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TARA DAVDA

**Working Politically and
Adaptively in Practice:
The Case Study of
'YuTru'**

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Foreword

The use of informal finance systems is prevalent in the Pacific region and Papua New Guinea in particular, where approximately 85% of the population live in rural areas and do not have access to formal banking institutions. In recent years, the Government of Papua New Guinea has recognised the importance of financial inclusion to economic (and human) development and have consequently strengthened reform efforts to expand citizens' access to financial products.

The National Financial Inclusion Policy and National Financial Inclusion Strategy (2016-2020) include key approaches to boost digital financial services, financial literacy, and financial consumer protection. However, implementation of these strategies has been slow, and the COVID-19 pandemic has served only to exacerbate the already existing inequalities and vulnerabilities that are prevalent in Papua New Guinean society.

Now more than ever, there is a need for a solution that will facilitate engagement of 'unbanked' populations within the formal banking sector, paving the way for entrepreneurship, enhanced livelihoods, and economic growth. Enhancing trust in the Papua New Guinean banking system will consequently support improved regional and international banking partnerships, leading to reductions in the cost of doing business and opening the country to greater foreign direct investment.

The "YuTru" project, supported through the PNG-Australia Partnership, has identified, and responded to, the opportunity to enhance financial inclusion by engaging key stakeholders and socialising the idea of a common set of binding rules and standards for institutions to digitally identify natural, legal, and digital persons. The success of YuTru to date is founded upon the flexible and adaptive management approach adopted by the implementation team and analysed in this case study.

Realising the full potential of this investment now relies on the continued commitment of key stakeholders in Papua New Guinea.

Sarah Owen

Senior Program Manager

Economic Governance and Inclusive Growth

Abt Associates



Abbreviations

AHC	Australian High Commission
AML/CTF	Anti-Money Laundering and Counter-Terrorism Financing
BPNG	Bank of Papua New Guinea
CAG	Corporate Affairs Group
CBR	Correspondent Banking Relationship
CDB	Credit and Data Bureau
DFAT	Department of Foreign Affairs and Trade
EGIG	Economic Governance and Inclusive Growth
FAR	Flexibility, Adaptation and Responsiveness
FSSG	Financial System Stability Group
KYC	Know Your Customer
LFI	Licensed Financial Institution
PII	Personally Identifiable Information
PNG	Papua New Guinea
TFO	Trust Framework Operator



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1. Introduction

Examples of thinking and working politically, and adaptive management, are rare in the Pacific and rarer still in Papua New Guinea (PNG). One example is the Australian Government funded 'YuTru' digital trust scheme, a private sector-led initiative, created to address a stubborn constraint to financial inclusion¹: that is, "the absence of a valid and easy to administer means of establishing customer identity as a basis for formal business transactions".² Its purpose was to establish identities for use in the formal financial services sector, linking biometric data to personal identity attributes (i.e., name, address, date of birth, and tax file or social security number).

Since the initiative commenced in July 2018, YuTru has introduced the idea of a scheme approach to set out common rules for: (i) how digital identification and verification of people is performed by institutions, (ii) how personally identifiable information (PII) attributed to those identities are stored and accessed, and (iii) the minimum rights and protections individuals shall be given, including the responsibilities institutions will carry to uphold those rights and protections.

YuTru promises not only to make financial services accessible to the millions of Papua New Guineans who are 'unbanked' (i.e., who lack access to a bank account) but to enable users to switch with ease, because once they are identified at one institution, they can be verified elsewhere without repeating the registration and onboarding process.

This in turn will also enhance institutional compliance with anti-money laundering regulations in the financial sector (e.g., Know Your Customer or KYC guidelines) and has the potential to revolutionise the way PNG delivers public services. "Put simply, YuTru is in the process of establishing an electronic 'Know Your Customer' (eKYC) scheme"³.

It is a substantial achievement, not least because implementation has been challenging. Those driving the project have been required to navigate political, technical, and institutional obstacles to achieve change which has exceeded previous donor-funded efforts.

To arrive at this point, YuTru has required effective collective action among five stakeholder groups: the private sector; stakeholders related to the implementing partner (Abt Associates); the Australian Government Department of Foreign Affairs and Trade (DFAT); the Government of PNG, and a fifth group which emerged during

Box 1

"YuTru will enable access to the formal financial system for individuals who were previously excluded. It will use modern standards and technologies to digitally identify people in a way that is trustworthy, quick to adopt, convenient, and highly secure." Source: <https://yutru.org/>

¹ i.e., Removing barriers to access through the provision of banking services to low-income or unemployed individuals (microfinance).

² Neocapita Security, 2018, Papua New Guinea Digital Trust Framework Phase I End of Stage 1 Report, 12 November 2018, p.6

³ Neocapita Security, 2018, Papua New Guinea Digital Trust Framework Phase I End of Stage 1 Report, 12 November 2018, p.6



implementation; individuals and organisations that wished to be informed of progress and who were actively lobbying for the platform.

Three years into implementation there is an opportunity to examine the scheme and its ways of working in detail.

Several features stand out:

- The entrepreneurial team composition;
- The pragmatic approach to problem solving;
- The team's commitment to politically informed and adaptive ways of working;
- The performance-based contract;
- The use of cutting-edge technology to solve a previously intractable problem; and
- An organisational and regulatory landscape appropriate for change.

The purpose of this paper is to examine how effectively an adaptive and politically informed approach has worked in practice. It is hoped that this experience will inform better development practice and outcomes for Australian development investments. The YuTru project operates in a politically sensitive space, fraught with diverse and competing interests: the team managed these issues by drawing on the elements listed above. This paper will use the YuTru experience to interrogate how the application of adaptive and politically informed approaches contributed to a successful reform outcome in PNG.

This paper will:

- Provide an example of how an adaptive and politically informed approach to development has worked in practice in the Pacific;
- Contribute to the global discourse on applications of such an approach; and
- Demonstrate the value of supporting such programs and approaches in PNG and the wider Pacific.



2. Framing

Development interventions are always underpinned by ideas and theories, whether knowingly or not. With hindsight, YuTru was animated by two sets of ideas. First is the recent coming to prominence of 'adaptive management' and 'adaptive programming'.

Adaptive and politically informed approaches are characterised by an emphasis on contextual knowledge and 'real time' adaptations to the context. They favour the frequent testing of assumptions through implementation, real time reflection and adjustments, and pragmatism, in particular, working towards outcomes which are 'good enough' rather than 'best practice'. They emphasise flexibility and stand in contrast to planned - and often inflexible - approaches that have long represented the development industry.⁴ They celebrate responsiveness, agility, and the ability of program teams to change course by making adjustments to the design, implementation, or outcomes of the program, in response to a course of action unknown at the outset, and the unfolding of events (political, cultural, economic, operational, or otherwise) as implementation proceeds. YuTru was planned and designed to be 'adaptive'.

At the commencement of YuTru, terms such as 'flexibility', 'adaptation', and 'responsiveness' were not defined in the literature. YuTru just 'adapted' as necessary. In early 2021, Teskey and Tyrrel defined these terms precisely (see figure 1) and introduced what has become known as the FAR framework. They argued that such terms are – to the detriment of aid planning and programming – used “indiscriminately and interchangeably”,⁵ and that there is a “lack of clarity on the meanings of flexibility, adaptation, and responsiveness”. They further argue that there is a lack of guidance on how to operationalise the above approaches and that each has a specific meaning, occurs in a different way and at different speeds.⁶

4 The latter may work well for certain kinds of development challenges where the problem and the solution are fully understood from the outset, but the former is more appropriate where the problem is only partially understood and the path to a viable solution has to be uncovered.

5 Teskey, G. and Tyrrell, L., 2021, Implementing adaptive management: a front-line effort. Is there an emerging practice? April, Governance and Development Practice, Abt Associates Working Paper Series

6 Teskey, G. and Tyrrell, L., 2021, Implementing adaptive management: a front-line effort. Is there an emerging practice? April, Governance and Development Practice, Abt Associates Working Paper Series



Figure 1. Flexibility, Adaptation and Responsiveness (FAR)

Flexibility – Activity level	Adaptation – Activity and Output levels	Responsiveness – Outcome and Goal / Impact
<p>To what extent does the ability and authority exist (for donor and managing contractor / implementor alike), within the financial year; to</p> <ul style="list-style-type: none"> ➤ to Increase or decrease spending and / or the budget, on planned activities? ➤ to increase or decrease the pace of implementation on planned activities? 	<p>To what extent does the ability and authority exist (for donor and managing contractor / implementor alike), within the financial year:</p> <ul style="list-style-type: none"> ➤ amend planned Activities in any way? ➤ add new Activities? ➤ drop existing Activities? ➤ amend agreed Outputs? ➤ add new Outputs? ➤ drop existing Outputs? ➤ amend milestones? ➤ add new milestones? ➤ amend the Theory of Action and the Theory of Change? 	<p>To what extent does the ability and authority exist (for donor and managing contractor / implementor alike), within the program period:</p> <ul style="list-style-type: none"> ➤ to amend Outcome and Goal statements in response to policy changes of the donor? ➤ to amend Outcome and Goal statements in response to policy changes of the host government? ➤ to amend Outcome and Goal statements in response to sudden and major national or international political, economic or social events?

Source: Teskey, G. and Tyrrell, L., 2021.

Looking back at the short history of YuTru, it is now clear that the whole project has been continually ‘adapting’ to changing circumstances. The goal has remained constant while pathways of change have been continually assessed and revised. The case study tells a reform story of overcoming resistance through adaptation.

The second ‘founding theorisation’ is that ideas are powerful – they create sets of formal and informal institutions (the rules of the game) which in turn create powerful incentives which influence – and sometimes determine individual and collective human behaviour.

This simple ‘theorisation’ (shown in the schematic on the right) was captured by Wayne Leighton and Edward Lopez and argues that small ideas can lead to big outcomes through the institutions and incentives that they create. This was certainly the case with YuTru.

Figure 2. Ideas, institutions, incentives, and outcomes.



Source: Wayne Leighton and Edward Lopez
‘Madmen, Intellectuals, and Academic Scribblers’,
Stanford 2013

As a new institution (which offered a new way of identifying people), in order to achieve favourable outcomes, it was necessary to find various ways to incentivise individuals and organisations to adopt the concepts underpinning YuTru. For example, one way this has been achieved has been to price services offered by YuTru at a discount to encourage investment by foundation shareholders. Over time, this has led to an entrenching of the concepts associated with YuTru.



Douglass North⁷ argues that 'institutions' are the mosaic of abstract norms, values, and constraints imposed on decision-making. These influence how social, political, and economic interactions are structured. This paper adopts this definition of institutions to understand how the YuTru implementation team used politically informed and adaptive ways of working to circumvent various forms of resistance (i.e., vested interests, politics, and preferences) to achieve a specific outcome (i.e., the introduction of a trust framework).

The findings in this paper are based on consultations with a range of stakeholders. The case study comprised the following stages:

- Document and literature review;
- Developing questionnaires for all interviewees;
- Interviews with key stakeholders, either part of the YuTru Team or broader coalition, or representatives from Licenced Financial Institutions (LFIs);⁸ and
- Analysis and drafting.

Study limitations include a heterogenous interviewee pool, where not all parties were available for interview.

⁷ North, D.C., 1990. Institutions, institutional change, and economic performance. Cambridge university press.

⁸ This includes commercial banks and other licensed financial institutions.



3. Opportunities for reform

The 'unbanked' and contextual barriers to identity in PNG

The ability to prove one's identity is key to building trust and is recognised as the basis for participation in social, political, economic and cultural life.⁹ When individuals cannot prove who they are, the ability to participate in the formal financial sector is restricted, resulting in fewer opportunities for wealth creation and employment, and reduced access to state benefits. The absence of trust can also be detrimental to economic growth: it is viewed as a major contributor to underdevelopment,¹⁰ leading to higher transaction costs, reduced wages, profits, employment, and productivity. Conversely the presence of 'trust' facilitates trade, enables transactions, and supports economic value.¹¹

Formal registration of life events is weak in PNG. Until recently, PNG lacked an autonomous governing agency for the collection and management of citizen records and identity assets. In 2014, the National Identification Project was established. However, it has been criticised for low enrolment, insufficient funding, and limited capacity to manage effective country-wide enrolment.^{12 13}

Identity evidence is the basis of trust and the consequences for individuals lacking identity documents are critical: exclusion from participation in many of the rituals of social, cultural, and economic life. Legal (or foundational) identity documents (e.g., birth records, passports, or other government-issued documentation which are designed to prove official identity and act as credentials throughout an individual's life) are largely absent. Estimates suggest that just 15% of children are registered at birth. Many Papua New Guineans use functional identity documents (e.g., a driver's licence, an employee ID card), or temporary foundational IDs (e.g., an affidavit of identity from a village elder) as alternatives.

Box 2

In PNG, an estimated 80% of the population is believed to lack a legally recognised form of identity. This makes identifying them – verifying their credentials and who they say they are – costly and inefficient. In other words, a lack of 'trust' impedes opportunities for financial access. This insight was the driving initiative for YuTru.

However, these often do not comply with modern banks' 'Know Your Customer' (KYC) requirements.¹⁴ This issue is one of the primary constraints to financial access and inclusion. Despite 75% of adults operating outside the formal financial system in 2016, there was no shortage of demand for financial access: in the two years between 2014 and 2015, BPNG added over one million new accounts¹⁵. This suggests that the constraint is not limited to credit supply

9 Clark, J., Dahan, M., Desai, V., Lenco, M., de Labriolle, S., Pellestor, J-P., Reid, K., & Varuhaki, Y. 2016. 'Digital Identity: Towards Shared Principles for Public and Private Sector, in Willenberg, T., 2018, YuTru, The Digital Trust Framework, Business Case

10 Storisteanu et al, 2015, in, Willenberg, T., 2018, YuTru, The Digital Trust Framework, Business Case

11 <https://www.kellogg.northwestern.edu/trust-project/videos/matouschek-ep-1.aspx>

12 <https://devpolicy.org/2019-anu-upng-summer-school-and-png-nid-project-20190227/>

13 GMSA, 2019, Exploring the Gender Gap in Identification: Policy Insights from 10 Countries

14 This is because of the absence of legal recognition, and the insecurity around production and provenance of identity evidence.

15 Willenberg, T., 2018, Yu Tru, The Digital Trust Framework, Business Case



or lack of user demand, but identification¹⁶ and the ability of a licensed financial institution to reliably onboard customers.

One example of the 'cost' of the absence of trust in PNG can be found in cross-border banking. Correspondent banking relationships (CBRs) are mechanisms for enabling cross-border payments (i.e., remittances and international bank transfers). They help maintain foreign currency reserves within PNG, facilitate foreign direct investment into PNG, and generally, contribute to financial system stability and economic growth through international trade.¹⁷

Recent analyses suggest that after the 2014 downgrading of PNG's financial status (in response to shortcomings identified in anti-money laundering regulations), PNG experienced a decline in CBR value¹⁸ and volume.¹⁹ The causes of such withdrawals usually include a negative assessment of the risks compared with the profitability of the financial relationship. There are three consequences: (i) because domestic LFIs are unable to efficiently identify their customers with a high degree of confidence, they must pay more to a correspondent bank overseas to account for the risk that the transaction is illicit; (ii) customers who cannot assert their identity pay more to access foreign goods and services; and (iii) across the private and public sectors, the cost of international transactions and of 'doing business' increases.

Ultimately, the loss of CBRs (and the high cost of servicing those that remain) can act as a deterrent to foreign investment, adversely affecting opportunities for growth, and hindering prospects for financial inclusion.²⁰ From this perspective, the broader organisational and institutional landscape in which YuTru was conceived was ready for reform.

Microfinance: a single piece of the puzzle

Despite the evident absence of trust in PNG, few of this study's stakeholders agreed on the cause. For years, it was misdiagnosed as a problem with access and the involuntary exclusion of individuals from the financial sector. Numerous attempts had been made to solve the problem, either by increasing the supply of small, low compliance loans, or increasing demand by allowing poor people to access loans despite lacking assets as collateral.

This can be partly explained by the close association between trust and microfinance. For years, informal trust frameworks have been used in developing countries as collateral for financial alliances extending beyond an individual's immediate network, i.e., schemes which require borrowers to form borrowing groups (rotating savings

16 Willenberg, T., 2018, Yu Tru, The Digital Trust Framework, Business Case

17 World Trade Organization, 1994, in IMF, 2017. Recent Trends in Correspondent Banking Relationships-Further Considerations

18 IMF, 2017. Recent Trends in Correspondent Banking Relationships-Further Considerations

19 Alwazir, J., Jamaludin, M.F., Lee, D., Sheridan, N. and Tumbarello, M.P., 2017. Challenges in Correspondent Banking in the Small States of the Pacific. International Monetary Fund

20 IMF, 2017. Recent Trends in Correspondent Banking Relationships-Further Considerations



and credit associations, or microloans such as the Grameen model) rely on group members assuming joint liability for loans. These models exploit social pressure to ensure borrowers repay; because of the shared liability, defaulting borrowers face social exclusion and occasionally violence. Trust governs these interactions; they are effective because they transfer the risk from lenders to borrowers. For this reason, microfinance has often been proposed as a solution to PNG's financial access challenges.

However, the last decade has increasingly brought recognition that microfinance “may have sufficed in the traditional society, however the growing sophistication and connectedness of the global economy, rapid uptake and development of new technology, along with the stubbornly increasing incidence of poverty, has exposed the shortcomings of this method”.²¹ In small or local settings microfinance can be effective, however such models are costly to administer, charge high rates of interest to offset compliance, and because there is a “trade-off between fostering group trust and enforcing joint liability contracts”,²² may lack scalability. Researchers have also argued that they have “limited outreach due primarily to paucity of loanable funds”,²³ and that the “equation between microfinance and poverty alleviation is not straight-forward”.²⁴

Digital identification technologies

There are several reasons why a trust framework for digital identification is now feasible in Papua New Guinea:

The proliferation of digital identity technologies has lowered the barrier for institutions to identify their customers but requires individuals to register Personally Identifiable Information (PII) (typically a username and password) with each institution needing to identify them. Two problems arise: (i) when users are asked to create accounts at different institutions, they often reuse the same usernames and passwords, thereby defeating the purpose of securing their account; and (ii) the reuse of this information creates risk; even if an institution is able to safeguard PII, because it has been used at different institutions, one security breach typically leads to others.

Box 3

In countries where there is an absence of formal financial institutions, the prospective entrepreneur in need of funds must first approach those with whom he has a high level of trust and mutual understanding (immediate family, for example). If the need for funds still goes unmet, the entrepreneur moves onto friends, with whom he/she has a high but potentially diminishing level of trust and mutual understanding. Only after exhausting these connections, is the entrepreneur compelled to move onto 'weak-tie' relationships, i.e., those characterised by low levels of trust, minimal contact, and high potential for lack of mutual understanding. (Brown, 2010)

21 Boateng, A.A., 2015, An Examination of challenges and prospects of microfinance institutions in Ghana. JEDS [Internet]., 6 (4): 52–61

22 Epstein, M, & Yuthas, K., 2011. The critical role of trust in microfinance success: Identifying problems and solutions. Journal of Developmental Entrepreneurship, 16(04), 477-497

23 Boateng, A.A., 2015, An Examination of challenges and prospects of microfinance institutions in Ghana. JEDS [Internet]., 6 (4): 52–61

24 Bakhtiari, 2006, in Brown, 2010, Relationships between microfinance, solidarity groups, and informal lending in developing countries: the importance of trust and social capital and the WishVast potential



Improvements in technology using image analytics, “big data”, machine learning, and cloud and mobile computing have matured to the extent that it is now fast and cost effective for computing systems to verify an individual’s identity. YuTru utilises these technologies (in addition to historical transaction analysis, and biographic and biometric details) and can verify an individual’s identity by examining behavioural metrics such as the angle at which a mobile handset is held or the speed and timing at which text is typed. This combination of methods provides reliable results and allows YuTru to: (i) to onboard new users into the banking system based on as much information about the physical individual as that individual is willing to share; (ii) to allow a properly identified and banked customer to support the enrolment of an unbanked individual (i.e. a referral); and (iii) to incrementally increase the degree of trust a user is afforded as they supplant their initial registration with a history of trustworthy behaviour and transactions in the financial system.

Innovation in digital identity is also key to understanding the feasibility of YuTru. Digital identity systems “have evolved to a point where they are, or could soon be, available at scale”.²⁵ Historically, in order to be identified to access a financial service, an individual needed to carry a token or device (e.g., a credit card or smart phone), but because there are now secure ways of storing digital identity attributes on cloud-based servers, and machine learning models can use predictive analytics to detect and analyse patterns, this is no longer necessary. Verifying an individual requires no credential to be carried - just consent from the user - with the data carried from a mobile handset to a cloud-based server in just a few seconds. In a developing country like PNG, where disposable income is limited and not all customers own such tokens, features such as these facilitate access to a secure and reliable digital identity and support scalability by (potentially) banking the ‘unbanked’.

The economic value of a digital identity lies in its transferability to other sectors to create a digital ecosystem, enabling public and private sector service providers, organisations, and individuals to trust one other and removing the need for the customer to protect another PII. Prior to YuTru, conducting business in PNG was hindered by the high cost of verifying identities and making and receiving financial transactions. This had implications for cost efficiency. Now, and once a digital identity is established in YuTru, it is unique and can be re-used ad infinitum. This reduces transaction costs and processing times, increases efficiency, and allows both vertical and horizontal scalability. From the outset (and for these reasons in particular), the YuTru team believed that investment from the private sector was feasible and sought at every stage of the scheme’s design to incentivise uptake within this set of stakeholders.²⁶

Lastly, digital identity is perceived as a means for PNG to fast-track development, providing a ‘development dividend’. The economic impact of extending identity coverage include an increase in GDP, with over 50% of the benefits accruing to individuals.²⁷ Many Papua New Guineans are poor, uneducated with low levels of literacy, and the bureaucratic constraints to acquiring formal identity documents are substantial. Digital technologies make it cheaper and easier for them to acquire an identity.

25 FATF, 2020, Guidance on Digital Identity, FATF, Paris, www.fatf-gafi.org/publications/documents/digital-identity-guidance.html

26 Interview with stakeholder, Oct 2020

27 White, O., 2019. Digital identification: A key to inclusive growth



Bank of Papua New Guinea (BPNG) commitment towards financial inclusion

When YuTru was initiated, financial inclusion was an important strategic objective for BPNG. The BPNG Governor had concerns about financial access in PNG, in particular the absence of foundational identity documents among the population; without identity documents, BPNG would struggle to bank the unbanked, limiting scalability and expansion of the Bank's user base, in turn the size of the economy and growth prospects. In 2013, the Government of Papua New Guinea's first 'National Financial Inclusion and Financial Literacy Strategy' was launched, with BPNG occupying a key role in supporting initiatives.

BPNG had also undertaken to improve financial governance and develop an enabling regulatory framework for digital financial services. As early as 2010, significant deficiencies had been identified in PNG's regulatory framework, in particular the Anti-Money Laundering and Counter-Terrorism Financing system (AML/CTF). Four years on, in response to insufficient action, PNG was placed on an 'enhanced reporting' schedule, i.e., they were considered by the Financial Action Task Force (FATF) to be non-compliant in the global effort to prevent money laundering, a measure which resulted in the loss of correspondent banking relationships, and an overall increase in the cost of financial transactions in PNG. In 2015, to overturn this, BPNG had committed to implementing a comprehensive AML/CTF regime which included upgrading existing KYC regulations. As a result, the concepts under consideration for YuTru's digital trust framework fitted neatly into BPNG's broader strategic agenda.

International regulatory framework for digital identification

The introduction of the FATF digital identification guidelines in 2020 changed the way central banks around the world governed their LFIs, in particular, customer on-boarding practices had to be re-evaluated for digital modalities. Two changes are notable, (i) if the identification system used to digitally onboard a customer was shown to be soundly governed, it was no longer necessary for a financial regulator to automatically classify the customer as "high risk"; and (ii) instead of an LFI verifying the customer, use of a digital identity service provider (i.e. YuTru) would be permitted if it was regulated as if it were an LFI.



4. The history of YuTru and the key actors

In 2015 there was a global focus on digital technologies for development, in particular, blockchain. Believing these technologies applicable to PNG's financial inclusion problems, BPNG had begun researching digital identification. The DFAT-funded Economic Governance and Inclusive Growth (EGIG) program, via the Papua New Guinea Governance Facility, had begun working with BPNG (at the time the main economic governance stakeholder in PNG) to provide support in priority areas such as financial inclusion. In 2017, BPNG secured DFAT funding (of approximately AUD \$200,000) for a pilot digital identity project.

The funds were used to sponsor a 'hackathon' at London Blockchain Week, a programming event where entrants attempted to 'solve' the problem of PNG's unbanked. The challenge identified a winning design called "Papuan Box", a prototype device that utilised a biometric fingerprint scanner to register an identity and issue a digitally encoded identity credential verifiable on a distributed ledger, a solar-powered mobile phone.

The hackathon winner was taken to a village in Central Province by BPNG Corporate Affairs Group (CAG) to test the Papuan Box. There, the team were hosted by the Women's Association, and the winner demonstrated Papuan Box by creating 'digital identities' for the Women's Association. At this point, BPNG CAG realised that Papuan Box's potential lay in taking the technology to scale; they requested a refining of the design, incorporating the ability to connect over a network and interface with other boxes. Although this partnership was later terminated (BPNG declined to pay the asking price for the modified version), BPNG were left with a successful proof of concept for digital identity, registered and verifiable on a distributed ledger in PNG. Although YuTru had not yet been conceived, the hatching of key concepts had begun.

In early 2018, BPNG, the EGIG program, and DFAT, initiated the development of a trust framework which subsequently became known as YuTru. The objective was to provide a digital means of identifying and verifying customers as the basis for business transactions between financial institutions and individuals.²⁸

Initially, YuTru proposed the following:

- Establish a scheme where participants agree to a single set of specifications to govern digital identification and verification;²⁹
- Capture the "referral graph"; i.e., the network of referrals which permits an identified bank customer to refer a new (and as yet unknown) customer;
- Use the latest international standards-based formats and methods in digital identification and verification³⁰, and reduce the error rates to virtually zero;

28 Neocapita Security, 2019, Papua New Guinea Digital Trust Framework Phase II Engagement Report, DRN: PNG-DTF-2-023, 28th December 2019

29 Willenberg, T., 2018, YuTru, the Digital Trust Framework Work Plan

30 I.e., biographic, biometric, and behavioural measures, and which cater specifically to the population's characteristics.



- Introduce a model of trust that allows the incremental expansion of banking privileges for participants on the basis of good behaviour.

The YuTru digital trust framework was created in the absence of a market function for digital identity management. In 2018, a Memorandum of Understanding for the provision of DFAT funding and technical assistance to BPNG was signed, with the BPNG Governor authorising the Bank's Corporate Affairs Group (CAG) to work on the project. Funds were allocated for a two-year project in three phases and included the appointment of Abt Associates as managing contractor.

Box 4

In 2018, national media outlets estimated that only six percent of PNG adults possessed an NID.

Source: GMSA, 2019, exploring the gender gap in identification: policy insights from 10 countries

The same year, BPNG received another round of DFAT funding which was used to fund CAG's return to London Blockchain Week, where staff were exposed to various agencies promoting the use or development of digital currency technologies for commercial means, e.g., the United Kingdom Digital Currency Association. Separately, and unknown to BPNG, Abt Associates had begun efforts to facilitate digital commerce in PNG, working to broker a relationship between BPNG and the Australian equivalent, the Australian Digital Commerce Association, with the objective of establishing a PNG equivalent (subsequently the PNG Digital Commerce Association).

The DFAT Australian High Commission (AHC) Counsellor (who was responsible for BPNG's financial inclusion projects) initiated a meeting between BPNG and Neocapita Security, a small firm with extensive expertise in the application of digital technologies to development problems. There was growing concern that BPNG "lacked a clear direction".³² Wanting to 'sharpen the focus', the Counsellor suggested considering whether (i) there might be a private sector solution; and (ii), a trust framework for digital identity might be applicable. Further, there was also growing concern about the various donor/multilateral funded microfinance projects in PNG at the time, some of which had been initiated by BPNG, and which some stakeholders considered uncoordinated, unsustainable, and unlikely to have lasting impact.³³ A particular concern was the scalability challenge of microfinance projects and the consequent need for ongoing external funding.

At this meeting, Neocapita Security proposed a trust framework to govern digital identity management in PNG (subsequently 'YuTru'). From the perspective of incentivising behaviour, the meeting was critical for the opportunities it created and the momentum it provided. There was no mention of microfinance, it offered BPNG the potential to improve financial access and inclusion in PNG, and sufficiently bridged forward-looking academic research with existing global practice. It was also innovative, with the use of a distributed ledger among LFI to store the identity attributes and held possible commercial promise.

³² Interview with stakeholder, November 2020

³³ Interview with stakeholder, September 2020



The proposal was well received, and Neocapita Security were commissioned to conduct a scoping study of different trust framework operating models and stakeholders who might participate for commercial purposes.³⁴

Given the complexity of the concept and the theoretical proximity to the Government of PNG's NID, Neocapita Security and DFAT were in favour of a private model. Early Neocapita Security reports identified the perception of competition to the NID as a key risk to the scheme,³⁵ Neocapita Security and DFAT therefore took a "strong line that the private sector offered the best model".³⁶

By the end of 2019, much of the groundwork for the trust framework had been laid,³⁷ including:

- The launch of the 'YuTru' scheme, with high-level endorsement from the Governor of BPNG;
- A series of introductory seminars explaining the concept and benefits of a trust framework to LFIs;
- Discussion of funding models for the trust framework operator (public, private, hybrid public-private) and the subsequent decision to implement a private model;
- Discussion of operational requirements and governance arrangements for the trust framework; and
- Consideration of various private sector hosting options for the trust framework operator (TFO).

By December 2020, YuTru had raised a capital investment of K5 million, received expressions of interest from additional investors, appointed a board of directors,³⁸ and had been recognised at APEC as a successful example of effective financial inclusion for improving the overall business environment in PNG.

34 Neocapita Security, 2018, Yu Tru, The Digital Trust Framework, Business Case

35 Neocapita Security, 2018, Papua New Guinea Digital Trust Framework Phase I End of Stage 1 Report, November 2018

36 Stakeholder interview, November 2020

37 2018, Willenberg, T., YuTru, the Digital Trust Framework Work Plan

38 2020, Papua New Guinea, Digital Trust Framework Phase II, End of Phase II Report, 31st May 2020



5. YuTru key obstacles: an adaptive management approach to problem solving

Issue 1: Insufficient leadership and a fractured counterpart relationship

Although the BPNG Governor had authorised CAG to work on the YuTru digital trust framework, the relationship between CAG and the YuTru team became fractured. This required the YuTru team to “reinitiate some connections”³⁹ with other BPNG units in 2019. Interviewees described several issues with the CAG partnership:

Despite CAG exposing PNG’s problems with financial access and inclusion, CAG was not the right institutional ‘home’ for the trust framework, primarily because they were not the authorised area of BPNG to lead on or inform revision to regulations for an internationally standardised approach to digital identification in financial institutions.

The trust framework approach of YuTru was pioneering (in PNG), meaning their BPNG counterpart “needed to be seen as a credible driver of initiative”.⁴⁰ CAG meanwhile, housed corporate resources (such as HR) and lacked an understanding of the strategic impact of the approach underpinning YuTru and the role the central bank could play in encouraging industry-wide participation in a harmonising effort.

Further, the desired model of governance for YuTru at the time was a private sector consortium (the structure of a consortium being such that owners have an interest in its success). This meant that any counterpart needed to espouse principles like openness, trust, mutuality, and cooperation. These are understood to have been absent from CAG’s vision for YuTru.⁴¹

There was also an absence of organisational capacity and strategic leadership. Interviewees relayed the challenge of getting information disseminated through BPNG, for example, so that communications and corporate objectives were aligned.⁴² This made it difficult to strategize. By 2019, when YuTru was ready for launch (accompanied by a deliberate campaign of high-level BPNG endorsement), launch events were delayed by six weeks, because of an inability to “reach the right agents within BPNG to confirm participation”.⁴³ YuTru stakeholders voiced concern that the scheme was “increasingly getting buried inside [CAG]”.⁴⁴ This reluctance to follow a communications protocol and the spirit of the memorandum meant that over time, the incentives of the YuTru team, those of BPNG CAG, and the scope of the trust framework project, became increasingly less aligned.

The absence of strategic leadership became an obstacle to obtaining market support for the YuTru digital trust framework. In 2019, BPNG CAG established a regulatory sandbox – a ‘scheme’ which allows developers to test

39 Stakeholder interview, November 2020

40 Stakeholder interview, December 2020

41 Stakeholder interview, September 2020

42 Stakeholder Interview, January 2021

43 Neocapita Security, 2019, Papua New Guinea Digital Trust Framework Phase I, End of Phase 1 Report, 19 March 2019, p.5

44 Stakeholder interview, November 2020



innovations (in this instance, digital identity and eKYC innovations) in a controlled environment (i.e., with loosened regulation, and under close supervision from the regulator). However, before writing the regulatory framework, BPNG CAG are understood to have launched the sandbox, putting out a call for innovations and inviting applications from LFIs.⁴⁴

This posed a reputational risk for YuTru. BPNG CAG had established the program without considering how it might affect uptake of YuTru. Indeed, after the announcement, several LFIs contacted the YuTru team to clarify what a regulatory sandbox was and how it related to the YuTru scheme. An early Neocapita Security report documents the risk to YuTru as “confus[ing] stakeholders and thwart[ing] uptake”.⁴⁵ Increasingly, there was concern that BPNG CAG demonstrated limited awareness of the strategic impact of their decision making on the YuTru scheme.

Strategy for adapting in response to this issue

In 2018, the Governor of BPNG had committed to publicly endorsing YuTru. Recognising BPNG CAG was an unlikely institutional fit, the YuTru team engaged directly with the Governor of BPNG, omitting the CAG team. This enabled a number of key outputs and outcomes:

- **Uptake by LFIs.** The Governor’s endorsement was crucial to the perceived credibility of YuTru. He encouraged LFIs to contribute to the scheme’s development and helped to ‘offset’ CAG’s strategic failings by signaling credibility to the PNG financial sector;
- **Raising of private capital.** The Governor’s endorsement generated capital to fund the scheme beyond donor support. By early 2019, five LFIs had expressed interest in participating in the scheme, initiating key milestones around the governance and operation of YuTru;⁴⁶ and,
- **High level political cover.** The YuTru team sought, and were given, sufficient political protection to navigate the fallout created by the deteriorating relationship with BPNG CAG.

After the YuTru team had identified BPNG CAG as an inappropriate institutional ‘fit’, they identified the Financial System Stability Group (FSSG) as the correct institutional partner. They used a variety of methods to relocate YuTru, including (i) game theory, a strategy intended to facilitate the rehoming of YuTru; and (ii) soft power, a strategy to try to shape the preferences of those with sufficient influence to change outcomes.

(1) Game theory: The YuTru team asked CAG to clarify their desired involvement in YuTru. The options were (a) partnering with YuTru as a government initiative; (b) a Public-Private Partnership, or (c) a private sector initiative. Potential sensitivities around the perception of competition with the Government of PNG’s NID meant that the first and second options were undesirable, while the incongruity between public policy objectives and financial interests meant BPNG was unable to associate with a commercial enterprise. This ruled out the last option. Once it became clear BPNG could not act as TFO, and could therefore expect a less ambitious involvement, BPNG CAG stepped back

⁴⁴ Stakeholder interview, April 2021

⁴⁵ Neocapita Security, 2019, Papua New Guinea Digital Trust Framework Phase I, End of Stage 2 Report, 14 April 2019

⁴⁶ 2019, Neocapita Security, Papua New Guinea Digital Trust Framework Phase I End of Phase I Report, 19 March 2019



enabling the YuTru team to distance themselves from the relationship and reinitiate some connections with other departments. “[CAG] recognised they would need to regulate [YuTru], and at the same time, realised they could not ‘own’ it.” [The YuTru team] let it gently wither on the vine; there is sufficient distance now”;⁴⁷ and

(2) Soft power: This approach was variously described as requiring “lots of whisky and personality management”⁴⁸, “a lot of work to get it out of the CAG umbrella”⁴⁹, and a “lengthy process until the Corporate Affairs Group gave [the YuTru team] the go ahead”.⁵⁰ One interviewee reflected on the impact of this outcome: “Eventually, BPNG identified a reasonably clear role for YuTru, outside of CAG. [CAG] do deserve credit for originating the idea, but for the project to develop, and to avoid the risk of interrupting the long-term viability of the project, [the YuTru team] needed distance”.⁵¹

Issue 2: Vested interests

Vested interests will emerge in all aspects of public policy change. Institutions inevitably generate them, simply because certain people and groups will lose out from change. Vested interests then have strong incentives to protect themselves when faced with threatening reforms—and in the politics of change, therefore, they have the potential to be powerful forces”.⁵²

In the YuTru example, vested interests from three sources generated resistance to the digital identity framework:

- **Established actors and organisations** in the banking and financial sectors at risk of financial injury from an upending of the status quo, potentially adversely affected as their resources declined in value;
- **Individuals**, threatened by the rapid pace of change, at risk of professional displacement by a new technology or excluded from decision making; and
- **'Ideas'**, which had coalesced around the notion that a lack of affordable and low risk credit solutions was to blame for the large swathes of the population who were outside the formal financial system (i.e., the 'unbanked'), rather than an absence of formal identity documents among the poorest Papua New Guineans.

This latter point regarding ideas is important. The organisations responsible for initiating the YuTru scheme - Abt Associates (Abt), BPNG, and DFAT - embraced the idea of a digital trust framework and in doing so, created incentives which rewarded behaviour in support of it. Each allocated inputs (people and/or resources) to activities, with each activity intended to generate a desirable output or change. For example, developing a framework to provide consistency between YuTru and compliance with anti-money laundering legislation, or designing the YuTru scheme with the private sector in mind. In turn, these outputs created desirable outcomes, i.e., changes in attitudes towards YuTru or compliance with regulatory frameworks or financial reward for investors. These organisations (in particular,

47 Stakeholder interview, November 2020

48 Stakeholder interview, November 2020

49 Stakeholder interview, September 2020

50 Stakeholder interview, September 2020

51 Interview with Stakeholder, November 2020

52 Moe, T, 2015. Vested Interests and Political Institutions. *Political Science Quarterly*. 130. 10.1002/polq.12321



the YuTru team/coalition's) use of adaptive and politically informed approaches, enabled YuTru to overcome prevailing opposition to the 'idea' of a disruptive innovation, i.e., a digital identity framework.

At YuTru's conception, three ways of financing it beyond donor support had been considered: public, private, and a hybrid public-private model. To avoid confusion with the Government of PNG's NID Project, the YuTru team had chosen a private model, requiring them to solicit interest from potential private partners to raise capital. They had focused on LFIs, perceiving them as "natural owners" of YuTru, mainly because of the opportunity to generate revenue from operating it.⁵³ However, they encountered persistent resistance towards YuTru from LFIs. In 2018, when the concept of establishing a digital trust framework was introduced to LFIs through a series of briefings, it received "unanimous support".⁵⁴ Over time however, receptivity among this group of stakeholders waned.

There are several possible reasons, but key to understanding the 'shift' in support for YuTru are the politics related to vested interests, particularly established interests in the financial sector. Bank South Pacific (BSP) is the largest commercial bank in PNG, with approx. 80% of the market share and considerable influence in the financial sector. Because YuTru proposed to make it easier for bank users to obtain an affordable, accurate and widely accepted form of identity, it represented a threat to BSP's business model; once verified, customers could take their business elsewhere. Interviewees reiterated this, describing the resistance as rooted in fears of a loss of market share and customers.

Strategy for adapting in response to this issue

After identifying BSP's suspected resistance, the YuTru team began engaging with a dynamic, and rapidly growing competitor in the LFI space, Kina Bank. Previously, the Chair of the Kina Bank board had been instrumental in encouraging uptake of YuTru among LFIs, including encouraging Kina to adopt a foundation shareholding.

Kina Bank facilitated change by providing support for proposals which were otherwise rejected by LFIs. This much needed endorsement of YuTru demonstrated "at least one commercial bank was interested and aligned with [BPNG Governor's] motivation",⁵⁵ and this enabled YuTru to gain legitimacy in the financial sector. Given this is an examination of how change happens, it is worth noting the incentives for Kina Bank: by supporting YuTru, Kina were able to improve cost efficiencies in their business model by lowering compliance risk and carve out a niche for themselves as the leading digital bank in PNG.

When the YuTru team approached the PNG financial sector to identify a TFO, they encountered resistance. Their navigation of this provides an example of how they adjusted activity and output levels (i.e., 'A' or 'adaptation' in the FAR framework). Wanting to capitalise on existing institutional relationships, capital, and knowledge, the YuTru team's early preference had been for an established entity such as the PNG Credit and Data Bureau (CDB). However, when they approached the CDB to operate the trust framework, the offer was rejected. Interviewees speculated at

53 Stakeholder interview, December 2020

54 Willenberg, T., 2018, YuTru, the Digital Trust Framework Work Plan, p.viii

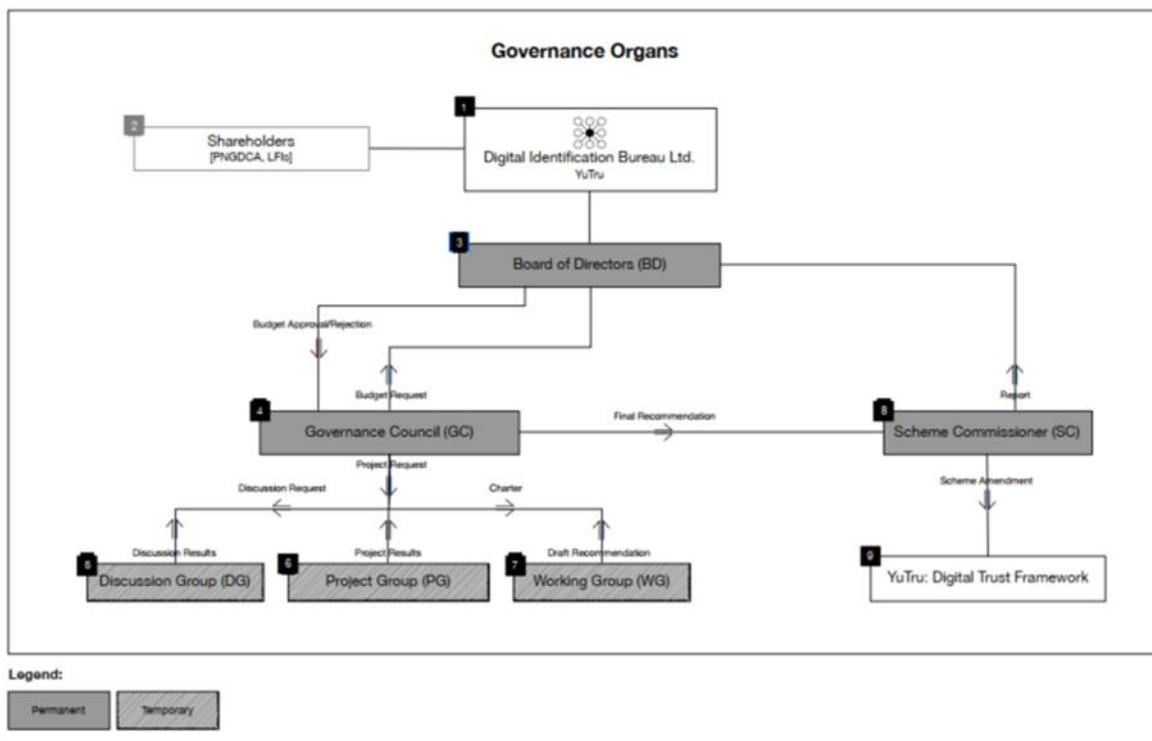
55 Stakeholder interview, December 2020



the reason: "One CDB board member was a major critic of YuTru. A theory was that CDB runs off a technology platform which is quite expensive; because YuTru would lower costs across the sector, the technology underpinning the CDB would no longer be commercially viable"⁵⁶.

Instead, the YuTru team focused on creating a new legal entity as TFO, and in 2018, the 'Digital Identification Bureau' was incorporated by the PNG Digital Commerce Association. Although this delayed the project and challenged YuTru's commercial viability, it did achieve the desired outcome i.e., the establishment of an operator for the trust framework. Figure 3 illustrates the governance structure of the Digital Trust Framework after the incorporation of the Digital Identification Bureau.

Figure 3: Governance Structure of Digital Trust Framework



Source: YuTru program documentation.

⁵⁶ Stakeholder interview, December 2020

Issue 3: The complexity of the concept

In 2018, trust frameworks were relatively unknown in PNG, impeding acceptance of YuTru. They were also conceptually complex, meaning there was a “steep learning curve to getting people onboard and excited about the venture” .⁵⁶ People “did not intuitively understand the service YuTru offered” and it was “constantly a challenge”,⁵⁷ which allowed “for a lot of noise to creep in”.⁵⁸ Interviewees commented that “even though they use one almost daily (i.e., Visa), most people have never really thought about a trust framework”.⁵⁹

Strategy for adapting to this issue

The YuTru team recognised that this made an instinctive uptake of the scheme unlikely. In response, they used the following strategies:

To lend the scheme credibility, the team established relationships with other professionals in the Asia Pacific region with experience of establishing trust frameworks,⁶⁰ e.g., the Digital Transformation Agency, an Australian Government department responsible for improving the accessibility of online government service delivery in Australia and its own digital identification trust framework (the Trusted Digital Identity Framework).

To try to ‘socialise’ the scheme, the team delivered workshops and training courses on the technologies that underpin modern digital identity and computer security systems. They tried to raise awareness of digital identification and improve understanding of its relationship to online security and safety, consumer privacy, and data protection. Training activities focused on mapping out the broader computing, cybersecurity and IT landscapes, the cryptographic and mathematical concepts underlying these systems, and the literature on and characteristics of distributed ledger technologies and other countries’ identification systems. Recipients of the training included BPNG, Centre for Excellence in Financial Inclusion, NID staff, donor project staff.⁶¹ LFIs were also key attendees, and Kina Bank typically sent a strong contingent. This helped to limit potential comparison between the Government of PNG NID and YuTru, and to raise awareness of important or unfamiliar features of the YuTru trust framework and identification services.

Issue 4: ‘Noise’, and sensitivities related to the Government of PNG NID

One of the most common themes to arise from stakeholder interviews, was the resistance the YuTru team encountered in establishing the digital trust scheme. Interviewees universally referred to this issue as “noise”. Much of this can be attributed to the above three issues (insufficient counterpart leadership, vested interests, and the complexity of the concept), but unwarranted comparison and confusion with the Government of PNG NID are also contributing factors. For these reasons, the YuTru Team needed to carefully manage the messaging associated

56 Stakeholder interview, September 2020

57 Stakeholder interview, December 2020

58 Stakeholder interview, December 2020

59 Stakeholder interview, November 2020

60 Neocapita Security, 2019, Papua New Guinea Digital Trust Framework Phase I, End of Phase 1 Report, 19 March 2019

61 Neocapita, 2018, Papua New Guinea Digital Trust Framework Phase I End of Stage 1 Report, 12 November 2018



with the digital trust framework. One way this was achieved was through a controlled and purposive communications strategy.

Strategy for adapting to this issue

The YuTru team divided communications recipients into groups. Each group was BCC-ed, with identities never disclosed, information shared selectively, and feedback invited selectively. For example, because of the sensitivities around perceptions of competition with the Government of PNG NID, communications with government stakeholders were deliberately limited until the YuTru scheme had achieved certain milestones (i.e., securing private capital, or delivering training to differentiate between YuTru and NID). This deliberate and controlled strategy allowed the YuTru team to communicate developments without implying factions or preferences, let them distance themselves from controversy, and meant that no-one knew who was getting information, but everyone was able to discuss it. It ensured the YuTru team received feedback early and often from trusted stakeholder groups, and crucially, enabled them to shape, rather than react, to the narrative.



6. The YuTru approach to adaptive management

The YuTru team used a variety of adaptive management approaches to overcome obstacles. They worked strategically, in a politically astute manner, and made frequent 'pivots' to the implementation strategy in response to new information. This approach has been described as 'entrepreneurial logic', and "making a series of small bets instead of seeking large all-or-nothing opportunities".⁶² Decisions at each step "depend on educated guesses, drawing on an equal combination of science, with the results gained from iteration and imagination. It involves embracing error as a vital source of learning and the willingness and ability to adjust to new information in a dynamic environment".⁶³

There were a number of distinctive features of this approach:

The real time evaluation of progress. This included continual assessment of and reflection on the impact of decisions (what worked and what did not), micro adjustments of inputs such as spending or pace ('F' or 'flexibility' in the FAR framework), and activities or outputs ('A' or 'Adaptation') in response to new information or changed circumstances. This helped the YuTru team to achieve several reforms and changes i.e., the introduction of a digital trust framework, broad acceptance of the YuTru platform, the identification of a TFO and the successful raising of seed capital.

The decision early in the program to establish YuTru as a private entity. One of the most meaningful decisions the YuTru team made was to focus on ways to incentivise behaviour, particularly in the private sector. Microfinance interventions in PNG targeted a proximate cause of poverty (i.e., lack of access to credit or savings), rather than a fundamental cause such as the structural constraints which prevented individuals from participating in the formal sector (i.e., lack of access to legal or foundational identity documents). Previous development community and/or donor interventions had tended to focus on development solutions (i.e., microfinance) instead of a cost-effective means of assessing the creditworthiness of the poor. As a result, the issue of the 'unbanked' had been mislabeled a development problem, rather than an economic problem which took into consideration incentives driving behaviour. This insight shaped the decision to engage with the private sector.

Funding for YuTru was approximately \$2.55 million over two years, with an early workplan specifying this was for the design, establishment, and initial operation of the trust framework, before a handover to a TFO.⁶⁴ Donor withdrawal was therefore explicit; once stakeholder sustainability had been secured and market demand was sufficient, foreign development assistance was to be withdrawn. The existing set of incentives, however, was structured in such a way as to encourage donors or multilaterals to provide capital through micro-lending, i.e., to make small, low risk, low compliance loans to individuals without identity documents rather than to encourage entrepreneurs to innovate and take risks.

62 Faustino, J. and Booth, D., 2014. Development entrepreneurship: how donors and leaders can foster institutional change. Asia Foundation, San Francisco. P.XIII

63 Faustino, J. and Booth, D., 2014. Development entrepreneurship: how donors and leaders can foster institutional change. Asia Foundation, San Francisco. P.XIII

64 Willenberg, T., 2018, YuTru, the Digital Trust Framework Work Plan



Recognising this, the YuTru team focused on the technology underpinning YuTru, which they considered to hold significant economic value and provide a compelling incentive for private sector investment. They made a concerted effort to incentivise the private sector by structuring the YuTru scheme to meet private sector needs, i.e., they adjusted inputs and activities, or 'adapted'. The change or reform as a result: successfully attracting investment sources which would outlive donor funding, and in the process overcoming one of the scheme's biggest constraints; the mutability of donor funding and the protean nature of development politics.

Managing adaptively is suited to a certain type of team, politically shrewd and able to think on their feet. It is a skill which "involves embracing error as a vital source of learning and the willingness and ability to adjust to new information in a dynamic environment".⁶⁵ The YuTru team's approach to decision making was strategic and intentional. They made decisions about when to adapt/what to respond to; and when not to adapt. This affected outputs and in turn, outcomes.

They focused on achieving change which was "good enough rather than best",⁶⁶ and this pragmatic approach helped to achieve small wins by chipping away at obstacles. An example of this is the approach to developing the basics of the trust framework rules. The intention was to "start out with a basic set of rules and a governance structure that is as simple as possible".⁶⁷ At the time, PNG lacked identity management, data privacy and protection laws. Recognising that establishing a set of scheme rules from scratch in PNG was a complex task, the YuTru team made a deliberate effort to "get the skeleton in place" and, "look to refine those structures over time".⁶⁸

The YuTru team's awareness of the importance of incentives enabled them to tailor their narrative to suit their audience. There were "two ways [the YuTru Team] spoke about YuTru: to development folk, it was a story of financial inclusion, about lowering barriers to formal financial inclusion, but this didn't feature in the conversation with private sector; the focus of this was anti-money laundering, and all the regulations PNG was failing to meet. This made people nervous. [The YuTru Team] highlighted the cost of fraud and pointed out that compliance with identity requirements was costing them money. [The YuTru Team] said 'YuTru will lower your costs'. [They] didn't really need to labour this point; [there was] private sector uptake solely because they saw value in YuTru".⁶⁹

The YuTru team's approach to project management. Abt Associates' EGIG senior program manager encouraged the team to reach out with problems, promising an open and constructive discussion predicated around problem solving. An interviewee described this: "[One of the YuTru team members] would say, 'I have a problem and can't make progress because the second decision maker is blocking me.' In response, [He/She] would lead meetings on my behalf, allowing me to avoid a direct confrontation with whomever I had experienced conflict with. [The YuTru Team]

65 Faustino, J. and Booth, D., 2014. Development entrepreneurship: how donors and leaders can foster institutional change. Asia Foundation, San Francisco. P.XIII

67 Neocapita Security, 2019, Papua New Guinea Digital Trust Framework Phase I, End of Phase 1 Report, 19 March 2019, p.24

68 Stakeholder interview, September 2020

69 Stakeholder interview, September 2020



were able to push things along because of this interplay; allowing the 'noise' to die down".⁷⁰ This collaborative and emotionally intelligent process helped the team to overcome obstacles.

The unique composition of the YuTru team and coalition. In a paper on development entrepreneurship, Faustino and Booth describe the 'complementary roles' necessary for pursuing institutional change objectives. They note that some of the skills and roles do not have to be on the team but can be present in the broader 'coalition'.⁷¹ The YuTru team and coalition was 'balanced', featuring diverse but complementary skillsets and a mix of political, technical, and business skills. The dynamic meant that they worked efficiently together and were able to focus on delivering results.

Indeed, several of the roles described by Faustino and Booth were present in the YuTru team / coalition:

(1) A project management team able to integrate technical and political change to determine a new course of direction in response to previously unknown events, and with the diplomatic nuance to navigate a series of political and institutional obstacles, to solve problems and to consistently and perceptively apply the principles of adaptive management.

(2) Insiders or individuals "who have deep knowledge and experience in the reform area"⁷². In this capacity there was a senior executive with "an outstanding international reputation for performance in banking and resources"⁷³, who was able to support YuTru to overcome vested interests and achieve reform outcomes. He/she lent "credibility to the YuTru project"⁷⁴; was able to recognise YuTru's application beyond the immediate reform area. He/She had the political nuance to negotiate obstacles, and the professional networks (particularly among government stakeholders) to drive change and influence outcomes (i.e., the adoption of YuTru among LFI). His/her involvement was described as "invaluable to the project's progress"⁷⁵;

(3) A technical lead with the skills and experience to position, shape and lead the technical component of the project; the right balance of technical expertise and government experience to advise on how governments make decisions on digital technologies and how to take those technologies to scale.

(4) A donor representative with sound judgment, a high tolerance for risk, and sufficiently familiar with the technology underpinning the YuTru scheme to recognise opportunities. He/she understood how proposals for activities and outputs related to project outcomes and maintained a clear line of sight to donor objectives and broader development outcomes. In addition, the internal political economy at DFAT AHC allowed the donor representative the opportunity to experiment with risk. "[They] convened and enabled, focused on the big picture,

70 Interview with stakeholder, December 2020

71 Faustino, J. and Booth, D., 2014. Development entrepreneurship: how donors and leaders can foster institutional change. Asia Foundation, San Francisco

72 Faustino, J. and Booth, D., 2014. Development entrepreneurship: how donors and leaders can foster institutional change. Asia Foundation, San Francisco

73 Stakeholder interview, September 2020

74 Interview with stakeholder, December 2020

75 Stakeholder interview, November 2020



and were able to recall what [their] role ought to be – i.e., a clear focus on the strategy and the risk, not the weeds”.⁷⁶ This hands-off approach provides an example of how a donor can set high-level objectives but leave outputs to be determined iteratively by the project implementation team.

Lastly, the outcomes-based contract structure which supported adaptive management enabled the team to work in politically smart ways. It stipulated three phases, delivered over two years, and tied deliverables to key milestones which were required to unlock tranches of payment. It meant Neocapita Security were paid based on what was delivered, forcing the YuTru team to remain stringently focused on outcomes. There were also “very clear gates needed to communicate with [DFAT]. This allowed [the YuTru team] the structure to implement change. (...) [It] forced very clear discussions about what was working and what was not. Ultimately, there was permission to have uncomfortable conversations”.⁷⁷ Through the lens of the FAR framework, the way the contract was structured allowed the team to respond to opportunities, risks, and incentives, and is an example of an organisational factor which created space for flexible, adaptive, and responsive practices.

⁷⁶ Stakeholder interview, November 2020

⁷⁷ Interview with stakeholder, Oct 2020



7. Conclusion

This working paper has summarised the genesis of YuTru, how it was structured, and how it adapted to a challenging external context. It has detailed how the YuTru team's use of adaptive and politically informed approaches enabled them to persuade stakeholders (i.e., the banking and financial sectors, the aid, development and donor communities) to embrace a new institution (i.e., YuTru), a new set of ideas (i.e., that the 'unbanked' are not exclusively a development problem), and to adopt new policies (i.e., the rules, regulations and system of attributes comprising the digital identity trust framework), for the promise of a reward (either financial, development or economic).

Although the idea of YuTru began as one of financial inclusion, it has gone beyond this in terms of scale and scope. By June 2021, it had hired its first operational staff, delivered sales pitches to potential new customers, and was mapping out the first institutional participant in the scheme, a state-owned enterprise⁷⁸. It has also been proposed as a regional solution capable of providing scale and value to small islands states' identity management⁷⁹. These are clear signals of YuTru's economic value.

Although it is too early to comment on impact, "if it succeeds, (...) the investment by DFAT will result in what is very likely to be a longstanding institution with full domestic ownership – clear evidence of local buy in and clear financial incentives in place for sustainability".⁸⁰

There are five conclusions to be drawn from the experience of YuTru:

(1) External partners, funders, and donors must expect opposition to new ideas and innovations. As noted above, ideas generate institutions and incentives. It cannot be known in advance what will be the balance of power between those groups and individuals in favour of the innovation or the reform and those that try to block it. This will only become apparent during implementation.

(2) Given this first conclusion, a strategy of adaptation alone will not be sufficient. It will be necessary to actively put in place activities that will counter resistance and challenge the 'blockers'. If necessary, 'coalitions of the willing' may need to be sponsored and supported to overcome resistance.

(3) The skill 'composition' of the project team really matters. YuTru demonstrates that technical understanding and excellence need to be complemented with political understanding and emotional intelligence, and an 'insider's' appreciation of the perceptions and priorities of potential losers in the reform or innovation process.

78 Stakeholder comment, July 2021

79 Stakeholder comment, July 2021

80 Stakeholder comment, July 2021



(4) Partners responsible for implementing externally funded initiatives – especially those seeking significant reform or change – will need effective political cover. There were times in YuTru's implementation that the support and encouragement of the High Commission was critical in ensuring progress and in overcoming opposition.

(5) The contract matters. By articulating an output-based contract, the Australian High Commission PNG enabled the YuTru project team to adapt swiftly to changes in the external context and to put in place new activities as needed. It should be added that this type of contract presupposes conclusion number (3) – that the team has the skills both to read the existing environment and to know how and when to adapt.





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