Mobile remittances: a study of the Philippines and Tonga.

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Executive Summary[1]

Remittances from economic migrants are a growing phenomenon in developing countries. However, there are a number of problems associated with these remittance flows, affecting both individuals sending and receiving remittances as well as national governments. These problems include high direct and indirect costs as well as the persistence of large-scale informal markets. Some developing countries have enjoyed relative success in minimising these problems, whilst others have not been as successful. This report focuses on two nations, the Philippines and Tonga, for each of whom remittances from economic migrants are an important source of income. A unique feature of the Philippines is the existence of mobile remittance services as a choice for consumers. Mobile remittances have been documented as having the potential to address some of the problems of remittance flows, leveraging the benefit the Philippines receives from its economic migrants. Tonga on the other hand, has not been as successful in addressing the problems associated with remittances, suffering from extremely high direct and indirect costs as well as a large informal market for transfers.

The purpose of this study was to see if the success factors that led to the development of mobile remittance services in the Philippines are present in Tonga. The methodology involved firstly identifying the success factors for mobile remittances in the Philippines, then applying these to Tonga in order to examine the potential for mobile remittances in that nation. Finally, the report offers policy recommendations for Tonga, based on the outcome of the analysis.

This report concluded that the individuals – the consumers – of remittances and financial services in Tonga exhibit many of the same characteristics as individuals in the Philippines, the site of two separate successful and sustainable mobile money services. However, the comparative analysis in this report revealed important gaps between the two nations in terms of commercial viability and potentially successful business models. In addition, important policy reform would need to take place before a mobile remittance or mobile money service could start up. A key issue for Tonga will remain the capacity of the Government to implement reform and hence co-operation with external development partners and the private sector will be essential to any policy developments.

[1] The research work for this report was done as part of the author's program in the MA in Development Studies in the School of Social Sciences and International Studies at the University of New South Wales. The author would like to thank Associate-Professor Michael Johnson of UNSW for his help and guidance with the research. This report was compiled in collaboration with Developing Markets Associates. The author would like to thank Jonathan Capal of DMA Asia-Pacific for his invaluable assistance with the report.

Key Terms & Acronyms

AML	**Anti-Money Laundering**
BSP	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)
Economic migrants	Individuals who leave their home country to work overseas
FATF	Financial Action Task Force on Money Laundering.
Financial inclusion	A measure of how many individuals within a nation have access to regular and sustainable financial services
Formal remittances	Funds sent between countries via regulated banking and monetary transfer systems.
Informal remittances	Transfers sent either as cash outside the regulated monetary systems or in-kind as goods, gifts or products
KYC	Know Your Customer
Last mile	Remittance industry term for problems experienced by receivers of remittances, most notably the distance between homes and remittance distribution points
MDGs	Millennium Development Goals
Mobile money	A range of financial services delivered to the consumer via a mobile phone. Services may include remittances, savings, credit and loans
Mobile remittance	Cross border payments utilising mobile phone technology to send and/or receive remittances
Money Transfer Operators	Specialist remittance providers
OFW's	Overseas Filipino Workers – term commonly used within the Philippines to refer to economic migrants
ODA	Official Development Assistance
Remittances	Cross-border, person-to-person payments of relatively low value.[2]
Sachet purchasing	Purchasing goods in small quantities for use on a daily basis

[2] World Bank, 2007: 6.

1. Background

The reduced opportunities for economic and social development that define developing countries, also give rise to a well documented flow of *economic migrants* – individuals who leave their home country to work overseas. The term economic migrants, alternatively referred to as emigrants or overseas workers, will be used throughout this report. A common feature of economic migrant behaviour is the transmission of a portion of earnings back to families, friends and communities in their country of origin. These transmissions of cash or goods are known as *remittances* – a term defined by the World Bank as "cross-border person-to-person payments of relatively low value".[3] In an increasingly globalised labour market, rising levels of emigration are translating into remittance flows of increasing size and importance.[4] Remittances are categorised as being *formal* - that is, funds that are sent between countries via regulated banking and money transfer systems – or *informal* - sent either as cash outside the regulated monetary systems or in-kind as goods, gifts or products.

Remittances play a crucial role in the processes of development on both a national and individual level. On a national level, international remittances offer a larger source of financing for developing countries than Official Development Assistance (ODA), estimated for 2009 to be USD$338 Billion.[5] In addition, remittances are more stable across the economic cycle than other forms of finance.[6] These figures only include formal remittances, estimated to account for approximately half of all remittance flows.[7] Formal remittances play an important role in national economic growth - they constitute a source of foreign exchange, positively affecting the national balance of payments and helping to pay for imported goods and services.[8] In addition, formal remittances can add to the total amount of money available in the financial system, thereby increasing the pool of capital available for local banking institutions to loan – in turn, it is hoped that these loans help to encourage economic growth through investment in productive assets.[3]

On an individual level, remittances are the lynchpin between families and communities at home and workers based overseas. Both formal and informal remittances are important for receivers as a "family based system of social protection and poverty alleviation."[9] In this context, extensive research has been conducted into the relationship between remittance flows and poverty, inequality and on a national level, achievement of the Millennium Development Goals (MDGs). In countries with high levels of remittances, such as Tonga, these flows have been credited with significantly enhancing levels of human development by enabling families to pay for education and healthcare.[10] These investments in human capital have been tracked as boosting individual and family chances of either starting their own business or gaining waged employment.[7] Starting a business, an investment in productive capital, provides both economic benefit on a national level and helps support families by providing additional sources of income.[11]

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[3] World Bank, 2007: 6.
[4] World Bank, 2009a.
[5] World Bank, 2009a.
[6] CGAP, 2008: 17-20.
[7] CGAP, 2008: 17.
[8] Maastricht, 2009.

[9] Brown, 2008: 18.
[10] Brown & Levee, 2007.

[11] Brown & Levee, 2007.

Studies of remittances are often included in a broader agenda of *financial inclusion* – a measure of how many individuals within a nation have access to regular and sustainable financial services. Globally, the vast majority of citizens of developing countries are excluded from the formal financial sector.[12] According to the United Nations, "access to a well functioning financial system can economically and socially empower people" and hence "the development of inclusive financial sectors is therefore a potentially powerful tool in the fight against poverty".[13] Supply of financial services has been found to not just be a product of high incomes per capita – there are notable examples of countries, such as Thailand, where access to financial services is high relative to wealth. Chala notes that "countries can improve levels of financial inclusion by creating effective regulatory and policy environments and enabling the actions of individual financial services providers".[14] Encouraging financial inclusion is seen as a positive goal for national governments and multilateral development agencies to pursue.

The market for formal remittances globally is served by a variety of financial institutions. These include Banks, *Money Transfer Operators (MTO's)* – specialist remittance providers – as well as microfinance institutions. Providers of remittance services in any country are typically a mix of local institutions and larger, multinational MTO's, such as Western Union and Moneygram. Western Union is the largest multinational MTO, with a strong global brand name, operations in 200 countries and over 350, 000 agent locations worldwide.[15] In addition to these formal providers, informal remittance providers compete in the market by providing an alternative way to transmit cash or goods. Cash can be transmitted informally in person (i.e. a friend or family member physically carries the cash between countries) or through organised underground channels. Alternatively, remittances can be in-kind in the form of foods, clothing or other commercial products. These products are then either sold to raise income or consumed by individuals, families or communities in the receiving country.

There are a number of problems associated with remittance flows to developing countries, affecting both individuals sending and receiving remittances as well as national governments. One of the most prominent problems is the costs, both direct and indirect, incurred by the individual, or *consumer*, of remittance services. Direct costs comprise the fees charged by the MTO or Bank for both sending and receiving, as well as any margin charged for foreign exchange. This margin consists of the difference between the foreign exchange rate that the provider is charged and the rate the provider charges the consumer. The profits of remittance providers are estimated to comprise of two-thirds fees and one-third foreign-exchange margins.[16] Indirect costs include both the time and money taken to either send and/or collect the remittance: an example would include a receiver of remittances in a rural area having to travel to a city to the nearest MTO office in order to receive funds. Problems relating to indirect costs are often referred to as *last mile* issues in remittance transfers. For national governments, the persistence of the large market for informal remittances remains problematic. Following the reasons outlined earlier, informal remittances do not contribute to a nation's recorded financial flows or balance of payments, the funds staying outside of the formal financial system. It is therefore a generally accepted policy goal of governments and multilateral agencies to encourage a greater share of remittances through the formal sector.

Whilst remittances are significant to many developing countries, the problems of remittances outlined above, vary from nation to nation. Indeed, some nations have enjoyed relative success in

[12] UNCDF, 2009.
[13] Sibley, 2007: 24.
[14] Chala et al, 2009.
[15] WU, 2009.
[16] Deshpande et al, 2005: 4.

minimising these problems, whilst others have not been as successful. This report focuses on two nations, the Philippines and Tonga, for each of whom remittances from economic migrants are an important source of income. Despite this commonality, the market for remittances varies considerably between the two nations.

Box 1: Philippines – quick glance.[19]

Population:	97,976,603
Population growth rate	1.957%
Urbanisation:	65%
Urban growth rate:	3%
Literacy:	92.6%
GDP (USD):	$166.9 Billion
GDP growth rate:	3.8%
GDP sectoral composition:	
Agriculture:	14.7%
Industry:	31.6%
Services:	53.7%
Population below poverty line	30%
Remittances (USD):	$16,291m
Per capita:	$185

In both Tonga and the Philippines, government *policies* that deal with remittances are important for the success each nation encounters in minimising the problems experienced. As such, a portion of this report will focus on the policies adopted by each government. In analysing these policies, his report uses several theoretical ideas from policy studies. The first is the concept of *normal* versus *paradigmatic* policy change. The concept is that changes that can be structured within existing regulatory frameworks are far easier to achieve. A government viewing a change as paradigmatic will make it far harder for any policy changes to be brought about.[17] The second concept relates to the idea of policy as an "exercise in applied problem solving".[18] This idea sees all stakeholders in policy as seeking to problem-solve for solutions, enabling a more flexible approach to negotiations.

The Philippines, a developing country, has a strong tradition of economic migrants seeking employment opportunities overseas. There are large concentrations of Filipino economic migrants in the Middle East, particularly Saudi Arabia and the Gulf countries, Hong Kong, Singapore, Malaysia and the United States.[20] Economic migrants are commonly referred to in the Philippines as *Overseas Filipino Workers (OFW's)*. Formal remittances by OFW's back to the Philippines constitute 13% of GDP, around USD$17 Billion.[21] It is estimated that another 50%, or USD$17 Billion is remitted informally each year.[22] The market for remittances in the Philippines has been widely studied, due to its large size, high levels of competitiveness and prominent use of new technologies.[23] Providers of formal remittance services in the Philippines include banks, credit card companies, the postal service, microfinance organisations and various NGO's. Informal services are provided by friends and relatives carrying cash or goods back to the Philippines, pawnshops and truck drivers (for domestic remittances particularly).[24]

A prominent feature of the Filipino remittance market is the availability of *mobile remittance* services[25] – cross-border payments utilising mobile phone technology to send and/or receive remittances. Box 2 below describes how a typical mobile remittance takes place. The key difference

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17 Howlett & Ramesh, 1995: 193-194.
18 Colebatch, 2002: 126-127 quoting Howlett & Ramesh.
19 CIA, 2009; Ratha & Xu, 2007a; UNDP, 2009.
20 MI, 2009.
21 Rosenburg, 2008.
22 Gxchange interview, 2009.
23 For example, see Amin, 2007; Isaacs, 2008; Deshpande et al 2005; Krugel, 2007.
24 Mellyn, 2003: 8-9.
25 Amin, 2007; Isaacs, 2008; Deshpande et al 2005; Krugel, 2007.

between a mobile and 'normal' remittance involves the end crediting of funds in the receiving country. Remittances are normally credited to a bank account, collected in cash by the receiving party or delivered via courier. As is demonstrated below, a mobile remittance is credited to a virtual bank account or *e-wallet*, stored on a mobile phone. In the Philippines and elsewhere, mobile remittances often form one part of a broader *mobile money* service. Mobile money refers to a range of financial services delivered to the *consumer* via a mobile phone. Services can include remittances, savings, credit and loans.

There are two major competitors in the mobile remittance market in the Philippines[26]:

Smart Telecommunications: Smart is the Philippines leading wireless service provider with almost 38.5m subscribers on its mobile network. It's mobile remittance service – named *Smart Padala* – has almost 1 million regular users (out of a total economic migrant population of 8 million), transferring home almost USD$50m per month.[27] Users remit funds through partner MTO's in 19 countries worldwide.[28] Smart Padala forms part of a broader *mobile money* service.

Box 2: Step by step guide to mobile remittances in the Philippines

Flow of fund from **Sender** to **Receiver**.

Sender pays cash to a partner MTO in Country X.

Partner RSP transmits cash to Telecom.

Telecom sends *SMS* to **receiver** in the Philippines to notify them of transfer.

Receiver now has Pesos stored in e-wallet for further use. **Receiver** can now either *withdraw* pesos at an **agent** or *transfer* pesos to another person in the Philippines via *SMS*.

To withdraw, the **Receiver** takes phone to an agent and sends a *SMS*. Agent then disburses cash.

Adapted from World Bank: "General Principles for Remittance Services" (2007: 38).

Key Terms
MTO: Money Transfer Operator – partner organisation in County X that has a commercial link with Telecom in the Philippines. MTO typically can offer other (i.e. non-mobile) forms of remittance.
SMS: Short Messaging Service or 'text message'.

[26] A third entrant, the technology company Luup, has announced a partnership with Metrobank (a leading Filipino commercial bank) to provide mobile remittances specifically from the Middle East. This partnership was announced on September 9th, 2009 and has not yet become operational (see Luup, 2009). As such, this report focuses solely on the operations of Smart and Globe.
[27] InfoDev, 2006: 12.
[28] InfoDev, 2006.

Globe Telecommunications: Globe is the second largest mobile service provider in the Philippines. It's mobile remittance service, *Gcash*, is available in 14 countries worldwide. Globe situates its Gcash service within a broader mobile money offering that allows day-to-day banking, domestic remittances and bill payments via mobile phone (through SMS).[29]

Tonga, like the Philippines, also has a strong tradition of economic migration, due to the limited economic opportunities available at home. As such, over fifty per cent of Tongans are based overseas, primarily in Australia, New Zealand and the USA.[30] For the countries of the Pacific, Tonga included, increasing access to the labour markets of Australia and New Zealand gives added impetus to any examination of remittance flows. This increasing access is in the form of new labour mobility schemes that allow workers from the Pacific to come to Australia and New Zealand on a seasonal basis to work in agriculture and horticulture. With such a large (and increasing) percentage of Tongans working abroad, remittances back to Tonga are extremely significant, accounting for 32.3% of GDP in 2006.[31]

Remittances from the major emigration centres of Australia, New Zealand and the USA are received both formally and informally. Informal remittance flows are generally either carried back to Tonga as cash or goods to be sold. In the capital, Nuku'alofa, large second-hand flea markets operate, primarily selling goods brought back from overseas as in-kind remittances. These goods include clothing, foods, electronics and gifts.[33] Formal remittance flows are carried out by large multinational MTO's (Western Union, Moneygram), smaller MTO's (IMEX, World Cash), banks (ANZ, Westpac) and MTO's associated with Church or community groups (Melei Mei Langi, 'Epokifo'ou Money Transfer).[34] All remittance providers use standard methods of cash distribution (i.e. either home delivery or recipient picks up cash from office). The exception is the Westpac remittance card. This innovative product allows an economic migrant in NZ to hold a specialised remittance bank account – the migrant maintains one ATM card and gives another to their family in Tonga.[35] The family in Tonga can then withdraw funds at ATM's in Tonga at the cost of only NZD$1.00 per transaction.[36] Mobile remittances do not currently exist in Tonga as an option for economic migrants to transfer funds home.

Box 3: Tonga – quick glance.[32]

Population:	120, 898
Population growth rate	1.482%
Urbanisation:	25%
Urban growth rate:	1.6%
Literacy:	98.9%
GDP:	$0.26 Billion
GDP growth rate:	1.2%
GDP sectoral composition:	
Agriculture:	31.8%
Industry:	30.6%
Services:	37.6%
Population below poverty line	24%
Emigrants:	50.4%
Remittances (USD):	$100m
Per capita:	$992

[29] Infodev, 2006.
[30] UNDP, 2009.
[31] Ratha & Xu, 2007: 1.
[32] CIA, 2009; Ratha & Xu, 2007; UNDP, 2009.
[33] Besnier, 2004.
[34] See Appendix A for sources and sample of remittance providers from NZ to Tonga.
[35] The Westpac remittance card required extensive policy reform in NZ in order to become operational.
[36] Gibson et al, 2008.

2. Purpose

The overall purpose of this study is to see if the *success factors* that led to the development of mobile remittance services in the Philippines are present in Tonga. After completing initial readings for the project, the objectives for the study were defined as:

1. Understand the importance of mobile remittances to development.
2. Clearly identify the *success factors* that led to the introduction of mobile remittances in the Philippines.
3. Use these *success factors* as the basis of an examination of other potential markets for mobile remittances.
4. Apply the success factors from the Philippines to Tonga, in order to assess the market for mobile remittance services in Tonga.
5. Offer policy recommendations based on the outcome of the analysis of Tonga.

After further reading was completed, it became clear that mobile remittances could not be separated from the broader mobile money systems that they form a part of. As such, whilst still focusing on mobile remittances, where appropriate, this study has researched mobile money systems. This is most relevant where mobile money either facilitates mobile remittances, or where the remittance services offered by mobile money providers cannot be disconnected from the overall mobile money offering.

3. Methodology

This study consisted of primarily desk-based research. This has been supplemented by interviews with key mobile remittance stakeholders in the Philippines. This report is structured as follows:

A) Background.
Aims to give the reader the necessary background information in order to understand the context, purpose, language and methodology of the report. Identifies and explains the key concepts that form the intellectual basis of the report.

B) Purpose.
Outlines the specific objectives of the report, .

C) Methodology.
Explains how the report will be structured as well as the logical progression of the analysis.

D) Understanding the importance of mobile remittances to development.
This section seeks to understand the overall purpose of the report in the context of wider issues of development. First, I explain how mobile remittances have contributed to development in the Philippines. I do this by explaining four documented benefits of the services. I then examine how mobile remittances could contribute to the development of Tonga by applying these same four benefits. In doing so, I seek to understand how and why mobile remittances would be beneficial in the specific context of Tongan development.

E) Identifying success factors for mobile remittances in the Philippines.
This section identifies what were the key *success factors* in the introduction of mobile remittance services in the Philippines. These success factors are grouped into three categories, each category representing a key stakeholder in the mobile remittance industry: *Business*, *Consumer* and *Government*.

F) Applying the success factors to Tonga.

This section of the report uses the previously identified *success factors* as the basis of an examination of the potential for the introduction of mobile remittance services in Tonga. For each individual factor, the study will outline whether the success factor is or is not present in Tonga. This is achieved by a qualitative comparison between the two nations. By following this methodology, it will allow the study to identify the *commonalities* and *gaps* between the Philippines and Tonga in the three categories of *Business, Consumer* and *Government*. Where differences occur between the two countries, the report will analyse *why* the differences exist.

G) Recommendations.

This section makes policy recommendations based on the differences highlighted in the previous sections. The recommendations seek to take account of the reasons *why* the differences exist.

H) Conclusion.

The conclusion of the report seeks to highlight areas for further study. It outlines methods in which the *success factors* highlighted in this report could be made into a more rigorous framework given further time and resources. It also identifies areas of the topic that require further analysis, particularly given constraints around access to commercial and other sorts of confidential information.

4. Understanding the importance of mobile remittances to development

The introduction to this report outlined the connections between remittances and the processes of development. We saw that remittances contribute to individual and national development through increasing the available income for consumption, investment in human capital and investment in productive assets. It also introduced several problems with current remittance systems, including high direct and indirect costs as well as the persistence of large-scale informal markets.

Mobile remittances in the Philippines have been documented as having the potential to address these problems. By tackling these specific issues, mobile remittances are leveraging the benefit that Filipino society gains from its economic migrants and the resulting remittances. In doing so, it is argued that mobile remittances positively contribute to the process of development. I have highlighted below (italicised), four specific benefits of mobile remittance systems in the Philippines. Under each stated benefit, I then discuss mobile remittance systems in the context of Tonga, showing how these same benefits could help address specific problems of development experienced by that nation.

- *Reduction in direct remittance costs.*[37]

As noted in the introduction, Tonga has a heavy reliance on remittances, with formal flows accounting for almost one third of its GDP. Despite this, the cost of remitting to Tonga is still extremely high by global standards. An examination of the NZ-Tonga remittance corridor shows that the average cost in percentage terms of six major remittance providers is 8.67% of the gross monies spent (please see Appendix A for data and notes on calculation).[38] Similarly high prices also exist in the Australia-Tonga and USA-Tonga remittance corridors.[39] This compares to costs of between 1-2%

[37] Amin, 2007; Isaacs, 2008; Deshpande et al 2005; Krugel, 2007; Ratha & Riedburg, 2005: 16.

[38] The top six are the five cheapest providers – Westpac, Melle Mei Langi, World Cash Transfers, IMEX Money Transfers & MoneyGram – as well as Western Union, more expensive, however a major player in this remittance corridor. See Appendix A for more details.

[39] Gibson et al, 2008.

in more competitive remittance corridors, such as the US to Mexico. Table 2 in Appendix A also reveals the high spread in costs amongst the top ten providers – ranging from 2.99% - 14.86% It was estimated, using older 2006 figures, that this spread was costing the Tongan economy more than 4% of GDP annually. In addition to these 'avoidable' remittance costs, studies in New Zealand have shown that senders of remittances behave with significant cost elasticities – reducing direct remittance costs would elicit an increase in gross monies sent.[40] Using this analysis, Gibson, McKenzie and Rohorua estimated in 2006 that a reduction in remittance costs to between 1-2% (of the gross transaction) would amount to a 27.5% increase in the amount of remittances received in local currency terms.[41]

- *Increase in the geographical spread of distribution points, helping to reduce problems associated with the 'last mile'. In turn, this has led to a reduction in indirect costs for the receiver including costs associated with travel and time spent collecting the remittances.*[42]

The data in Appendix A show that the Westpac remittance card is by far the current cheapest remittance option in the NZ-Tonga corridor. Despite the large difference in cost between this provider and the next cheapest (just under 6%), the Westpac card is not the most popular choice for Tongan economic migrants remitting funds back from New Zealand. This demonstrates that there must be other factors at play in addition to direct costs. Previous studies of this remittance corridor have concluded that knowledge of this remittance method, access to ATM locations and trust in the service have contributed to this anomaly.[43] A comparison by the authors between the locations of ATM's (where the Westpac remittance card can be used) and the location of Western Union outlets on the main Tongan island of Tongatapu show that the latter are strategically positioned to be within five kilometres of every village on the island. The convenience of the Western Union distribution outlets means a reduction in indirect costs to the receiver of remittances.

A reduction in indirect costs is crucial in the Pacific, where it is estimated that receivers of remittances are spending between 30-50% of the total sums received in travel costs to collect the monies.[44] Although there is wide coverage by Western Union on Tonga's main island, one of the largest potential impacts of a mobile remittance service in Tonga would be an increase in the geographical spread of remittance distribution points across all the main islands. An examination of Table 3 in Appendix B shows that each of the five main island groups receive significant levels of remittances from overseas – from 66% of households on Vava'u to 83% on Niuas.[45] In addition to these international flows, almost 30% of Tongan households also receive domestic remittances – these are even more prominent on the outer islands where relatives have migrated to major population centres to seek employment.[46]

Reducing both the direct and indirect cost of remittances in Tonga would increase the amount of money available to receiving households. In turn, this would give households increased income to invest in education, healthcare and income producing assets. Reducing remittance costs is therefore seen to be assisting development in Tonga.

[40] Gibson, McKenzie & Rohorura quoted in McKenzie, 2006: 9-10.
[41] Gibson, McKenzie & Rohorura quoted in McKenzie, 2006: 9-10.
[42] Amin, 2007.
[43] Gibson et al, 2008: 16-17.
[44] UNDP, 2008.
[45] TDS, 2009; see Appendix B for more details.
[46] TDS, 2009a; see Appendix B for more details.

- *Increase the percentage of remittances flowing through formal channels.*[47]

Increasing the flow of formal remittances will help to strengthen the financial system in Tonga by contributing positively to financial liquidity as well as the national balance of payments.

- *Where mobile remittances are associated with the implementation of a broader system of mobile money, an increase in financial inclusion*[48].

The background section of this report noted that increasing *financial inclusion* is a goal of national governments and multilateral development agencies. This goal is particularly pertinent in the Pacific, where approximately 80% of low-income earners are excluded from the financial system.[49] A recent review of financial services in the Pacific concluded that new systems were needed that were *appropriate* in the Pacific context and which met the *needs* of the Pacific people.[50] This report argues that a mobile money service in Tonga could achieve both of these goals, thereby increasing financial inclusion. By utilising a technology that is both clearly established and growing, a well-designed mobile money system would be *appropriate* in the Tongan context. With such high levels of both domestic (30% of households) and international (75% of households) remittances[51], combined with the current high direct and indirect costs, there is a clear *need* for a revamped system within Tonga. . See Section 6 (page 21) for more details on the demand for and supply of financial services in Tonga.

5. Success factors for mobile remittances in the Philippines

5a. Business

Commercial viability

Mobile remittance services in the Philippines are a private sector, profit-oriented proposition. Globe and Smart both situate their service within a broader mobile money offering that is both popular and profitable.[52] The profitability of these services is viewed as both a key factor in their introduction[53] as well as underpinning their financial sustainability.

Broader mobile money offering

Whilst the remittance services offered by both Smart and Globe are of significant value (approximately 50% of revenue for Globe)[54], they form just one part of a broader mobile money offering. From the perspective of mobile remittances, this broader offering is necessary to provide both a distribution mechanism for the funds as well as offering complementary financial services such as savings and domestic transfers.

Competition in the telecommunications industry

A competitive telecommunications industry provided the commercial motivation for both Smart and Globe to expand into mobile money - each were seeking a competitive advantage to augment their existing businesses.[55] In doing so, the companies hoped to achieve some of the following goals[56]:

- Increased revenue per mobile network subscriber.

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47 Gxchange interview, 2009.
48 Porteous
49 UNDP, 2008.
50 Cornford, 2001.
51 See Appendix B for more details & sources.
52 Porteous, 2006: 24-27.
53 Smith, 2004: 6-13.
54 Gxchange interview, 2009.
55 Krugel, 2007: 3.
56 Adapted from Gautam et al, 2009: 3 and Mas & Rosenburg, 2009: 1-2.

- Increased new subscribers.
- Reduction in customer churn (i.e. customer's switching networks).
- Added data traffic to their network.
- Reduced product distribution costs
- Augmenting branding of mobile network.

Business model

In the case of the Philippines, Smart and Globe pursued two distinct business models.

- *Hybrid model (Smart)*: Involves a partnership with a banking institution to provide mobile remittance and mobile money services.
- *Pure model (Globe)*: Telecom takes on all aspects of the remittance and money products including banking and administration.

Each of the models involves partnerships with international remittance providers to facilitate services.[57] Whilst the success of both models makes differentiation difficult, this was in large part due to the flexibility of the regulatory regime. The majority of practitioner literature regarding mobile remittances/money regards the hybrid model as superior: by partnering with an already licensed financial institution, telecoms can access credit and financial management facilities as well as avoiding financial regulation.[58]

Targeting the bottom of the pyramid market

Globe and Smart each pursued strategies that targeted the "lower-middle, low and poverty level groups" comprising "the bulk of the Philippines population".[59] Developing mobile remittance and money products that satisfied the needs of this previously underserved portion of the market, proved to be a sustainable and profitable business strategy. [60]

5b. Consumer

In creating these services, Ratha and Riedburg describe the two telecoms as having "created an innovative product based on the customer's needs, habits and possibilities".[61] This product was culturally and socially specific to Filipino society, creating the success factors listed below:

High levels of remittances

The significant size of the Filipino remittance market has meant an attractive business proposition for both Smart and Globe. In addition, the possibility of attracting the approximately 50% of remittances sent through informal channels,[62] has increased the attractiveness even further.

Mobile phones: prevalence in society & the economic migrant relationship

As is common to many developing countries, mobile penetration in the Philippines is higher than fixed line telecommunication services,[63] at a ratio of more than 16:1.[64] The mobile phone is central to the economic migrant-family relationship, providing the key point of contact for family and friends. Mobile remittance services were successful in utilising a technology prevalent in both

[57] For a fuller explanation of the business models used in the Philippines, see InfoDev, 2006: 16-22.
[58] InfoDev, 2006: 13; Amin, 2007.
[59] InfoDev, 2006: 8.
[60] Smith, 2004: 6.
[61] Ratha & Riedburg, 2005: 16.
[62] CGAP, 2008: 17.
[63] Smith, 2004: 11.
[64] ITU, 2009.

sending and receiving countries, a technology firmly within the social and cultural context of the user.[65]

Popularity of SMS
The Philippines is the oft-quoted texting 'capital of the world'[66]; reasons given include the low cost of services (approximately USD$0.01-2 per SMS), a continuation of the Filipino oral tradition and the "combination of the informality of speech with the reflectiveness of writing".[67] Mobile remittance services in the Philippines utilise SMS in order to pass instructions between the consumer and the telecommunications company – utilising a service that both sender and receiver are intimately familiar with.

Prepaid mobile subscribing
Prepaid services are prevalent in the Filipino mobile market.[68] This is significant as it means by adopting a similar pricing structure, mobile remittances could easily gel with the existing products and services offered by Smart & Globe, smoothing consumer uptake.

Sachet purchasing
The pre-paid culture is part of a business strategy that sought to take advantage of the phenomenon of 'sachet' purchasing – that is purchasing goods in small quantities for use on a daily basis.[69] Marketing mobile remittance products in 'sachet' style has been a major factor in their successful uptake.[70]

Distribution networks
For mobile remittance products, the distribution networks where receivers of remittances can "cash-out" are crucial for success. Globe and Smart have partnered with a number of national retail stores including pawnshops and supermarkets to provide this network. In addition, Globe is in the final stages of negotiation with the BSP to use its entire network of 15,000 sub-dealers[71] as distribution points for its mobile remittance products.[72] This will greatly enhance its product offering and give further benefits to consumers, further reducing problems associated with the "last mile" of remittance transfers.

Consumer concerns: trust & branding
In other parts of the world, building consumer trust in mobile remittance and money systems has been difficult due to the services being provided by new brand-names.[73] Globe and Smart avoided these problems in part by utilising their well-known telecom brands – in most cases, these had stronger branding recognition than most local banks.[74]

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[65] Singh, 2009: 521.
[66] Donner, 2007: 148; Smith, 2004: 13.
[67] Pertierra et al quoted in Smith, 2004: 11.
[68] Donner, 2007: 146.
[69] Smith, 2004: 6.
[70] InfoDev, 2006: 8-9.
[71] Sub-dealers are shops and individuals that sell air-time (prepaid mobile credit). These are located within small retail outlets nationwide.
[72] Maniego-Eala, 2009.
[73] Porteous, 2006: 39.
[74] Poretous, 2006: 21.

5c. Government

Enabling environment for mobile remittances

A comprehensive study of policy approaches to mobile money by David Porteous, advocates an "enabling environment" that "promotes a sustainable trajectory of market development".[75] To a large extent, the Filipino government, represented primarily by the Bangko Sentral ng Pilipinas (BSP), has been able to create this environment. Three key features of their approach to policy include:

- *Flexibility & openness in policy setting.*

When Smart & Globe began to offer mobile remittance/money services, no formal regulations existed to deal with these new types of transactions. As such, the success of ongoing co-operation in negotiations between the telecoms and the regulators were a "key success driver" in the implementation of services.[76] A specific review of Globe's negotiations with the Government found that flexibility and openness from *both* sides was essential in securing a 'win-win' solution that avoided large amounts of unnecessary regulation.[77] In this respect, the regulatory approach has been helped by the "progressive attitude" of the BSP.[78]

- *Promotion of win-win scenarios.*

Whilst Globe and Smart were motivated by commercial considerations, negotiations over regulatory policy were also informed by three distinct goals of the BSP:

(i) Desire to remove the Philippines from the FATF[79] list of non-compliant countries.[80]

Prior to the introduction of mobile money systems in the Philippines, the nation was on the FATF list for not complying with anti-money laundering procedures. The advanced operational systems of Smart and Globe have improved efforts by the BSP to monitor fraudulent transactions within the financial system. The BSP has been able to use the improved AML, KYC and anti-fraud monitoring systems provided by the Telecoms as part of their mobile money services as evidence of its efforts to counter money-laundering.

(ii) Desire to increase the share of remittances through the formal system.

With approximately 50% of remittances flowing through informal channels, the BSP was sympathetic to new remittance services that captured some of this estimated USD$17 Billion through the formal banking system.[81]

(iii) Increase in financial inclusion.

With approximately 80% of the Philippines not covered by traditional financial services, the BSP saw the mobile remittance/money services as an opportunity to expand financial inclusion.[82]

- *Similarities in pricing structures.*

Comparisons of the pricing structures of mobile remittance/money products to existing pre-paid mobile products finds that they are very similar.[83] This was extremely important as it meant that the

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[75] Porteous, 2006: 3-4.
[76] Gxchange interview, 2009.
[77] Gautam et al, 2006: 6-12.
[78] Gxchange interview, 2009.
[79] FATF is the Financial Action Task Force on money laundering. It maintains a 'blacklist' of nations not considered to be compliant with anti-money laundering rules and regulations.
[80] Leishman, 2009; Gxchange interview, 2009.
[81] Gxchange interview, 2009.
[82] Gxchange interview, 2009.
[83] InfoDev, 2006: 12-16.

BSP and other regulatory agencies were able to deal with many of the pricing issues in a manner consistent with existing regulation. This is consistent with the *normal* – as opposed to paradigmatic – policy process outlined in section 1.

Policies that supported the expansion of the telecommunications sector
Although recent moves to increase taxation on the sector may have reversed this policy,[84]CGAP found that "government policies that support the expansion of the telecommunications sector" were also a factor in the successful introduction of mobile remittance/money services.[85]

Proactive approach to working economic migrants
The Philippines has maintained a consistently pro-active approach to its economic migrants, adopting formal policy measures since 1974.[86] These efforts have been described as a "sophisticated policy regime to promote and regulate labour emigration."[87]

Table 1: Summary of success factors in the Philippines.

Category	**Success Factor in the Philippines**
Business	Commercial viability
Business	Broader mobile money offering.
Business	Telecom competition
Business	Business model
Business	Targeting the BOP market
Consumer	High levels of Remittances
Consumer	Mobile phones: prevalence in society & the economic migrant relationship.
Consumer	Popularity of SMS
Consumer	Prepaid mobile subscribing
Consumer	Sachet purchasing
Consumer	Distribution networks.
Consumer	Consumer concerns: trust & branding.
Government	Enabling environment for mobile remittances
Government	*Flexibility & openness in policy setting.*
Government	*Promotion of win-win scenarios*
Government	*Similarities in pricing structures.*
Government	Policies that support the telecommunications sector
Government	Proactive approach to economic migrants.

[84] Gxchange interview, 2009.
[85] CGAP, 2008: 76.
[86] Aguilar Jr, 2007: 157-164.
[87] O'Neill, 2004.

6. Applying the success factors to Tonga

This section aims to highlight the similarities and differences between the Philippines and Tonga, utilising the list of success factors that are summarised above in Table 1. Each success factor is categorised as being either a *commonality* or as experiencing *gaps*.

6a. Business

Commonalities

- **Telecom competition.**

The telecoms market in Tonga has two providers of mobile services, Digicel and the Tonga Communications Corporation (TCC). Tonga was one of the first nations in the Pacific to liberalise its telecommunications sector. Post-liberalisation saw the emergence of Digicel as a competitor to the established TCC. The ensuing competition has resulted in a rapid increase in teledensity, a large fall in the waiting list of those wishing to use services and a 200%+ decline in tariffs.[88] Since their entrance to the market in 2007, Digicel have already invested TON$20m in their Tongan network and operations, signaling a long-term commitment to a positive business opportunity, with a stated goal of becoming the number one operator in the Kingdom.[89] Overall, although the level of competition in the Tongan telecoms market is not as high as in the Philippines, for the small size of the market, it can be considered reasonably competitive.

Box 4: Supply of financial services in Tonga.

Overall, the ADB describes Tonga as having the "best developed financial market in the Pacific region."[90] Tonga has 3 major commercial banks: Westpac, ANZ (Australia & New Zealand Banking Group) and the MBF (Malaysian Banking Finance) as well as the State-run Tonga Development Bank. Each of the commerical banks was profitable in 2008.

The Microfinance industry in Tonga is in its infancy, with a small number of operators.[91] Most recently, South Pacific Business Development, a regional microfinance agency targeting women, has opened an office in the capital. Initiatives to start a Government run credit union, which could serve as a grassroots bank, are also currently being explored by the Ministry of Labour, Commerce & Industries.[92]

- **Targeting the BOP market**

Although a lack of data makes estimation difficult[93], evidence from academic studies suggests that Tongan society is highly stratified.[94] Tonga ranks highly on a number of development indicators compared with its Pacific neighbours – it has a Human Development Index ranking of 99th out of 182 countries globally.[95] Despite this relatively high level of development, there still exists a large, relatively poor segment of the market – the bottom of the pyramid. Even though precise

[88] Totel, 2009.
[89] Cellular News, 2009.
[90] ADB, 2008: 31.
[91] ADB, 2008: 33.
[92] Tonga, 2009.
[93] For example, in the 2009 UN Human Development Report, statistics do not exist for Tonga for the ration of richest v poorest 10% of the population and the overall gini co-efficient/index.
[94] See Besnier, 2004: 11 for a discussion on class in Tonga.
[95] UNDP, 2009.

assessments of demand are difficult,[96] the fact that 75% of households receive international remittances bodes means that any new service would have to be targeted at the majority of the population.[97] These figures are reinforced by UNDP research that notes that demand for remittances was evident in all countries of the Pacific, with a system for handling both domestic and international transfers important.[98] Demand for a broader spectrum of financial services will be discussed below.

- **Broader mobile money offering**

Whilst country specific data on financial exclusion is not available for Tonga[99], regionally it is estimated that 80% of low-income earners in the Pacific do not have access to financial services. Despite attempts by ANZ to expand access to banking in rural areas, this has a limited geographical reach, only serving the main island of Tongatapu.[100]

Gaps

- **Commercial viability.**

Although it is beyond the scope of this report to conduct a formal cost/benefit analysis of the potential commercial opportunity in Tonga, the small size of the market does pose problems for any mobile remittance or mobile money provider. With a total population of just over 100, 000 people, Tonga does not compare favourably with the Philippines. By comparison, in the latter, Smart's Padala service alone had almost 1 million regular users.[101] In addition, Tonga had only 15,597 wage and salary earners (as at the 2003 census).[102] This figure is significant as it is these formal sector employees who would provide the bulk of domestic remittances provided by a mobile money system. As was seen in the Philippines, the commercial viability of a mobile money service is vital in ensuring the sustainability of services. Although mobile remittances and money services are able to use technology to significantly reduce overheads,[103] whether the reductions will be of such a scale to warrant a commercially viable (and sustainable) enterprise would need to be the subject of a formal financial analysis.

- **Business model**

The successful business model in Tonga will very much depend on the regulatory regime that is put in place. For example, stringent requirements for obtaining a banking license may force a potential mobile remittance provider to partner with an established banking institution in order to gain access to a licensed financial services provider. As noted earlier, evidence from other mobile money deployments globally have led to a preference for this partnership model. In the case of Tonga, uncertainty around the small size of the commercial opportunity may mean that regulators have to be open to different models and operating partnerships.

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[96] UNDP, 2008: 5.
[97] Tonga Department of Statistics, 2009.
[98] UNDP, 2008: 5-8.
[99] The most comprehensive global survey of financial inclusion, the CGAP publication "Financial Access 2009", contains no data for Tonga.
[100] ANZ, 2009.
[101] InfoDev, 2006: 12.
[102] TDS, 2009.
[103] UNDP, 2008: 7.

6b. Consumer

Commonalities

- **High levels of remittances.**

With just over 50% of it's population based overseas, primarily in Australia, New Zealand and the US, it is not surprising that Tonga receives extremely high levels of remittances. Inward remittance flows in 2007 were USD$100m or USD$992 per capita[104]. This equates to 40% of GDP.[105] Overall, 75% of families within Tonga receive remittances from overseas.[106] In addition, remittances are received across the nation – Appendix B shows that a minimum of two thirds of households on each of the five main island groups receives international remittances.

- **Mobile phones in society & the economic migrant relationship.**

Tonga currently has mobile penetration of 48.73%. Although this is substantially less than the Philippines (75.39), Tonga's compounded annual growth rate of mobile phone use (from 2003-08) of 35% compares favourably to the 24.8% growth of the Philippines.[107] In addition, Tonga is only in its first decade of telecom liberalisation – teledensity increased from 3.4-30% from 2002-2007 alone[108] (it has also been only two years since Digicel, a major player, started operating). In addition, there is evidence to suggest that families with members who have emigrated abroad have a much higher use of mobile phones, with one such study showing that 77% of households with members working in New Zealand had a mobile phone.[109] With access to the internet not yet widespread in Tonga, the mobile phone is cited as a key communication tool between economic migrants and families, communities & churches at home in Tonga.[110]

- **Popularity of SMS.**

The SMS, or texting, phenomenon is not as widely studied in Tonga and statistics are not readily available. As a substitute, this report argues that there are two strong technological precedents for using SMS-based mobile remittance/banking systems. Box 5 below demonstrates the first precedent – namely that current procedures to use prepaid mobile phones in Tonga use similar instructions to mobile money systems in the Philippines. The second precedent involves a Digicel product in Tonga named 'Credit Me, Credit You'. This service allows anyone on the Digicel network to transfer prepaid phone credit to anyone else on a Digicel phone, regardless of his or her location in the world.[111] Effectively, this is an international transfer of an in-kind good – an informal remittance. This is important as in the Philippines; a similar service offered by Globe was named as setting an important consumer precedent – the fact that consumers already used this product, made the conceptualisation of electronic money necessary to use mobile remittance and mobile money systems far easier, enhancing uptake of these new services.[112]

[104] UNDP, 2009.
[105] ADB, 2008: 33
[106] Tonga Department of Statistics, 2009.
[107] ITU, 2009.
[108] Siope, 2008.
[109] Gibson, McKenzie & Rohorua, 2008.
[110] Lee, 2004: 235.
[111] Digicel, 2009a.
[112] Gxchange interview, 2009.

Box 5: SMS instructions in Tonga & the Philippines

Although data on the number of SMS sent in Tonga is not readily available, the study hopes to draw a comparison between existing methods of topping up pre-paid credit in Tonga and the mobile remittance/money systems in the Philippines.

Instructions to top-up prepaid credit in Tonga using Digicel:
- Press *121*Voucher Number#
- Press SEND and check phone for confirmation

Instructions to send Gcash in the Philippines:
- AMOUNT<space>4-digit pin
- SEND to 2882+10 digit cellphone number of the recipient.

We can clearly see that the two sets of instructions are similar, both utilising SMS protocols to deliver instructions. This provides a strong precedent for using SMS-based banking in Tonga.

Sources: Digicel, 2009; Globe, 2009.

- **Prepaid mobile subscribing.**

It was not possible to obtain the exact breakdown of pre-paid and post-paid mobile subscribers in Tonga. However, previous studies have shown that 79% of mobile users in low-income countries have been found to use prepaid services.[113]

- **Sachet purchasing.**

Although this phenomenon is not as widely documented in Tonga, evidence from the pre-paid pricing structures of Digicel & TCC suggest that a similar tactic could be successful in the Kingdom. The lowest top-up amount for pre-paid mobiles is TON$3 for Digicel and TON$5 for TCC. Any mobile money offering would need to be priced in a realistic, pay-per-use manner, consistent with Tongan levels of affordability.

- **Distribution networks.**

Tonga contains a network of retail outlets capable of functioning as distribution networks for mobile remittance products. Whilst the geographical spread of offices of the two telecoms, TCC and Digicel, currently covers less territory than Western Union[114] (a major competitor in the remittance business), utilising their network of airtime resellers[65] could significantly boost their geographical reach. This would require extensive policy development, considering that the Philippines, a mature mobile remittance/money market, is only just reaching the stage of allowing this move after almost seven years of mobile money services.[115]

[113] Porteous, 2006:21.

[114] See Gibson et al, 2008: 29 for a geo-coded map of ATM and Western Union locations within Tonga. See the Digicel and TCC websites for the location of their offices.

[115] Maniego-Eala, 2009.

- **Consumer concerns: trust & branding.**

Digicel in Tonga matches the brand recognition of Smart and Globe in the Philippines. The rapid growth of Digicel in Tonga has relied on a heavy focus on brand promotion and advertising. As such, after only two years of operations, it is a well-established and widely recognised brand name within the Kingdom. Anecdotal evidence surrounding the launch of Digicel Tonga suggests that a similar mobile remittance/money launch could be successful.[116]

6c. Government

Commonalities

- **Similarities in pricing structures.**

The precedent of similarity in pricing between pre-paid mobile and mobile remittance/money products has the potential to exist in Tonga. A mobile money provider could effectively build on the current pricing structures of the two Telecom companies, helping to simplify the necessary changes in policy.

- **Policies that support the telecommunications sector.**

Tonga was the first nation in the Pacific to liberalise its telecommunication sector.[117] As such, it has enjoyed some of the lowest call rates and one of the most competitive markets in the Pacific. The two most important policies with respect to telecommunications are:

Communications Act 2000: covers consumer protection, tariff management, fixed licensing terms, universal service policies, anti-competitive policies and arbitration procedures.[118]

Communications Policy 2000:[119] drafted four key principles:

i. Nurturing a sustainable and financially viable communications sector.
ii. Maximising infrastructure availability.
iii. Supporting industry investment.
iv. Attracting & maximising strategic and economic benefits from communication assets.

In terms of policy principles, use of the telecommunication network for a mobile remittance/money service would be seen to be supporting principles (i) in that it could enhance commercial opportunities and principle (iv) by maximising strategic (developmental) and economic benefits from the telecommunications network.

Gaps

- **Enabling environment for mobile remittances.**

A Pacific-wide study of the readiness of Governments to embrace mobile remittance/money reforms, found that although the regulatory environment does not specifically prohibit mobile money services, implementation of these new delivery channels will pose challenges.[120] Two specific regulatory reforms are noted as necessary:

i. KYC: Current regulations regarding necessary identification of new banking customers in Tonga would make it difficult for a wide network of agents to identify and register new customers. Regulatory reform would have to balance consumer protection and anti-fraud issues with expanding the accessibility of account opening.

116 Hunsicker, 2008.
117 Ofa, 2008: 70.
118 Ofa, 2009.
119 Ofa, 2009.
120 UNDP, 2008: 39.

ii. Prudential regulations relating to 3rd party agents: Currently, no legislation exists to monitor 3rd party agents who may conduct financial transactions on behalf of a mobile money/remittance provider. These regulations would have to be established and guidelines for the necessary controls be developed in conjunction with potential service providers. Without regulations for 3rd party agents, it will be difficult for a mobile remittance provider to increase the geographical spread of their distribution points beyond those offered by current remittance service providers. This would consequentially limit the positive developmental impacts of a mobile remittance service.

- Flexibility & openness in policy setting

Whilst it is difficult to predict future policy behaviour, a key issue within Tonga will be the capacity of the government to implement reform. This capacity will depend upon the financial and human resources available to the government. In addition, the high flows of foreign aid to Tonga – equivalent to 12% of GNI in 2007[121] - means that interactions with individual and multilateral aid donors will be essential to promoting any policy reform.

- Promotion of win-win scenarios

The regulatory authorities in Tonga could also view the introduction of mobile remittances/money as a chance to achieve two primary objectives:

(iv) Increase the share of remittances flowing through the formal system.
(v) Increase financial inclusion.

This would need to be balanced against the protections that current regulations provide including prudential supervision and anti-fraud monitoring (encompassing AML and KYC provisions).

- **Proactive approach to economic migrants.**

The Tongan government maintains a 'Department of Tongans Abroad' which co-ordinates policy with respect to its migrant population. Some of the major initiatives involve continued negotiations with Australia and New Zealand regarding access to seasonal labour markets in those countries. Whilst the number of workers sent so far to Australia has been limited, the scheme has enjoyed success in New Zealand. Studies have shown that latter scheme has opened up new economic opportunities for agricultural workers with lower than average incomes and schooling, a significant pro-poor initiative.[122] A mobile remittance service that further leveraged the developmental impacts of remittances from Tonga's economic migrants would certainly complement these and other policy initiatives.

7. Conclusion

This report has showed that the individuals – the consumers – of remittances and financial services in Tonga exhibit many of the same characteristics as individuals in the Philippines, the site of two separate successful and sustainable mobile money services. However, the comparative analysis in this report revealed important gaps between the two nations in terms of commercial viability and potentially successful business models. In addition, important policy reform would need to take place before a mobile remittance or mobile money service could start up. A key issue for Tonga will remain the capacity of the Government to implement reform and hence co-operation with external development partners and the private sector will be essential to any policy developments.

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[121] World Bank, 2009.
[122] Gibson, McKenzie & Rohorua, 2008: 187-188.

Whilst this report has attempted to be as comprehensive as possible, it could not cover all aspects of the topic area. In addition, there were constraints resulting from a lack of time and resources. A major constraint revolved around access to information, particularly commercial information that is not easily accessible to the public. This was identified early in the research and subsequently helped shape the direction of the final report to be focused more on the contextual settings of mobile remittances in the Philippines and Tonga and less on a rigorous financial analysis of the commercial opportunities for mobile remittances.

Topics that this report excluded, which are however still important in assessing the potential for mobile remittances include:

- An analysis of mobile money ecosystems – that is, the agents and networks used to distribute mobile money products, and in particular, the incentives given to agents to participate in these networks. Much has been written on this subject by CGAP and the GSM Association, including most recently a comprehensive report on mobile money in the Philippines by Paul Leishman.[123]

- An examination of the *technology* used in mobile remittance systems. An example of such research is Krugel (2007), which gave a detailed account of technology options for mobile banking. In particular, linking these technological options to the specific social, cultural, geographic and economic context of Tonga and the Pacific would be helpful in determining the suitability of such systems in Tonga. Examples of important technological issues not covered in this report include the sharing of mobile phones amongst multiple users and the feasibility of further expanding mobile coverage to remote islands.[124]

- A discussion of the risks associated with mobile remittance and mobile money systems (see McMurray (2009) for a comprehensive detailing of risks).

In addition, this report has identified areas of study that are in need of further research in order to more fully assess the potential for mobile remittance services in Tonga:

- To draw a more precise comparison with the Philippines, a researcher would need to more rigorously examine the business case for mobile remittances. To do this, would require access to detailed information around customer numbers, costs and profitability of both Smart and Globe.

- Further work on assessing the demand for financial services in Tonga is necessary. Bruett & Firpo's recent report on mobile money in PNG is a good example of on the ground research combined with a contextual examination of the suitability of the market for mobile money. On the ground surveys would allow us to gain a clearer understanding of the *needs* of Tongan consumers for new forms of financial services.

7a. Policy Recommendations

Finally, this report has five policy recommendations that would help to facilitate mobile remittances and mobile money in Tonga.

[123] Leishman, 2009.

[124] The mobile money systems in the Philippines have traditionally been designed in a way not to facilitate this, where as other mobile money deployments, such as the MPESA system in Kenya, allow multiple account holders to use one phone – an obvious benefit where phones are shared amongst family members and communities (Source – InfoDev, 2006).

- Further research into the potential profitability of mobile remittance and/or mobile money systems in Tonga. This research would need to be a business focused, financial analysis, carried out by a multilateral development agency in conjunction with the Tongan government. Several agencies have expertise in this field including the Asian Development Bank, World Bank and the UNDP-led Pacific Financial Inclusion team in Suva, Fiji.

- Investigation by multilateral development agencies into the potential for a Pacific-wide or multi-country mobile remittance and/or mobile money system, in order to build economies of scale for a potential commercial operation.

- Further research into the most appropriate business model to be used in Tonga. This research would need to be a collaborative effort between potential commercial operators, sponsoring multilateral agencies and the Tongan government.

- The Government of Tonga to work with major aid donors and multilateral agencies to help establish an enabling environment for mobile remittances and mobile money systems. Specific policy reforms to investigate include:
    i. KYC rules around the opening of bank accounts.
    ii. Rules (including prudential regulations) for 3rd party agents conducting financial transactions on behalf of registered financial institutions.

- The Government of Tonga to work with major aid donors and multilateral institutions to link investigations into mobile remittances and/or mobile money systems with issues of financial inclusion and regional labour mobility in order to leverage the developmental effects of increasing economic migration.

Appendix A: NZ-Tonga remittance corridor data

Table 2: Fees for sending NZ$200 from NZ to Tonga.

Operator	**Fee (NZD)**	**Total Cost (NZD)**	**% (of NZ$200)**
Westpac Prepaid Cards (Fee inc card load & withdrawal fees)	1	5.98	2.99%
Melie Mei Langi Money Transfer	8	17.91	8.96%
World Cash Transfers	14	18.2	9.10%
IMEX Money Transfer	10	18.44	9.22%
MoneyGram	12	19.93	9.97%
'Epokifo'ou Money Transfer	8	20.52	10.26%
Xpresstrac Money Transfer	12	23.07	11.54%
Western Union	14	23.63	11.82%
Kiwibank (internet)	20	24.84	12.42%
Kiwibank	25	29.71	14.86%
ASB Bank (Fastnet Classic)	20	31.75	15.88%
Westpac	25	32.12	16.06%
ASB Bank	25	36.43	18.22%
ANZ Bank	0	36.62	18.31%
BNZ	25	38.88	19.44%
TSB Bank	25	39.54	19.77%
National Bank NZ	25	57.04	28.52%
Average	**16.81**	**29.66**	**14.83%**
Average of top 5 + Western Union			8.67%
Average of top 5 + Western Union excl Westpac prepaid card			9.81%

All data sourced from www.sendmoneypacific.org .
Data accurate as at December 2, 2009.
Sendmoneypacific is a joint AusAid and NZAid project, which aims to help increase transparency in the remittance markets from Australia and New Zealand to the Pacific.
SMP is project managed by Developing Markets Associates.

About DMA:
Based in central London, DMA works within the international development arena as an ethical, private sector industry leader. DMA works with donor agencies, governments and the wider business community in providing advice and management in its three areas of expertise - remittances, investment programmes and international development events. DMA's goal within the remittances arena is to help encourage ever-greater amounts of funds to be remitted through formal channels at the lowest possible cost and at the greatest possible efficiency for the benefit of migrant communities and emerging markets across the globe. DMA also has over two decades of experience in working with globally respected industry specialists and research analysts in devising highly acclaimed reports, communications strategies and events for governments and for the wider donor community.

Appendix B: Tonga Financial Statistics

Table 3: Proportion of Households reporting each Main Source of Income by Island Division.[125]

Main source of Income	Total	Tongatapu	Vava'u	Ha'apai	'Eua	Niuas
Cash Income	97.00%	96.00%	97.00%	100.00%	99.00%	100.00%
Wages & salaries	57.00%	63.00%	49.00%	44.00%	40.00%	37.00%
Remittances from overseas	75.00%	78.00%	66.00%	74.00%	72.00%	83.00%
Sales of own produce	50.00%	38.00%	67.00%	78.00%	70.00%	88.00%
Bank loan	26.00%	27.00%	22.00%	29.00%	20.00%	51.00%
Non-cash Income	100.00%	99.00%	100.00%	100.00%	99.00%	100.00%
Consumption of own produce	78.00%	74.00%	84.00%	91.00%	80.00%	88.00%
Imputed rent	91.00%	90.00%	94.00%	90.00%	96.00%	78.00%
Total Income (cash and non-cash)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table 4: Households receiving remittances (2006 census survey data).[126]

Division	Within Tonga	% of Total	Outside Tonga only	% of Total	Both within and outside Tonga	% of Total	Never Receive any remittances	% of Total	Total
Total	880	5	9,267	53	4,212	24	3,103	18	17,462
Tongatapu	393	3	7,108	59	2,514	21	1,956	16	11,971
Vava'u	234	8	1,176	41	830	29	631	22	2,871
Ha'apai	128	9	459	33	521	38	264	19	1,372
'Eua	68	8	423	47	270	30	138	15	899
Ongo Niua	57	16	101	29	77	22	114	33	349

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