, Response, Outcome (CIRO) Model:** CIRO serves as the conductor, harmonizing external influences on the project. It examines the economic, social, and political context, analyzes available resources and policies, assesses project actions, and evaluates achievements and impacts. Studies like Alkin (2004) demonstrate its effectiveness in understanding the external factors influencing program success.

2. **Context, Input, Process, Product (CIPP) Model:** Acting as the lead vocalist, CIPP delves into the project's inner workings. It starts with understanding community needs and

challenges, analyzes resources and design, scrutinizes implementation fidelity, and evaluates outcomes and impacts. This comprehensive approach, demonstrated by Mertens and McLaughlin (2000), ensures thorough examination of all project aspects.

3. Plan-Do-Check-Act (PDCA) Cycle: The PDCA cycle represents a dynamic duo of planning and adaptation. It emphasizes continuous improvement through iterative cycles of planning interventions, implementing plans, checking results, and acting based on emerging realities. This iterative approach, exemplified by Ferlie and Lynn (2011), ensures project flexibility and adaptability.

4. Discrepancy Evaluation: Acting as the critical analyst, discrepancy evaluation meticulously examines gaps between envisioned and achieved outcomes. This approach, pioneered by Provus (1971) and further developed by Brandon and Ah Sam (2020) identifies discrepancies between desired and actual outcomes, offering valuable insights for improvement.

5. Alkin Model: The Alkin Model serves as the composer, weaving diverse data collection methods to provide a holistic assessment of program effectiveness. Developed by Alkin (1969), it integrates interviews, surveys, and project data to consider implementation quality alongside outcomes. Its focus on utilization of findings, as shown by Rossi and Freeman (1993) ensures evaluation results inform future program development.

6. Need Assessment: The Need Assessment Model lays the foundation for project interventions. It identifies the needs and challenges of the target population or organization before any intervention, ensuring the project addresses existing gaps and targets relevant issues. This vital first step, pioneered by Kaufman and English (1979) provides a blueprint for effective project planning.

By integrating these evaluation models, this article aims to provide a nuanced and robust assessment of government projects, facilitating informed decision-making and continuous improvement.

To deepen our understanding, we will thoroughly examine the foundational concepts that underpin this article. Systems thinking is fundamental in comprehending the intricate dynamics of government projects. It involves viewing projects as interconnected systems rather than isolated components, recognizing that changes in one part of the system can have cascading effects throughout the project. By applying systems thinking principles,

researchers can identify feedback loops, nonlinear relationships, and emergent properties within government projects, leading to a more holistic understanding of their dynamics.

Furthermore, organizational learning theory underscores the importance of continuous learning and adaptation within organizations. Government projects are dynamic and often encounter unforeseen challenges and opportunities. Organizational learning processes enable project teams to capture and leverage knowledge gained from past experiences to improve future project outcomes. By fostering a culture of learning and knowledge sharing, government agencies can enhance their capacity to effectively plan, implement, and evaluate projects.

In addition to these foundational concepts, meaningful stakeholder engagement throughout the project lifecycle is essential for effective evaluation. Stakeholders, including government agencies, community members, non-governmental organizations, and private sector partners, bring diverse perspectives and expertise to the evaluation process. By involving stakeholders in project planning, data collection, analysis, and decision-making, researchers can ensure that evaluation findings are relevant, credible, and actionable.

Moreover, leveraging data-driven decision-making processes can significantly enhance the evaluation of government projects. In today's digital age, data plays a crucial role in informing decision-making processes. By harnessing advanced data analytics techniques, researchers can extract valuable insights from project data, identify patterns and trends, and forecast future outcomes. Data-driven decision-making enables government agencies to allocate resources more efficiently, mitigate risks, and maximize project impact.

Lastly, investing in capacity building efforts is essential for ensuring the long-term sustainability of development initiatives. Building the capacity of government agencies and project stakeholders to conduct rigorous project evaluation empowers individuals and organizations to make evidence-based decisions and drive positive change in their communities.

By integrating these concepts and frameworks into the evaluation process, this article aims to provide a nuanced and robust assessment of government projects, facilitating informed decision-making and continuous improvement.

Application and Integration of Theoretical Frameworks

By integrating these diverse models, we create a symphony of evaluation, (See in Table 1) offering a richer understanding of the project's impact than any single model could achieve. Each model plays a crucial role, providing unique insights and perspectives as detail below:

- Need Assessment, CIRO and CIPP ensure the project is contextually relevant and addresses community needs.
- PDCA guarantees flexibility and continuous improvement.
- Discrepancy Evaluation acts as a reality check, highlighting areas for refinement.
- Alkin orchestrates the symphony, providing a holistic and multifaceted assessment.

The vibrant community of a local municipality serves as the stage for a unique experiment in public engagement-the "Tax Public Relations and Campaign for Tax Payment Understanding" project. Evaluating its impact demands a nuanced approach, transcending the limitations of a single evaluation model. This is where this case study takes center stage, wielding a powerful symphony of six distinct evaluation models.

1. Setting the Stage: Need Assessment and CIRO Model. Our journey begins with the Need Assessment, meticulously identifying the community's needs and challenges regarding tax knowledge and compliance. This foundation, laid before any intervention, ensures our project addresses relevant issues. Next, the CIRO Model acts as the conductor, harmonizing the external influences on the project.

2. Delving Deep: CIPP Model and PDCA Cycle. With the stage set, the CIPP Model takes center stage, delving into the project's inner workings. Meanwhile, the PDCA Cycle ensures continuous improvement through its iterative process.

3. Unveiling Discrepancies and Weaving Insights: Discrepancy Evaluation and Alkin Model. The Discrepancy Evaluation acts as the critical analyst, meticulously examining the gaps between planned and achieved outcomes. By identifying these discrepancies and their underlying causes, we gain valuable insights for future initiatives. Finally, the Alkin Model acts as the composer, weaving a rich tapestry of data from diverse sources.

This multifaceted approach ensures a holistic understanding of the project's impact, considering not only outcomes but also:

- Quality of implementation: How effectively was the project executed?
- Contextual factors: How did the surrounding environment influence the project's impact?

This goes beyond simply assessing success; it unveils valuable lessons for future initiatives, and to delve deeper into the specific roles and contributions of each evaluation model within this symphony, Table 1 presents a detailed breakdown of the Multi-Model Evaluation for the “Tax Public Relations and Campaign for Tax Payment Understanding” project.

Table 1 Multi-Model Evaluation “Tax Public Relations and Campaign for Tax Payment Understanding”

Evaluation Model	Focus	Example in Tax Project Context	Sample Responsibility
Need Assessment (Sets the stage)	Identifying community needs and challenges regarding tax knowledge and compliance	Assessing community understanding of tax regulations, identifying preferred communication channels.	Local tax officials, community leaders, small business owners
CIRO Model (Conducts the orchestra)	Harmonizing external influences on the project	- Context: Analyzing economic, social, and political factors influencing tax compliance. (e.g., cultural attitudes towards taxation). - Input: Evaluating available resources (e.g., government funding), policies (e.g., tax incentives), and strategies (e.g., social media campaigns). - Response: Assessing the effectiveness of project interventions like workshops (targeting specific demographics), outreach programs (collaborating with local schools), and messaging (using culturally relevant language and visuals). - Outcome: Measuring the project's impact on tax awareness, understanding, and compliance rates	Project team leader, research analysts, policy experts

Table 1 (cont.)

Evaluation Model	Focus	Example in Tax Project Context	Sample Responsibility
		(analyzing tax filing data, conducting follow-up surveys).	
CIPP Model (Delves deep into the project)	Evaluating project execution and effectiveness	<p>- Context: Revisiting community needs and environment to ensure continued relevance (e.g., adapting outreach based on seasonal changes in economic activity).</p> <p>- Input: Scrutinizing resource allocation (e.g., optimizing workshop materials), campaign design (e.g., evaluating clarity and accessibility of messaging), and communication strategies (e.g., assessing outreach channel effectiveness).</p> <p>- Process: Assessing implementation fidelity (e.g., monitoring workshop attendance, tracking outreach program coverage).</p> <p>- Product: Evaluating the project's impact on tax knowledge (e.g., pre-campaign and post-campaign knowledge tests), attitudes (e.g., surveys measuring trust in tax authorities), and behaviors (e.g., analyzing changes in tax compliance rates).</p>	Project manager, communication specialists, monitoring and evaluation team
PDCA Cycle (Ensures continuous improvement)	Iterative process for adaptation and refinement	<p>- Plan: Adapting campaign strategies based on ongoing monitoring and feedback from community members (e.g., adjusting workshop content based on identified knowledge gaps).</p> <p>- Do: Implementing the adapted plan with flexibility to address emerging needs (e.g., expanding outreach to underserved communities).</p> <p>- Check: Continuously monitoring tax awareness, understanding, and compliance rates through data collection and analysis (e.g., tracking website traffic, analyzing social media engagement).</p> <p>- Act: Making adjustments to campaign strategies based on findings to improve effectiveness and reach</p>	Project team members, community representatives, data analysts

Table 1 (cont.)

Evaluation Model	Focus	Example in Tax Project Context	Sample Responsibility
		(e.g., refining messaging based on audience preferences).	
Alkin Model along with Discrepancy Model (Composes a rich tapestry of data)	Gathering and analyzing data from diverse sources	- Interviews: Capturing qualitative perspectives and experiences of community members regarding the campaign's impact (e.g., focus groups with small business owners, individual interviews with community leaders). - Surveys: Gathering quantitative data from a broader sample to assess overall changes in tax knowledge and attitudes (e.g., online surveys, paper surveys distributed at community events). - Project Data: Analyzing campaign reports, outreach materials, and participation data to understand implementation processes and reach (e.g., analyzing workshop attendance logs, tracking social media campaign reach).	Data collectors, interviewers, community liaisons, project documentation team

Findings from the Integrating Multiple Evaluation Models

The findings of this article underscore the value of integrating multiple evaluation models into a unified framework for comprehensive project assessment. Through the application of Need Assessment, CIRO, CIPP, PDCA, Discrepancy, and Alkin Model across different stages of project development and implementation, researchers were able to gain rich insights into the complexities and dynamics of municipal projects in Thailand.

Need Assessment Model: Tailoring Solutions to Local Demands. Before initiating the project, a thorough needs assessment was conducted to identify the specific requirements and challenges faced by the community regarding tax understanding and compliance. Surveys and focus groups with local residents, business owners, and other stakeholders helped to pinpoint the gaps in tax knowledge and the barriers to compliance. This preliminary data guided the design and focus of the training modules and outreach activities, ensuring they were relevant and directly addressed the community's needs. The assessment

revealed a strong demand for more accessible and straightforward tax information, which influenced the development of easy-to-understand materials and interactive sessions. By directly addressing these identified needs, the project laid a solid foundation for enhancing tax education and compliance within the community.

CIRO Model: Navigating Contextual Currents. The external environment played a significant role in shaping the project. Economic fluctuations, particularly fluctuations in tourism income, influenced the timing and content of outreach efforts. Cultural attitudes towards taxation, often characterized by a degree of mistrust, necessitated culturally sensitive messaging and community engagement strategies. While resource constraints limited the campaign's reach, particularly in geographically remote areas, government policy incentives like tax breaks for small businesses fostered positive perceptions of tax compliance.

CIPP Model: Delivering on Promises. The project effectively catered to community needs through diverse outreach methods. Workshops equipped participants with practical tax knowledge, mobile outreach units brought services closer to remote communities, and culturally relevant messaging resonated with local values. Implementation adhered to the planned timeline and budget, and ongoing monitoring ensured quality control. However, resource limitations hindered the development of more comprehensive educational materials, potentially leaving some individuals with unanswered questions.

PDCA Cycle: Embracing Continuous Improvement. The project embraced an iterative approach, continuously learning and adapting based on feedback. Monitoring participation data revealed lower engagement among younger individuals, prompting the addition of evening workshops catering to their working hours. Utilizing local community leaders as tax ambassadors proved successful, bridging the gap between the campaign and residents. This adaptability demonstrably enhanced campaign effectiveness and addressed emerging needs in real-time.

Discrepancy Evaluation: Unveiling Knowledge Gaps. While overall tax knowledge and self-reported compliance increased, discrepancies emerged across demographics. Younger individuals and those with limited formal education exhibited lower engagement and knowledge gains. This highlights the need for targeted interventions, such as gamified learning apps or simplified tax guides, to cater to diverse learning styles and educational backgrounds.

Alkin Model: Weaving a Rich Tapestry of Understanding. The multi-method approach offered a multifaceted perspective on the project's impact. Interviews revealed positive perceptions of the campaign's accessibility and clarity, particularly regarding the use of local dialects and relatable metaphors. Survey data confirmed significant increases in tax knowledge across various demographics. Project data documented high participation in workshops and outreach events, indicating strong community engagement.

By integrating these diverse viewpoints, we gained a holistic understanding of the project's impact beyond simply achieving numerical targets. We identified strengths like adaptability, cultural sensitivity, and responsiveness to feedback, alongside weaknesses like resource constraints and limited reach in specific demographics.

Conclusion

The integration of multiple evaluation models served as a powerful lens, unveiling the nuanced impact of the “Tax Public Relations and Campaign for Tax Payment Understanding.” By harmonizing diverse perspectives, we transcended a singular scorecard approach, revealing a richer tapestry of successes, challenges, and invaluable lessons for future endeavors. The insights gained from the Need Assessment Model were critical, influencing every aspect of the project, from the development of simplified tax guides to the deployment of mobile units designed to reach underserved areas. This model ensured that the interventions were not based on assumptions but were data-driven and deeply rooted in the actual needs and conditions of the community. It highlighted the importance of starting with a thorough understanding of the community's baseline to maximize the impact of educational campaigns and compliance strategies.

The CIRO Model underscored the significance of understanding the external currents shaping the project. Tailoring outreach strategies to the community's unique economic landscape and cultural attitudes towards taxation proved crucial. By analyzing capability, input, reaction, and output, we adapted our strategies to better align with the local context. Despite resource constraints, leveraging policy incentives fostered positive perceptions of compliance. This emphasizes the importance of contextual awareness in designing targeted and effective interventions, resulting in a measurable increase in community engagement with tax education efforts.

A Multi-pronged approach for holistic engagement: The CIPP Model validated the project's success in addressing community needs through diverse outreach methods. Workshops equipped participants with practical knowledge, mobile units brought services closer, and culturally sensitive messaging resonated with local values. This multi-pronged approach exemplifies the power of utilizing diverse outreach channels and communication methods to maximize reach and engagement.

The cornerstone of sustainability: The PDCA cycle highlighted the project's adaptability. Monitoring participation data revealed the need for evening workshops, and utilizing local community leaders as ambassadors proved successful. This dedication to continuous monitoring, learning, and adaptation based on emerging needs is essential for ensuring interventions remain relevant and impactful.

Unveiling discrepancies: While overall tax knowledge and compliance increased, the discrepancy evaluation exposed gaps across demographics. Younger individuals and those with limited formal education required further attention. This underscores the importance of gathering diverse data and employing methods like discrepancy evaluation to identify knowledge gaps and inform targeted interventions for specific groups.

Painting a multifaceted picture: The Alkin Model offered a rich tapestry of perspectives. Interviews confirmed the campaign's accessibility, surveys quantified knowledge gains, and project data documented high participation. This triangulation of data from various sources paints a holistic picture of the project's impact, going beyond individual metrics to reveal its true resonance within the community.

Implications and Applications

The implications of this article extend beyond the specific context of municipal projects in Thailand to broader debates on project evaluation methodologies and practices. By demonstrating the feasibility and effectiveness of integrating multiple evaluation models into a unified framework, this study offers valuable insights for policymakers, practitioners, and researchers seeking to enhance the effectiveness and impact of government initiatives.

One key implication of this article is the importance of adopting a phased approach to project evaluation that aligns with different stages of project development and implementation. By tailoring evaluation methods to address specific objectives and

requirements at each stage, project teams can ensure that evaluations are timely, relevant, and actionable. Moreover, the integration of diverse evaluation models enables researchers to capture the multifaceted nature of projects and generate comprehensive insights that inform decision-making and learning.

Another implication is the potential of integrated evaluation frameworks to foster collaboration and knowledge sharing among stakeholders. By engaging stakeholders in the evaluation process and soliciting their feedback, project teams can build trust, enhance transparency, and promote accountability. Furthermore, by synthesizing insights from different perspectives and methodologies, integrated evaluation frameworks facilitate cross-disciplinary learning and innovation, enabling organizations to adapt to changing circumstances and maximize project success.

In conclusion, this article demonstrates the value of integrating evaluation models for comprehensive project assessment. By synthesizing insights from diverse perspectives and methodologies, integrated evaluation frameworks offer a holistic understanding of project dynamics and facilitate evidence-based decision-making and learning. The implications of This article offer valuable guidance for government agencies, highlighting the potential of integrated evaluation frameworks to maximize project success and community development.

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