



Is the problem driven iterative adaptation approach (PDIA) a panacea for public financial management reform? Evidence from six African countries

Andrew Lawson^a, Jamelia Harris^{b,*}

^a Fiscus Ltd, Prama House, Office 21, 267 Banbury Road, Summertown, Oxford OX2 7HT, UK

^b Institute for Employment Research, University of Warwick, Coventry CV4 7AL, UK

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ABSTRACT

This article assesses the application of the problem driven iterative adaptation (PDIA) approach to public financial management reform in six African countries. It draws on primary data collected using a mix of interviews, overt participation observations and a short survey. PDIA responds to shortcomings in orthodox approaches to reform and technical assistance in developing countries. It stresses local solutions to local problems, achieved through experimentation and adaptation. The principles of PDIA are appealing, but its empirical assessment is in its infancy. This study aims to fill part of this gap. Findings show that PDIA delivers results in the short-term, particularly in cases where there is an influential authorising agent and dedicated team. Progress was less forthcoming for reforms that required high level political buy-in from senior officials. The approach does exceptionally well to develop staff capability, transferable skills, and local empowerment to solve local problems, thus potentially benefitting future reforms.

1. Introduction

Since the turn of the millennium, there has been a movement toward having stronger local ownership and agency in national development, especially aid-funded interventions (Dornan, 2017; Hasselskog, 2022). Traditional approaches to reform and technical assistance in developing countries such as the platform approach, strengthened approach and various political economy approaches have seen mixed results (de Renzio et al., 2011; Pretorius and Pretorius, 2008). Critics argue that these approaches have resulted in a ‘disarray in development’ (Pritchett and Woolcock, 2004), ‘isomorphic mimicry’ where there is change in laws/regulation but not in functionality (Andrews et al., 2017b; Pritchett et al., 2013), and ‘successful failures’ (Andrews, 2021).

The problem driven iterative adaptation (PDIA) approach is a response to some of these challenges (Andrews et al., 2013; 2017b). In contrast to more traditional approaches, “PDIA focuses on solving locally nominated and prioritised performance problems (instead of transplanting “best practice” solutions)” (Andrews et al. 2013, p.234). The approach is theoretically appealing to those wanting to ‘do development differently’; but empirical assessment of PDIA is still in its infancy. There is documented evidence of its use with judicial reform in

Mozambique (Andrews, 2015a) and economic diversification reforms in Sri Lanka (Andrews et al., 2017a).¹ In both cases, PDIA resulted in positive deviance as predicted by findings from a meta-analysis by Andrews (2015b).

The present study builds on this literature and advances it in two ways. First, we study the role of PDIA in public financial management (PFM) reform specifically. PFM refers to “the set of laws, rules, systems and processes used by sovereign nations (and sub-national governments) to mobilise revenue, allocate public funds, undertake public spending, account for funds and audit results” (Lawson 2015, p.1). It is a special category of government reform focused on government finances and the budget and is driven by the Ministry of Finance. Strong PFM systems are necessary for achieving national development goals as they enhance fiscal performance and service delivery (Gui-Diby, 2022; Omollo, 2018). Yet, PFM reforms in many developing countries have seen limited success. Fritz et al. (2017, p.53) argue that traditional approaches have not been sufficiently “real”, and instead are based on “ideas about how PFM systems could or should work”, which may not be achievable in many countries. With its emphasis on localisation, PDIA provides an alternative to traditional PFM reform approaches. The present study assesses the suitability of PDIA in the context of PFM

* Corresponding author.

E-mail addresses: andrew.lawson@fiscus.org.uk (A. Lawson), Jamelia.Harris@warwick.ac.uk (J. Harris).

¹ The team from Harvard University has also worked with/trained civil servants in Albania and Honduras: <https://bsc.cid.harvard.edu/projects>.

reform. Second, we analyse a unique set of case studies, which allows an empirical evaluation of the PDIA approach – a useful endeavour given the sparse literature in this area. The paper uses data from the six countries that participated in the 2018 PDIA-based Building PFM Capabilities (BPFMC) programme in African countries – Central African Republic (CAR), Côte d'Ivoire, Ghana, Lesotho, Liberia and Nigeria. The BPFMC programme is the most significant attempt to apply the PDIA approach to the resolution of PFM problems in a systematic manner. It was developed in collaboration with the Building State Capability (BSC) programme at Harvard University's Center for International Development (CID), and implemented by the Collaborative Africa Budget Reform Initiative (CABRI).² Data collection was conducted eight months to a year after the programme began. As such, the paper is framed around short-term effects, and highlights conditions and contexts under which progress was observed.

The paper answers three research questions. Namely: (i) Which PFM problems appear to be effectively tackled by PDIA?; (ii) In which contexts does PDIA work better?; and (iii) What immediate changes can be attributed to participation in the PDIA programme, and what long term effects might be expected from these changes? The objective is not to quantify the causal impact of PDIA in the sense of an impact evaluation. Such evaluations of government reform are exceedingly challenging given the fluidity of the reform space and the implications for mimicking a counterfactual (Glewwe & Todd, 2022). Still, the research contributes to the scholarly literature by providing important empirical insights on the application of PDIA principles. It is also useful to development practitioners interested in applying PDIA.

The results indicate that PDIA as a reform mechanism delivers some results in the short-term (within a year of tackling the reform problem), particularly in cases where there is an influential authorising agent and a dedicated team. There was significant progress towards reform in CAR, Lesotho and Liberia; with the former delivering concrete results, evidenced by a change in budgetary allocations. This is noteworthy given the difficult reform contexts of the six countries. In the cases where progress was slower, the team tackled problems which required significant political buy-in and/or struggled to expand authorisation and garner acceptance for the proposed reform actions. This result suggests that PDIA may be limited in overcoming more political reform bottlenecks (at least in the short-term) – a shortcoming of most PFM reform approaches (Fritz et al., 2017; Pretorius and Pretorius, 2008). All teams demonstrated significant improvement in capabilities and skills related to communication, problem-solving, team-working and reform implementation; and there were notable examples of these skills being transferred to other reform work within government. Staff confidence to solve local problems locally also blossomed. This latter finding on skills/capabilities is new; and has not been previously acknowledged as a gain from PDIA. It also provides a positive outlook for future reform, given enhanced staff capabilities.

The rest of the paper proceeds as follows. Section 2 reviews the literature, focusing on the principles of the PDIA approach and where this sits in the PFM reform space. Section 3 outlines the data and methods used. Section 4 discusses the findings. Section 5 concludes and highlights implications for policy and further research.

2. Literature review

2.1. The PDIA approach

PDIA provides an approach to supporting public sector reforms. It emphasises that problems should be locally identified and resolved in an iterative manner by local stakeholders. The focus on locally identified

problems with local solutions responds to criticism of 'top-down' approaches in development (Pritchett and Woolcock, 2004), with technical assistance often administered by foreign experts with little local knowledge (Andrews et al., 2013; 2017b). The iterative and adaptive feature of the approach builds on previous work on experiential learning and experimentation, including 'good enough governance' (Grindle, 2004), the 'science of muddling through' (Lindblom, 1959), and 'positive deviance' (Marsh et al., 2004).

The PDIA approach rests on four main principles as shown in Fig. 1 (Andrews et al., 2013; 2017b). The first is 'local solutions for local problems'. PDIA emphasises local articulation of a concrete problem as a starting point. The second principle is 'pushing problem-driven positive deviance' or making space for experimenting. Complex problems are unlikely to have known solutions, hence an environment which authorises and encourages experimentation is needed. Building on this notion, the third principle is 'try, learn, iterate, adapt'. Here, the adoption of active experiential learning with evidenced-based feedback loops promotes and stimulates adaptation. The fourth principle is 'scaling through diffusion' or encouraging agents across sectors/organisations to adopt emerging solutions and buy into the reform process. Broad engagement is gradually achieved by demonstrating results ('diffusion'), rather than by top-down mandates.

Central to the PDIA approach is the idea of building authorisation and expanding the 'authorising environment' among a broad group of stakeholders (Andrews et al., 2013; 2017b). Successful reforms need civil servants who are given permission to try new things and take time away from their day-to-day work. The reform might first be endorsed by an 'authorising agent' – usually someone who is part of senior management such as the Minister, Deputy/Assistant Minister, Financial Secretary or Budget Director. The authorising environment is then expected to grow over time, thus building momentum for the reform and increasing its legitimacy and acceptance (Andrews et al., 2013). The authorising environment is integral, but also challenging to achieve. Distributed authority, informal structures of authority, and programmes which sit across multiple domains of authority make maintaining an authorising environment challenging (Andrews et al., 2017b).

The PDIA approach is argued to be particularly appropriate when tackling complex or 'wicked hard' problems (Andrews et al., 2017b). 'Wicked hard' problems are transaction intensive, locally discretionary, and require new technology to address. They are distinct from complicated problems (such as setting the central bank's interest rate), which require high levels of expertise but not locally discretionary judgements from many agents. PDIA is thus not specific to PFM reforms, although our research cases have applied the PDIA approach to tackle PFM problems – a type of 'wicked hard' problem. Documented examples of PDIA in action include judicial reforms in Mozambique (Andrews, 2015a) and reforms on economic diversification in Sri Lanka (Andrews et al., 2017a).

Though PDIA promises to deliver change in challenging contexts, Allen (2017) takes a critical perspective and suggests five areas that were left unanswered by Andrews et al. (2017b). These include: (i) case studies presented where the approach was successful are not representative of many developing countries; (ii) the distinction between problem and solution is often unclear; (iii) there is ambiguity of some terms integral to the PDIA approach; (iv) significant time commitment is required from local staff; and (iv) PDIA may be a technical response to fundamentally political problems. These points, in some ways, question the ability of the PDIA approach to generate successful results in some contexts.

2.2. PDIA in the public financial management reform space

Since the turn of the millennium, various approaches to PFM reform have attempted to move beyond 'best practice' methods, which had traditionally been overly prescriptive with little local ownership. Pretorius and Pretorius (2008) distinguish three groups of approaches,

² CABRI is an intergovernmental organisation that provides a platform for peer-learning and exchange for African ministries of finance, budget and planning.

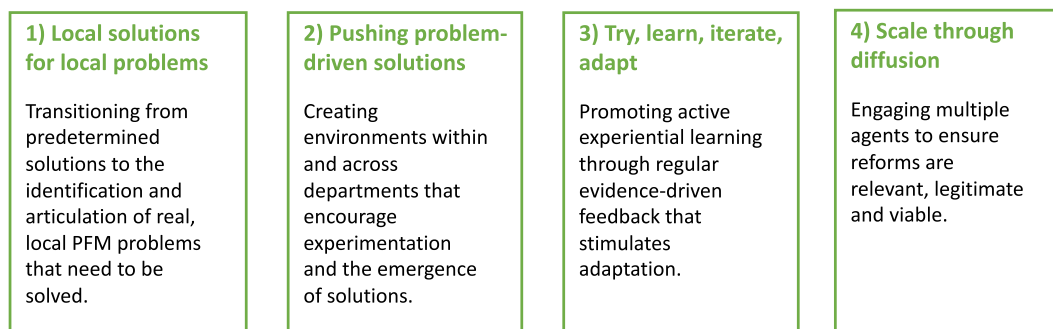


Fig. 1. Principles of PDIA. Source: Author illustration based on Andrews et al. (2013) and CABRI (2018, p.3).

acknowledging complementarity between them. These include: (i) political economy approaches which focus on the importance of the political context; (ii) the platform approach, which focuses on the sequencing of reforms; and (iii) the strengthened approach, which focuses on a country-led agenda with a coordinated programme of support and a shared information pool. These approaches were formalised in the early 2000s, and have shaped a significant number of PFM reform programmes in developing countries (Fritz et al., 2017).

Political economy approaches are not specific to PFM reform; and include the Drivers of Change (DoC) approach and the Expected Utility Stakeholder Model (EUSM). The DoC approach was developed by the then-UK Department for International Development (DFID) – now the Foreign, Commonwealth and Development Office (FCDO) – in the early 2000s, building on studies which examined the political economy of the budget process in Ghana, Malawi and Mozambique (Pretorius and Pretorius, 2008). The research showed that a gap existed between formal and informal processes which drive the budget; and political concerns played a central role in the informal realities around budgeting. This influenced the thinking that PFM reform would only succeed with sufficient capacity, a strong civil society, and sustained political will to drive reforms. Nunberg and Green (2004) arrived at a similar conclusion with the EUSM, arguing that changes in public sector institutions and governance systems in developing countries may be relatively easy to achieve technically, but very tough to implement politically. The literature has since advanced and now speaks of distinct aspects of political commitment including: (i) the nature and strength of a government's political mandate, both generally and for specific PFM reform; (ii) the strength of their electoral mandate; and (iii) the extent to which they have a clear idea of the reforms required and how to implement them (Fritz et al., 2017).

The platform approach builds on the World Bank's 'basics first' work in the 1990s (Schick, 1998). It introduced sequential packages of complementary measures ('platforms') and was designed to increase competence and encourage government leadership over time. According to this approach, very basic data and control systems (such as payroll and procurement) are needed before undertaking more complex reforms (Kristensen et al., 2019). The approach does not prescribe the specific sequencing of these more complex reforms, as this should be decided by the local government (Pretorius and Pretorius, 2008).

The 'strengthened approach' emerged from the Public Expenditure and Financial Accountability (PEFA) initiative. PEFA started in 2001 by seven development partners with the primary objective to foster consensus on the most appropriate approach to supporting PFM systems. The strengthened model has three key principles: (i) a country-led agenda, that is, a government-led reform programme which reflects country priorities and is integrated into local institutional structures; (ii) a coordinated programme of support from donors and international finance institutions; and (iii) a shared information pool on public financial management (Kristensen et al. 2019, p.xiii).

PDIA builds on this trend of localising reform and can be seen as a fourth and distinct approach. There is some alignment with existing

approaches, but its philosophy and practical approach is distinct. PDIA shares similarities with political economy approaches through its emphasis on establishing the authorising environment; however, with PDIA the aim is to garner acceptance from both technical and political stakeholders and generate acceptance at scale through diffusion. The PDIA approach is also compatible with the platform approach in that several measures may be sequentially trialled. Again, here, sequencing is not the means to the end, but rather the emphasis is on experimentation and adaptation based on the problem deconstruction. It shares the country-led aspect of the strengthened approach but pushes this further by emphasising the need for local solutions for local problems. Under the strengthened approach a reform can be 'country-led' in theory, but heavily influenced by donor priorities, with attempted solutions primarily informed by best practices from outside the country. It is PDIA's emphasis on locally identified problems resolved in an iterative manner by local stakeholders that establishes it as a unique approach.

It is also similar to Yuen Yuen Ang's work which emphasises bottom-up improvisation/innovation among local officials (alongside top-down directions from central government) as critical for reform and development (Ang, 2016). Though Ang's research draws on the Chinese experience where the type of bureaucracy is arguably different to the Weberian model assumed in many other developing countries (Ang, 2017); analyses of these two different models of government have still converged to a point of agreement – local iteration is crucial.

2.3. Mechanism vs context

The PFM literature divides the factors influencing reform success into two broad categories: the mechanism of reform and the context for reform. This dichotomy draws on the literature on 'realist synthesis' (Pawson, 2002; Pawson and Tilley, 1997). Simplified, mechanisms are elements which are within the control of the entity leading and managing the reform, while context are factors that are not.

The 'mechanism' of reform refers to the processes and methods by which PFM forms are designed and implemented. Each of the approaches described above (including PDIA) are different mechanisms of reform. The concept includes the full range of institutional, organisational, financial and personnel arrangements put in place to deliver reforms. Operationally, it covers: (i) the nature of the coordinating and implementing agencies within government; (ii) the diagnostic approach to problem analysis and the development of action plans; (iii) the sequencing and prioritisation of reforms; (iv) the degree of recourse to external technical advice (and if external technical assistance is used, the type and duration, which external agencies are involved, etc); (v) modes of delivering technical advice; and (vi) structures of funding. The evidence on which of the traditional mechanisms is best is inconclusive, largely owing to measurement issues and problems comparing reforms and cases (de Renzio et al., 2011; Pretorius and Pretorius, 2008).

The 'context' for PFM reform encompasses issues of motivation, capability and political engagement. Context factors include: (i) the existing capacity of the public sector; (ii) the political will for the reform;

(iii) the ability and commitment of individuals leading the reform; (iv) domestic attention to the reform and public pressure for results; (v) the political and electoral mandates of the government and their relationship to PFM reform objectives; and (vi) the knowledge and ability of political leaders to direct PFM reform (Robinson, 2007; Dasandi et al., 2019; de Renzio et al., 2011). These issues are largely determined by factors related to the underlying socio-economic and political context. Various studies have found evidence in favour of the importance of context factors (de Renzio et al., 2011; Fritz et al. 2017; Omollo, 2018). In the short to medium term, these contextual elements are outside the control of the entity leading and managing PFM reform.

There is debate in the literature on the relative importance of mechanism vs context but it is widely accepted that both context and mechanism must work together for successful reform. Dasandi et al. (2019) argue for ‘thinking and working politically’ where political analysis (or ‘thinking politically’) informs the implementation approach to building support (or ‘working politically’). Similarly, Fritz et al. (2017) and Levy (2014) argue that context is fundamental and will always be the binding limit on the scope of reforms, but approaches which combine good technical calibration and political economy considerations can be successful. The PDIA approach seeks to do this. Regarding context, it recognises firstly that wholesale importation of ‘best practices’ without adaptation does not provide sustainable solutions, and secondly, that a strong authorising environment is needed to ensure wider political and technical buy-in. It therefore seeks to define and diffuse context-specific solutions to local problems through a mechanism of local ownership, experimentation, iteration and adaptation.

3. Data and methods

3.1. The building PFM capabilities (BPFMC) programme and six case studies

The study utilised a mixed methods approach, drawing on both qualitative and quantitative data. Data collection followed a convergent parallel design and was collected from various sources simultaneously (Edmonds & Kennedy, 2017).

Data was collected from the six countries participating in the 2018 BPFMC programme run by the Collaborative Africa Budget Reform Initiative (CABRI). The BPFMC programme is (to date) the most significant attempt to systematically apply the PDIA approach to PFM problems. The programme was developed in collaboration with the Building State Capability programme at Harvard University’s Centre for International Development and draws heavily on the book *Building State Capability: Evidence, Analysis, Action* (Andrews et al., 2017b). The programme involves country teams addressing a PFM problem through action-oriented work, while simultaneously developing new capabilities in the areas of team working, deconstructing and analysing problems, and implementing solutions in an adaptive manner through learning-by-doing. It includes six stages from application to continuing engagement (Fig. 2), and entails capacity development through online engagement, framing and review/concluding workshops which bring all participating teams together, and an action-push period of learning-by-doing where CABRI provides coaching support. The CABRI coaches were tasked with guiding and supporting the teams through the exercise, but were not expected to directly guide the reform process.

The six countries in the 2018 cohort were Central African Republic (CAR), Côte d’Ivoire, Ghana, Lesotho, Liberia and Nigeria. All six countries are included in the present study, thus allowing rich data from all possible cases at the time.³ Each country-team consisted of six members, comprising mid- to senior-level technical government staff. For illustration, the Liberia team comprised a Director, two Assistant

Directors, a Senior Economist and Senior Planning Officer (all from the Ministry of Finance and Development Planning), and a Senior Compliance and Monitoring Officer (from the Public Procurement and Concessions Commission). The team of six were responsible for selecting the reform problem to address and driving the reform. In addition to this, an authorising agent endorsed the team and the chosen reform problem at the start of the programme. The authorising agent was usually part of senior management such as the Minister, Deputy/Assistant Minister, Financial Secretary or Budget Director and expected to help expand the authorising environment and support political buy-in. Again, taking Liberia as an example, the Deputy Minister served this role.

Drawing on the ideas from the literature on amenable reform contexts, all six countries can be categorised as having ‘difficult’ reform contexts. Based on the World Bank’s World Governance Indicators, all six countries have a negative score (on a scale from – 2.5 to + 2.5) on dimensions related to political stability, governance and effectiveness, regulatory quality, and control of corruption (Table 1). Overall, Ghana has the most favourable reform context (with positive scores for voice and accountability and rule of law), while CAR has the most difficult context in all dimensions, and particularly political stability. Apart from CAR and Liberia, which are low-income countries, the others are classified as lower-middle-income.

3.2. Data sources

Five main sources of data were utilised. The first included interviews and observations at the framing workshop (held in Pretoria in May 2018) and the review workshop (held in Dakar in December 2018). Both events were highly interactive, and involved teams participating in exercises and presentations, as well as plenary discussions. The events provided a good opportunity for interviewing participants, and for observing and assessing analytical capabilities and team dynamics at the start of the programme in May 2018, and then at the end of the main period of intervention in December 2018.

Second, field visits were made to CAR, Lesotho and Liberia in October 2018, and a follow-up field visit to Liberia in May 2019. During the research visits, interviews were conducted with the teams, CABRI coaches and other local stakeholders within government, the donor community and civil society organisations. These three countries were chosen (from six) in order to ensure geographical spread (West, Central and Southern Africa) and language (French and English). Moreover, visits were planned to coincide with the CABRI coaches being present in the country, so a degree of scheduling convenience also determined the case studies visited. Team dynamics/level of organisation and political context also affected the countries visited – factors that also matter for reform processes. Our findings may thus be unintentionally biased by these factors. For example, the Nigeria team was not able to organise a field visit in October 2018, and as a result a visit in May 2019 was not planned. It was also not politically stable in CAR, which led to the cancellation of the May 2019 trip. Interviews in Liberia and Lesotho were conducted in English, while French was used in CAR.

Third, submissions made by teams on the “Canvas” e-learning space were collected and analysed. As shown in Fig. 2, teams participated in an online course which included online video lectures, individual and group assignments, and reflection exercises. A random sample of the submissions made by individual participants and teams was analysed to evaluate skills development and commitment to completing tasks.

Fourth, reports prepared by CABRI coaches were collected and analysed. These reports detailed the coach’s assessment of the team’s progress, issues arising, and next steps agreed after an in-country visit by the coach.

And fifth, a quantitative survey was administered to the 36 participants in the week before the framing workshop in May and again seven months later immediately before the review workshop in December 2018. 30 participants responded to the survey in May, and 24 to the survey in December. Table 2 presents the response rate by country team

³ The BPFMC programme has since expanded to work in several other African countries: <https://www.cabri-sbo.org/en/bpfmc-programme>.

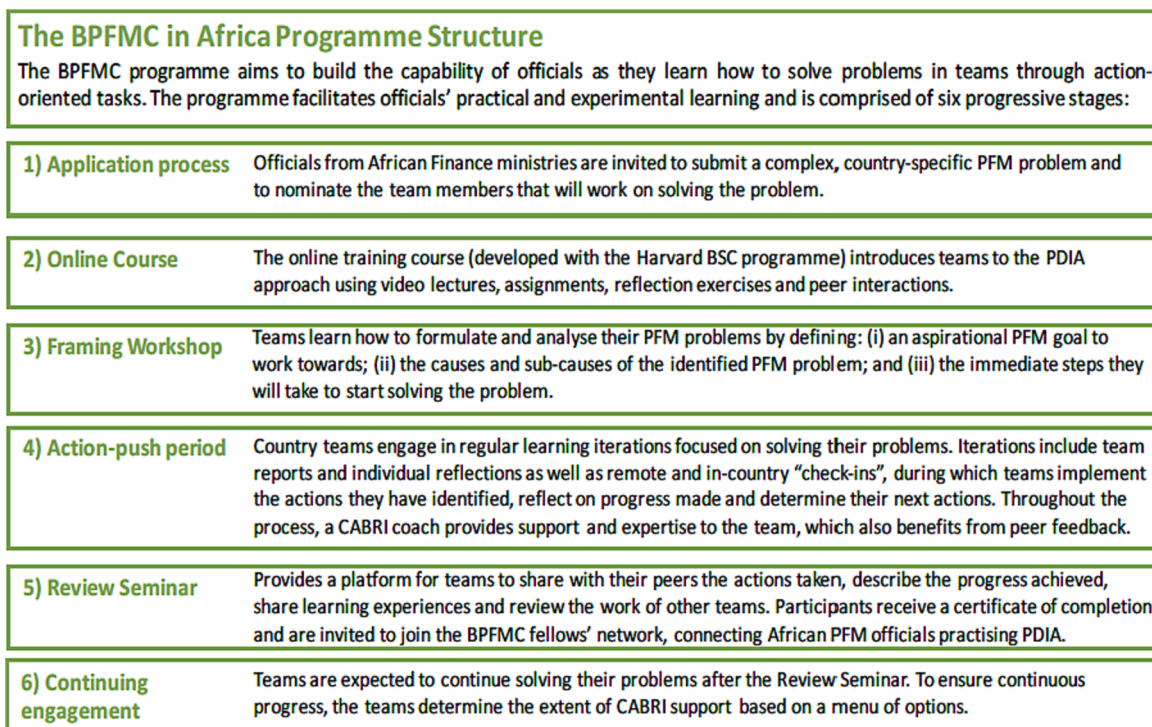


Fig. 2. Structure of the BPFMC in Africa Programme (as presented in the 2018 cohort brochure). Source: Author illustration based on CABRI (2018, p.5).

Table 1
 Reform context in selected countries.

	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
CAR	-1.21	-2.18	-1.71	-1.38	-1.71	-1.21
Côte d’Ivoire	-0.26	-0.9	-0.62	-0.24	-0.59	-0.5
Ghana	0.55	-0.03	-0.3	-0.13	0.07	-0.12
Lesotho	0	-0.18	-0.89	-0.54	-0.35	-0.11
Liberia	-0.03	-0.21	-1.31	-0.98	-0.98	-0.85
Nigeria	-0.43	-2.1	-1.1	-0.86	-0.9	-1.06

Scores for each indicator range from - 2.5 to 2.5. The political stability indicator includes political stability and absence of violence/terrorism. Data source: World Governance Indicators (World Bank, 2022).

Table 2
 Response rate by country teams.

Country	No. of Respondents (May 2018)	No. of Respondents (December 2018)
CAR	6	6
Côte d’Ivoire,	6	6
Ghana	1	1
Lesotho	6	3
Liberia	6	6
Nigeria	5	2
	30	24

at these two points. The survey sought to capture self-reported capabilities at both time periods. A comparison of participants’ responses across the two surveys provides an indication of participants’ perceptions of their development of capabilities and skills related to communication, problem-solving, team-working and reform implementation, and also captures participants’ perceptions of the relative contribution of PDIA to this process. Findings from the perception survey were triangulated with those from the qualitative sources above to improve the robustness of the analysis.

Table 3 provides a snapshot of characteristics of the participants at the baseline in May 2018. The teams were well-trained and had

Table 3
 Characteristics of the CABRI BPFMC 2018 cohort.

Characteristic	Share
Francophone country	0.40
Male	0.67
Over 10 years’ experience	0.5
Formal training in public administration	0.67
Significant previous involvement in PFM reform	0.44
Undertakes analysis and problem solving in current role	0.57
Works in a team as part of daily work	0.50
Estimate of share of reform led by government (average)	0.10
Estimate of highly successful reforms (average)	0.00

Source: Author collected survey data.

considerable experience in public administration. 67 percent had formal training in public administration and 57 percent was currently undertaking problem analysis/addressing reform problems. About half reported regularly working in teams and had some experience in complex problem solving and analytical activities, while the other half reported that they engaged in these activities but only occasionally. Important to the study at hand, 44 percent of participants had played a significant role in previous PFM reforms. Across the sample, participants felt that reforms had limited success (no participant judged reforms they had participated in or witnessed as highly successful), and noted that

reforms were predominantly externally driven or implemented, as only 10 percent were estimated to be government led. As a locally led alternative to implementing reform, PDIA thus offered an alternative to the traditional externally led approaches in these countries.

3.3. Analytical methods

We apply an integrative approach to data analysis drawing on common mixed methods techniques such as triangulation, to corroborate findings and seek elaboration/clarification of results (Johnson et al., 2019). The analysis does not quantitatively measure the causal impact of PDIA, but instead uses quantitative and qualitative data to highlight instances of reform success, and the potential for impact based on various factors. In particular, we use the data to identify key pillars, drawing on Johnson et al.'s (2019) analytical techniques. These pillars are centred around the three research question of the paper: (i) Which PFM problems appear to be effectively tackled by PDIA?; (ii) In which contexts does PDIA work better?; and (iii) What immediate changes can be attributed to participation in the PDIA programme, and what long term effects might be expected from these changes?

Causal impact in social sciences, and particularly government reform, is inherently difficult to measure given the absence of a pure counterfactual, and difficulties mimicking a counterfactual given the fluidity of the reform space (Glewwe & Todd, 2022). Randomly assigning countries to apply PDIA is near impossible. The very decision to participate in the programme introduces selection bias, but is necessary for the first stages of authorisation. Moreover, measuring impact/effectiveness of PFM reforms is particularly difficult. First, assessment of reform efforts in PFM has been hampered by the lack of performance-based indicators to measure progress (Pretorius & Pretorius, 2008). Whilst tools exist that approximate this function – notably the PEFA methodology, none provides a universally accepted approach which permits a consistent calibration of progress from a 'baseline' to a 'post-reform' situation. Second, existing tools (like the PEFA) are often unable to disentangle form from function, often merging de jure and de facto dimensions within the same indicator (Kristensen et al., 2019). This makes it difficult to distinguish between an improvement in paper-

based reforms with no improvement in functional results or isomorphic mimicry as described by Andrews et al. (2017b) and Pritchett et al. (2013), versus improvements driven by real on-the-ground change. Third, the real effects of reform – particularly those related to PFM processes and budgetary institutions – are often realised decades into the future (Allen, 2009), while most studies measure change over one-to-five-year periods. And fourth, measures of reform changes tend to be subjective, and scores sensitive to the reviewers' experience, knowledge of the country and critical nature.

The difficulty in measuring outcomes of PFM reform means that there is little conclusive evidence (as discussed in the literature review) on relative advantages or disadvantages of the different reform mechanisms. The present study notes these difficulties and does not attempt to quantify the impact of participating in the BPFMC programme on the reform landscape in each country; nor do we attempt to measure the success of the PDIA approach against other more traditional approaches. Instead, we lay out notable gains achieved over the programme's eight-month period, the contexts and conditions in which PDIA does best, and the likely effects PDIA can have on future reform efforts.

4. Findings and discussions

The PFM reforms tackled by the teams either centred on budget allocation decisions (Côte d'Ivoire, Liberia and Nigeria) or budget execution decisions/monitoring of spending (CAR, Ghana and Lesotho) – Table 4. The result is promising for PDIA as a reform mechanism. Despite the short eight-month timeframe, half the teams made progress towards resolving their identified problem. These countries included CAR, Lesotho and Liberia; and in CAR (in particular) there was significant measurable progress by December 2018. In Côte d'Ivoire, Ghana and Nigeria, there was no discernible progress towards problem resolution within 2018, and documentary evidence did not suggest any further progress in the first quarter of 2019.

Andrews et al. (2017b) and Pritchett et al. (2013) caution against 'isomorphic mimicry' or 'reform façade', where there is an appearance-only version of reform. Moreover, short/medium term success is often not sustained in the long-run – a phenomenon Andrews (2021) refers to

Table 4
Selected reforms and reported progress.

Country	Reform targeted as part of the 2018 CABRI BPFMC	Progress toward reform (December 2018)
CAR	Under-execution of domestic resource allocations for capital investment	New protocol on communication between the Procurement Directorate and line ministries was established Guidelines on the scope and management of feasibility studies was issued, with training also provided Designated budget line for the funding of feasibility studies was created Execution rates for domestically financed investment increased significantly e.g. over the 2017–2019 period, from one to 56 percent for health and 17 to 40 percent for education.
Côte d'Ivoire	Budget allocations do not generate the targeted results	During 2019 budget process, some innovations were introduced which might help to mitigate the problem in future, including: (i) a review of project implementation reports for ongoing projects to ascertain the reasons for poor progress, (ii) training on public investment planning and (iii) sensitisation on the problem of excessive budgetary virements and reallocations.
Ghana	Overspending by Ministries Departments and Agencies (MDAs) leading to budget over-runs which impede service delivery	Training provided to line ministries on proper costing of investment projects Developed a proposal for undertaking an inventory of arrears, so that they could be budgeted for.
Lesotho	The Ministry of Finance does not know how much cash line ministries need nor when it is needed	Training was provided to MDAs on formulating cash-flow plans, targeting seven specific pilot ministries, and proposals developed to incentivise their early submission The Liquidity Management Committee was revitalised with a supporting Technical Committee and new terms of reference A cash monitoring unit was established within the Ministry of Finance and a new protocol established for month-end closure of accounts A new system of monthly accounts reconciliation was introduced; an updated inventory of bank accounts was prepared, and a significant number closed.
Liberia	Limited allocation of funds for public sector investment projects (PSIP) and under-utilisation of allocated funds	Task force set up to work toward better managing/reducing the wage bill – also linked to IMF-driven reforms Clear policy stance that the allocation to the PSIP would increase.
Nigeria	Inadequate funding to the health sector, resulting in very poor primary health care outcomes	The government had very little/no fiscal space to increase the budget allocation to health. The country was recovering from a recession, which led to an increase in government debt. There were therefore budget cuts across most sectors in 2019 compared to 2018. Health spending increased through donor support (through GAVI).

as ‘successful failure’. The risk of ‘isomorphic mimicry’ is low in the present case as most of the gains in the case studies were small ‘function’ changes (e.g. establishing a process, training and sensitisation on a new technique) rather than changes to ‘form’ (e.g. enacting a new legislation/regulation). The risk of becoming a ‘successful failure’ is certainly present for the reform changes made in CAR, Lesotho and Liberia. There is also the risk that progress slows in all countries, especially after structured support from CABRI comes to an end and the teams are no longer formally brought together under the programme. A World Bank report found that reforms tend to remain partially completed in many cases for extended periods of time (Fritz et al., 2017).

Albeit, the short-time frame within which progress was made (eight months) is unlike that of more traditional approaches where gains manifest several years into the intervention (Allen, 2009). It suggests that PDIA has the potential to address PFM reform effectively, or at the very least, set in motion early changes that can be built upon to ensure longer-term reform success. Understanding the types of problems and contexts in which PDIA works well, along with the potential gains for reform is thus useful – both as an empirical assessment of the approach for the scholarly literature and for policymakers wishing to apply PDIA locally.

4.1. Which PFM problems appear to be effectively tackled by PDIA?

The six countries tackled six distinct problems. Reforms tackled in Côte d’Ivoire, Ghana, Lesotho, Liberia and Nigeria were highly complex and required the coordination of multi-stakeholders across different arms of government – see Table 4. They are examples of ‘wicked hard’ problems, for which PDIA is argued to be especially suited (Andrews et al., 2017b). The problem selected in CAR (under-execution of domestic resource allocations for capital investment) was marginally less complex. Sector ministries have an incentive to utilise their capital budget, although there can be competing interests between the Ministry of Finance and sector ministries on the timing of disbursements. On the other hand, given inherent context-related difficulties in CAR (Table 1), the reform initiative could still be classified as ‘wicked hard’. All problems identified are highly relevant to service delivery in these countries, and by extension wider development goals. The reform problems were identified by local technical staff and authorised by a senior official within the Ministry of Finance.

There were differences in aspects of the reform problems that rendered some more/less amenable to success using the PDIA approach. The Ghanaian team sought to address overspending against the approved budget, but found the problem had political roots. This made any short-term progress impossible. The team sought to introduce tighter controls on unbudgeted spending but found that many of these ‘over-spends’ were sanctioned at senior levels of government. They further discovered that the notion of ‘naming and shaming’ the overspending ministries agencies and departments – which was proposed by the team – would be politically unacceptable. In Côte d’Ivoire, the team selected a highly complex problem around budget execution and results linked to public spending. The team spent most of the BPFMC programme on problem deconstruction; and learnt that the cause related to both budget formulation challenges, and execution shortcomings linked to lack of discipline and control measures. Small gains were made for the former using technical approaches, but little could be done to tackle ‘discipline’ – a fundamentally political problem. Similarly, the Nigerian team wished to see the budget better used to improve health outcomes – an allocation decision linked to political priorities and donor support. In the closing presentation in December 2018, the Nigerian team remarked that: “Political capital is very important in achieving key objectives in the programme”.

As such, PDIA may be a necessary tool, but not a sufficient one if political will is absent. Both political economy approaches and the ‘context’ school of thought emphasise the importance of political will. In the PDIA approach, this issue is addressed through careful management

of the authorising environment; namely, who the authorising agent is, their level of influence and how well the team can negotiate the authorising space to broaden support. Indeed, there is interplay between the identified reform problem and the authorising environment as the authorising agent endorsed the team and their chosen problem at the start of the BPFMC programme. The Building States Capabilities materials provide advice and guidelines on how to expand the authorising environment, but this remained a challenge in some of the case study countries. Based on the 2018 BPFMC experience, the PDIA approach may struggle to resolve some types of ‘wicked hard’ problems (at least in the short term) – particularly those types of PFM problems that are invariably political, and not amenable to primarily technical solutions. Drawing on Andrews et al.’s (2017b, p.107–110) typology of tasks, more ‘technical’ problems as we describe here, were associated with entry points linked to policy implementation (e.g. establishing protocols, developing tools/templates), rather than attempts to tackle wider policy (e.g. allocation to the health sector). This finding largely supports Allen’s (2017) critique of PDIA that technical solutions may be limited when addressing fundamentally political problems. This is not to say, that PDIA is completely incapable of tackling more political problems. As described above, the Liberia team sought to reform insufficient allocations to the capital budget and made some progress in the short-term. Here, other contextual factors were helpful in the reform process – as discussed below.

4.2. In which contexts does PDIA work better?

The literature establishes that context – with respect to motivation, capability and political engagement, for example – matter for reform success. The evidence from the 2018 BPFMC cohort further supports this school of thought, indicating a strong authorising environment (linked to senior level buy-in), motivation/engagement of technical staff driving the reform, and the macroeconomic climate are important contextual factors.

First, the quality of the authorising environment proved to be a major determinant of the reform context. In the PDIA framework, the authorising environment captures not only the status and level of engagement of the appointed authoriser but also, their degree of influence over other relevant stakeholders, and thus their ability to assist the PDIA team in winning acceptance. Again here, the political dimension becomes important. The CAR team, for example, had very high levels of support from two senior authorising agents – the Director of Budget and the Inspecteur Général des Finances; both of whom engaged actively in the PDIA process and were able to win the support of other senior decision makers. The strength of the authorising environment implied that acceptance could be gained, and progress made despite CAR having the most difficult reform context based on World Governance Indicators. In contrast, the other countries struggled with the quality of the authorising environment, due to their authorising agents, being either insufficiently engaged (Côte d’Ivoire, Ghana, Lesotho) or lacking in sufficient influence (Liberia, Nigeria). For countries that did not have significant engagement, one may argue that those teams identified the ‘wrong’ reform problem given the political economy, as there was little prioritisation by senior level staff. The latter, significant influence, highlights that the authoriser’s formal title may not always imply a high capability to help garner acceptance. In Nigeria, the authorising agent was the Director-General of Budget in the Federal Ministry of Finance of Nigeria. Despite a good level of engagement, he was unable to obtain sufficient high-level support to push changes forward. This prevented the team from meeting with heads of relevant agencies, getting stakeholder buy-in and acquiring data needed to better address the reform problem. In Liberia, gains were made overall, but the first half of the programme saw little progress. During interviews in October 2018, one team member lamented: “Everyone needs to buy into it”. The Liberian team was authorised by the then-Deputy Minister in the Ministry of Finance. Although the authorising agent had an influential title, her de facto

influence was small. There was a new administration at the start of the 2018 programme. The authorising agent belonged to the previous regime, and thus enjoyed minimal political clout in the new administration.

Second, engagement of local technical staff matters. The team members selected were experienced, had relevant technical training, and a large share had been intimately involved in previous PFM reforms (Table 3). The teams looked similar in terms of relevant skills and experience, and cross-departmental coverage; and could broadly be described as having similar capabilities in this regard. Differences emerged in relation to engagement, as measured by the time committed to reform tasks. Teams from Côte d'Ivoire, Ghana and Nigeria were either unable to meet consistently on a weekly basis or often lacked quorum when they met. The issue of motivation of public sector workers is complex and often linked to compensation, training and development, employee involvement and development, and recruitment practices (Facer, 2021). In our case studies, the issue was more basic – time. The participants were all interested in seeing improvements in their countries, and voluntarily agreed to partake in the programme. However, interviews with team members indicated that participants had extensive competing commitments and/or their superiors regularly directed them towards other assignments. A strong authorising environment should see a freeing of time for tackling the reform (Andrews et al., 2017b), but the challenges with the authorising environment described above also affected time on task. Beyond this, the timing of the BPFMC programme (an eight-month cycle) worked less well with the fiscal year in some countries. In Nigeria, for example, the team reported meeting regularly at the start of the programme, but this became increasingly difficult from September 2018 with the preparation of the 2019 budget and their commitments to the budget formulation process. This coincided with the “action-push” period (Fig. 2). Andrews (2015a) also noted difficulties with civil servants balancing the application of PDIA to judicial reform in Mozambique and their other commitments. This issue is not unique to PDIA. PFM Reforms are often additional to day-to-day tasks, and in many cases, dedicated donor-funded PFM Reform Units are established to coordinate reforms (Lawson, 2015). This limitation poses a particular challenge to the PDIA approach which requires local staff to drive reform through experimentation and adaptation – both of which take time. Taken together, the evidence suggests that dedicating a high level of time is a necessary condition for the success of PDIA when applied to PFM reforms.

Third, the macroeconomic climate and other actors in the reform space create challenges or synergies depending on the timing of the reform. In Nigeria, the government simply did not have fiscal space to increase budgetary allocations to health, given other priorities. The country was recovering from a recession, which led to an increase in government debt followed by spending cuts. Perhaps the team could have been more successful in a less contractionary phase of the macroeconomy. In contrast, in Liberia, a worsening macroeconomic situation coupled with the suspension of the IMF programme forced the government to prioritise cutting recurrent spending and delivering on public sector investment projects, which directly aligned with the team’s reform goals. Again, set against a different macroeconomic backdrop, the outcome for the Liberian team may have been different.

4.3. What immediate changes can be attributed to participation in the PDIA programme, and what long term effects might be expected from these changes?

From the data, there is evidence of skills development related to problem-solving, team-working, adaptive learning, and reform implementation skills. Based on observations by the research team, there was a marked difference in the content/delivery of participant’s workshop presentations and interactions with the research team in May and December 2018. The teams were better able to diagnose problems and identify different entry points, share tasks and work productively with

each other, design feedback loops for learning and new action, and engage in strategic planning of reform actions (including stakeholder management). Observations by the research team were corroborated by self-reported skills development (Table 5). Based on self-reports, skills development was highest for understanding public administration and collaborative working.

Skills development was attributed to participation in the CABRI BPFMC programme by the vast majority of participants – ranging from 75 to 85 percent depending on the skill in question. Interviews during field visits to participating countries also provided evidence that the Building States Capability material had been internalised and PDIA jargon such as ‘problem deconstruction’, ‘fish-bone diagram’, ‘positive deviance’ and ‘adaptation’ were frequently used in conversations with team members. All teams were able to give concrete example of skills development and how these skills were transferable to other areas of their jobs or their lives in general. According to a participant from Liberia:

“I learnt to be investigative and deconstructing. It’s like an FBI investigation. It allows you to get to the root of the problem”.

Another had already started applying these skills to another reform he was engaged in:

“The whole concept on stakeholder approach, engaging more with people, gauging the problem. I used stakeholder engagement in the wage bill work. We engaged stakeholders for two weeks trying to get buy-in. Because of PDIA I better appreciate having different views and how people can have different issues.”

And another saw the exercise as important for developing leadership skills, cross-governmental work and personally benefitted from the pedagogical exercise.

“The main takeaway for me is the leadership component – to take risks on behalf of the team. You take the lead and try to mobilise support. I have tried to integrate this into my day to day. Also, working in a team is not easy. You need to be able to work alongside different institutions. It will help me to work in other cross-governmental teams. I also use the fishbone exercise in my teaching. I teach operations management and elimination of waste.”

In addition to skills development, participants also felt empowered. The ownership of the problem and responsibility given to the local teams to find a solution instilled confidence, especially against a backdrop of heavily donor influenced reform programmes. One participant encapsulated this sentiment in his remark:

“We normally carry the mentality that we need outside help to get things done. Now we see we can get things done ourselves”.

Indeed, some of the teams did ‘get things done’ and made progress as discussed above. But importantly, the observed and self-reported development of transferable skills and local empowerment to solve local problems is a significant gain from the PDIA approach. Given that some participants (in Liberia and Lesotho in particular) had already

Table 5
Self-reported skills development (in percentage).

Skills & Knowledge related to PFM Reform	Significant/very significant improvement	Attribution of improvement to CABRI BPFMC
Understanding of Public Administration	88	75
Capacity to address PFM problems	82	79
Collaborative working	91	79
Analysis and problem-solving techniques	71	85
Communication/presentation skills	71	75

Number of observations = 24.
Source: Author collected survey data.

meaningfully applied the PDIA principles to other government reforms tells a positive story for potential sustainability. In essence, PDIA in the case studies may have produced small gains in solving the six identified problems over the eight-month period, but it has helped to develop better skilled and more confident civil servants, who are now more capable of tackling reforms.

5. Conclusions

The PDIA approach provides a welcome addition to development practice with its emphasis on locally driven reforms. It is relatively new in the reform space, and as such, its empirical assessment is in its infancy. This paper has contributed to this growing body of evidence by assessing the PDIA approach as applied to PFM reforms in six African countries.

The findings from this study tell an overall positive story. PDIA, as a mechanism for reform, delivers results in the short-term, particularly in cases where there is an influential authorising agent and dedicated team addressing a well-defined problem. There was notable progress toward reform in three of the six case studies. This is noteworthy given the short timeframe of the BPFMC programme, the complexity of the PFM reform problems tackled, and the difficult reform contexts present in each country. The approach also does exceptionally well to develop staff capabilities, transferable skills, and local empowerment to solve local problems. This suggests a likely positive effect on future reforms.

Progress was less forthcoming for reforms that required significant political buy-in from senior levels and in contexts where expanding the authorising environment proved to be difficult. The results here on political buy-in and authorisation are different to previous applications of PDIA with judicial reform in Mozambique (Andrews, 2015a), and economic diversification in Sri Lanka (Andrews et al., 2017a). We hypothesise that the difference stems from three reasons. First, PFM reforms are a unique type of government reform. They are almost invariably political as they are closely tied to spending decisions which operationalise political priorities. They also span across all arms of government as the PFM system sets government-wide rules for resource mobilisation and allocation (Lawson, 2015). These types of reforms may therefore require higher levels of political buy-in and acceptance than other reforms that are not directly linked to the budget and not as far-reaching across all arms of government. Second, more time may have helped to expand the authorising environment. The BPFMC programme was a mere eight months and happened alongside the usual day-to-day responsibilities of team members – which proved to be challenging for some teams. An extended programme (over at least two fiscal years, say) may have allowed teams more time to sequence reforms and navigate political economy factors.⁴ As the PDIA approach argues, locally owned and advanced solutions should address challenges with political buy-in over time. Having sufficient time is thus critical. And third, the quantity of local staff involved and and/or a larger reach of the programme are likely to be important factors. In the Sri Lankan application (Andrews et al., 2017a, p.3), there were five teams in total, with four working on specific problems related to economic diversification and a fifth team working on a project which combined the problems of the other four teams. The spread of teams increases interactions with stakeholders and improves the propensity for expanding the authorising environment. By contrast, under the BPFMC there was one six-person team per country attempting to work across several ministries, departments and agencies.

The study tells us little about how effective PDIA might be in tackling system-wide PFM reforms. None of the problems tackled by the six

countries involved comprehensive system-wide PFM reforms, but only a targeted PFM problem. This is understandable, given both the timescale and the resources (teams of six people, working part-time on reform issues). This leaves open an area for further research. A second area for further enquiry is to better understand how PDIA might work alongside or complement other government/donor driven reforms. In the Liberia case, IMF involvement reinforced the team's objectives and stimulated a sense of urgency within government. The Lesotho team addressed issues related to cash management systems. For many developing countries, creating tools to better forecast and monitor cash transactions is one of the first stages in improving cash management, with longer-term ambitions of establishing a Treasury Single Account (TSA) which consolidates all government cash balances (Pattanayak and Fainboim, 2010). The PDIA approach would be able to identify the establishment of a TSA as a possible entry point to improving cash management and budget execution, but more 'traditional' technical assistance would likely be needed in many developing countries to introduce the required IT infrastructure and legal framework to operationalise a fully functioning TSA system.

The findings and conclusions drawn are based on data up to a year after the BPFMC programme was launched. Evaluations that cover a longer time frame may produce different findings. Still, we can conclude that the PDIA approach is a useful component of the PFM reform toolkit. As its use widens, and different countries experiment with PDIA, we expect the approach will evolve and strengthen as new evidence emerges – thus iterating adaptively as PDIA would recommend.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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⁴ In a more comprehensive evaluation of the CABRI BPFMC programme, we offer recommendations on operational aspects for improving programme implementation: <https://www.cabri-sbo.org/en/publications/interim-buildi ng-pfm-capabilities-programme-applying-pdi-a-techniques-to-pfm-problems-in-african-countries>.

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