



Financial Capability, Financial Competence and Wellbeing in Rural Fijian Households



Pacific Financial Inclusion Program

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PACIFIC FINANCIAL INCLUSION PROGRAM (PFIP)



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Foreword

This study has sought to develop a comprehensive understanding of the financial competence of rural communities in the Pacific and the relationship between the financial competence of those who make financial decisions on behalf of rural households and the wellbeing of their household. The study builds on earlier financial capability studies undertaken in Great Britain, Australia and New Zealand. The focus of the current study is, however, slightly different to earlier studies which have been primarily descriptive and have sought to establish a baseline measure of the financial competence of the population. The present study has sought to measure financial competence of rural indigenous Fijian villagers and has also sought to develop a causal model of the relationship between functional literacy (which is often low in rural Pacific communities), financial competence and household wellbeing in rural villages in Fiji.

A number of studies of microfinance initiatives have sought to determine whether access to financial services, in particular credit, can result in enhanced income, either for the participant or their household generally. Taken collectively, the findings of these studies reveal a complex and not altogether coherent picture. The present study is grounded in the premise that the management of money within the household is as important as the quantum of money earned by the household. Therefore, whilst also seeking to understand the relationship between financial competence and household income, the study has sought to develop our understanding of rural householders' ability to use current income to enhance future income sustainability through re-investment in income generating activity; to endure income shocks through savings; and to enhance the wellbeing of members of the household, whether by enabling children to continue in formal education beyond primary school, or by enabling the purchase of household assets, including household durables. The study has sought to determine whether (appropriately structured) interventions to increase financial literacy and to provide villagers with access to a safe, reliable and well regulated banking service can result in an increase in the financial competence of those who make decisions on behalf of the household and whether there is a relationship between financial competence and household wellbeing.

Chapter 1 commences with a brief discussion of the concepts of capability, competence and wellbeing and then discusses the concept of financial competence. Chapter 2 situates the concept of financial competence within the context of rural Fijian villages.

Chapter 3 examines the UNDP/ ANZ Bank Rural Financial Services Initiative. The ANZ Rural Banking Service and the UNDP Financial Literacy Training are examined separately. Key factors in the success of both elements of the initiative are then examined.

Chapter 4 examines functional literacy, attitude to money, financial knowledge, financial behaviour, self-reported happiness (subjective wellbeing) and household wellbeing (objective wellbeing) of rural villagers in Naitasiri Province, Viti Levu, Fiji.

Chapter 5 discusses policy and strategy implications arising from the findings of the study, with a particular focus on implications for financial literacy and rural banking interventions and policy and regulatory considerations in facilitating interventions to enhance rural financial competence.

Chapter 6 discusses aspects of best practice for financial literacy programs.

Appendix 1 provides an overview of the research design used for the study. The financial competencies measured by the study are contained in Appendix 2. An overview of the research instrument is provided in Appendix 3. Sampling is discussed in Appendix 4. The program of fieldwork for the study is outlined in Appendix 5.

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Acronyms

Acronym	Explanation
UNDP	United Nations Development Program
NCSMED	National Centre for Small and Micro Enterprise Development, Suva, Fiji.
FSA	Financial Services Authority, London, UK.
FLET	Financial Literacy Training Workshops.
BANK	ANZ Bank Rural Banking Service.
NA/DK	Not Answered/ Don't Know.
FLET/BANK	An individual respondent or household which participated in the financial literacy training workshop and who has a bank account.
FLET/non-BANK	An individual respondent or household which participated in the financial literacy training workshop and who does not have a bank account.
non-FLET/BANK	An individual respondent or household which did not participate in the financial literacy training workshop and who has a bank account.
non-FLET/ non-BANK	An individual respondent or household which did not participate in the financial literacy training workshop and who does not have a bank account.

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Executive Summary

Overview of the Study

This study has sought to increase our understanding of the relationship between financial competence and household wellbeing in rural communities in the Pacific, in particular to examine whether there is a positive relationship between financial knowledge and skill, financial behaviour and attitude to money of those who make financial decisions on behalf of the household and the wellbeing of the household generally.

Financial inclusion in rural communities has become the focus of increased attention in recent years. There has been a number of financial literacy training programs and efforts to enhance participation in the formal financial sector by rural households. However, we know little about levels of financial literacy and patterns of financial behaviour in rural communities, in particular communities transitioning from subsistence lifestyles to monetised lifestyles; we know little about attitudes to money held by people for whom engagement with the money economy is not a core component of their daily life; and we know little about the relationship between financial behaviour and household wellbeing in these communities.

The study has sought to develop a comprehensive understanding of the ways in which rural Fijian villagers use money and access the formal financial system; and the nature of the relationship between rural villagers' levels of financial competence and the wellbeing of their households.

The study has used the lens of financial competence. The literature examining the relationship between the ability to manage money and the impact this has on wellbeing is fragmented and has tended to focus on disadvantaged households in highly urbanised environments. In order to develop a comprehensive understanding of rural villagers' ability to manage money, to interact with the formal financial system, and the relationship between these activities and their wellbeing, villagers' financial competence has been assessed. Competence is a well developed construct in the skills training, professional training, educational and legal literatures. Financial competence encompasses a range of money related activities and includes planning and prioritising short and longer term spending, savings, investment, the management of credit, the management of cash flows and budgeting, and the management and enhancement of income generation.

Financial competence is rapidly increasing in importance for rural households across the Pacific. Subsistence lifestyles are becoming progressively monetised. Even at the most basic level, households must fund children's education and family medical expenses. Increasing electrification and consumerism bring an increased imperative to engage successfully with the money economy. In addition there is increasing interaction and interchange between rural and urban households across the Pacific. As urbanisation increases there is a concurrent increased reliance on wage and salary employment. In several Pacific Island States, domestic and international remittances now play an important role in providing a significant component of household cash inflows.

Increased engagement with the money economy generates an increased requirement to engage with the formal financial sector. Households must be able to access the payments system, to keep surplus cash safe and accessible, and to access affordable and reliable credit services. Unfortunately increasing monetisation also brings increased exposure to ever more sophisticated financial scams. Households which cannot differentiate between legitimate and fraudulent financial opportunities are very vulnerable.

The study has sought to determine whether participation in a program to increase financial literacy and to provide access to reliable banking services can increase financial competence, in particular whether rural villagers who participated in the program demonstrate an enhanced ability to manage their household's finances, and consequently whether their households enjoy better wellbeing.

The study has used case methodology and has examined the impact of an initiative to increase rural Fijian villagers' engagement with the formal financial system. The initiative comprised two discrete but related elements: Firstly, a rural financial literacy program developed and deployed by the UNDP Pacific Centre in conjunction with the National Centre for Small and Micro Enterprise Development (NCSMED) and secondly, the concurrent and linked development by ANZ Bank of a mobile vehicular banking service for rural villagers. The initiative commenced late 2004. Full roll-out occurred during 2005. Data was collected from structured interviews with 400 adults from 200 households in fourteen

villages in Naitasiri Province, Viti Levu. The study also refers to a related study of a similar size, which examined the financial competence of rural villagers in Guadalcanal, Solomon Islands.

The study was sponsored by UNDP Pacific Centre, Fiji and overseen by Massey University, New Zealand.

Key Findings

The study has found a positive relationship between financial competence and household wellbeing in rural households.

Households in which the principal financial decision makers are financially competent are more likely to manage household cash flows and to use a budget to plan future expenditure. These households are more conservative in estimating household expenditure and household income, including income from farming and businesses owned by the household. As a consequence these households are more likely to have a cash surplus at the end of their payment cycle and to re-invest cash in the farm or business to further enhance income. Households in which the principal financial decision makers are financially competent are more likely to save money regularly and to use a bank account for saving.

By contrast, households in which the principal financial decision makers are less financially competent tend to underestimate household expenditure and to over-estimate household income. These households are less likely to manage household cash flows and to use a budget to plan future expenditure. In addition, households in which the principal financial decision makers are not financially competent are less likely to have family businesses to augment farming income. Importantly these households are less likely to have surplus cash at the end of their payment cycle and are more likely to resort to the use of store credit to purchase food and other household consumables; and to use hire purchase for household durables. Consequently they are less likely to re-invest cash in the farm or business.

Rural Financial Services Initiative

The study has found the Rural Financial Services Initiative was successfully implemented and provides a useful model for similar capability development initiatives. A key element of the success of the initiative was the (tacit) use of competency as a basis for the development of the Initiative. Importantly, it is evident from both the Fiji Financial Capability Initiative and the Solomon Islands Financial Capability Initiative that financial competence can be enhanced by an appropriately structured intervention.

The Rural Financial Services Initiative was developed following the determination of demand by rural villagers for enhanced access to the banking system in Fiji. The combination of training and access to banking was, in effect, a competency development program grounded in experiential learning:

- Villagers' financial knowledge and skill was enhanced and villagers were concurrently provided with the opportunity to enact that knowledge (directly and indirectly) through the use of a savings account in order to facilitate better household cash flow management.
- Most villagers were able to use the training immediately. There was therefore a low risk of erosion of knowledge due to inability to apply knowledge in context.
- The Rural Banking Service was explicitly structured to reduce risk. Perhaps most importantly neither the bank, nor the banking system generally, was required to assume new or expanded risk, beyond that of existing day-day operations:
 - Risk to capital: The use of leased structures, combined with the tax subsidy and depreciation allowances enabled the Bank to initiate the Rural Banking Service with a low risk to capital.
 - Risk to profit: The focus on deposits enabled rapid cost recovery, which when combined with the tax subsidy and depreciation, minimise the loss from the provision of the Rural Banking Service in the early years.
- The use of a modular organisational structure enabled public and private providers to work together in circumstances in which the divergent requirements of each organisation could co-exist.

The Relationship between Functional Literacy and Financial Competence

The study has found household's in which the principal financial decision makers are more highly educated are typically more functionally literate and are more likely to have higher financial knowledge and skill and to adopt more positive financial behaviours. These households are more likely to attend Financial Literacy Training and to open a Rural Savings Account. They are less likely to resort to the use of credit for daily needs and if they borrow, are more likely to borrow for investment purposes. Their households typically have a higher level of household wellbeing. The relationship between level of education and household assets found in earlier studies was also found in the present study.

The Relationship between Financial Competence and Household Wellbeing

The study has found there is a positive relationship between villagers' financial competence and the wellbeing of their households. In general terms (and at the risk of appearing overly simplistic and gender-bound) the wellbeing of rural Fijian households in Naitasiri Province is based on the husband's ability to generate agricultural income (augmented by small business income generated by the wife) and the wife's ability to manage the household cash flows.

The relationship between level of education, financial literacy and financial participation found in earlier studies was also found in the present study. The relationship between participation in the formal financial system and household wellbeing found in earlier studies was found in the present study.

The elements that separate households in rural Naitasiri are not the size of the plots farmed, the size of the family or the size of the household, but the ability of the household to re-invest surplus in further income generation and to manage household expenditure prudently. There is evidence that households which are better able to do this (households which are more financially competent) enjoy a better standard of household wellbeing than those which do not develop the household's ability to generate income or manage the household cash-flows using a budget and a bank account.

Households which are less financially competent tend to over-estimate cash available for discretionary spending due to overestimation of household income and under-estimation of household expenditure. The lower level of household budgeting by these households would appear to be a significant factor. Importantly, households which evidence a lower level of financial competence estimate an inverse relationship between their household income and expenditure. Rather than estimating higher levels of expenditure as income increases, households which have lower financial literacy estimate lower levels of household spending.

Households which participated in the Rural Financial Services Initiative (in particular households which participated in both the Financial Literacy Training Workshop and the Rural Banking Service) appear to have already been more financially competent and more affluent (measured in terms of household durables) than households which did not participate in either element of the financial capability initiative. Households which participated in the Rural Financial Services Initiative evidence greater financial competence across a range of aspects of the management of agricultural, business and household cash flows. Importantly, we can attribute knowledge of, and the use of, budgeting to participation in the Financial Literacy Training Workshop, in addition of course, to access to the banking system.

It is reasonable to conclude that villagers who participated in the Rural Financial Services Initiative did so primarily to re-enforce and enhance existing positive financial behaviours by increasing the household's financial knowledge and to access the formal banking system (which had previously been very difficult to access). The Rural Financial Services Initiative has therefore enhanced participants' knowledge of budgeting (and within this context household cash flow management generally) and has facilitated enhanced financial behaviour in respect to both budgeting and the use of a bank account for safe custody. Villagers who have opened a Rural Savings Account consider they have derived a greater range of financial goal related benefits than anticipated prior to opening the Account.

Villagers who did not participate in the Workshop and/or do not have a Rural Savings Account evidence a lower level of financial competence, in respect to both financial knowledge and skill and financial behaviour.

Policy and Strategy Recommendations

It is evident rural Fijian villagers are engaging with the money economy and are using a broad range of financial services. It is likely villagers' use of financial services will increase in the medium term and with this the need for a heightened level of financial sophistication will also increase. Arguably, Pacific Island States are at a 'tipping point' in respect to rural financial inclusion. To date, due to the prevalence of subsistence farming in the Pacific there has not been a significant requirement for rural Pacific Island communities to engage with the money economy. However, the money economy is rapidly becoming more pervasive and rural villagers are not immune from the need to participate in the formal financial system.

Enhancing financial capability leads to enhanced financial competence and, in turn, facilitates increased household wellbeing. Financial competence can be enhanced by an appropriately structured financial capability initiative. Functional Literacy is, however, an important pre-condition.

If little is done to facilitate rural villagers' engagement with the formal financial system there is a very real possibility that levels of alienation will rapidly rise as the requirement to be able to use money and the formal financial system increases.

Alienation from the money economy reduces peoples' ability to enhance their wellbeing. It also brings a greater risk of financial exploitation as people seek informal sources of credit in order to cover cash shortfalls. Currently villagers who experience a cash shortfall use store-credit to smooth cash flows. However, as urbanization increases, opportunities to access store credit will reduce and will be replaced by greater reliance on the pernicious urban equivalent: pay-day lending.

There appear to be signs of this emerging in the present study. Villagers who are financially competent have tended to take the opportunity to enhance their financial knowledge and skill (and in doing so have enhanced the management of household cash flows through better household cash management practices) and have opened bank accounts in order to better manage household cash and to provide for future spending requirements. Villagers who are less financially competent have tended not to take the opportunity and appear to be falling behind, both in terms of financial knowledge and skill and financial behaviour, and in respect to household wellbeing. This study indicates action is required to enhance financial competence in the Pacific and that financial competence can be enhanced by the deployment of appropriately structured initiatives. Financial competence cannot be left to the actions of individuals as it is evident many people are unable to develop an appropriate level of financial competence without support.

Arguably, ensuring adult populations are financially competent is a fundamental responsibility of governments. The importance of financial competence has been accepted by an increasing number of governments, including governments of Pacific Island States¹. The present study demonstrates the value for individuals, and for their households (and by extension their communities), of being able to manage money effectively and securely through access to a safe and accessible bank account; the value of household budgeting and planning; the importance of households being able to access well regulated credit services and the importance of appropriate financial disclosure and consumer protection. It is the responsibility of governments in the Pacific to ensure their populations are able to develop an appropriate level of financial competence and can engage with the money economy and the formal financial system through an appropriate enabling environment.

Financial competence is a national issue and requires a coordinated response enacted through an appropriate policy framework. There is considerable value in Pacific Island States developing a coordinated national approach to improving the financial competence of their populations in particular as the enabling environment required for competent participation in the formal financial system is still developing. The development of national action plans and strategies enables a diverse range of actors to work together to enhance the financial competence of Pacific Island communities and populations and the development of an appropriate enabling environment. Establishing baselines on financial capability is a vital precursor to national strategy formulation.

1 Refer for example the 2008 Coombs Declaration

Chapter 1:

Wellbeing, Capability and Competence

Introduction

There is a relationship between an individual's ability to do something (their capability), the demonstration of their ability to do something (their competence) and their wellbeing (both their self-perceived happiness and their economic wellbeing). Wellbeing is, at least in part, a product of competent behaviour enacted consistently over time.

Financial capability and financial competence therefore influence a person's wellbeing. The opportunity accorded to people to engage with the formal financial system and how well they manage the money they have will influence their standard of living and the standard of living of those for whom they are responsible.

Defining Wellbeing

Sen (1999, p. 9), has conceptualised poverty as an absence of capability. This is often evidenced by an economically driven absence of choice. Inherent in the contemporary concept of development is the contention that, by increasing capability (the ability to 'do things') people can improve their wellbeing.

Wellbeing can, however, be a difficult concept to define accurately. Concepts of wellbeing have broadened beyond an initial focus on levels of income and consumption. Wellbeing is now generally accepted as a multi-dimension construct embracing elements including income and consumption, welfare and living standards; self reported happiness (life satisfaction) and 'quality of life', and empowerment. Perhaps most importantly, whilst money related measures are often used as a yard-stick to determine relative levels of wellbeing, wellbeing *per se* is not simply a money related concept.

In recent years, two approaches to the measurement of wellbeing have emerged:

- Objective Wellbeing which focuses on the economic and social aspects of wellbeing
- Subjective Wellbeing which focuses on the psychological aspects of wellbeing.

Objective wellbeing examines the utility of a broad set of elements including (for example): Income generated by members of the household, household consumption patterns, household investment activity, household inventory (net assets), the dwelling used by the household, the level of education of members of the household, their health and mortality, and the observance of human rights within the community. Contemporary measures of poverty and human development are increasingly grounded in objective wellbeing concepts.

Whilst economic measures of wellbeing continue to be the basis on which social measures are typically built, a recent survey of measures of wellbeing undertaken for the Canadian Prime Minister's Advisory Council on Science and Technology (Sharpe & Smith, 2005) which examined indicators of wellbeing in Canada, USA, UK, the Netherlands, Sweden, Australia, New Zealand, Germany and Ireland found a broad range of measures including:

Table 2: Objective Measures of Wellbeing

Economic	Social	Political/Environmental
GDP (and related income measures)	Education	Defense commitment
Consumption	Health	Welfare infrastructure
Inflation	Gender	Public infrastructure
Employment	Culture	Land use
Household assets (durables)	Life expectancy and mortality	Environmental degradation
	Demographic changes	Observance of human rights
	Quality of housing	Food production

However, despite this broadening of scope, the objective social indicators approach to the determination and measurement of wellbeing does not necessarily reflect people's experience of wellbeing (Diener & Suh, 1997). Subjective wellbeing examines the ways in which people assess their sense of personal wellbeing and how they evaluate their lives (Diener, Suh, & Oishi, 1997, p. 210).

The link between objective wellbeing and subjective wellbeing is unclear. Cross-sectional studies suggest subjective wellbeing tends to rise with income and reduce with poverty. A number of researchers (for example Powdthavee (2003)) have found a U shaped relationship between subjective and socio-economic variables. Longitudinal studies in the USA suggest that, whilst over the long term happiness is rising, it has not risen at the same rate as income (Oswald, 1997). In a study examining longitudinal trends in thirteen developing countries, Easterlin and Sawafanga (2009) found that, within a country, life satisfaction and financial satisfaction tend to trend in the same direction. However the researchers could not find a consistent relation between long-term economic growth and the growth rate of subjective wellbeing. Cummins (2003) has argued happiness is homeostatic. Consequently increases in income may result in a temporary increase in perceived wellbeing. However, overtime perceived wellbeing will tend to remain constant.

The relationship between objective and subjective wellbeing is perhaps of greatest significance in the context of development interventions. The primary focus of development is to increase objective wellbeing in order to enhance people's ability to achieve a good quality of life. Despite the uncertain relationship between economic wellbeing and subjective wellbeing, interventions undertaken by development practitioners (and subsequently discussed in the development literature) tend to implicitly assume individuals, families and communities will enjoy an enhanced quality of life and sense of wellbeing as a consequence of a successful intervention to effect economic or social improvement.

Defining Capability and Competence

The ability to make choices is contingent on the capability for choice (the choice set). A lack of human development is typified by inadequate capability – an inadequate range of things people can do or be. Capabilities are the set of enablers and opportunities which, when enacted by individuals, families and communities can result in an enhancement to human wellbeing. Whilst we can generalize as to common capabilities, a grounded approach to development inexorably leads to the consideration of capabilities in context and the consideration of the nexus between capability and wellbeing.

Capability, whether defined broadly (Sen, 1999), whether proscribed and linked to human rights (Nussbaum, 2000), or whether situated in enablers of enhanced human wellbeing, is concerned primarily with the potential for human activity, rather than with specific instances of the enactment of capabilities.

The actions of individuals, families and households seeking to increase their wellbeing may result from the presence of capability. Alternatively actions may be an attempt to circumvent the constraints resulting from a lack of capability. Alternatively again, actions may result from the utilisation of capabilities not directly related to the measures of wellbeing.

Capabilities are latent and are the ability to 'do something'. Competence² is the selection and enactment of capability, the demonstration and use of capability, and forms a link between capability and wellbeing. The measurement of the success of a development intervention therefore requires a clear distinction between capability, competence and wellbeing, and the establishment of causal linkages between the constructs.

2 Competence has been used rather than Sen's term 'functionings' which is intended to convey a broader set of elements than competence (for example states of being). Competence focuses specifically on the activities an individual engages in.

The codification, measurement and enhancement of competency are used extensively in a range of contexts. Competency models have been progressively adopted in a wide variety of skills training contexts³ and are increasingly being used in formal education contexts⁴, in health contexts⁵ and are expanding into the broader context of adult competencies required for economic and social success in the contemporary economy (Schleicher, 2008).

Adult Competence

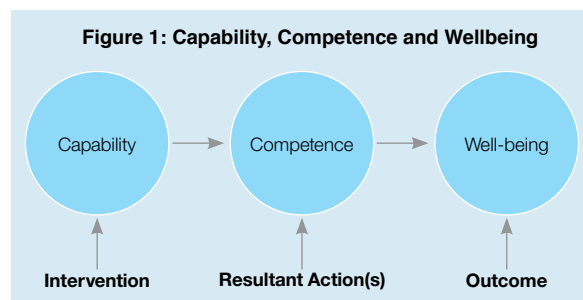
Adult competencies are the set of ‘things’ adults need to be able to do in order to function effectively in a specific context. Literacy and numeracy are, for example, generally considered to be core components of an adult competency framework. The multi-country *Definition and Selection of Competencies* study (Various., 2002, p. 35)⁶ developed a frame of reference for assessing and selecting competencies. Key competencies are defined as individually based competencies that:

- Are instrumental for meeting important complex demands in multiple areas of life
- Contribute to highly valuable outcomes (wellbeing) at the individual and societal level in terms of a successful life and a well functioning society
- Are important to all individuals for coping successfully with complex challenges in multiple areas.

Adult competencies require Life Skills (capabilities) on which competent participation can be built. Five groups of life skills were identified by the DeSoCo study (Murray et al., 2005, p. 65) as being required for effective participation in a developed economy:

- Communication skills (Speaking, listening, reading, writing)
- Applied mathematical skills
- Problem solving skills
- Intrapersonal skills
- Information Technology utilisation skills

Competent activities are therefore directly linked to related capability sets and form a bridge between the potential to act (capability) and the outcome of the action (wellbeing):



Competence and Development

Development interventions commonly seek to increase the ability of people to “do things” in order to enhance their wellbeing. An enhanced capability set of practical value only if it enables individuals, households or communities to engage in a related activity that will enhance well-being. Competence is therefore a means of prioritising interventions to enhance capability.

A focus on competency enables development interventions to be grounded in the situated needs of the community and, most importantly, defined by the community. Following the determination of competencies, the capabilities required to enable the enactment of the competency can be determined. Similarly, relevant measures of the outcome of enacting the competency can also be determined. These measures may encompass both objective wellbeing (whether individual, household or community) and/ or subjective wellbeing (happiness).

An approach to development interventions grounded in these three key elements of development: Capability, competence and wellbeing operationalises Mahbub ul Haq’s initial conceptualization of the objective of development: The creation of an enabling environment and participation in an enriched life experience.

3 Refer for example the competency based approaches to skills training in Australia, New Zealand, the USA and the UK. For an overview of competency based skills training refer Kearns (2001)

4 Refer for example the OECD DeSeCo Project (Various., 2002) (Website: www.deseco.admin.ch/), the preceding PISA Project (Website: www.pisa.oecd.org/), the European Union funded Eurydice Project (EURYDICE, 2002) (www.eurydice.org/), and the New Zealand Curriculum Project (Rutherford, 2004) (<http://nzcurriculum.tki.org.nz/>).

5 Refer for example OECD/CERI (Various., 2006)

6 Refer International Adult Literacy Survey, Measuring Adult Literacy and Life Skills: New frameworks for assessment (Murray, Clermont, & Binkley, 2005) for a discussion of the links between the DeSoCo study and other large-scale assessments such as TIMSS, IALS, ALL and PISA.

Financial Competence

Introduction

Control over money, which encompasses both the ability to exercise control over money (which usually requires an appropriate level of financial literacy) and the opportunity to exercise control over money (which usually requires access to the formal financial system) is a basic freedom (Nussbaum, 2006; Sen, 1999). An absence of financial capability, whether characterized by a low level of financial literacy, or by the denial of access to the formal financial system, is the denial of the right to participate in the money economy. As the money economy has progressively become globally pervasive, financial competence, the *demonstrated* ability to exercise control over money, has become increasingly viewed as a possible tool in the alleviation of poverty. However, empirical evidence to support the use of financial literacy training and increased access to the formal financial system (financial inclusion) to enhance financial capability and thereby promote competent financial behaviour in order increase wellbeing, is limited.

Overview of Financial Competence

Financial competence comprises the set of money related knowledge and activities adults need to be able to engage in to participate effectively in the money economy in which they reside.

The concept of financial competence has been developed from research undertaken primarily in the UK, USA, Australia and New Zealand and results from increasing evidence that a significant number of people are ill equipped to manage their finances effectively in an increasingly complex global and local economy.

Financial competence can be conceptualized as a set of financial capabilities (in particular knowledge and skill) operationalised across a range of financial activities at different levels of complexity. To be effective capabilities must be deployed at an appropriate level of competence.

Financial activities comprise the set of activities typically undertaken by an individual in a specific situation or context. The situation or context can be relatively simple (for example a rural community entering the money economy) or complex (for example individual retirement provision in a developed economy with a complex financial system and a regulatory environment which requires formal individual provision for retirement). It is a truism that people tend to assume they know and understand how to manage money. Yet time and again it is evident few people are able to engage in sustained competent financial behaviour across the range of financial activities they are required to participate in. This has consequences for individuals, households, communities and, ultimately, countries. In a broad range of contexts, ranging from highly urbanized environments, to isolated rural environments, people, when asked about money, profess to understand basic money concepts and yet, when asked to demonstrate their understanding, cannot show they are competent.

A lack of financial competence typically results in people failing to plan ahead (in respect to both short term planning and longer term retirement planning), purchasing financial instruments without understanding the risks implicit in the instrument, entering into contracts (in particular credit contracts) the terms of which they do not understand, and engaging in a broad range of reckless financial behaviours.

In a money economy financial competence is a core component of the set of competencies required to function effectively (Hilgert, Hogarth, & Beverly, 2003). Concepts relating to the cost of money can vary (for example the prohibition on *riba* in Islamic banking and the use of equity based risk and profit arrangements). However, the basic principles in respect to finance are universal and grounded in the calculation of a premium for risk. Similarly payment mechanisms are global. This applies equally to payment mechanisms used by individuals and households (cash, credit card, EFT, bank transfer), and those used by commercial organisations and institutions. The range of payment mechanisms deployed may vary; however the instruments themselves exhibit similar characteristics across the formal financial system irrespective of jurisdiction.

Because the principles and practices of cash management are global and the mechanisms by which money is managed are also global, it is possible to migrate financial management capabilities and competencies developed in one context to another context. The same techniques will apply. Therefore the same capabilities and competencies will be required. The set of competencies may vary, but in general terms the competencies themselves will be constant. Because of this, and within the context of a training intervention, learning outcomes will tend to be constant across training situations, even though the teaching and learning, and delivery models employed may differ.

Financial Knowledge and Skill

Financial knowledge and skill encompasses the knowledge and skill required to function effectively in the money economy and make informed financial decisions.

The importance of individuals being able to make appropriate decisions about the management of their and their household's personal finances has been recognized as a national issue by several OECD countries: The Financial Services Authority in the UK developed and deployed a national strategy for financial capability in 2003. The US Government established the Financial Literacy and Education Commission in 2003. The Australian Ministerial Council on Education, Employment, Training and Youth Affairs developed a framework for financial capability in 2005. The New Zealand Retirement Commission developed a National Strategy for Financial Literacy in 2006.

There is evidence a correlation exists between financial knowledge and skill and positive financial behaviour, although the direction of causality is unclear (Hilgert, Hogarth, & Beverly, 2003). Pipek et al (2004) in a review of financial literacy programs in several developed and developing economy contexts argue that at an individual level insufficient financial knowledge and skill can result in poor decisions which affect economic well being; at an institutional level a lack of financial knowledge and skill may result in the selection of inappropriate products which could negatively affect both the client and the institution; and at a market level poor financial knowledge and skill can inhibit the proper functioning of the market due to poor flow of information among participants.

There is currently no standard set of components of financial knowledge and skill and no standard bank of tests to determine levels of financial knowledge and skill (Pipek, Diamini & Coetze, 2004). Most assessments of financial knowledge and skill have been undertaken using surveys (OECD, 2005), often customized for the target segment of the population. At the national level, assessment has tended to focus on levels of learning or comprehension rather than changes in behavior. Often the same survey has been used to benchmark initial levels of knowledge and skill and to then assess changes in levels of knowledge and skill. At the program level, impact has generally been assessed both in terms of comprehension and change in behavior, especially in respect to programs with a narrow focus (for instance product specific training where learning is targeted to specific actions).

There appears to be general agreement that people can accelerate the acquisition of financial knowledge and skill through participation in a structured training intervention and that this can have a positive impact on financial behaviour (OECD, 2005; Worthington, 2006).

A large number of financial literacy programs have been launched in recent years, in particular in the UK, USA and Australia (refer Vitt et al (2000), Fox et al (2005), Braunstein & Welch (2002), Pipek et al (2004) for overviews of current financial literacy programs)⁷. A broad range of financial, consumer and educational institutions are now providing programs targeted at both students and adults. Most of these programs have been launched within the past decade (Fox et al., 2005).

To date the majority of financial literacy programs have been undertaken in three countries: USA, UK and Australia. Fox et al (2005) identified three themes in financial literacy training: Programs addressing personal finance topics (budgeting, saving, credit management), specific training in retirement and savings (generally offered by employers), and programs focusing on home buying and home ownership. The OECD (2005, p. 80) identified 109 programs targeting the unbanked/underserved population. These programs have typically commenced within the past 10-15 years.

Financial Behaviour

Financial behaviour is the operationalisation of financial knowledge and skill and encompasses the general management of money and engagement with the formal financial system (financial inclusion).

Hogarth and colleagues (2003) found few US households follow recommended financial management practices. In a review of the literature and data from the Survey of Consumer Finances (SCF), Hogarth and colleagues determined 13% of households in the bottom 20% of income distribution reported at least one late payment. Only 1% of households in the top 20% reported a late payment. Furthermore, many households do not appear to use written budgets, nor do they compare actual expenditure against planned expenditure. It appears many households use informal 'mental' budgets and short term (less than 1 month) budgets.

⁷ Refer the National Endowment for Financial Education (NEFE) (www.nefe.org) - a major provider of financial education that works in partnership with a broad range of community organisations. The California Department of Financial Institutions (www.dfi.ca.gov) publishes a list of financial literacy resources available in the USA. In the UK, refer the FSA (www.fsa.gov.uk/consumer).

Financial inclusion is a pre-requisite for competent engagement with the formal financial system. Financial inclusion in turn requires both the systemic ability to access appropriate products and services and a personal willingness to access and use those products and services.

There appears to be a positive relationship between financial knowledge and skill and financial inclusion. Cole, Sampson and Zia (2009) found financial knowledge and skill predicts demand for and use of financial services and is correlated with household wealth, education and wellbeing. Households with low levels of financial knowledge and skill tend not to engage in long term financial planning, and tend to borrow at higher interest rates and participate less in the formal financial system than financially skilled people. Cole and colleagues found higher levels of financial knowledge and skill are associated with greater use of bank accounts in Indonesia (although wealth may be a stronger predictor), and with insurance in India.

Attitude to Money

Studies of financial knowledge and skill, financial inclusion and general financial behavior have paid scant attention to attitude to money. People will tend to hold beliefs and feelings (affect) about money which are only in part derived from prior experiences of money. Beliefs and feelings will lead to evaluations about money, the summation of which will be an attitude to money. An individual's attitude to money will therefore influence their willingness to engage in money related activity and also the nature and extent of their engagement. A more strongly held attitude will tend to result in greater reluctance to change behavior. An ambivalent attitude will tend to result in greater reliance on cognitive processes to determine behavioral intentions.

In general people appear to hold positive attitudes to money. Tang (1992, 1993, 1995; 2002), in a series of empirical studies has developed and tested a Money Ethic Scale which accords money several key components:

- Affective (money can be seen as good or evil).
- Cognitive (money can represent achievement, respect and freedom).
- Behavioural (budgeting and cash flow management)

Tang has undertaken extensive research on the development of the 'Money Ethic Scale' and argues money has an *affective* component (good/ evil), a *cognitive* component (relationship to achievement, respect, and freedom) and a *behavioral* component. Tang has found the ability to budget money is correlated with age and gender (with a bias toward women). The perception of money representing achievement tends to have a positive correlation with income and to the perception of money as being less evil. Tang (1993) also suggests people who have lower expectations of money (lower levels of materialism) tend to perceive themselves as leading a happier and less stressful life. Tang has found people generally have a positive attitude to money, seeing money as something that represents success, and as not being evil. People also value the careful budgeting of money. Overall people who endorse the Money Ethic tend to be more materialistic and to be sensitive to monetary rewards.

Yamauchi and Templer (1982) have developed a psychometric Money Attitude Scale. The Scale comprises five factors:

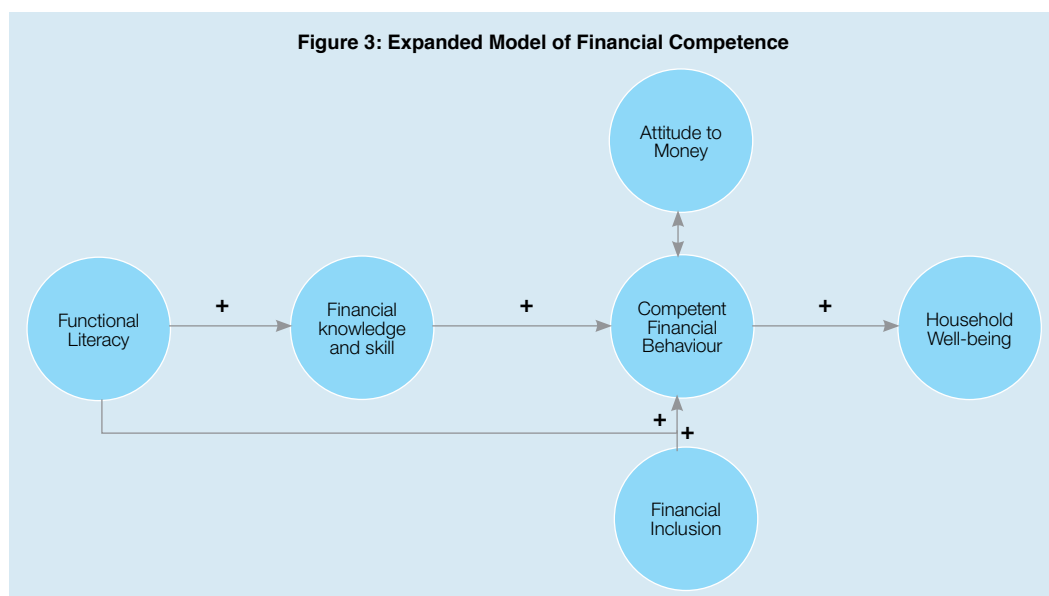
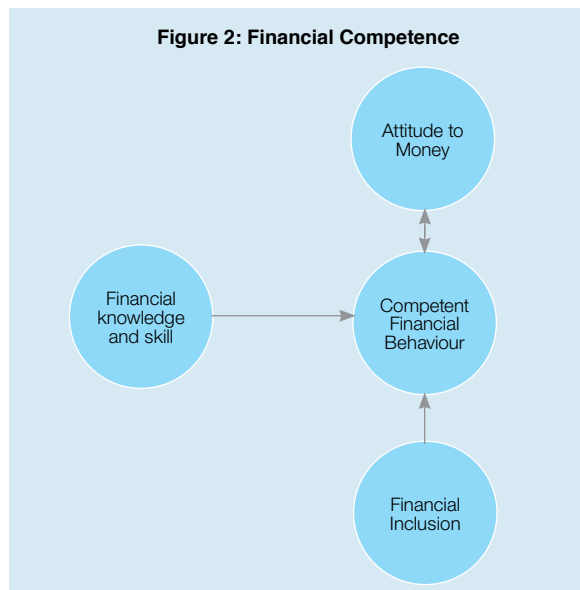
- Power – Prestige (The use of money to influence others)
- Retention – Time (Saving and planning for the future)
- Distrust (Negative feelings about using money)
- Quality (Tendency to purchase high value items)
- Anxiety (Lack of confidence about money)

Yamauchi and Templer found a person's attitude to money to be independent of their income. Medina and colleagues (1996) using the Yamauchi and Templar Scale, found Mexican-Americans had lower retention-time and quality scores than Anglo-Americans. This study is important in that it indicates different ethnic groups may hold different attitudes to money. The authors speculated this may lead to different financial behaviours. Masuo and colleagues (2004) also found different gender attitudes to money between Asian (Korean and Japanese) and Asian American college students.

A Model of Financial Competence

Competent participation in the money economy requires an appropriate level of knowledge and skill, an appropriate attitude to money, and the adoption of positive financial behaviours (including financially inclusive behaviours), enacted within an accessible financial system trusted by those participating in the system (Sibley, 2006).

An individual's level of financial competence is impacted by their level of functional literacy and, in turn, impacts their wellbeing (and by extension the wellbeing of their household). A change in the overall level of an individual's financial competence can therefore affect both the household's economic wellbeing and, potentially, the individual's subjective wellbeing (their level of self-reported happiness). A change in the wellbeing of those in the household principally responsible for managing the household's finances can also, therefore, affect the wellbeing of those dependent on those individuals. An increase in the financial competence of those people in the household who are principally responsible for managing the household's finances is therefore likely to positively affect the wellbeing of the household generally.



These relationships will be mediated by a range of environmental factors (for example access to transport, environmental and political stability), socio-cultural factors (for example social obligations, socio-cultural conceptualisations of money/wealth, familiarity with contemporary money, and traditional modes of economic exchange) and individual factors (for example an individual's level of functional literacy, habits and personal relationships).

Financial competence can be modeled and measured and can be enhanced through greater access to the formal financial system and by financial literacy training. Individuals with higher financial competence will tend to make better financial decisions and will manage money more effectively. Consequently a higher level of financial competence by those who make decisions on behalf of the household will lead to greater household wellbeing.

Chapter 2:

Financial Competence in Rural Fijian Communities

Introduction

Financial competence is rapidly increasing in importance for rural households and rural communities across the Pacific. Subsistence lifestyles are becoming progressively monetised. Even at the most basic level, households must fund children's education and family medical expenses. Increasing electrification and consumerism bring an increased imperative to engage successfully with the money economy. In addition there is increasing interaction and interchange between rural and urban households across the Pacific. As urbanisation increases there is a concurrent increased reliance on wage and salary employment. In addition, in several Pacific Island States, domestic and international remittances now play an important role in providing a significant component of household cash inflows.

Increased engagement with the money economy generates an increased requirement to engage with the formal financial sector. Households must be able to access the payments system, to keep surplus cash safe and accessible, and to be able to access affordable and reliable credit services. Unfortunately increasing monetisation also brings increased exposure to ever more sophisticated financial scams. Household's which cannot differentiate between legitimate and fraudulent financial opportunities are highly vulnerable.

There is therefore an increasing imperative to ensure rural households have ongoing access to reliable banking services and to ensure villagers have sufficient financial knowledge and skill to competently engage with the money economy.

Financial Exclusion in the Pacific

Whilst data is limited, it appears that even though monetization is increasing across the Pacific (Abbott & Pollard, 2004, 60), a significant number of people in many Pacific island countries do not own a bank account, nor do they currently have the opportunity to own a bank account. It is estimated that 70% of Pacific Island peoples (6 million people) do not have regular access to financial services (Liew, 2005a).

This is important as there appears to be a nexus between monetization and poverty. Abbott and Pollard found evidence that an increasing number of Pacific Islanders are disadvantaged, and equally importantly consider themselves to be disadvantaged. Pacific Islanders are concerned that monetization is placing an increasing burden on cash resources, causing in turn an increased requirement for cash income.

The view of Pacific countries as places of 'subsistence affluence' is no longer correct - even though most people in Pacific countries continue to live in rural villages and produce mainly traditional crops using simple and labour intensive technology with commercial activity being typically small scale and augmenting rather than replacing agriculture (UNDP, 1999, p. 80).

Importantly, Pacific Islanders describe poverty in monetary or monetary related terms: The requirement for income, the requirement for a reasonable standard of basic services and the requirement for skills to meet opportunities and challenges. 25% of households in the Pacific now have income/expenditures below the national poverty line (Abbott & Pollard, 2004), 29).

The banking sector in the Pacific is not currently meeting the needs of many Pacific Islanders. The Asian Development Bank, in a study of financial sector development in the Pacific (ADB, 2001b, p. 30), noted:

“Banking Sectors in PDMC’s⁸ are oligopolistic and dominated by foreign banks. A lack of competition has permitted them to maintain high interest margins and high profitability, locating operations mainly in urban areas and showing little interest in provision of banking services to rural areas.”

Available evidence indicates the need for banking services cannot be met by semi-formal microfinance institutions (MFIs). Microfinance outreach in the Pacific has been minimal (Cornford, 2001; Liew, 2006). The Asian Development Bank Report on Financial Sector Development in the Pacific Developing Member Countries (2001b, p. 95) noted that microfinance in the Pacific (whether semi-formal or formal) “is at an embryonic stage.” The most common form of microfinance has been modified Grameen style replications or village banks subsidized by government or donor funding. The report notes most microfinance institutions (MFIs) have limited capacity for expansion and sustainability as they have weak governance structures, inadequate staffing and no business plan (ADB, 2001b, p. 110). MFIs, other than those receiving technical assistance, tend not to have accurate management information systems. Very few microfinance organizations in the Pacific have achieved operational self-sufficiency. The cost of labour, shortage of qualified workers, low population density, geographic isolation, lack of institutional capacity and technical expertise are considered to be key factors (Cornford, 2001; Kinivuwai, 2005; Marino, 2003).

The Banking Sector in Fiji

Banking has a long history in Fiji. Banking operations commenced in Fiji in 1880 with the antecedents of ANZ Bank. The success of foreign banks has not been matched by that of domestic commercial banks. The government owned National Bank of Fiji commenced operations in 1974 with the conversion of the Savings Bank of Fiji to a commercial bank. The bank was declared insolvent in 1995. In 1998 a 51% share was sold to Colonial, a subsidiary of the Commonwealth Bank of Australia. In 2006 the Commonwealth Bank acquired the Fiji government’s 49% stake in Colonial.

The banking sector in Fiji continues to be dominated by foreign banks and credit companies. Supervision is undertaken by the Reserve Bank of Fiji. 93% of assets supervised by the Reserve Bank are controlled by foreign owned (in particular Australian) banks and credit companies:

Company	Country of Ownership	Assets (\$,000⁹) (Latest Disclosure)
ANZ Banking Group Ltd.	Australia	\$1,526,813
Westpac Banking Corporation	Australia	\$1,152,817
Colonial National Bank	Australia	\$ 741,976
Bank of Baroda	India	\$ 377,703
Bank South Pacific	Papua New Guinea	\$ 32,408
Home Finance Co. Ltd.	Fiji	\$ 178,871
Credit Corporation (Fiji) Ltd.	Papua New Guinea	\$ 65,206
Merchant Finance	Fiji	\$ 92,793

Commercial banks in Fiji have concentrated operations in urban areas and have tended to emphasise commercial banking rather than focusing primarily on broad based retail banking.

The Semi-Formal Financial Sector

Credit Unions

Fiji has a long established credit union movement. However, credit unions have been in decline since the 1990’s. In the early 1990’s there were 180 credit unions in Fiji. Currently there are 45 credit unions with 15,000 members and \$25m in assets. Savenaca Narube, former Governor of the Reserve Bank of Fiji, in a recent address to Pacific credit unions noted:

8 Pacific Developing Member Countries

9 FJD Unless otherwise specified currency is expressed in FJD

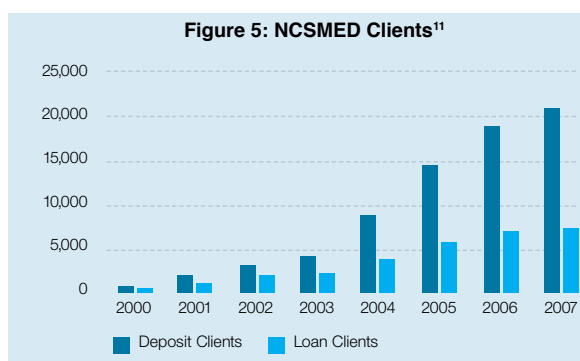
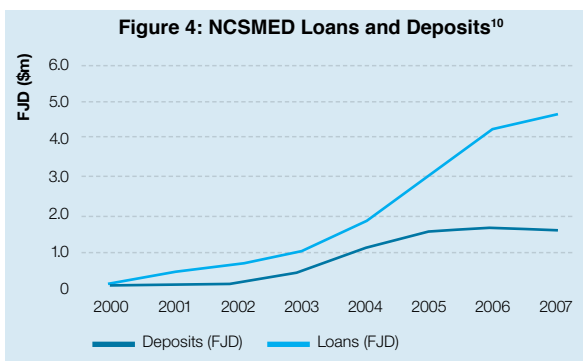
10 Reserve Bank of Fiji (2009)

“The legal and regulatory framework for credit unions is outdated and the oversight by the Registrar of Credit Unions is weak due to lack of staff and appropriate skills.” (Narube, 2008)

Microfinance

The Fiji government has, since 1999, supported microfinance. Several microfinance models have been trialed with mixed success: A Grameen replication model, a direct lending model, village banks and a cooperative. Kinivuwai (2005) reviewing these initiatives noted that the Grameen replication model has evolved toward a greater focus on individual lending. However, the individual lending model itself has closed due to ‘laxity of controls with little regard for proper procedural practices’ (Kinivuwai, 2005). The village banks were established taking into account the traditional hierarchy of the indigenous village system. Progress has been made with this model. The cooperatives have enjoyed varying success.

The growth of both loans and deposits and borrowers and depositors in microfinance initiatives has been significant:

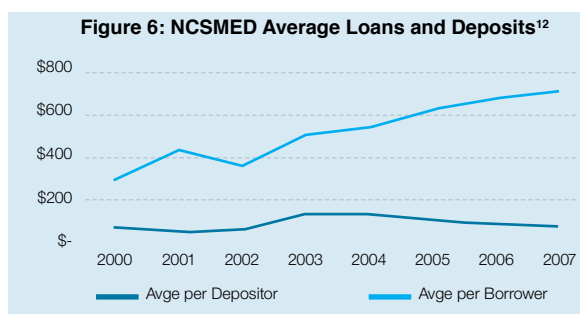


The compound annual growth rates have also been impressive:

However, growth in outstandings per borrower has significantly exceeded growth in average deposit size. At current growth rates it is unlikely the microfinance schemes will be able to attract sufficient depositors to be self-funding in the foreseeable future and will continue to require government or donor support:

Deposits	65%
Loans	62%
Depositors	59%
Borrowers	43%

Issues of overhead and governance resulting from subscale operations aside, the principal issue for microfinance in Fiji, as with most semi-formal microfinance schemes, is the need to build from a very small base and the length of time required to achieve scale. This creates significant diseconomies and inefficiencies which can also result in microfinance institutions charging higher interest rates to clients in an effort to cover high unit operating expenses.



The Informal Financial Sector

There is a significant flow of credit and savings transactions in the informal financial sector (ADB, 2001a). As these transactions are not recorded little is known about the nature of the transactions or the scale of funds flows. As is well known, Fiji has a very deep culture of sharing and reciprocity (*kerekere*), in particular reciprocal obligations within the extended family. There are also unregistered money lenders. The scale of informal lending is, however, unknown.

11 NCSMED (2009)
 12 NCSMED (2009)
 13 NCSMED (2009)

Financial Exclusion in Indigenous Rural Fijian Communities

Supply of Banking Services in Rural Fiji

The 1997 Fiji Poverty Report¹⁴ identified rural villagers, whilst reliant on subsistence farming and fishing for food, also needed cash for many of their needs, including education.

Prior to the commencement of the ANZ Rural Banking Service, there had been a progressive withdrawal of banking services from rural Fiji. In the years following independence, the Savings Bank of Fiji provided the principal means by which rural Fijians could access the banking system. This service was subsequently transferred to the National Bank of Fiji, which in turn became Colonial Bank. Whilst a social contract between the Fiji government and Colonial Bank continues in force, there has been a progressive reduction in the number of postal agencies. It is estimated there has been a 60-75% reduction in the number of postal outlets providing banking services in recent years.

Sharma and Reddy (2002) found 69% of indigenous Fijians living in rural and deprived urban areas of Fiji do not have a convenient and secure means of managing money and may not have access to reliable banking services. The level of financial exclusion experienced by urban dwellers is not known. Women, the unemployed and those with lower income and education levels appear to have less access to financial services in Fiji. This finding broadly correlates with findings from financial exclusion studies in UK, USA and Australia.

Demand for Banking Services in Rural Fiji

Sharma and Reddy (2002) determined the principal reasons for financial exclusion in rural Fiji were due to institution-led causes, for example lack of an accessible branch or ATM, pricing, perception banks would not provide services to lower income rural dwellers, rather than personal factors.

A survey of the demand for rural banking services by Tebbut Research undertaken for the Reserve Bank of Fiji (2005) found that whilst bank and non-bank savings are low, the demand for savings services is high. Importantly whilst 65% of respondents did not currently have a bank account (confirming Sharma and Reddy) 93% of those without a bank account stated they would use a bank account if one were available.

Prior use of bank services appears to be quite high. Tebbut Research found that 64% of respondents stated they had operated a personal bank account in the past, primarily for depositing and withdrawing money. Use of bank services other than the safe custody of cash was very limited. The research found that 76% of respondents now kept money in cash at home (usually hidden).

Financial exclusion is therefore not necessarily caused by a lack of financial knowledge and skill or a lack of willingness to participate in the formal financial system (for example a distrust of banks), but a simple lack of access to banking services. The Tebbut study (2005, 9) found that knowledge of banking services “can be described as good for basic service of deposit accounts. However, it should be considered poor for any other bank services, especially in relation to safe deposit boxes, chequing accounts and loans.” The high level of financial exclusion in Fiji can, therefore, be attributed primarily to systemic factors rather than primarily to individual factors, specifically the progressive withdrawal of banking services from rural Fiji.

Government and Reserve Bank Initiative

The semi-formal financial sector is neither robust enough nor sufficiently developed to be able to provide an adequate level of financial services to villagers in rural Fiji. Demand must therefore be met from the formal financial sector, in particular commercial banks.

Concern within Government and the Reserve Bank of Fiji about the lack of banking services in rural areas mounted during the 1990's. The 1999 Committee of Enquiry into Financial Services recommended action be taken. In 2001 the Reserve Bank of Fiji established a working group with representation from the Reserve Bank and the commercial banks. In the 2003 Budget, the Fiji Government identified the provision of banking services in rural areas as a priority. Following this a Workshop on Rural Banking was convened in 2003 by the Reserve Bank, with participation by commercial banks. Research to develop an understanding of the demand for banking services in rural areas was initiated (Tebbut Research, 2005) and consideration was given to the establishment of a fund for rural banking services, funded by commercial banks contributing 1% of their profit.

14 Refer Good (2003)

Literacy in Rural Fijian Communities

Education indicators suggest Fiji has a high level of adult literacy:

However, the claimed level of adult literacy is likely to be inaccurate. The 1999 Pacific Human Development Report (UNDP, 1999, p. 14) states (in respect to adult literacy):

	Male	Female
Adult literacy rate	96%	92%
Primary school enrolments 2006	91%	91%
Second school enrolments 2006	76%	83%

“The figures usually cited for the Pacific are misleadingly high. In most cases they are not based on any real measurement of functional literacy but instead come from census counts of the number of adults with three or less years of primary school education.”

The real level of adult functional literacy is likely to be significantly lower than that initially derived from even a few years primary school attendance. Three to four years of primary school education may be adequate to be able to read and write at a level sufficient to be considered functionally literate (Chandra & Lewai, 2005), however this has never been tested in Fiji. A simple scan of documents an adult Fijian needs to be able to read and understand in order to function effectively in the contemporary economy (for example bank brochures, school reports, pay-slips, invoices, newspapers) indicates a required reading and computational age greater than that of an eight-nine year old.

There do not appear to be significant gender disparities in respect to primary and secondary school attendance. Adult literacy rates for men and women are considered to have reached gender parity in age groups up to 40 years. Women over forty years have lower levels of literacy than men. This gap widens as age increases. Rural literacy rates are slightly lower than urban literacy rates (Chandra & Lewai, 2005, p. 18).

There is also a rural-urban divide in the school attendance. Rural dwellers, both male and female, are less likely to complete secondary school. Overall secondary school completion rates are low (1996: 50%), with girls having a slightly higher completion rate than men.

It is considered unlikely villagers in rural Fiji who have limited engagement with the urbanized environments of Suva and Nadi, would require OECD Level 3 literacy:

“Able to cope with the demands of everyday life and work in a complex, advanced society. In general terms this is the level of functional literacy required for successful secondary school completion and requires the ability to integrate several sources of information and solve more complex problems.” (OECD, 1997).

It is, however, considered likely rural villagers will require OECD Level 2 literacy for their everyday life:

“May have developed coping skills to manage everyday literacy demands in order to be able to deal with material that is simple, clearly laid out, and in which the tasks involved are not too complex. However the low level of proficiency may make it difficult to face unexpected demands.” (Paraphrased) (OECD, 1997).

As villagers become increasingly engaged with an urbanized and highly monetized environment, it is, however, likely that the requirement for Level 3 functional literacy will increase.

Summary

Rural households in Fiji require access to the banking system. Villagers' lack of engagement with the formal financial system appears to result from an inability to access the system rather than a lack of willingness to access the system.

Importantly, there is a relationship between knowledge and skill and behaviour. Villagers who are denied access to the banking system are also denied the opportunity to operationalise financial knowledge and, more importantly, to reinforce and develop knowledge through practice. As a consequence villagers are likely to have a reduced ability to enhance their wellbeing and the wellbeing of their households.

15 Hughes & Sodhi, 2008; UNDP, 1999; UNESCO, 2006

Chapter 3:

UNDP/ ANZ Bank Rural Financial Services Initiative

Overview of the Initiative¹⁶

In November 2003 ANZ Bank undertook an initial fact finding study to determine the feasibility of extending banking representation in Fiji into rural areas not currently serviced by the bank. The feasibility study sought to determine demand for a banking service in remote rural villages and villagers' understanding of banking and services provided by banks (Blacklock, 2005). The feasibility study indicated interest by rural villagers in a local banking service.

Concurrently, the UNDP Pacific Centre had also begun to explore alternative approaches to developing sustainable microfinance services and was seeking potential partnerships with commercial financial service providers. UNDP had supported a number of microfinance initiatives and had built up an extensive knowledge base, particularly in extending microfinance and economic empowerment services to low income and rural communities in the Pacific. This expertise was sought by ANZ Bank and the two organizations agreed to jointly seek a viable solution to extending appropriate financial services to rural Fiji; beginning with an extensive community consultation and demand assessment exercise.

The exercise confirmed the unmet demand for a simple and affordable savings product conveniently accessible to villagers. It also identified the low level of financial literacy in rural villages as a potential constraint to the successful uptake of a rural banking service. In 2004 a Memorandum of Agreement was signed between UNDP and ANZ Bank. The agreement recognised the importance of providing an inclusive, transparent, convenient and affordable banking service that met the need of rural villagers together with the critical need to provide rural people with financial literacy training.

The Rural Banking Service was launched in October 2004. Financial literacy training commenced shortly after. UNDP also worked with ANZ in securing dispensations from the Reserve Bank of Fiji in respect to reduced customer identification requirements (UNDP, 2006).

In the 2005 Budget Address, the Minister of Finance and National Planning announced support for commercial banks' engagement in the provision of banking services to rural communities:

- 150% tax deduction for direct expenditure incurred in the provision of rural banking services.
- Vehicles acquired for the programs would be exempt from duty.

There are currently two banking services available to rural villagers:

- A continuation of the branch based service originally provided by the Savings Bank of Fiji and subsequently the National Bank of Fiji, which is currently provided by Colonial Bank through Post Office branches (under the social contract with the Fiji Government).
- A mobile vehicular banking service provided by ANZ Bank.

¹⁶ Background information and data was sourced from interviews with key participants and stakeholders undertaken between June and October 2005 and primary documents provided by participants.

ANZ Rural Banking Service

Potential Market

ANZ estimated the potentially accessible and bankable market for a rural banking service to be approximately 300,000 - 350,000 rural villagers. ANZ also estimated it could capture 40% of the potential market. This suggested a potential market of between 120,000 – 140,000 new customers. Hurdle rates were set to the level of other ANZ Group projects and the target cost/income ratio was consistent with banking operations in Fiji generally (Lyon, 2005).

Delivery Model

The proposed delivery model was initially to extend the branch network into rural areas by opening new branches. However this approach was found to be both prohibitively expensive and unlikely to achieve significant penetration due to the limited number of branches which could be opened. A branch based solution was also unpopular with villagers (Blacklock, 2005). An alternative delivery model was developed based on a mobile rural banking service using purpose built trucks.

Six trucks were commissioned. The initial focus of the mobile vehicular banking service was rural villages on the island of Viti Levu. The service has also been extended to the islands of Vanua Levu, Taveuni and Kadavu. The trucks do not have telecommunications. All transactions are paper based with end of day batch processing undertaken when the trucks return to the branch. Because of potential security risks, bank staff travel independently from the mobile banking trucks which are driven by security staff.

An initial group of 12 bank staff were trained in the provision of banking services to rural communities. Care was taken to ensure staff were bi-lingual and understood and were sensitive to the customs and traditions of rural villagers. Training included familiarisation with the UNDP financial literacy training workshop for rural villagers.

Villages are visited on a two week rotation. The number of villages (primarily Fijian households) and settlements (primarily Indo-Fijian households) visited varies depending on the route taken. On average each truck makes between 5 and 8 scheduled visits to villages each day, in addition to unscheduled visits and visits to schools. In total 300 communities and 170 schools are visited by the Rural Banking service over a two week cycle (Ragogo, 2007).

Product Range

The initial product range was focused on passbook savings accounts. Two accounts were introduced: An 'Everyday account' and a "Savings account". The fee structures and initial deposit requirements of the two products differed:

- The 'Everyday Account' charged a \$3.00 monthly fee but allowed unlimited deposits and withdrawals and required a minimum opening balance of \$5.00. Interest was paid on deposits.
- The "Savings Account" had no monthly account fee but charged \$3.00 per withdrawal and had no minimum opening balance. There was no charge for deposits. Interest was paid on deposits.

Opening the accounts required only one form of identification. The Reserve Bank of Fiji agreed that the provision of a letter of confirmation from a village elder or pastor if the villager did not have formal identification would be sufficient identification to enable an account to be opened.

Five months after the introduction of the savings products a micro loan was introduced. A condition of application for a micro loan was the successful operation of the savings account for six months and the support of a senior member of the community. No other security was required for the loan.

Information Provided to Customers

A brochure was developed to provide information about both savings accounts, in particular the fee structure and account opening requirements. The brochure was printed in English, Fijian and Hindi.

It is not possible to determine the Fijian language reading level required to be able to comprehend the brochure in Fijian. However it is possible to calculate an approximate reading level for the English language text. The Flesch Reading-Ease Score, Flesch-Kincaid Grade Level and Gunning Fog Index have been calculated¹⁷.

¹⁷ The use of readability formulas provides an approximation of the reading level required to comprehend a text at first reading. The formulas use the same core measures (word length and sentence length), but use different weightings.

The three readability formulas suggest comprehension of the English language version of the brochure requires a reading level typical of a 13-15 year old reader for whom English is an everyday language. This equates to two-three years secondary school attendance. Readers who are unable to read at this level may not, therefore, be able to comprehend the brochure without either assistance or repeated re-reading.

Risk Management

Careful attention was paid to risk management prior to the introduction of the Rural Banking Service. A risk assessment was undertaken as part of the bank's standard operational activity. Key risks were identified as moderate-low/ low. It was considered all risks were manageable within the bank's normal operations. The greatest risk was robbery whilst the vehicles were in the field in isolated locations. The risk was minimized by ensuring Rural Banking trucks were driven by professional security staff, by maintaining close liaison with the Police and by ensuring minimal cash holdings in the trucks. Villages participating in the Rural Banking Service also agreed to assist with security.

Internal Constraints

USAID, in an early study of commercial bank involvement in microfinance (Baydas, Graham, & Valenzuela, 1997), identified a set of constraints commonly faced by commercial banks seeking to enter microfinance markets. It is evident the Rural Banking Service was able to successfully overcome each of these constraints:

Commitment:

“The commitment of commercial banks (particularly the larger banks) to micro-enterprise lending/ microfinance is often fragile, and generally dependent on one or two visionary board members rather than based solidly in its institutional mission.”

The Rural Banking Service quickly generated broad based commitment within ANZ Bank. Commitment extended from the Group Board, to the Group CEO, the CEO in Fiji, and bank staff in Fiji.

Organizational structure:

“Microfinance programs need to be inserted into the larger bank structures in such a way that they have relative independence and, at the same time, have the scale to handle thousands of small transactions efficiently.”

The Rural Banking Service leveraged ANZ Bank's transaction banking capability. Transaction volume was minor, relative to the transaction volumes the system had been structured to handle. The organisation structure combined separation of project management but integration of transaction processing, security, and risk management.

Financial methodology:

“Banks need to acquire an appropriate financial methodology to service the microenterprise sector — financial innovations that permit a cost-effective analysis of creditworthiness, the monitoring of a large number of relatively poor clients, and the adoption of effective collateral substitutes.”

The development of an appropriate financial methodology was a key component of the successful development of the Service. The use of recommendation by a village elder both simplified credit management and ensured there was a moral obligation to repay that was familiar to the borrower. This enabled the risk of non-payment due to a lack of understanding of the importance of meeting a financial obligation to be effectively and efficiently managed.

Human Resources:

“Given that microfinance programs differ so radically from traditional banking, banks must recruit and retain specialized staff to manage these programs. Issues of recruitment, training, and performance-related incentives require special consideration.”

Specialised staff were recruited for the service. Staff were required to have a deep understanding of either Fijian or Indo-Fijian culture, and to be familiar with Bank processes and systems.

Cost-effectiveness:

“Microfinance programs are costly because of the small size of their loans and because banks cannot operate them with their traditional mechanisms and overhead structures. Strategies must be found to minimize processing costs, increase staff productivity, and rapidly expand the scale of their microenterprise portfolios — that is, increase the number of loans. Banks must cover the costs of microfinance operations and specialised training through scale economies.”

The mobile vehicular banking delivery model, linking to existing Bank systems and processes and based on pass-book savings products was both cost effective and scalable.

Regulation and Supervision:

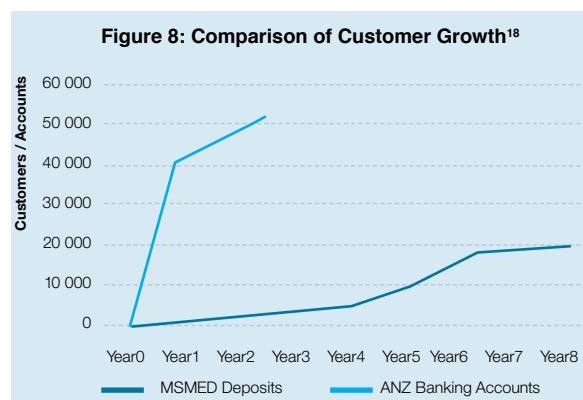
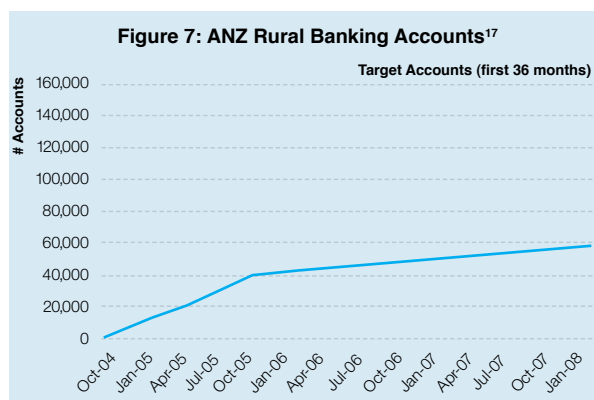
“Banks must communicate with banking authorities to ensure that reporting and regulatory requirements take into account the specialized nature of microfinance programs.”

The Rural Banking Service was developed and launched with the support of the regulator and UNDP. ANZ was able to demonstrate careful attention has been paid to risk management and that existing systems could be extended to the Rural Banking Service.

Outcomes

The Rural Banking Service commenced in October 2004. Hurdle rates were set to the level of other ANZ Group projects and the target cost/income ratio was consistent with banking operations in Fiji generally (Lyon, 2005).

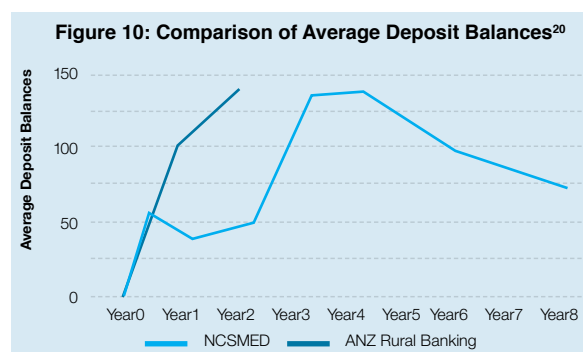
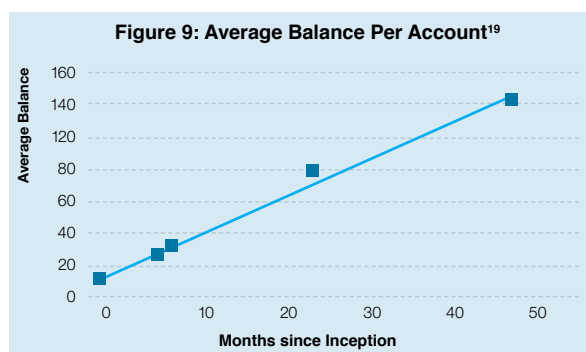
During the first 12 months of operation approximately 40,000 new deposit accounts were opened at an average of one account per customer (CMGR = 38%). Growth during the subsequent period has been considerably slower (CMGR = 2.2%). Growth has, however, been steady through the economic downturn following the political events of 2006. ANZ estimates 98% of accounts have been opened by customers without a current bank account (Blacklock, 2006). The initial target of 140,000 accounts within three years appears to have been very ambitious (albeit in retrospect). However the rate of growth in the number of accounts has been significantly stronger than that which has been achieved by the NCSMED group based microfinance schemes. The rapid expansion in distribution which ANZ Rural Banking was able to achieve through the use of mobile services is likely to be a contributing factor in the ability to gather a significant number of accounts in a relatively short period of time:



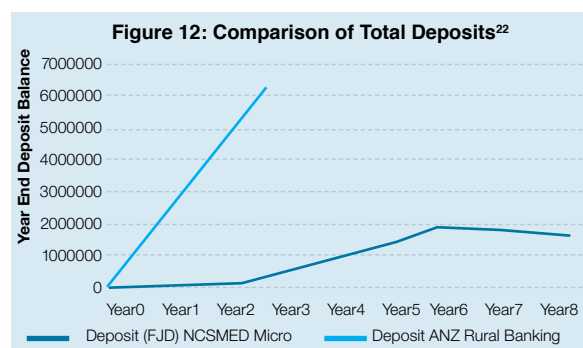
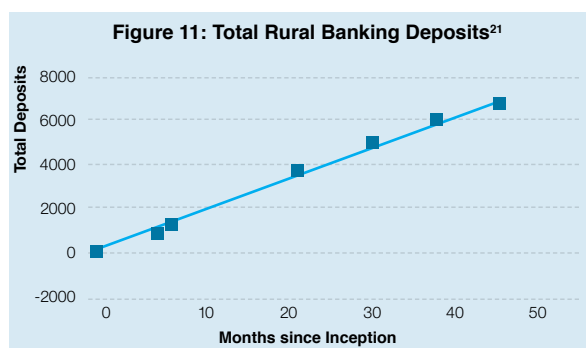
The average balance per account has increased from \$12 per account to \$127 per account. The increase is due to progressive increases in savings by existing customers and a broadening of the target market from individual customers and households to include extended family groups (mataqali). The growth in average Rural Banking deposit balances is broadly in line with the growth of average deposit balances achieved by the NCSMED group based microfinance schemes:

¹⁸ ANZ Bank, Reserve Bank of Fiji

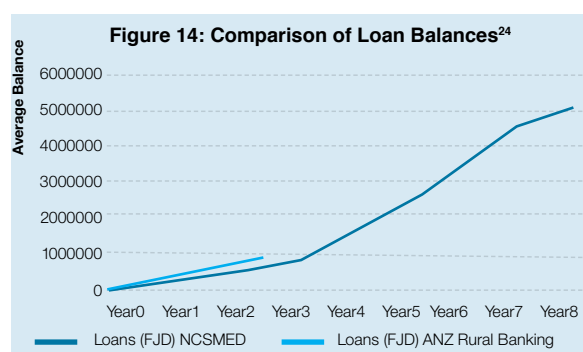
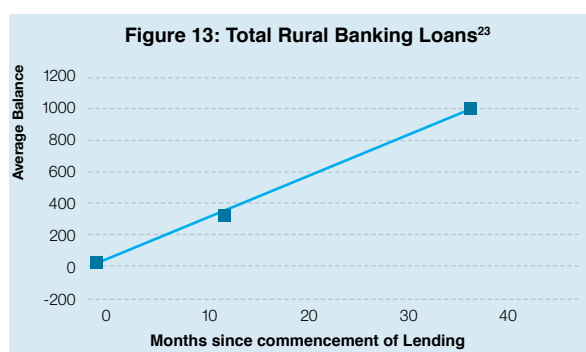
¹⁹ ANZ Bank, Reserve Bank of Fiji, NCSMED Fiji



Total Rural Banking deposit balances have increased steadily. The initial focus on opening accounts and gathering deposits resulted in ANZ Rural Banking gathering a significantly greater deposit base than the NCSMED group-based microfinance scheme. Again distribution capability is a significant factor in the rapid growth in deposits:



There is little difference in the rate of growth of aggregate loan balances between the commercial and group based approaches to microfinance. Distribution reach may not be as significant a factor in growing the loan portfolio as it is in growing the deposit base:



The average loan balance for the NCSMED micro-lending is \$683. The average loan balance for ANZ Rural Banking micro-loans is \$2,500²⁶. There is a significant difference in the number of borrowers between the ANZ Rural Banking Service and the NCSMED microfinance scheme. By the end of the third year of operations NCSMED had attracted 2,000 loan clients, compared with ANZ Rural Banking having attracted 400 micro-loan clients over the first three years of operations.

20 ANZ Bank
 21 ANZ Bank, NCSMED Fji
 22 ANZ Bank, Reserve Bank of Fiji
 23 ANZ Bank, NCSMED Fji
 24 ANZ Bank, Reserve Bank of Fiji
 25 ANZ Bank, NCSMED Fji
 26 This is significantly higher than the initial target loan size of \$125- \$1250 (Liew, 2006) and may be a reflection of the broadening in focus of the Rural Banking Service to include extended family groups.

UNDP Financial Literacy Training

The financial literacy training program was developed concurrent to, but independent from the development of the ANZ Rural Banking Service. The objective in developing the financial literacy training program concurrent with the development of the Rural Banking Service was to provide a framework by which villagers could acquire the knowledge and skill required to undertake basic money management, including the management of a simple bank account to enable safe custody of savings, contemporaneous with villagers opening Rural Savings accounts and was the first time such training had been undertaken in rural Fiji. The financial literacy program was not developed to facilitate the marketing of the Rural Banking service.

Development of the Initiative

The training program was designed, developed and supported by UNDP. The program was developed in consultation with a range of stakeholders, including a range of government agencies, provincial councils, NGO's and interest groups. Participatory needs assessment and wide consultation was a critical element in the development of the training program (Liew, 2005a).

The development of the model was undertaken in four stages.

- Development commenced with a workshop involving UNDP, the National Microfinance Unit and 16 rural community service providers. The purpose of the workshop was to discuss financial literacy education, develop an appropriate delivery model and to explore potential learning outcomes and content.
- Following the workshop initial training materials were developed.
- A second workshop was organized to finalise materials and the delivery model.
- Following the initial rollout an evaluation workshop was conducted with trainers and master trainers. The delivery model, teaching aids, exercises and logistics were revised (Evers, 2005).

Many trainers were retired school teachers living in the provinces. In total 56 trainers were recruited. A Training of Trainers workshop was organized by UNDP in conjunction with the National Microfinance Unit. Trainers were drawn from a range of government organisations and NGO's. Rigorous selection criteria were adopted (Evers, 2005). Trainers were required to have:

- Previous training experience
- Knowledge of livelihoods issues in rural Fiji
- Fluency with local dialects
- Respect commanded in communities

Delivery Model

Training

The training delivery model was developed to suit the schedule of village life. The program comprised a four hour village based workshop commencing at 9.00am weekdays (excluding Fridays). Four hours was considered the maximum time people could commit to a training program due to household and farm commitments. The morning was preferable to the evening as both men and women would be available and, as most villages do not have permanent electricity, training had to be undertaken using natural light. Fridays were unsuitable as this is the community day in Fijian villages (Evers, 2005).

As participants progressed through the training workshop they completed sections of the workbook, the outcome of which was a list of household income and expenditure, household financial goals (including savings goals), and a simple household budget. Participants completed the workbook in household groups (usually husband and wife). For many participants this was the first occasion they had documented their household income and expenditure. It was common for participants who had previously considered they had inadequate income to realise their income was greater than they had thought and that a significant portion of their income was spent on unplanned, impulse items (Liew, 2005b).

Deployment

UNDP contracted delivery of the training to the National Microfinance Unit with funding provided by UNDP. Training was conducted in the local language and was undertaken concurrently with, but independent of, the provision of the Rural Banking service.

Logistical arrangements were centered on traditional and government mechanisms. Broadcast media were unsuitable. UNDP partnered with provincial authorities to organize meetings with village heads to discuss the training. The date and place of the training was determined by the village headman. Prior to the training workshop being held, villages were visited and information was displayed in the village to inform villagers about the training.

Training was conducted in Fijian. To ensure appropriate delivery of the training, the Master Trainers accompanied trainers for the first week of training. Trainers were monitored to ensure training was delivered as intended.

The average number of villagers attending each training workshop was 25, with attendance ranging up to 50 participants (NCSMED, 2006)

The principal issue encountered in delivering the training was the difficulty, in part due to terrain and access, of the trainers arriving in villages on time. Anecdotal evidence (NCSMED, 2006) indicates a four hour workshop may have been too long for some participants. Where breaks were held during the workshops difficulty was on occasion encountered in encouraging the participants to return to the training.

Training Materials

All training materials were designed and approved by the stakeholders. Materials were translated and edited in Fijian. Training materials comprised a trainer’s manual, 50 posters illustrating key elements of the training to be displayed during the training, handouts and a participant workbook. All materials were printed in English and Fijian. Materials were designed to be easily read. The primary purpose of the posters was to support the presentations by the trainers:

Figure 15: Training Poster Examples

The figure displays four training posters. The first poster, 'HOUSEHOLD INCOME', is a table with columns for Weekly, Monthly, Yearly, and Some times, listing various income sources like cash from subsistence farming, wages, and ALTB lease money. The second poster, 'GOAL SETTING & PRIORITISING', is a table with columns for GOAL, PRIORITY or IMPORTANCE, TERM, and HOW TO ACHIEVE YOUR GOAL, listing goals like SCHOOL FEES, SCHOOL BUS/BOAT FARE, NEW ROOF, and 3 MEALS PER DAY. The third poster, 'SAVING WITH A BANK', contains three bullet points about the benefits of saving and the costs of borrowing. The fourth poster, 'TIPS ON SAVING', contains five bullet points, including 'IT COSTS YOU LESS TO SAVE THE FULL AMOUNT FOR SOMETHING THAN TO BUY IT THROUGH HIRE PURCHASE' and 'TEACH YOUR CHILDREN TO SAVE'.

Readability

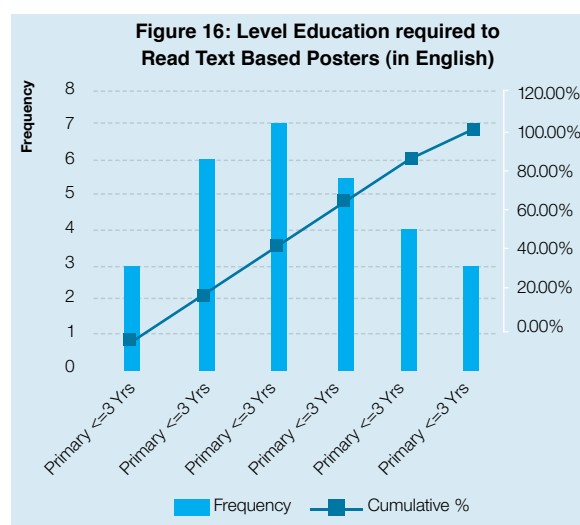
Fijian posters, workbooks were used in all training and each workshop was facilitated by a trained trainer. It is therefore probable villagers who may have been unable to read the posters unaided, would have been able to develop an understanding of the training content as the primary mode of delivery was verbal and pictorial.

It is not possible to accurately determine the reading level required to comprehend the Posters or the Workbook in Fijian. An approximation of readability was calculated for the text-based posters only using the English version of the text and measuring the Flesch Reading-Ease Score, Flesch-Kincaid Grade Level and Gunning Fog Index²⁸. This suggests the Posters are likely to require a wide range of reading levels (from early primary school to postgraduate) for unaided comprehension.

The mean reading age required to comprehend the text based posters at first reading is 9 years education (2-3 years secondary school) in English. This suggests most of the text-based posters would not be able to be understood by the Workshop participants without the assistance of the trainer.

Elements of the Workbook not incorporated in the Posters were also tested to determine the required reading age in English. A similar reading age is likely to be required to that required to comprehend the Posters at first reading.

Villagers' levels of functional literacy were not determined prior to participation in the Workshop. It is therefore not possible to determine accurately whether villagers possessed the required reading level to be able to comprehend the text unaided²⁹. It is likely, however, that workshop participants may have placed greater emphasis on the verbal, rather than the written elements of the Workshops, in part because of functional literacy, in part due to preferred learning styles and in part because conversation is the principal means of conveying information in rural villages.



Competencies

The training program was generic. Formal competencies were not developed as a base underpinning the development of the learning materials or the determination of formal learning outcomes. However, the training workshop components are implicitly competency based, with program content focused on household cash flow management and saving (Evers, 2005):

- Understanding (your) financial situation
- Understand how (you) earn and spend
- Setting goals and priorities
- Planning a household budget
- Why and how to save
- How can microfinance and banks help (you)
- Preparing a savings plan

Attitude to Money

The objective of the training program was to increase financial capability, specifically financial knowledge and skill. The program did not explicitly seek to influence Attitude to Money. However posters showing positive and negative examples of financial wellbeing were included in the poster set displayed during the training program and were discussed in the introductory section of the training. The objective of the posters was to provide examples of positive wellbeing and negative wellbeing and to enable participants to associate with families enjoying the benefits of positive wellbeing, or suffering due to poor financial wellbeing:

²⁷ UNDP

²⁸ This is considered reasonable as a means of determining an approximate reading age as the constructs are equivalent and the vocabulary required for comprehension is similar.

²⁹ However, the post hoc test of functional literacy suggests it is likely many participants in the Financial Literacy Workshops may have been unable to independently comprehend the text based Posters or the Workbook.

The use of imagery with which villagers could readily identify may have contributed to influencing villagers' Attitude to Money.

Financial Knowledge and Skill

As discussed above, formal competencies were not determined prior to the development of the training. However, because the training program used pedagogically oriented posters with specific knowledge and skill content (and a related trainers guide based on the posters (UNDP, 2004)) along with a structured participant workbook which was closely aligned to the set of posters, it has been possible to undertake a content analysis and to map the components of the training program to the set of Adult Financial Capabilities developed by the Financial Services Authority and Basic Skills Agency (FSA. & BSA., 2003, 2006) workbook.

Competencies were mapped using an annotated trainer's manual. The manual provided an amplification of the knowledge and skill associated with each of the workshop posters.

The components of the training program do not represent (nor do they purport to represent) the full set of financial competencies required by rural villagers. In addition, a number of the training components addressed several competencies (thereby providing in-course reinforcement) and several competencies were addressed by more than one training component (again providing reinforcement).



The competencies span two of the three levels of financial competence within the FSA/BSA Framework:

- Competencies labeled 'B(x)n' are basic competencies.
- Competencies labeled 'D(x)n' are intermediate level competencies which build on the basic level competencies.

Financial Knowledge and Understanding		
Component	Competency	Training Component (Poster/Workbook Section)
Income generation	B(b)1: Recognise there are regular and irregular sources of money	Household Income
Income disposal	B(c)1: Understand the difference between essential and non-essential spending (and prioritise spending)	Household Expenses
	B(c)2: Recognise household expenses and regular financial commitments	Household Expenses Household Expenses Exercise (Workbook)
	D(c)1: Understand household expenditure and how to manage it	You Must Know (Introduction) Budgeting Matching Income-Expenses

Financial Skills and Competence		
Component	Competency	Training Component (Poster/Workbook Section)
Gathering financial information and record keeping	B(d)1: Recognise the need to keep money safe and the options available B(d)4: Be able to keep a simple record of money coming in and going out D(d)1: Understand keeping money in an account	How to Save Saving with a bank Household Budgeting and Goal Setting Household Income Household Income Exercise (Workbook) Household Expenses Exercise (Workbook) Saving with a Bank
Financial Planning: Saving, spending, budgeting	B(e)1: Begin to understand that saving can offer options for future spending and the different ways of saving B(e)4: Use simple budgets to plan and control spending – begin to plan ahead D(e)1: Understand the need to consider saving and the potential benefits together with the variety of ways and places to save D(e)2: Begin to be able to plan and think ahead D(e)3: Understand how to use detailed budgets to plan and control spending	Why I Must Save Tips on Saving Household Budgeting and Goal Setting Budgeting Can Help You Better Manage Your Money How to Save Why Must I Save Goal Setting Goal Setting and Prioritising (Workbook Exercise) Savings Goal (Workbook Exercise) Budgeting can help you better manage your money Household Expenses Household Income Exercise (Workbook Exercise) Income before Expenditures
Risk and Return	B(f)2: Understand that you need to pay to borrow money and will be paid money if you save	Saving with a Bank
Financial Responsibility		
Component	Competency	Training Component (Poster/Workbook Section)
Personal Choices and the financial implications	D(g)2: Be able to identify, plan and make decisions for short, medium and long term needs D(g)3: Be able to prioritise different needs working within the constraints of limited resources	Goal Setting and Prioritising Goal Setting and Prioritising (Workbook Exercise) Household Expenses Goal Setting and Prioritising Goal Setting and Prioritising (Workbook Exercise)
Implications of finance	D(i)1: Know about the roles of financial organisations	Saving with a Bank

Outcomes

347 villages participated in the initial phase of the financial literacy training workshops contracted to the Micro Finance Unit (NCSMED, 2006):

- 139 Villages participated in the pilot phase of the program
- 208 further villages participated in the second phase of the NCSMED training program

Training was delivered to an average of 23 villages per month. It is estimated that between 8,500 and 9,000 villagers attended the training sessions during the period of the training (2004-2006). Whilst this is less than the number of people who opened Rural Banking Savings Accounts during the same period (48,000), several factors suggest the overlap between those who attended the financial literacy training and those who opened a Rural Banking Savings Account may be greater than is suggested by a simple comparison of attendance and account opening:

- It was not uncommon for one member of the household to attend the financial literacy training on behalf of the household (even though both husbands and wives were encouraged to attend)
- A number of households have opened more than one Rural Savings Account
- In addition to visiting 300 villages, the Rural Banking Service also visits 170 schools and has opened a considerable number of children's savings accounts.

Villagers were requested to complete a feedback sheet following participation in the training session. The feedback from villagers was overwhelmingly positive. Villagers considered all of the topics covered were important to them (NCSMED, 2006).

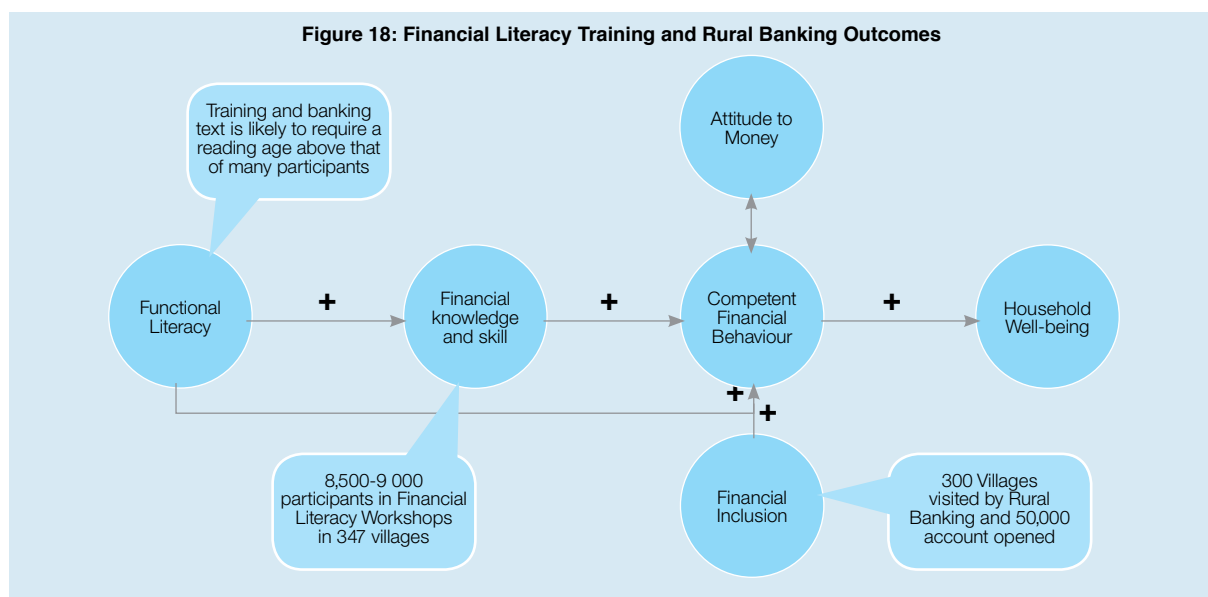
Key Factors in the Success of the Rural Financial Services Initiative

The UNDP/ANZ Bank Rural Financial Services Initiative has brought a significant number of households in rural Fiji into the formal financial system:

- 50,000+ new accounts have been opened with aggregate deposits in excess of \$7m
- 8,500+ people have attended the financial literacy Training Workshops and have been provided with a set of financial tools to assist with management of household cash-flows.

The Initiative has generated significant publicity; in part this is due to the significant number of new accounts opened during the launch phase. The initial growth in Rural Savings Accounts suggested the target of 140,000 accounts would be achieved within the projected three year time frame. Following the launch phase, the growth rate in new accounts slowed significantly. The initial (perhaps in hindsight somewhat optimistic) target has not been met. This appears to be due to several factors:

- The six Rural Banking trucks became operational within a short period of time, enabling large numbers of account to be opened within a short time period.
- However, once the number of villages visited by the trucks on a fortnightly rotation stabilized the growth in new accounts reduced.
- The economic downturn following political events in 2006 constrained ANZ's ability to further extend the service.



Key Factors in the Successful Deployment of the Rural Banking Initiative

A range of factors have contributed to the early success of the ANZ Rural Banking Service:

- There was significant pre-existing demand for rural banking services.
- ANZ worked collaboratively with UNDP, the Regulator and communities.
- The initiative leveraged existing capability, in particular banking skill, processing and risk management frameworks, and understanding of the target markets. This enabled rapid development and deployment of the Rural Banking Service.
- The use of an easily developed, (relatively) low cost distribution model with extensive geographic coverage enabled a large number of villages to be included in the scheme within a short period of time.
- The initial focus on opening savings accounts enabled a large customer base to be recruited quickly. It appears deposits may be distribution sensitive. Loans appear to be less sensitive to the scale of the distribution network.
- The use of existing processing and operations platforms enabled the new service to be deployed within a manageable and scalable model
- Close relationships with the Regulator enabled regulatory adjustments to be made to facilitate account opening. The Regulator also provided independent oversight.

Of the estimated 300,000 - 350,000 people in rural Fiji who do not have a convenient and secure means of managing money, most live on low or very low incomes. In the period since inception, the rural banking service has provided outreach to between 14% - 18% of this group.

Key Factors in the Successful Deployment of the Financial Literacy Initiative

A range of factors have contributed to the success of the Financial Literacy Workshops:

- The training workshop was structured to be attractive to villagers, in regard to both content and delivery
- A small number of (implicit) learning outcomes were set and the workshops sought to enhance participant's competency – they were practical and focused on 'doing'.
- Attendance at the workshops was not passive, active learning techniques were employed. Participants developed an understanding of their household cash flows and began to develop a household budget and savings plan.
- Clear project outcomes were established and careful attention was paid to the recruitment and training of trainers and progress was monitored.
- UNDP worked collaboratively with a range of highly experienced stakeholders to develop the financial literacy training material and an appropriate delivery model
- The government and villages supported the training and were involved in the development of the program.

Key Factors in the Successful Deployment of the Combined Initiative

The Rural Financial Services Initiative was initiated following the establishment of known demand by rural villagers for enhanced access to the banking system in Fiji. The combination of training and access to banking was, in effect, a competency development program grounded in experiential learning:

- Villagers' financial knowledge and skill was enhanced and villagers were concurrently provided with the opportunity to enact that knowledge (directly and indirectly) through the use of a savings account in order to facilitate better household cash flow management.
- Most villagers were able to use the training immediately. There was therefore a low risk of erosion of knowledge due to inability to apply knowledge in context.
- The Rural Banking Service was explicitly structured to reduce risk. Perhaps most importantly neither the bank, nor the banking system generally, was not required to assume new or expanded risk, beyond that of existing day-day operations:
 - Risk to capital: The use of leased structures, combined with the tax subsidy and depreciation allowances enabled the Bank to initiate the Rural Banking Service with a low risk to capital.
 - Risk to profit: The focus on deposits enabled rapid cost recovery, which when combined with the tax subsidy and depreciation, minimises the loss from the provision of the Rural Banking Service in the early years.
- The use of a modular organisational structure enabled public and private providers to work together in circumstances in which the divergent requirements of each organisation could co-exist.

Functional Literacy is a Possible Issue

The ongoing benefit of both the Rural Banking Service and the Financial Literacy training Workshops is likely to be contingent on villagers' ability to read.

Whilst it is evident that both the Rural Banking Service and the Financial Literacy Workshops have been positively received by rural villagers, the extent to which participants have been able to benefit from owning a rural banking account or attending the financial literacy training is moderated by villager's ability to understand the material.

The Rural Banking Savings Account brochure (and other financial documents) and the Financial Literacy training materials are primarily text based. The financial literacy training materials and the Rural Banking brochure were translated into Fijian. It is not possible to determine (using algorithmic measures) whether the reading level was appropriate for most villagers whose education level is likely to be, at best, equivalent to that of an 11-12 year old. However, given the complexity of many financial constructs in English and the lack of similar words in Fijian, it is probable the language complexity required to convey key concepts in the vernacular is likely to result in a similar level of language complexity.

Chapter 4:

The Relationship between Financial Competence and Household Wellbeing

Introduction

It is evident the UNDP Financial Literacy Training program has been successful in attracting a significant number of villagers to participate in the workshops, and that villagers responses following participation in the workshops has been positive. It is also evident that the ANZ Rural Banking Service has been successfully deployed and that a considerable number of villagers are now able to engage with the formal financial system and are able to use a bank account to support household cash flow management.

However, whilst understanding perceived beneficial outcomes from participation in the Initiative is very worthwhile, this does not lead to an understanding of the extent to which participation in either or both of the elements of the Initiative has facilitated an improvement in rural villagers' household wellbeing.

It had initially been intended to conduct a field experiment to examine the change in villagers financial knowledge and skill, financial behaviour, attitude to money and subjective and objective wellbeing prior to, and following participation in either or both elements of the Rural Financial Services Initiative and to measure this against a control group of villagers which did not participate in either element of the Initiative. However circumstances in Fiji which emerged late 2006 prevented the deployment of a treatment and control group field experiment design³¹. It is not, therefore, possible to determine statistically whether participation in either or both elements of the Rural Financial Services Initiative has resulted in an increase in villagers' financial competence and consequently their subjective wellbeing and the objective wellbeing of their households.

It is, however, possible to examine *ex post facto*:

- The financial competence of villagers who participated in either or both elements of the Rural Financial Services Initiative against a control group villagers who did not participate in either the Financial Literacy Training workshops and who do not have a Rural Savings Account.
- The relationship between villagers' level of financial competence and their wellbeing and the wellbeing of their households.
- It is also possible to compare the financial competence of rural villagers in Fiji with that of villagers in Guadalcanal who participated in a similar initiative and for whom it is possible to determine a change in knowledge and skill, and intended behaviour, prior to and following participation in a comparable Financial Literacy Training workshop.

Research Design³²

An *ex post facto* experimental research design has been used to examine the financial competence of rural Fijian villagers and the relationship between financial competence and household wellbeing. Interviewer administered survey methodology was used. The survey instrument was developed using existing instruments. Questions relating to financial knowledge and skill and financial behaviour were derived from the FSA (2006b) and New Zealand Retirement Commission (2006) financial capability studies and adapted for local conditions. Questions were mapped to a competency framework derived from the FSA/ Basic Skills Adult Financial Capability Framework (2003; 2006).

31 Refer Appendix 2 for an overview of the research design.

32 Refer Appendices 1-6 for a discussion of the research method used for the study

Attitude to Money was measured using the Yamauchi and Templar (1982) scale. Subjective wellbeing was measured using the International Wellbeing Group (2006) Personal Wellbeing Index. Objective Wellbeing was measured using the ADB Experimental Methodology for Evaluation of Savings Product Innovations (Ashraf, Karlan, & Yin, 2003). Competencies and survey questions were reviewed by a workshop of subject matter experts and pilot tested in two villages. Field work was undertaken between September and December 2007.

The surveys were administered in Fiji by trained bi-lingual interviewers. A separate village survey was also conducted to collect environmental data. All data was collected in the field. Fourteen villages participated in the study. Villages were drawn from a population of 26 villages in the Wainamala, Waimaro and Matailobou *tikina* of Naitasiri Province, Viti Levu, Fiji. All villages participating in the survey had received Financial Literacy Training workshops approximately 2.5 years previously. 10 villages received fortnightly visits by the ANZ Rural Banking Service. The Rural Banking Service had commenced 2.5 years previously. Four villages did not receive visits by the Rural Banking Service. 389 villagers drawn from 200 households were interviewed. Traditional protocols were observed in enrolling villages. All villagers participated on the basis of voluntary informed consent. Random sampling was used to select households.

A four cell sampling grid was used. A target of 50 households per sampling cell was established, with a minimum of 44 households per cell. This was achieved for three of the four sampling cells:

The Relationship between Adult Financial Competence and Household Wellbeing

Introduction

The examination of the relationship between the financial competence of rural villagers and their wellbeing and the wellbeing of their households has been structured as follows:

- An overview of the villages and households participating in the Study
- An analysis of villagers' functional literacy
- Analysis of each of the elements of the Model of Financial Competence
- Integrated analysis of key elements of the Model of Financial Competence to develop an understanding of causal relationships

The analysis of financial competence has been structured to match the Financial Capability and Competence Framework. Attitude to Money has been examined separately.

Village and Household Overview

Village Overview

There is a broad homogeneity among the villages which participated in the study. Village populations typically comprised 50 households and 200 residents (including children). Villages were between 40Km and 80Km from the nearest town.

Most villages had a primary school either in the village or within 1 km. The nearest secondary school was typically at least 15Km from the village and the nearest health service 20Km from the village. Most villages had road access and villagers could access public transport (either a bus or a truck). Approximately two thirds of households surveyed had access to electricity, usually by household generator. Household generators were either owned individually or shared between houses.

Whilst the village population varied between villages, other factors were relatively constant. No village had experienced a major environmental event (for example a flood) which could affect household cash flow management or the household's ability to generate income. Several villages were undertaking projects to repair the village hall or the church.

The geographic, social, cultural and economic aspects of villages which receive Rural Banking Service visits are the same as those of villages which do not receive visits by the Rural Banking Service. Access to schools and health

Figure 19 : Household Sampling

	Attended Financial Literacy training	Did not attend Financial Literacy training
Has a Rural Savings Act	48 Households	63 Households
Does not have a Rural Savings Act	34 Households	63 Households

services are also equivalent. Villagers’ age profiles, their household size and structure, and their sources of income do not evidence statistically significant differences. Consequently, it is reasonable to assume both groups have been drawn from the same population, with the only difference between villages being access to banking services, and between households being both access to banking services and participation in the Financial Literacy Training.

Access to Electricity

Household access to electricity is an important determinant of ownership of household durables. The average percentage of households in the sample villages with access to electricity is comparable to the percentage of rural Fijian households with electricity (62%) in the 2002-3 Household Income and Expenditure Survey (HIES) (Narsey, 2006). The relationship between the number of households in the village with access to electricity, the total number of households in the village, the proximity of the village to a primary school and the village’s distance to the nearest town was examined. No significant correlation was found to indicate access to electricity is related to the size of the village, or the village’s proximity to a primary school.

Average village population (1996 census)	188 (Range: 70 – 415)
Average number of households per village	53 (Range: 13 – 126)
Average distance to nearest Town and/or Bank/ATM	63 Km (Range: 40km – 80km)
Average distance to nearest Primary School	1.1Km
Average distance to nearest Secondary School	15.5Km
Average distance to nearest Primary Health Service	20Km
Villages with road access	78% (14% have access across a river)
Public Transport	Bus: 57% Truck: 43%
Households with electricity	65% (Primarily household generator)

Household Overview

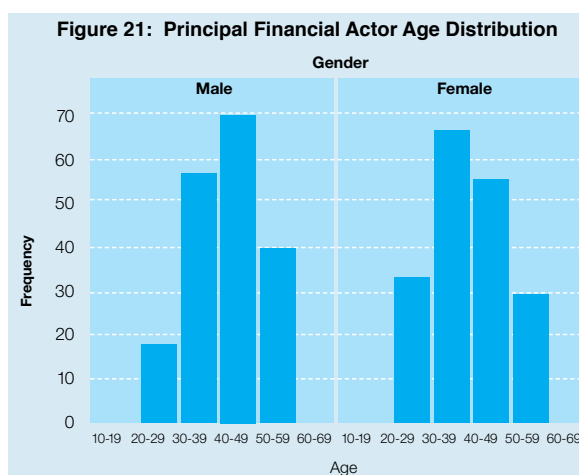
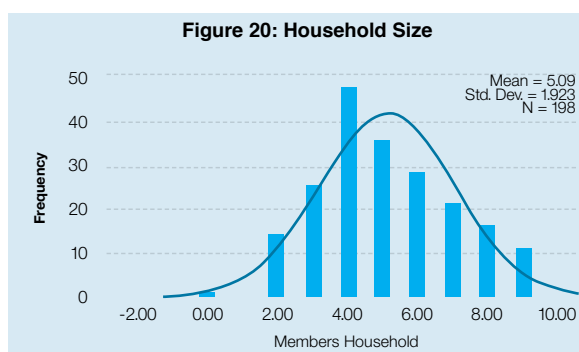
Household

The average household size is 5.09 members. The household size is larger than the average household size of 4.5 in Reserve Bank of Fiji sponsored Survey of Demand for Rural Banking Services (Tebbut Research, 2005), but is comparable with the HIES average rural Fijian household size of 5.25. The difference between the present study and the HIES may be due to the present study excluding household members not currently living in the household from the calculation of household size.

Ninety seven percent of households surveyed earn their income from either agriculture or a combination of agriculture and (local) small business. There is a difference in the distribution of sampled households in respect to distance from town. Households which do not use the Rural Banking Service are, on average, 71 Km from the nearest town. Households which use the Rural Banking Service are, on average, 59Km from the nearest town. The difference is principally due to the lower number of villages <50Km from the nearest town and results from the need to select villages which are not visited by the Rural Banking Service. These villages are typically more distant from the nearest town. The 11km difference in average distance is not considered to be a significant factor biasing results, given other environmental factors are generally very similar.

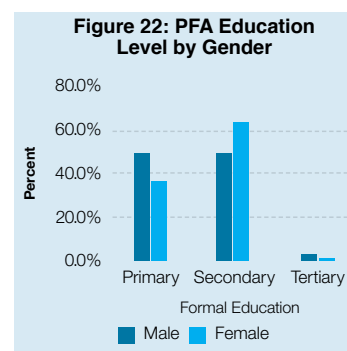
Principal Financial Decision Makers

The survey was administered to the two principal financial decision makers in each household (Principal Financial Actors – PFAs). Ninety percent of villagers interviewed stated they married. Those who were not married were either widowed or separated. There were no reported



de facto relationships. There is an even gender distribution in the sample (Male 49%, Female 51%). The mean age of male Principal Financial Actors (PFA's) is 38.4 years. The mean age of female PFA's is 35.9 years:

Respondent's primary and secondary education levels are broadly similar to those in the Tebbut Study (2005). However, the Tebbut sample displayed a higher level of participation in tertiary education. Participation in secondary education is significantly higher for female respondents (63%) than male respondents (49%). 2007 census data for gender education level is not yet available. 1996 data shows approximately 50% of Fijian women and men having secondary education. There is no comparative data for the *tikina* from which the survey samples have been drawn. It is, however, considered likely that there will be a lower level of participation in secondary education by men in these *tikina* due to the need to work on family farms. The reason for the higher level of secondary participation by women, relative to the 1996 census average, is not known:



Study	Income (pa)
UNDP (2007)	\$ 4194pa
RBF Study (2005)	\$ 4100pa
HIES (2002)	\$11082pa

Average gross household income levels are broadly similar to those in the Tebbut study, but are significantly lower than average Fijian rural household gross incomes in the 2002-3 Household Income and Expenditure Survey:

The sample is positively skewed. If outliers (>\$8500pa) are removed, income is distributed around \$3360 per annum within normal limits³³. This income level is lower than both the Tebbut and HIES studies. However, the current study

has been conducted in remote villages with relatively small average farm sizes (<1 hectare) and limited opportunity to supplement farm income with small business income or wages and salaries. In addition, respondents were asked to estimate their agricultural and business income and expenditure for each month over a full 12 month period. The Tebbut Study and the 2002-3 HIES asked respondents to estimate their annual income. It is possible the methodology used in the present study has resulted in a more conservative estimation of net income.

Participation in the Financial Literacy Training Workshops

There appears to be a difference in the reasons provided by men and women as to why they decided to attend the Financial Literacy Training Workshop. Three quarters of the men who attended the Workshops stated they attended either to learn about budgeting and managing money, or simply because they were asked to attend. Nearly half of the women who attended the Workshops stated they attended to learn more about saving and using a bank account. Importantly, a large number of women stated they did not attend the Financial Literacy Training workshop because they were not asked to attend or were not aware of the training. Very few respondents stated they did not attend the training because they were not interested:

Why attended the Financial Literacy Training Workshop	Men	Women
To learn how to manage money and/or budget	44%	20%
To learn how to save and/or learn about using a bank account	24%	46%
To learn how to better manage a business	16%	16%
Respondent was asked to attend	31%	13%
Why did not attend the Financial Literacy Training Workshop		
Was not in the village when the training was held	60%	33%
Had other work or family commitments	25%	20%
Was not aware of training/ was not asked	10%	35%
Was not interested in attending	5%	9%

33 Skewness=0.82, Kurtosis=0.37

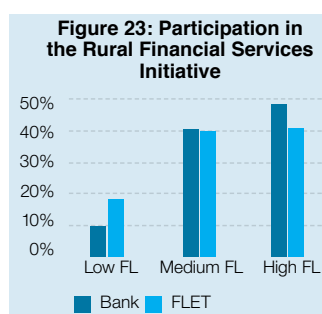
It is interesting that villagers who participated in the Financial Literacy Training Workshops consider they gained a broader range of learning benefits to the benefits they expected to gain. Few respondents stated they had derived no benefit from participation in the Workshop:

	Men	Women
Learned how to manage money and/or budget	60%	31%
Learned how to save and/or learned about using a bank account	30%	52%
Learned how to better manage a business	11%	16%
No benefit	8%	8%

(Answers do not sum to 100%)

		Question Answer Correctly			
		Numeracy			Total
		0-2	3-4	5-6	
Literacy	0-1	22%	11%	10%	43%
	2-3	6%	12%	20%	38%
	4-5	1%	4%	13%	19%
	Total	30%	27%	44%	100%

n=389

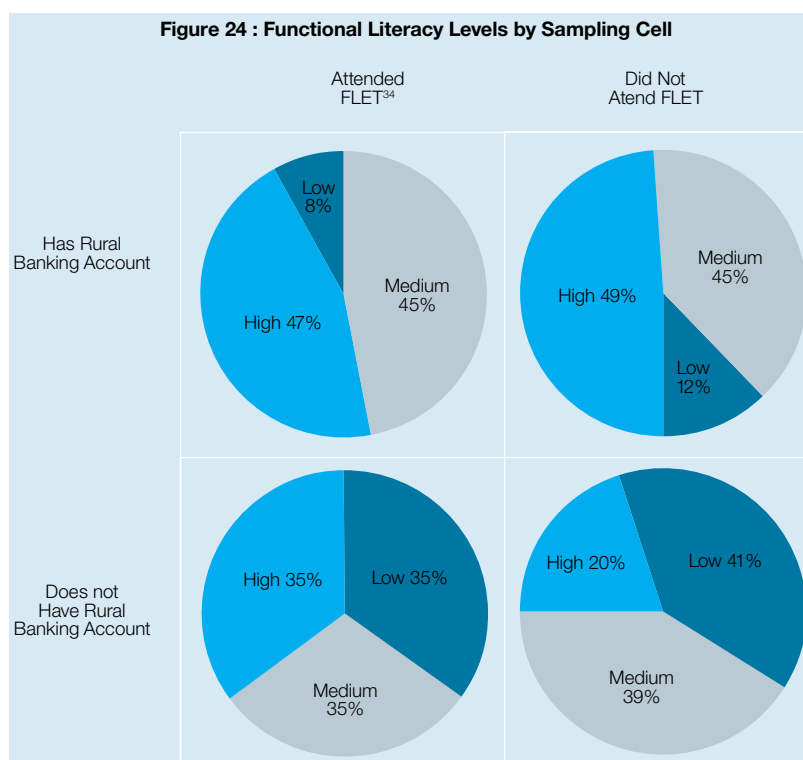


Functional Literacy

The general level of functional literacy, in particular prose literacy, is low. Approximately half of the villagers who participated in the study were able to answer only half of the questions correctly.

Low levels of functional literacy may inhibit participation in the Financial Literacy Training and reduce willingness to open a Rural Savings Account. Villagers with low functional literacy were significantly less likely to participate in the training workshop or to open a bank account (either individually or jointly):

Levels of financial exclusion are therefore potentially significantly higher for villagers who have limited competence with reading and arithmetic. On average villagers who attended the Financial Literacy Workshop and who opened a Rural Savings Account were able to answer 68% of the functional literacy questions correctly. Villagers who attended neither the Financial Literacy Workshop nor opened a Rural Savings Account were only able to answer 41% of questions correctly. Villagers with higher functional literacy are approximately 12% more likely to attend the Financial Literacy Training Workshop and 28% more likely to open a Rural Savings Account:



34 Answers do not sum to 100% due to multiple reasons for attendance/ non-attendance

Literacy and numeracy are negatively influenced by age. There is a moderate but significant correlation between level of formal education and functional literacy, controlling for age. Levels of literacy are equivalent for male and female respondents. However, Male PFA's demonstrate significantly stronger levels of numeracy, albeit with a broader distribution.

It must be stressed that these results are *indicative* of functional literacy and are not a formal measure. The important point is that the literacy test used questions from the Rural Banking brochure. Respondents were only required to identify information in the text. The numeracy questions were arithmetic and are typical of calculations villagers need to make in managing day-to-day household cash flows.

Financial Competence

Attitude to Money

The Money Attitude Scale (MAS) was used to explore villagers' subjective wellbeing. The 34 item MAS, as modified by Gresham and Fontenot (1989) was used in preference to Yamauchi and Templar's (1982) original scale. The scale was further adjusted to allow for conditions in rural Fiji. The 2006 Financial Competency Workshop³⁶ reviewed the instrument and determined there was little value in asking questions in respect to 'Quality'. These questions relate to the trade-offs people make between price and quality (for example: "I buy top-of-the-line products") and have little or no relevance in the life in rural villagers. Therefore, if the questions were answered by villagers, the responses could generate misleading results due to misunderstanding.

Previous studies using the modified MAS (Gresham et al., 1989; Medina et al., 1996; Roberts & Sepulveda M, 1999a, 1999b) have revealed four factors³⁷:

- *Power/Prestige*. The power/ prestige factor relates to status seeking behaviour, competitiveness, the desire for external recognition and the acquisition of material goods. Higher scorers place greater importance on the use of money to impress and signal success.
- *Retention/Time*. The retention/time factor involves behaviours and attitudes which emphasise the use of money to plan and prepare for the future. Higher scorers place greater value on the use of money to prepare for the future.
- *Distrust/Anxiety*. The distrust/anxiety factor indicates a lack of faith in the ability to make effective purchase decisions and suspicion toward the price of goods and services. Higher scores are more likely to regard money as a source of anxiety, and also as a protection from anxiety.

Villagers' responses were factored to determine whether the factor structure revealed in previous studies in multi-cultural communities in Los Angeles, urban Mexican-Americans and Anglo-Americans, and urban Mexicans was also evident in rural Fijian villages. The re-factored scale was tested and found to be reliable³⁸.

The MAS factor structure was similar to that revealed in previous studies. The three factors determined in previous studies (Power/Prestige, Retention/ Time and Distrust/ Anxiety) were also found in the present study. However rural Fijian villagers were found to have less confidence in the use of money than Americans or Mexicans. This is not surprising given rural Fijian villagers' engagement with the money economy is likely to be both less extensive and less intensive than urban dwelling Americans and Mexicans.

The Retention/Time factor exhibited the same factor structure as that of prior studies. However the variable 'careful with money spent' which had coded to the Retention/Time factor in previous studies did not code to any of the factors in the current study.

Variables which coded to the Distrust/Anxiety factor for rural Fijian villagers were the same as those in earlier studies. However, several variables relating to confidence in purchasing which had coded to the Distrust Anxiety factor in prior studies coded to the Power/Prestige study in the present study.

35 FLET = Financial Literacy Training (refer acronyms)

36 Refer Appendix Seven for a list of participants in the Workshop

37 Yamauchi and Templar had originally identified five factors. Gresham and Fontenot re-factored the scale and combined the Distrust and Anxiety factors into a single Distrust/Anxiety factor

38 Cronbach's Alpha = 0.796

Variables which coded to the Power/Prestige factor in prior studies also coded to the same factor for rural Fijian villagers. However, as discussed above, additional 'distrust/anxiety' related variables also coded to Power/Prestige.

This bifurcation of response (for example "money is a symbol of success" and "I suspect I have been taken advantage of") suggests rural Fijian villagers hold similar views to other socio-economic groups that money is a source of status. However this is combined with a concern that there may not be enough money to achieve social status and that there is a general lack of confidence when using money.

There are no significant gender differences in attitude to money. Similarly there are no significant differences in respect to level of education. There is a modest but significant correlation between age and Anxiety/Distrust and Retention/Time. Older villagers exhibit higher levels of anxiety toward money and place a greater emphasis on the planned use of money. There is a moderate and significant correlation between villagers' level of functional literacy and each of the three factors. Villagers with higher levels of functional literacy are slightly less anxious in their attitude to money, place less emphasis on money as a source of status and more emphasis on the planned use of money.

There is a difference in the emphasis placed on the planned use of money between villagers who attended the Financial Literacy Training Workshop and villagers who did not attend the workshop. Villagers who attended the workshop place greater emphasis on the planned use of money. The difference is significant³⁹ and is more marked for villagers who attended the Financial Literacy Training and have a Rural Savings account and villagers who did not attend the Financial Literacy Training and do not have a Rural Savings Account. Overall villagers who attended the Financial Literacy Training exhibit an attitude to money which trends toward that found in more highly monetized communities.

Villagers whose attitude to money more closely mirrors that found in respondents in monetised environments and who place greater emphasis on money as a symbol of success and on the planned use of money are between 28% and 53% more likely to have attended the Financial Literacy Training Workshop than villagers who place less emphasis on these factors. Villagers who place more emphasis on the planned use of money are also 30% more likely to have a Rural Savings Account.

Managing Money

Making Payments

Villagers generally exhibit limited knowledge of the range of payment mechanisms accessible through the formal banking system. There is no difference in knowledge and understanding of payment mechanisms between villagers who attended the Financial Literacy Training and villagers who did not attend the Training, or between villagers who have a Rural Savings Account and villagers who do not have an Account. This is not surprising as knowledge of payment mechanisms is usually experiential and villagers typically have limited exposure to forms of payment other than cash.

Men appear to have greater experience with non-cash based formal payment mechanisms than cash than do women and are able to identify a greater range of payment types. On average men were able to identify three types of payment. By contrast women were able to identify two payment types. 57% of women were unable to identify any non-cash payment types against 42 of men.

Whilst levels of understanding of non-passbook based bank products and services are low and are frequently incorrect, men also exhibit a greater understanding of savings accounts than women. This can be attributed to greater ownership of passbook based Rural Savings Accounts by men. Villagers who attended the Financial Literacy Training and who have a Rural Savings Account are significantly more likely to be able to correctly describe what a savings account is and how it operates than villagers who did not attend the Financial Literacy Training and do not have a Rural Savings Account:

	Financial Capability		Gender	
	FLET/ Bank	non-FLET/ non-Bank	Male	Female
Able to correctly describe a savings account	40%	12%	23%	13%
Able to correctly describe a cheque account	15%	8%	13%	5%
Incorrectly described a savings or cheque account	44%	77%	60%	79%
Incorrectly described an Automatic Payment or Direct Debit	81%	91%	84%	93%
Incorrectly described a Credit Card or Store Card	77%	81%	82%	79%

Villagers generally use cash to pay for the things they buy and do not use electronic payment mechanisms. However, between 20-30% of villagers state they have remitted money at least once - either within Fiji or internationally.

Managing Household Income

Household income is generally managed by both the husband and wife. However, there is a difference between men and women's perceptions of how household income is managed. More men than women consider household income to be managed collectively. More women than men consider household income to be managed individually.

The reasons for this difference in perception are not immediately evident. However, women have a greater range in the number of sources of income they have than men (whose stated source of income is invariably farming). More women than men state they have no source of income, and are therefore dependent on the income generated by their husband. In addition, more women state they have multiple sources of income. These typically include (in addition to working on the family farm), selling items at a roadside stall, selling items at the market, operating a canteen (small village store). It is possible women with few sources of income perceive their role to be subordinate as a consequence, and women who have multiple sources of income (generally market or handcraft income) may retain some of the income they earn:

Only 5% of villagers check their income regularly. This is not surprising as very few villagers stated they earned wages or salaries (4%). Very few villagers understand wage and salary income. 90% of villagers do not know if salaries or wages would usually be received regularly. Most villagers (80% - 90%) know that a salary slip should be received when wages or salaries are paid. Only 25% of villagers could correctly identify net pay on a pay slip. Whilst villagers' lack of knowledge is likely to be due to limited exposure to paid employment, there is a risk of exploitation (at least initially) if villagers undertake salaried or waged employment and cannot correctly identify net pay on a pay slip.

Many villagers did not answer questions relating to information which should be sought in respect to wages and salaries at the commencement of employment and would appear to have a very limited understanding of questions which should be asked. However, there appears to be a gender difference in respect to knowledge of items which should be present on a salary slip. Men can typically identify twice as many items than women. As there are no differences in knowledge and understanding relative to level of education or participation in either the Financial Literacy Training or the Rural Banking Service, it is likely the difference can be attributed to experience and that more men than women have received wages or salaries.

Managing Household Expenses

Villagers were asked to describe ways households might manage spending. Villagers were able to cite few methods of managing spending. Women were generally able to cite a greater range of methods than men. In addition, villagers who had attended secondary school were also able to cite more methods of managing expenditure. Significantly more women (68%) than men (48%) were able to cite the use of a household budget as a means of managing household expenditure.

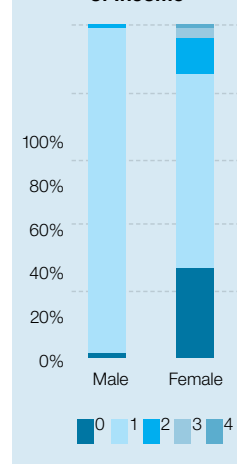
Villagers were also provided with several methods of prioritising household spending and were asked to determine a prioritisation, from the best means of prioritising spending to the least preferred means. Overwhelmingly villagers continue to prefer to prioritise spending based on meeting (current) family and community obligations first, rather than by budgeting expenditure and therefore according a similar priority to known or planned future expenditure. This suggests that, even in households which state they have and use a budget, immediate family and community obligations are likely to be accorded priority, even if this impacts known future spending.

A greater number of villagers who attended the Financial Literacy Training or who have a Rural Savings Account rank budgeting as a high priority (42% rank budgeting as either first or second priority), whereas fewer villagers who attended neither Financial Literacy Training nor have a Rural Savings Account ranked budgeting as a high priority (34% rank budgeting as either first or second priority). However for both groups the overall ordering is the same: Between half and two thirds of villagers give priority to family or community obligations, whereas 30-40% of villagers use a budget or prioritised list to determine spending priorities.

Table 13: Management of Household Income

	Men	Women
Household income managed collectively	89%	74%
Individuals keep and manage own income	11%	27%

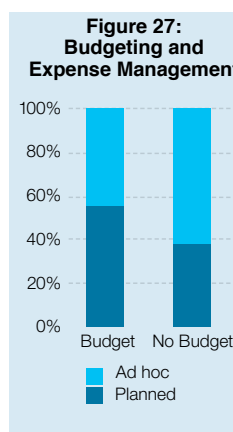
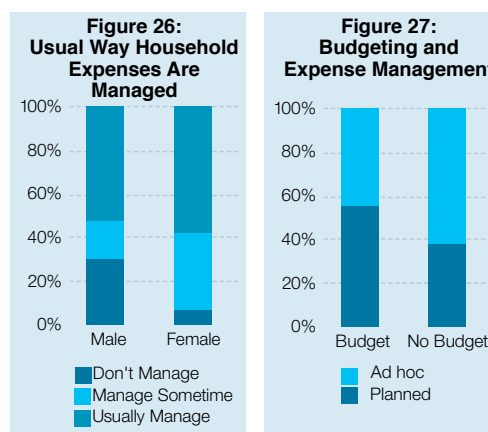
Figure 25: Sources of Income



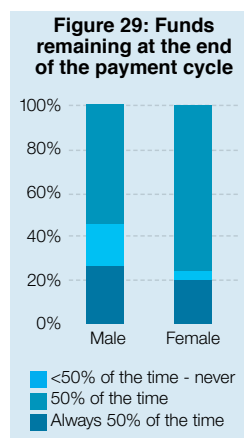
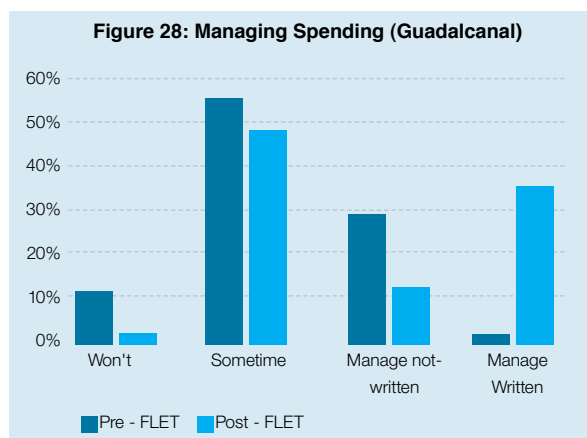
Nearly all villagers (80%) understand that regular expenses need to be managed differently from other household expenses and that regular expenses should be prioritised and budgeted, and met out of the household's regular income. A similar percentage of villagers understand that essential household expenses need to be managed differently from non-essential household expenses and that essential costs should be planned for and prioritised and, if possible, money should be put aside to meet essential expenses.

However, approximately 50% of households meet expenses as they occur and do not have a cycle for managing expenses. One third of households who have a cycle for managing household expenditure manage using a weekly cycle. Other households use a fortnightly or a monthly cycle. The difference between villagers who attended Financial Literacy training and/or have a Rural Savings Account and villagers who did not attend Financial Literacy Training and do not have a Rural Savings Account is small, but consistent:

There is, however a significant difference between the approach to the management of household spending adopted by men and women. Approximately one third of men state they (and by extension their household) does not manage spending. Conversely less than 10% of women state they do not manage spending. It is likely, therefore, a greater number of women accept responsibility for management of the household cash-flows than men. There is also a difference between the approaches to expenditure management by households which budget relative to households which do not budget. A household in which at least one of the PFA's states the household has a budget are 50% more likely to manage expenditure on a planned, rather than an ad hoc basis:



There is evidence from the study of financial competence in rural Guadalcanal (Sibley, 2008) that management of spending is affected by attendance at the Financial Literacy Training Workshop. Following attendance at the Solomon Islands Financial Literacy Training workshops, there was a significant increase in the number of villagers who stated they managed their households spending by writing down expenditure (via a budget). There was also a reduction in the percentage of villagers who stated they do not manage household spending, or if spending is managed it is only managed intermittently. It is considered likely that a similar change will have occurred in rural Fiji following participation by villagers in the Financial Literacy Training Workshop:



There is also a difference in the number of households which state they usually have a cash surplus at the end of their payment cycle. Households with a Rural Savings Account are more likely to state they usually have a cash surplus at the end of their payment cycle:

The difference in financial behaviour also flows through to the use of surplus cash. Villagers who attended the Financial Literacy Training and who have a Rural Savings Account are four times more likely to keep surplus household cash in a bank account than villagers who did not attend the Financial Literacy Training and who do not have a Rural Savings Account. Approximately fifty percent of villagers who participated in both elements of the initiative put surplus funds in a bank account, whereas two thirds of villagers who participated in neither element of the initiative save surplus funds at home.

If households do not have enough money at the end of their payment cycle the most common action is to simply cut back on expenditure or do without (30-40% of households). Between 20-30% of households stated they would ask for credit at the local store/canteen. Villagers who had attended Financial Literacy Training and had a Rural Savings Account were an exception to this. Only 5% of villagers in this category stated they would seek credit from the local store/canteen. Between 15-20% of households stated they would endeavour to sell something to raise funds.

There are also significant differences between households in respect to the prioritisation of spending. Villagers who attended the Financial Literacy Training Workshop are more likely to prioritise spending than villagers who did not attend the Workshop. There is an even greater difference in behaviour between men and women. 82% of women stated they prioritise spending, whereas only 66% of men stated they prioritise spending:

These factors, when taken together, suggest villagers who attended the Financial Literacy Training workshops and/or have a Rural Savings account have greater financial competence.

Table 14: Spending Prioritisation

	Do	Should	Gap
FLET	81%	94%	13%
non-FLET	72%	92%	20%
Men	66%	90%	24%
Women	82%	94%	12%

The evidence from the Solomon Islands suggests villagers' participation in the Workshops enhanced financial knowledge and skill and influenced financial behaviour.

The Role of Women in the Management of Household Expenditure

It is clear women in rural Fijian households are *significantly* more active in household expenditure management across a number of key elements of household expenditure and income management and appear to have a more conservative and detailed understanding of the household's ability to manage spending and how spending is managed. This may, at least in part, explain the significant difference between men's and women's perceptions as to how well the household is keeping up with paying bills and repaying loans. 74% of women responded that the household sometimes – or always - struggles to pay bills and repay loans. However, only 44% of men considered the household struggled to meet financial commitments. 16% of men did not know how well the household was meeting its current financial commitments.

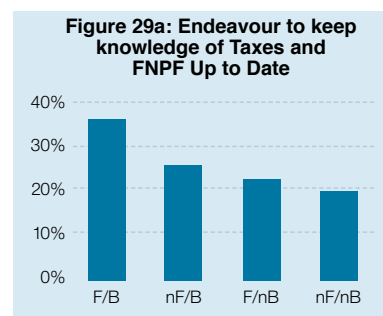
Women appear to accept greater responsibility than men for household financial management. This is evident in the greater focus by women in respect to keeping household records, checking bills and accounts are correct, ensuring the household has a budget and the establishment of financial goals for the household:

Table 15: Management of Household Income

	Men	Women
Keep financial records	18%	63%
Check bills and accounts are correct	45%	66%
Have a household budget	37%	57%
Set financial goals for the household	54%	85%

Taxes and FNPF

Villagers' knowledge and understanding of the fiscal system in Fiji and the Fiji National Provident Fund (FNPF) is generally limited. This is likely to be because few villagers have been exposed to taxation or superannuation savings. Villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account are 75% more likely to endeavour to keep their knowledge of the fiscal and superannuation system up to date than villagers who did not attend the Training and do not have a Rural Savings Account. Two thirds of villagers who endeavour to keep their knowledge do so every month or every couple of months:



Villagers' knowledge of forms of taxation, other than VAT is very low. Between 40-45% of villagers can only identify one form of taxation (usually VAT). Only 2% of villagers can identify three forms of taxation. Even though VAT was the most common form of taxation identified by villagers, twice as many men (54%) identified VAT than women (27%). Similarly, more men than women were able to correctly state who is responsible for deducting PAYE and FNPF contributions. Between 30 -50% of villagers were unable to identify any form of taxation. Villagers who had attended the Financial Literacy Training Workshop are significantly more likely to be able to identify at least one form of taxation. Similarly, villagers who participated in both elements of the Initiative are twice as likely to know the employer is responsible for deducting PAYE and FNPF contribution (53% versus 25%). The ratio is similar for men and women, presumably because men are more likely than women to have earned wage or salary income.

Knowledge of Income tax is higher among villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account than all other groups. Identification of forms of taxation also increases with villagers' level of education. Knowledge of FNPF also varies depending on whether villagers have attended the Financial Literacy Training or have a Rural Savings Account. Villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account are more likely to have knowledge of both taxation and FNPF than villagers who did not attend the Training and who do not have a Rural Savings Account. However, villagers' knowledge of contributions to FNPF is generally very low (between 5% - 12%).

Whilst it is evident women have a greater understanding of, and engagement with, household cash flow management, it appears men have a greater understanding of the operation of the tax and superannuation systems. This could be because more men than women have worked for wages or salaries.

Keeping Household Records

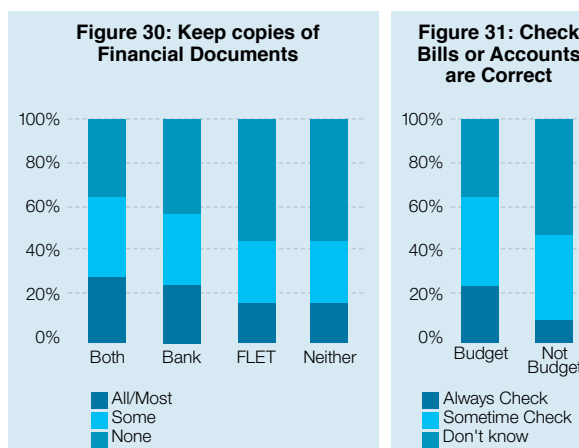
Virtually all villagers (85-95%) know that it is important to keep financial documents. Villagers understood it was important to keep records of payments made and of funds held in a bank account. Most villagers (65% - 75%) claim to keep records of payments made. Women have a much better understanding of the importance of keeping a formal record expenditure and income than men:

	Women	Men
Written/safe	69%	29%
Memorise	34%	54%

There is a significant difference between villagers' knowledge and their actions in respect to tracking spending. 57% households do not track spending or income and only 17% of households keep a written record of household spending. Villagers who attended the Financial Literacy Training Workshop are more likely to state they track household income and expenditure.

Women are (once again) much more likely than men to state they keep household documents. 61% of women stated they kept household financial documents, whereas only 36% of men stated they kept household financial documents. Villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account are approximately 50% more likely to state they keep all or some financial documents than villagers who did not attend the training and who do not have a Rural Savings Account.

Households that have a budget are more likely to manage their household expenses and to check if the bills or accounts they receive are correct. Checking if bills or accounts are correct is primarily undertaken by women. 62% of women stated they check that bills and accounts are correct against 36% of men. In addition a significant number of men did not answer the question. A similar pattern is evident to that demonstrated in other aspects of financial competence. Villagers who participated in both elements of the Rural Financial Services Initiative display greater financial competence than villagers who participated in one elements of the Initiative or neither element :



There is also evidence from the study of financial competence undertaken in Guadalcanal, Solomon Islands (Sibley, 2008), that financial behaviour in respect to keeping copies of financial documents changes following attendance at the Financial Literacy Training Workshops. It is considered likely that participation in the Financial Literacy Training workshops has also influenced rural Fijian villagers' behaviour:

Making Financial Choices

Ownership of a Bank Account

More men than women state they own at least one financial services product. The gender difference in bank account ownership is consistent across the three groups of financial services products measured by the study. The reason for the difference may be due to differing roles of household financial management in rural Fijian households. As

discussed above, women accept greater responsibility for the management of household expenditure. Men, by contrast appear to manage the interface between the household and the wider environment (including, for example, the household's use of financial services and the fiscal and superannuation system):

Keeping Money in a Bank Account

Virtually all villagers (80% - 90%) consider it is better to keep money in a bank account than to keep money in cash. The reasons villagers cite for keeping money in a bank account are primarily safe custody of funds and to prevent the temptation to spend the money. Villagers' reasons for keeping money in a bank account therefore tend to be custody related, rather than goal related. Few villagers stated they considered money should be kept in the bank to facilitate borrowing from the bank.

Knowledge of Banking Services

Villagers' knowledge of banking services is limited, in particular villagers who do not have a Rural Savings Account or did not attend the Financial Literacy Training Workshop. Despite most villagers stating they consider it is better to keep money in a bank account, when asked to describe what a savings or cheque account is and how it operates, significantly fewer villages were able to answer correctly. Approximately 80% of villagers who had not attended the Financial Literacy Training or did not have a Rural Savings Account could not describe the (basic) differences between a cheque account and a savings account. By contrast just over 40% of villagers who have a Rural Savings Account and who attended the Financial Literacy Training cannot differentiate between a savings and a cheque account. Approximately 20% of villagers who did not have a Rural Savings Account were unable to identify a single product or service provided by a bank. Only 5-13% of villagers were able to describe an ATM or EFTPOS receipt. This is likely to be a consequence of the very low level of ATM/EFT card ownership by villagers - only 3% of villagers have an ATM card:

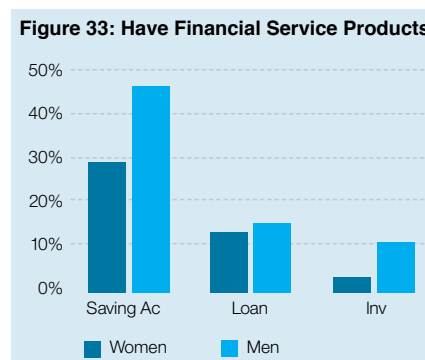
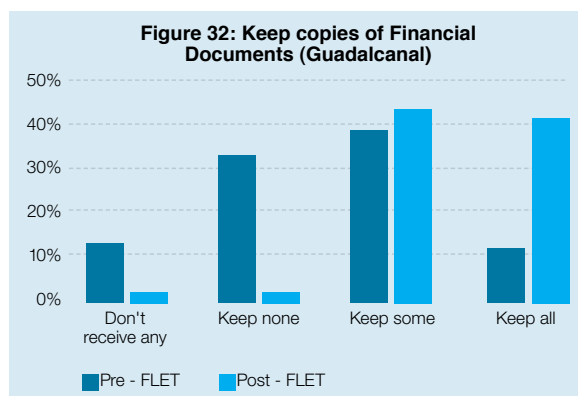
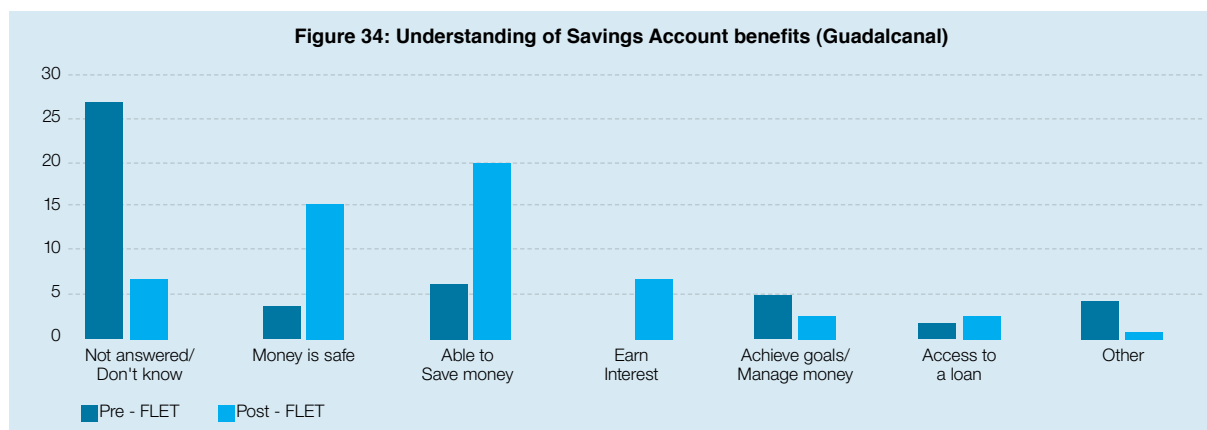


Table 17: Able to Describe Basic Transaction Services

	FLET/ Bank	non-FLET/ Bank	FLET/ non-Bank	non-FLET/ non-Bank
Savings or cheque Account	33%	27%	29%	11%
ATM or EFTPOS Receipt	10%	13%	8%	5%

There is evidence from the study of financial competence undertaken in Guadalcanal, Solomon Islands, that villagers' understanding of the benefits of using a savings account increased significantly as a consequence of participation in the Financial Literacy Training workshops. Rural villagers understanding that money is safe in a bank account and that keeping money in a bank account facilitates savings increased significantly. It is considered likely the Financial Literacy Training workshops had a similar impact on rural Fijian villagers' understanding of the benefits of using a savings account:



Ability to Use a Savings Account Passbook

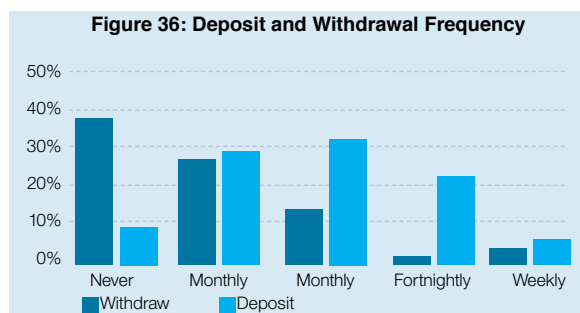
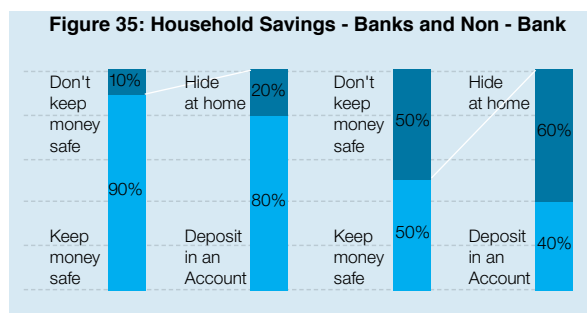
In order to develop an understanding of villagers’ ability to use a savings account, villagers were shown a savings account passbook and were asked to identify balances at two dates and to state whether the deposit balance had increased or decreased⁴⁰ and if so by how much. Approximately 51% of villagers who had a Rural Savings Account were able to identify the balance of the account had increased, against 29% of villagers who did not have a Rural Savings Account. Villagers who had a Rural Savings Account were also 50% more likely to be able to identify how much the balance had changed by than villagers who did not have an Account. Women were more likely to be able to read a passbook than men (43% of women against 27% of men). There are several possible reasons for this difference.

As has been discussed above, women appear to be generally more financially competent than men, in part because women in rural Fijian villagers appear to accept greater responsibility for the management of household expenditure. It is also possible that, whilst the savings account may be in the name of the husband, the wife may actually be the person who uses the account to assist with the management of household cash flows and to save money.

Use of a Savings Account

Households with a Rural Savings Account have a greater tendency to save regularly (36%) than households which do not have an Account (22%). Importantly, households which do not have access to the Rural Banking Service still endeavour to save, either by hiding money at home or by using an alternative means of saving (for example microfinance). Also importantly, few villagers stated they did not save due to the household having insufficient money to enable the household to save.

Access to a safe and accessible form of saving via a bank does however dramatically increase villagers use of the banking system and changes the pattern of household savings activity toward positive financial behaviours. Villagers who have a Rural Savings Account are not only more likely to keep money in an account, but are also more likely to seek to keep money safe. However, only 20% of villagers who have a Rural Savings Account deposit money fortnightly (the frequency of visits by the Rural Banking Service). More than half of villagers who have a Rural Savings Account deposit funds monthly (or less frequently than monthly). This suggests many villagers are likely to be continuing to keep money at home. Villagers state they typically withdraw funds less frequently than depositing funds. This suggests villagers are using the Rural Savings Account primarily for safe custody and, at least in part explains the progressive increase in average balances in Rural Banking (and Microfinance) deposits.



40 The balance had increased

A considerable number of villagers do not appear to pay careful attention to the balance of their account or the interest they have earned. Approximately 50% of villagers stated they check their account balance every time they use the account, 50% do not check the balance. This is surprising as Rural Savings accounts are passbook based and the balance is therefore written in the passbook. In addition, only 20%-25% of villagers know how much interest they have earned on their savings. Within this context, most villagers, despite stating they typically withdraw funds less frequently than monthly, appear to have a short-medium term savings horizon. The typical Rural Savings Account balance, for active accounts, is between \$300 and \$400. This suggests approximately 30-45% of villagers who have a Rural Savings Account are active users of the account⁴¹. Households which attended the Financial Literacy Training have slightly higher account balances and net savings per month.

Women would appear to be better savers than men. On average women have 37% higher balances in savings accounts than men and save an extra \$8 per month. Given the relative savings account balances and monthly savings, it is also possible women either withdraw funds less often than men or in smaller average increments:

Table 18: Average Account Balance and Net Saving per Month

	FLET/ Bank	non-FLET/ Bank	FLET/ non-Bank	non-FLET/ non-Bank
Account Balance	\$346	\$336	\$284	\$390
Average net savings per month	\$30	\$25	\$(21)	\$29

Reason for having a Rural Savings Account

Villagers stated the principal reason they have a Rural Savings Account is to provide for future expenditure. Few villagers cited longer term savings or goal directed objectives as being reasons for opening the account. However and perhaps most importantly, villagers cite a broader range of benefits as a consequence of having and using a Rural Savings Account than they cited as reasons for opening the account. In particular, villagers cited that the ability to achieve goals, manage household cash-flows and provide for future needs. Consequently, whilst the account may have been opened primarily for safe custody, use of the account over time appears to have facilitated the emergence of more positive financial behaviours:

Most villagers state they opened a Rural Savings Account because it was the only banking service or bank account available. Few villagers cited the reputation of the bank providing the account or the scale of fees and charges as factors they took into account when opening the account. Between two-thirds and three-quarters of accounts were opened as sole accounts (mainly by men). Very few villagers access the account other than over-the-counter access. Only eleven villagers stated they had an ATM card and only two villagers stated they used the card to withdraw funds or for purchases.

Sources of advice relating to Bank Accounts

Most villagers (80%) considered the best place to go for financial information about a bank account was to ask at the bank. A relatively small number of villagers cited a brochure as a key source of product information. It is likely this reflects villagers' preference for oral communication and may also be a consequence of limited functional literacy. There are, however, potential issues in respect to information disclosure, in particular in respect to the scale of fees and charges. Villagers display a very high level of trust in the bank and have few sources from which they can obtain objective information.

Table 19: Reasons for Opening Bank Account and Benefit From Account

	Why Opened Rural Savings Account	Benefit From Having a Rural Savings Account
Money is safe	14%	6%
Able to save money	45%	18%
Provide for children/ education	18%	6%
Bank Cash (business/farm)	8%	-
Achieve goals/ Manage money/ provide for future needs	-	41%
Earn Interest	-	8%

There are significant differences in the pattern of advice sought prior to opening a Rural Savings Account between respondents who had attended the Financial Literacy Training Workshop and those who had not attended the Workshop. This may be due, at least in part, to higher average education levels of attendees and consequent greater confidence with printed material and questions. Approximately half of villagers who attended the Financial Literacy

⁴¹ ANZ Rural Banking average deposit balance = \$125-\$130

Training sought information before opening their bank account, against 30% of villagers who did not attend the Financial Literacy Training. Advice was typically sought from someone at the bank. Few villagers relied on advice from family and friends.

There is also a significant gender difference in the range of organisations villagers cite when asked which organisations provide savings or deposit services. Significantly more men than women cite a bank as an organisation providing deposit services (91% versus 66%). However, approximately 25% of women cited microfinance (including village banks) as organisations providing deposit services, whereas only 7% of men cited microfinance as a source of deposit services. This may be a reflection of gender based marketing.

Villagers were asked what they would do in the event that the institution with which they were saving reduced the interest paid on their savings. Approximately 20% of villagers (who had a Rural Savings Account) stated they would do nothing. Most villagers, however, stated they would seek an alternative which paid a higher interest rate.

Investing

Between 10 and 20% of villagers state they have investments. Villagers who are more engaged with the formal financial system are also more likely to have investments. The average amount invested by households who have investments varies between 15% of average household income (\$675) and 75% of average household income (\$3,000). Between 20% and 30% of villagers with investments stated they had made investments, either initial or additional, within the past six months. Between 10%-20% of villagers stated they had withdrawn funds within the past six months.

Villagers were generally only aware of two forms of investment: Bank Term Deposit and Unit Trust. Several villagers cited share investments. However, this may also be a reference to unit trust investments. Similarly, most villagers have a limited understanding of the difference (in particular in respect to potential risk) between a savings/ bank account and a non-bank investment. This is of concern as the most common form of investment held by villagers is units in a unit trust.

Men have significantly greater knowledge of household investment activity than women. 60% of men knew whether their household had investments, whereas only 20% of women were aware. This appears to be an additional example of the apparent bifurcation of household financial roles between men and women in rural Fijian households, with women assuming responsibility for day-to-day financial management and men assuming responsibility for managing income generation, the interface between the household and the broader economy, and the household's interaction with the formal financial system. The reasons for this bifurcation of roles cannot be determined from the study. However, this may be a function of traditional gender roles in rural Fijian society. It is also possible more men than women in rural households have had the opportunity (through past wage or salary employment) to engage with the wider economy and the financial system.

Sources of advice relating to Investments

Fewer villages stated they had sought advice prior to investing (20%) than stated they had sought advice prior to opening a Rural Savings Account (30% – 50%). Advice was typically sought from the organisation marketing the investment. Villagers did not consider alternative investment options prior to investing. Villagers appear to rely on anecdotal information. The most frequently cited reason for choosing the organisation or instrument was that the provider has a good reputation.

Villagers were asked what action they would take in the event of the institution with which they had invested money reducing the interest rate on their investment. Few villagers stated they would seek to change their investment. This may be a function of the small number of villagers who have investments, as well as villagers' limited understanding of longer term investment relative to their understanding of day-day savings.

Borrowing

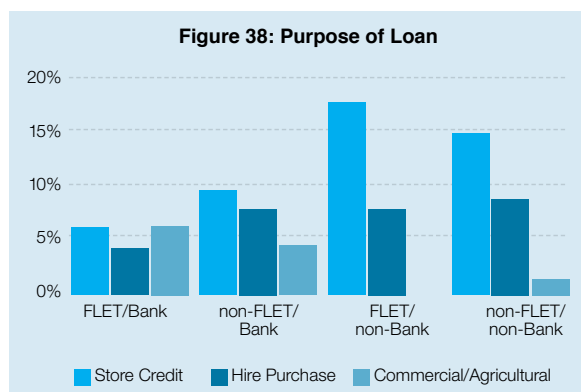
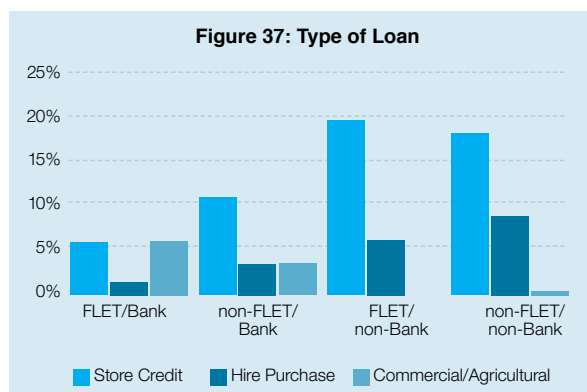
Villagers generally have a poor understanding of credit, irrespective of whether they have previously (or currently) accessed credit. This is of particular concern as approximately one third of villagers state they have accessed credit in the past. Of those villagers who have borrowed money, 50% stated they repaid the loan successfully; whilst 10% stated they did not repay the loan successfully. Other villagers did not answer the question. This suggests a considerable number of villagers may have had issues in respect to meeting credit obligations.

Borrowing for household durables is the most common type of formal credit contract used by households, either in the

form of a personal loan or hire purchase. It is evident many villagers do not have a sound understanding of the nature of the contract they enter into when borrowing money.

The average amount borrowed by villagers varies considerably. Villagers who have commercial or agricultural borrowing have (not surprisingly) higher average loan balances (\$1500). The typical domestic loan balance is between \$150 and \$200. In absolute terms these are not significant loan balances. However these are principal balances and are unlikely to include outstanding interest and fees. However, these outstanding balances represent between 50 – 70% of villagers typical monthly income and the credit contracts are typically short term (12 – 18 months). Villagers who have borrowings may therefore be faced with having to commit a significant percentage of household cash flows to loan repayment.

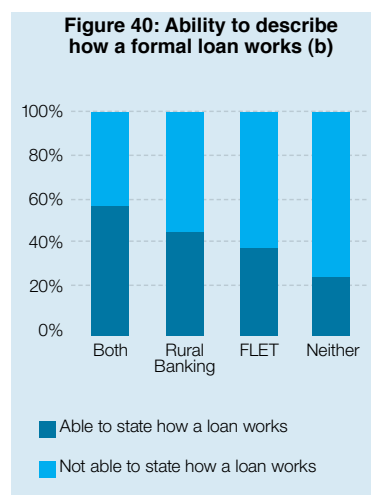
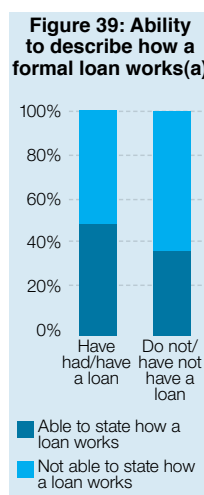
There is a significant difference in the pattern of borrowing⁴² between villagers who have a Rural Savings Account and villagers who do not have a Rural Savings account. Whilst overall levels of credit are low (with the exception of store credit), villagers who did not attend the Financial Literacy Training Workshop and who do not have a Rural Savings Account are significantly more likely to use store credit, to finance household durables using hire purchase than villagers who attended the Financial Literacy training and who have a Rural Savings Account. This difference is also evident in households with agricultural or commercial loans. Whilst few villagers state they have borrowed to develop the farm or business, those who borrowed for investment generally have a greater level of engagement with the formal financial system and place greater emphasis on increasing their financial knowledge and skill.



Understanding of Credit

Over 60% of villagers who have never borrowed cannot describe how a loan works. Approximately 50% of villagers who have borrowed money cannot describe how a loan works. Nearly 80% of villagers who did not attend the Financial Literacy Training Workshop and do not have a Rural Savings Account cannot describe how a loan works. Only 54% of men can describe how a loan works. Given the role women typically accept in managing household finances it is of concern that only 19% of women know how a loan works.

Rural Fijian villagers would therefore appear to be very vulnerable to poor credit decisions and to the risk of entering into credit contracts the terms and conditions of which they do not understand. Many rural Fijian villagers would also appear to be at significant risk of exploitation through predatory lending, due primarily to a lack of understanding of credit. Villagers are possibly at risk of confusing statements in respect to weekly repayment with financing costs and to misunderstand low weekly repayments as equating to low financing costs:



⁴² Store credit may be understated due to significant numbers of villagers who do not consider store credit to be a form of borrowing.'

Knowledge of different forms of loan was also low. Very few villagers cited mortgage lending or credit cards as forms of credit. Between 65%-75% of villagers are aware that a hire purchase contract charges interest. However, between 40%-50% of villagers cannot describe how a hire purchase contract works.

The most common type of loan cited was a personal loan from a bank (32%). There are gender differences in respect to villagers' knowledge of various forms of credit. Men have a greater knowledge of overdraft financing than women (14% of men and 3% of women). This may be a function of agricultural or business finance being accessed more frequently by men. Conversely, women were far more likely to cite store credit (25% of women and 7% of men), and hire purchase (12% of women and 3% of men) as forms of credit.

Approximately 50% of villagers stated that the Offer Letter should be read before signing the loan. However, given the limitations in respect to villagers functional literacy, it is likely many villagers would not be able to understand, at least at first reading and unaided, the terms and conditions of the loan. 20% of villagers stated they would seek to gain an understanding of the term of the borrowing by asking questions. A further 20% stated they would ask the lender to read out the Offer Letter, and did not appear to be aware of the attendant risks.

Most villagers (60-65%) were aware that failure to repay a loan could result in being taken to court and being forced to repay the outstanding balance. However, 32% of villagers who do not have a Rural Savings Account (and are therefore likely to have a lower level of engagement with the banking system) believe that a lender cannot confiscate assets pledged as security for a loan in the event of default. Only 6% of villagers who have a Rural Savings Account believe this to be the case. Most villagers (80-85%) do, however, know that a retailer may repossess items financed by hire purchase should the borrower fail to keep up repayments and that a loan should be able to be repaid from 'normal' income.

A similar pattern is also evident in respect to villagers' efforts to ensure they understand the terms and conditions of their borrowing. Fewer villagers who have lower financial knowledge and skill and lower financial competence either read the Offer Letter or sought information before signing the loan agreement than villagers who have higher financial knowledge and skill and financial competence.

Table 20: Understanding of Loan terms and Conditions

	FLET/ Bank	non-FLET/ Bank	FLET/ non-Bank	non-FLET/ non-Bank
Read offer letter and T&C	100%	42%	56%	56%
Sought information before signing loan	50%	31%	13%	19%

Between two-thirds and three quarters of households keep a record of amounts outstanding and repayments. However 75%-80% of villagers do not keep a written record and 70% of villagers do not know how much interest they have paid on their borrowings.

Reason for selecting a Lender or Loan Type

The most common reason cited by villagers as to why they would choose a particular lender or type of loan was interest rate (33%). Villagers who were more familiar with banking (in particular men) also cited 'special conditions' (for example a repayment holiday) as a possible reason. Few villagers cited key criteria such as the fit between the loan and the financing required or the reputation of the lender.

The most commonly identified source of credit was a bank (including the Fiji Development Bank). Few villagers identified retailers or stores/canteens as sources of credit despite these being the most common sources of credit accessed by villagers. Few Men identified microfinance as a source of credit (similar to the low level of identification by men of microfinance as a means of savings), whereas 20% of women cited microfinance as a source of credit.

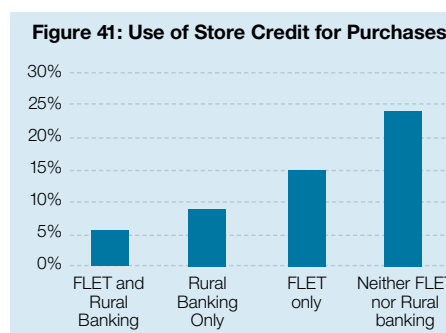
Store Credit

A considerable number of villagers who do not have a bank account do not appear to understand that store credit is a form of loan. Women are considerably less likely to identify Store Credit as a form of borrowing.

Table 21: Know Store Credit is a Form of Loan

	FLET/ Bank	non-FLET/ Bank	FLET/ non-Bank	non-FLET/ non-Bank	Male	Female
Know	59%	62%	47%	44%	66%	36%
Do not know	30%	28%	33%	36%	26%	39%

Villagers who did not attend the Financial Literacy Training Workshop and who do not have Rural Savings Account are significantly more likely to use or rely on store credit as a means of smoothing household cash flows. This may be in part due to these households adopting less positive financial behaviour and may also be because these villagers are more frequently not aware that store-credit is a form of borrowing. This pattern is consistent with the pattern evident in other aspects of financial knowledge and skill and financial behaviour: Villagers who participated in the Financial Literacy Training Workshop and who have a Rural Savings Account exhibit a more positive attitude to money, greater financial knowledge and skill and more positive financial behaviour than villagers who did not attend the Financial Literacy Training Workshop and who do not have a Rural Savings Account.



Sources of advice relating to Credit

Few villagers (27%) sought advice before entering into a loan contract. Of those villagers who did seek advice approximately 85% stated they sought advice from a member of their family or from friends. It is evident villagers have few sources of reliable and unbiased advice which they can access when considering financial transactions (in particular credit transactions). Seeking advice from a trusted family member or relative is, obviously, common in communities globally. The issue in rural Fiji, however, is that there is a low level of familiarity with, and general knowledge and understanding of credit and investment. Consequently there is a higher likelihood that advice will not be sufficiently adequate or objective.

Financial Competence and the Use of Credit

The difference in borrowing patterns is indicative of differing levels of financial competence. Households which have less engagement with the financial system and lower levels of financial competence (also typically lower levels of functional literacy) tend to use credit to supplement day-day cash flow shortages or to obtain household durables. Households which are more engaged with the financial system tend to not use credit for household cash management, but rather use credit in order to develop the household's capability to generate sustainable income.

This pattern is also evident if loan arrears are examined. Few households which are actively engaged with the banking system and in which at least one of the principal financial decisions makers has a reasonable level of financial knowledge and skill cite loan arrears. However, as the level of household engagement with the banking system diminishes the incidence of loan arrears increases dramatically. Villagers who did not attend the Financial Literacy Training Workshop and who do not have a Rural Savings account have significant levels of loan arrears, with repayments being up to date in less than 50% of households. These villagers also report 42% of store loans as being in arrears and, perhaps of greatest concern, 25% of hire purchase contracts.

Table 22: Loan Repayments and Arrears

	FLET/ Bank	non-FLET/ Bank	FLET/ non-Bank	non-FLET/ non-Bank
Repayments up to date	100%	85%	44%	47%
Arrears Store credit	0%	NS	50%	42%
Arrears Hire purchase	0%	NS	0%	25%

Villagers were asked what they would do if the organisation from which they had borrowed money increased the interest rate on their loan. Few villagers responded to this question (n=81). Of those villagers who did respond, 50% stated they would endeavour to find an alternative source of credit at a lower interest rate. 30% of villagers stated they would endeavour to pay off the loan more quickly.

Understanding Interest

A significant number of villagers are unable to describe interest, either interest received on deposits or interest charged on loans. Approximately 60% of villagers who attended the Financial Literacy Training and who have a bank account can identify interest as a payment received on a deposit. However, only 36% of villagers who did not attend the Training and who do not have a bank account are able to identify interest as a payment received for a deposit. Women are significantly less likely to be able to describe interest as a payment received on a deposit than men (25% against 64% of men). The reasons for this difference are not known. Few villagers (10-15%) were able to describe interest in terms of a charge for borrowing. Very few villagers (2-3%) are able to describe interest in terms of both depositing and borrowing.

Between 55% - 65% of villagers understand that interest rates will vary over time and that changes to interest rates will be driven by changes in the economy (25-50%). A smaller percentage of villagers (15% – 20%) understand that interest rates can change as a consequence of Reserve Bank intervention.

Villagers have a limited understanding of compound interest or of the relationship between interest rates and time. Villagers were asked a set of questions which compared two deposits. Villagers were asked to describe which of the two deposits (of differing duration) would provide the greatest return. Villagers were also asked a similar set of questions comparing two loans of differing durations. Villagers who had attended the Financial Literacy Training Workshop were consistently able to answer a greater number of questions correctly than villagers who had not attended the Workshop. However, no group of villagers was able to answer more than 50% of questions correctly.

Financial Organisations and Financial Issues

Nearly all villagers (80%) consider that it is important to keep up to date with economic and financial matters, in particular changes in the price of items purchased by the household. Approximately one third of villagers also consider it important to keep up to date with the sale price of produce and other items sold at the market. The most common method of keeping up to date is to listen to the radio (60% – 70%). One third of villagers also read the newspaper. Newspaper readership is, not surprisingly, higher among villagers who attended secondary school.

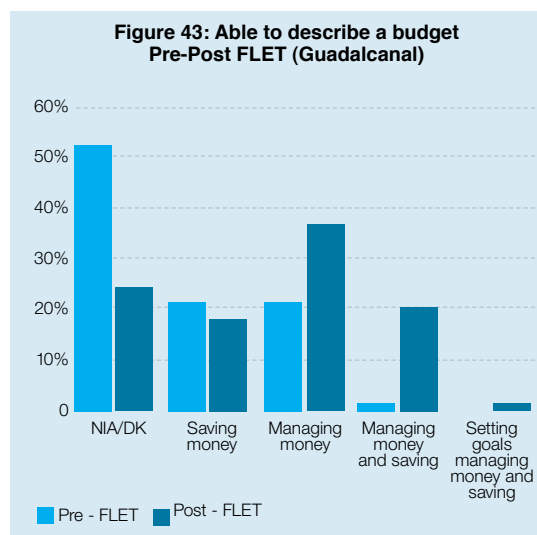
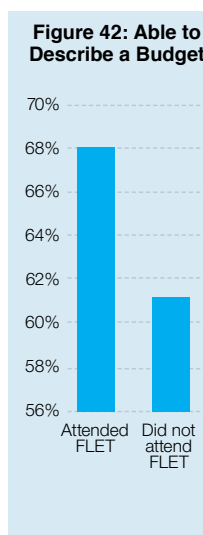
Villagers are familiar with the concept of inflation and understand that inflation can erode their purchasing power. However, very few villagers understand the impact of inflation on assets. For example, less than 2% of villagers understood that inflation reduces the value of a bank deposit.

Most villagers have a very limited understanding of financial organisations and have a limited understanding of the role of the Reserve Bank. For example, only 14-20% of villagers were aware the Reserve Bank is responsible for issuing notes and coin. Most villagers were able to identify between 1 – 2 services provided by a bank and were aware that banks provide savings accounts. However, a significantly smaller percentage (13-30%) was aware that banks provide term deposits and personal loans.

Budgeting and Planning

Understanding of Budgeting

Villagers who attended the Financial Literacy Training Workshop are more likely to be able to correctly describe a budget than villagers who did not attend the Workshop. The difference between villagers who attended the Workshop and those who did not attend the workshop is, however, not significant. This may be due to rural Fijian villagers generally having a reasonable general understanding of budgeting. It is also possible the reason for the relatively small difference between villagers who attended the training and villagers who did not attend the training could be due to learning in the intervening two years between the Financial Literacy Training and the study. There is evidence from the study of financial competence in Guadalcanal (Sibley, 2008) that villagers’ understanding of budgeting increases significantly as a consequence of participation in the Financial Literacy Training workshops. Prior to the Workshop approximately 50% of villagers did not know what a budget was or were unable to answer the question. Following participation in the Workshop the number of villagers who understood the relationship between budgeting, managing money and goal setting increased significantly:



Villagers who are able to describe a budget are also more likely to consider a budget should be actively managed. Similarly, villagers who are able to describe a budget are more likely to consider a budget to be a useful means of determining household financial goals, spending priorities and savings goals.

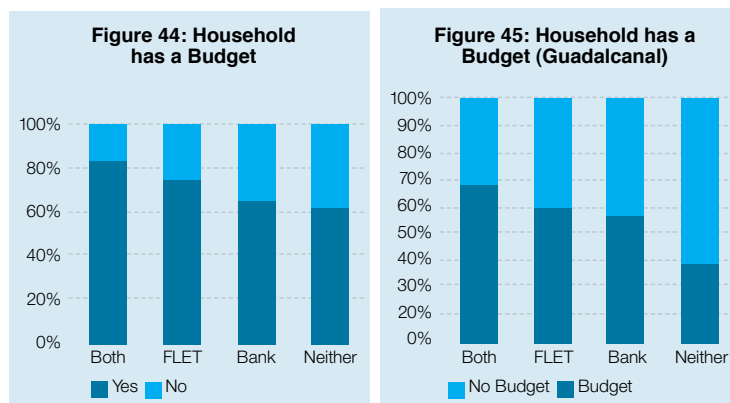
There is, however, a difference between men and women in respect to those factors which influence the perceived value of a budget. Men tend to cite income or goal related factors as a key reason for budgeting more frequently than women. Women, by contrast, tended to cite household cash flow management reasons more frequently than men and to cite a greater range of cash flow and expenditure management reasons.

Household Budget

In both the Fiji and the Solomon Islands studies, villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account are significantly more likely to budget than villagers who participated in only one component of the Financial Capability Initiative or neither component of the Initiative:

This finding is significant as, at the household level, participation of at least one of the household's principal financial decision makers in the Financial Literacy Training Workshop is the only significant

predictor of whether the household has a budget. Conversely, at the level of the individual villager, the villager's ability to describe a budget is the only significant predictor as to whether their household has a budget. Having a Rural Savings Account and high functional literacy are significant predictors as to whether the villager can describe a budget. Participation in the Functional Literacy Training Workshop, by contrast, is not a significant predictor.



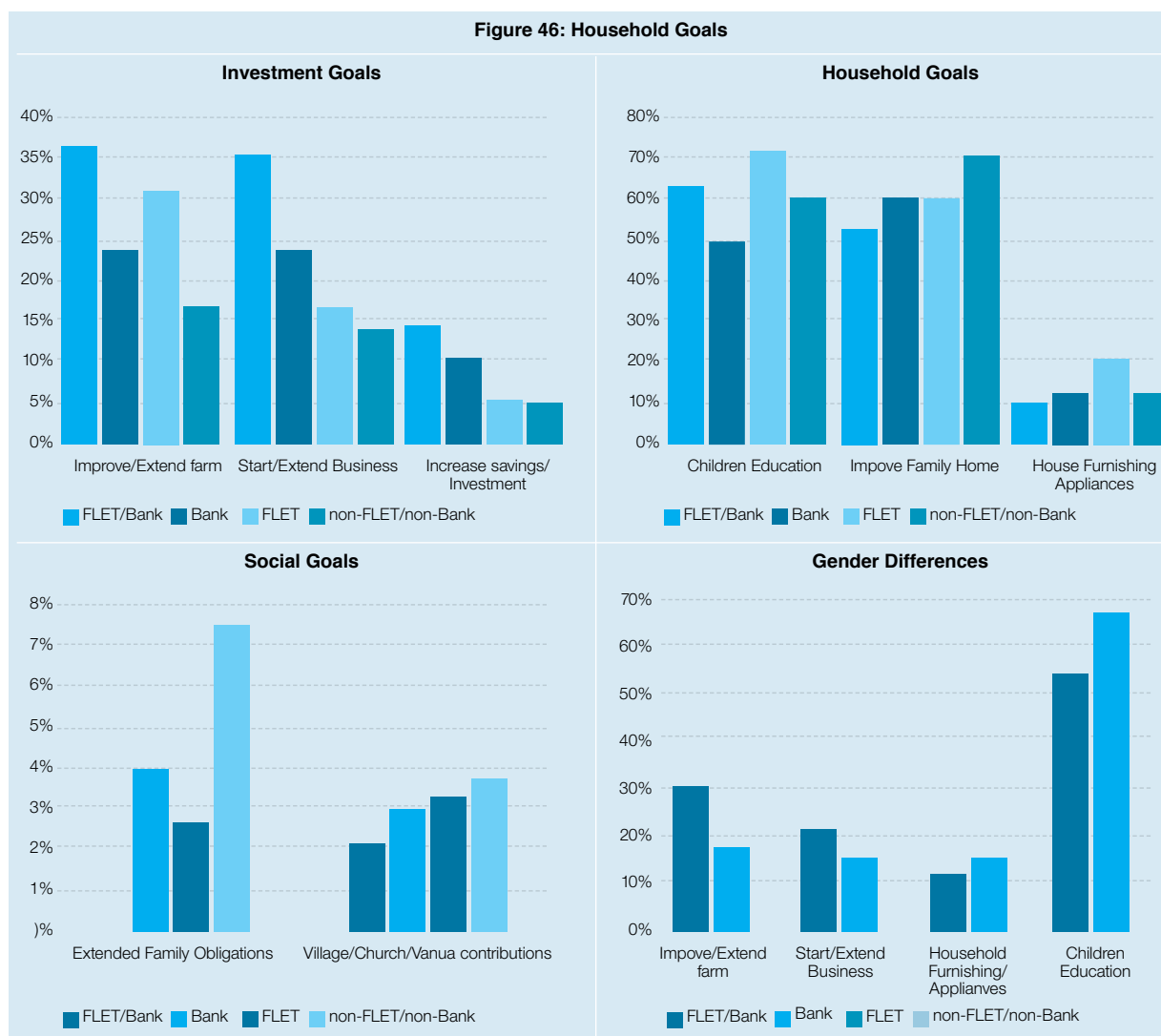
It is important to remember the Fiji study was undertaken two and a half years after the Financial Literacy Training Workshops were held. We can therefore conclude that participation of at least one of the household's principal financial decision makers in the Financial Literacy Training Workshop has a significant influence as to whether the household has a budget. We can also conclude that there has been intra-household knowledge transfer in the period following the Financial Literacy Training Workshop and that villagers with higher functional literacy (and within this context higher levels of formal education) and villagers who intended to open, or who had opened a Rural Savings Account were more interested in attending the Training and, if they did not attend, were more interested in learning about the material covered by the Workshop.

Household Financial Goals and Priorities

Household Financial Goals

Household goals are an important determinant of the household's expenditure pattern. Households which display a higher level of financial competence display a different pattern of household goals than households with lower levels of financial competence. Villagers who have attended the Financial Literacy Training Workshop and have a Rural Savings Account are significantly more likely to emphasise household goals focusing on investment activity, in particular development of the household's agricultural capability, business activity and savings activity. All households emphasise children's education, however villagers who attended the Financial Literacy Training Workshop tend to place more emphasis on education as a specific household goal. Villagers who did not participate in the Financial Literacy Training Workshop and/or do not have a Rural Savings Account tend to place greater emphasis on improving the family home. In general, these households have fewer durables than households of villagers who display greater financial competence. These households also display a greater emphasis on the social aspects of money and tend to place more emphasis on social and extended family obligations. Overall, however differences in respect to the importance of social obligations are relatively small.

There are also gender differences in respect to commonly cited household goals. Men tend to emphasise goals which relate to further developing the household's income earning capability. Women tend to emphasise goals which relate to the improvement of the household or children's education. Both men and women stated that the household's financial goals had not changed over the past year:



Household Financial Priorities

Household financial goals are indicative of the household’s longer term objectives. Household financial priorities, by contrast, indicate the trade-offs the household makes in respect to the use of funds. Ideally there should be a general congruence between the household’s financial goals and its financial priorities. However this may not be possible due to external factors over which the household has little control. For example the income the household is able to generate, unexpected expenditure due to illness, or social conventions the household is required to adhere to. Household financial goals are a statement of those things the household would like to achieve. Financial priorities, by contrast, indicate those things the household actually does. It is evident that social conventions have an important role in determining household expenditure priorities in rural Fijian households and these priorities can undermine the household’s ability to achieve its financial goals.

It is evident there are important differences between the goals villagers have set and their financial priorities. Villagers’ principal financial priorities are, not surprisingly, more immediate than their household goals. Generally villagers state their principal financial priorities are the immediate welfare of their family and their children’s education. Importantly though, household goals relating to enhancing income have a low financial priority. Instead, village, church and vanua contributions, which do not feature as significant household goals, have a high priority in respect to household financial cash flow management. Villagers evidently place a greater emphasis on immediate social contribution than longer term enhancement of household objective wellbeing. Within this context, however, villagers who attended the Financial Literacy Training Workshop and who have a Rural Savings Account continue to place greater overall emphasis on income enhancement and investment activity.

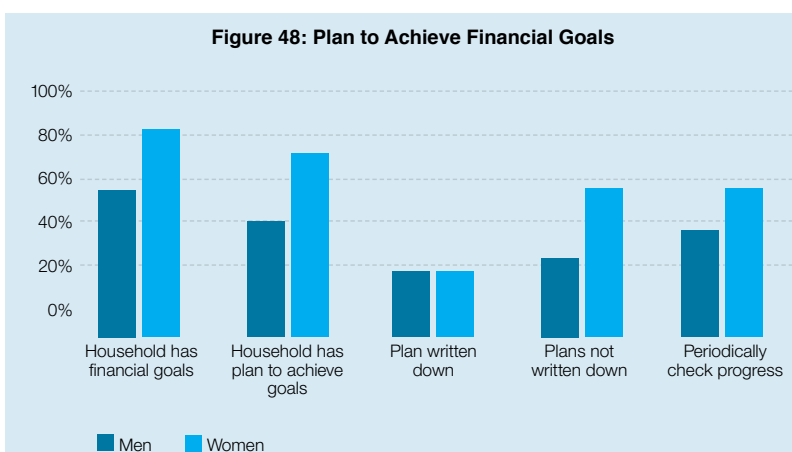
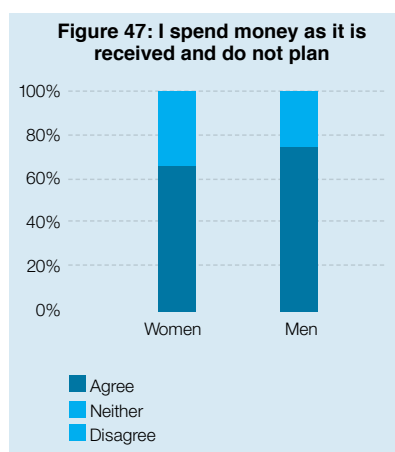
Depending on one's point of view, the importance villagers place on social obligations may be a factor hindering the enhancement of economic wellbeing, or a factor which underpins the coherence of rural Fijian families and communities.

Overall, all villagers' financial priorities are immediate and are focused on food, the payment of the household's bills, the children's education and the household's community and extended family obligations. Many villagers want to improve their home, or to enhance their income (in particular villagers who participated in the Rural Financial Services Initiative). However villagers either do not know how to establish and achieve longer term plans to achieve goals, or are possibly setting goals which cannot be achieved due to immediate calls on housed funds:

	FLET/ Bank		non-FLET/ Bank		FLET/ non-Bank		non-FLET/ non-Bank	
	Goal	Financial Priority	Goal	Financial Priority	Goal	Financial Priority	Goal	Financial Priority
Improve/ Extend farm	37%	8%	23%	7%	31%	8%	18%	6%
Start/Extend Business	35%	20%	23%	9%	18%	6%	14%	8%
Increase savings/ Investment	14%	2%	11%	9%	6%	4%	5%	5%
Repay loans/ canteen credit	0%	4%	0%	5%	0%	6%	0%	6%
Immediate Family Welfare	0%	47%	0%	50%	0%	39%	0%	29%
Children's Education	65%	63%	50%	53%	73%	59%	60%	56%
Improve Family Home	55%	24%	61%	22%	61%	27%	69%	24%
Household Furnishing/ Appliances	10%	2%	15%	6%	20%	12%	14%	3%
Extended Family Obligations	0%	0%	4%	0%	3%	0%	8%	2%
Village/Church/Vanua contributions	2%	29%	3%	22%	3%	14%	4%	26%

The Role of Women in Setting Household Financial Priorities

As has been discussed above, women are more likely than men to plan the households spending. Women also appear to be more concerned about household financial planning generally. More women than men consider it important that their households have a financial plan (89% of women against 75% of men). Importantly, men appear to be more spendthrift than women. Men are more likely to state that they spend money as it is received and do not plan their expenditure:



Seeking Advice

Approximately one in every two households stated they have experienced some form of financial difficulty in the past two years. Household which evidence a lower level of financial competence also reported a higher incidence of financial difficulty (57% against 46% of financially competent households). However, few households sought advice to assist with the resolution of their financial issues. Importantly, whilst a Bank is commonly cited by villagers as a good source of advice and information in respect to products and services, villagers do not use the Bank when seeking to resolve

financial issues, preferring instead to discuss issues with family and friends. Villagers' reliance on family for advice may in part be due to the limited sources of unbiased advice available. Seeking advice from family members or friends is understandable. However, given the pervasiveness of low levels of financial competence, there is a higher likelihood that the advice received may not be appropriate and may even further entrench villagers' financial difficulties.

Household Wellbeing

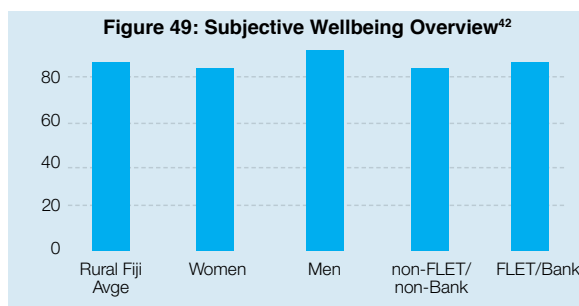
Subjective Wellbeing

Rural Fijian villagers are happy. In fact they appear to be happier than most people.

Happiness is generally considered to be a 'mood' (something which is sustained), rather than an 'emotion' (something which is fleeting). There is no evidence that levels of functional literacy or participation in the Financial Literacy Training Workshop or opening a Rural Banking Account have impacted villagers' levels of self-reported happiness, either negatively or positively. Overall, villagers appear to be generally happy with their lot, with men being slightly happier than women, primarily due to a more positive outlook on the future and greater satisfaction with their role in the community. However there are no statistically significant differences between men and women, or between sampling cells.

It is evident that villagers generally are happy with their world and with their role in the world. The average aggregate response of 83.33 is higher than (for example) the average aggregate response from administration of the scale in Australia (75.02) and is slightly above typical 'Western' aggregate responses (70-80). The principal difference between responses from rural Fiji and those from Australia is a greater sense of being part of the community reported by rural Fijians. In other respects the pattern of responses by Australian and rural Fijian respondents is very similar.

There is very little variance between subgroups. Participants in the Financial Literacy Training workshops and the Rural Banking Service report slightly higher levels of subjective wellbeing; however these are not significant. Men report slightly higher levels of subjective wellbeing than women across a range of factors:



Levels of reported subjective wellbeing do not vary across age groups. There is no evidence of a U curve in villagers' happiness (the tendency for levels of reported happiness to reduce during middle age). Responses to each of the

subjective wellbeing domains are generally consistent and are uniformly high. There is a consistently lower response to the domain 'Future Security'. This is similar, but stronger than the pattern found for Australian respondents. This response may be due, in part to the survey having been administered subsequent to the 2006 political upheaval and during the subsequent economic downturn. The lower response for 'Future Security' is more significant for women, and for villagers who did not participate in either the Financial Literacy Training workshop or the Rural Banking Service. Women also reported slightly lower levels of perceived wellbeing in respect to considering themselves to be part of their community:

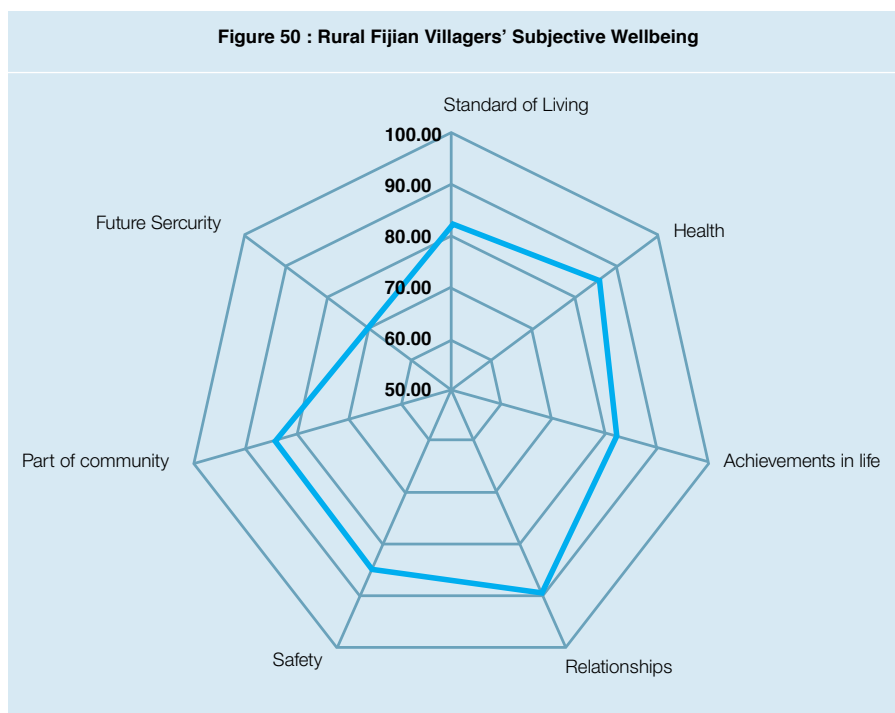
Objective Wellbeing

Household Income

The analysis of household income is primarily an analysis of income generated by household agricultural activity (augmented by small business activity). A very small percentage of villagers (less than 4%) reported earning wage or salary income. Several factors frame the analysis and discussion of household income.

Male villagers⁴⁴ were asked to estimate monthly farm and business income and expenditure across a range of categories, and to describe the scale and scope of the household's agricultural and commercial activity. The average estimates of total net⁴⁵ income earned by villagers in this study are broadly comparable with those from the Tebbutt study (although slightly lower), and are lower than estimates of household income in the 2002-3 HIES. Average net income levels in

43 The Subjective Wellbeing Scale measures wellbeing on a scale of 0= completely dissatisfied to 100 = completely satisfied.
 44 Participants at the 2006 Workshop considered it would not be appropriate to ask women to estimate farm income and activity as few women in rural Fijian households have primary responsibility for management of the household's agricultural activity.
 45 Net income has been calculated as: (gross receipts)-(cost of production), to determine net pre-tax income available to the household.



the current study equate to the first decile of average rural incomes in the 2002-3 HIES. The reason for the difference is likely to be due to the very low levels of wage and salary income received by villagers participating in the study (due at least in part to isolation and lack of salary and wage opportunities), and possibly to the economic downturn following the political events of late 2006.

Villages which participated in the study evidence a high level of homogeneity of patterns of agriculture. Villages are located close to each other and are therefore subject to similar environmental factors. Income per crop type will therefore be, in general terms, similar. Factors which can affect net agricultural income will therefore be primarily the hectareage under cultivation and the yield per hectare. Yield per hectare will, in turn, be impacted by irrigation and supplements applied. The other major factor which can affect agricultural income is the household's ownership of livestock, given the yield from livestock is additional to horticultural income.

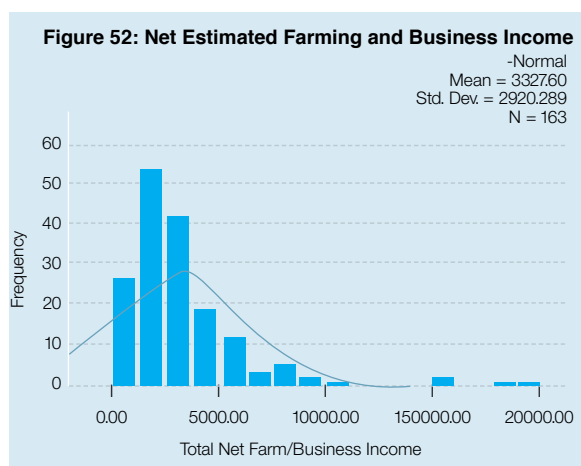
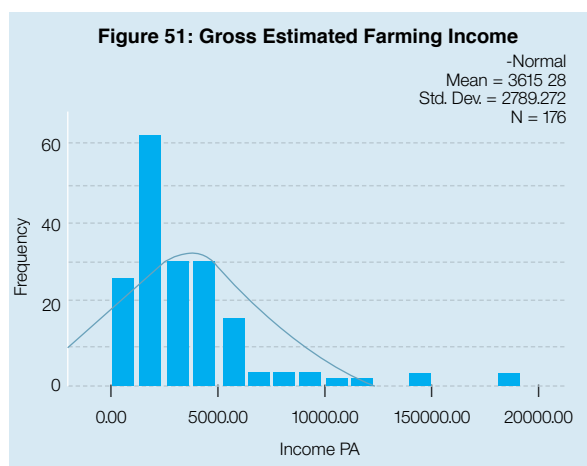
The third major factor impacting household income will be the extent to which household income is augmented by small business income.

Agricultural Income

The pattern of horticultural activity is similar across all households. The principal crops grown are root-crops. Many villagers also grow *yaqona*⁴⁶. Approximately a quarter of households augment root-crop and *yaqona* production with fruit and vegetable production:

Root-crops and/or <i>Yaqona</i>	72%
Root-crops and Fruit/ Vegetables and/or <i>Yaqona</i>	25%
Other	4%

Average annual income from agricultural activity per household is \$3615. However the modal income is \$2400, with a small number of households reporting significantly higher levels of farming income. Farming income is the most significant contributor to net household income:



Significant differences in estimated income are evident when income is disaggregated between household's which have a bank account and household's which do not have a bank account, using the household's reported holdings of livestock as an estimator of the development of the household's farming activity. Household's which do not have a bank account and whose farming activity is less well developed, tend to be less conservative in estimating farming income relative to both households which have a bank account (and which are therefore also more likely to budget), or have developed the farm to build livestock holdings. It is important to remember that, apart from livestock, land holdings and crops are very similar between households:

This pattern of income estimation is particularly evident when households which attended the Financial Literacy Training and/or have a Rural Savings Account are compared to households which did not attend the Financial Literacy Training and which do not have a bank account, and which have fewer livestock; significantly over-estimate farming income relative to other households.

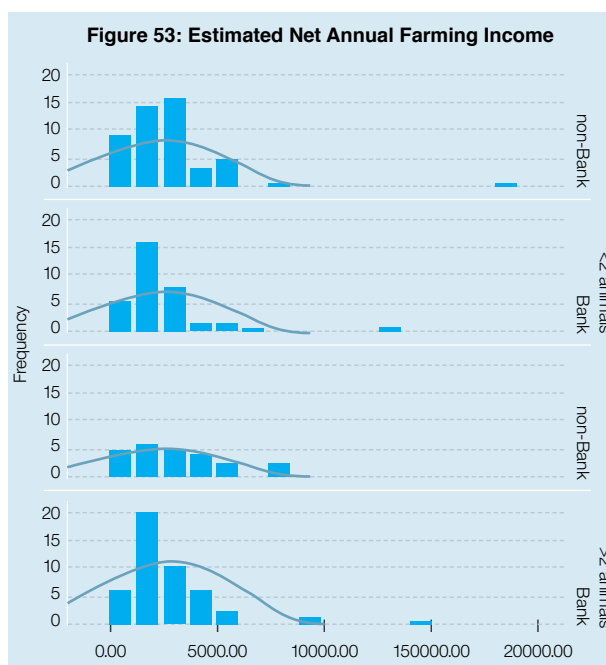


Table 25: Estimated Net Annual Farming Income'

Individual Cell			
FLET/ Bank		non-FLET/ Bank	
< 2 animals	> 2 animals	< 2 animals	> 2 animals
\$ 2,174	\$ 2,994	\$ 3,215	\$ 2,965

Household Cell			
FLET/ Bank		non-FLET/ non-Bank	
< 2 animals	> 2 animals	< 2 animals	> 2 animals
\$ 2971	\$ 3,213	\$ 3,414	\$ 3,240

Table 26: Investment per Hectare

		FLET/ Bank	non-FLET non-Bank
Irrigation	No	42%	62%
	Yes	58%	38%
Average number of farm implements		0.38	0.22
Average head of stock		4.21	2.18
Average estimated supplement expenditure per hectare		\$370	\$355

However, these households are also less likely to re-invest in the farm to develop farm productivity and income generating capability. For example there is less irrigation, fewer supplements applied and fewer livestock. This suggests these households are likely to be less financially competent and are able to generate less household income (whilst estimating greater household income):

Table 27: Percentages of Households Owning Livestock

Household Cell			
FLET/ Bank		non-FLET/ non-Bank	
< 2 animals	> 2 animals	< 2 animals	> 2 animals
48%	52%	66%	34%

Ownership of a Small Business

Augmenting agricultural income through a small business is an important means by which rural villagers augment their income. The most common form of business operated by households (75% of businesses) is a home-based store/canteen operated by the wife. There is a significant difference in business ownership between households which have a Rural Savings Account and households which do not have a Rural Savings Account.

Access to a bank account appears to promote the formation of small businesses by the household. However, villagers who opened a Rural Savings Account and attended the Financial Literacy Training workshops also appear to have a greater motivation to enhance the household's economic wellbeing.

Households in which at least one principal financial decision maker has a Rural Savings Account are more likely to have commenced a business prior to the Training being held, or the Rural Banking service commencing (25% - 50% of business), whereas all business owned by villagers who do not have a Rural Savings Account have commenced trading subsequent to the commencement of the Rural Banking Service and the Financial Literacy Training Workshops.

Overall, 72% of businesses are owned by households with a Rural Savings Account. Approximately 20% of households which have a Rural Savings Account have some form of small business, whereas only 9% of households which do not have a Rural Savings Account report owning a small business. Villagers who participated in the Financial Literacy Training Workshop are also more likely to report owning a small business (18% of households against 13% of non-participating households). The majority of businesses are small canteen stores, run by women.

Small Business Income

Net income from small business activity is generally modest. A small number of households have more than one business. Truck (carrier) and billiard table businesses appear to be relatively profitable (albeit both of these businesses are significantly more capital intensive and the cost of capital has not been included in the estimate of expenditure)⁴⁷.

Table 28: Estimated Business Income and Expenditure

	Income PA	Expenses PA	Net PA	Expense/ Income
Canteen/Store	\$ 2,528	\$ 1,358	\$ 1,169	60%
Cigarettes/Telecards	\$ 702	\$ 516	\$ 186	74%
Kerosene	\$ 1,320	\$ 840	\$ 480	64%
Canteen and Truck	\$ 6,400	\$ 2,850	\$ 3,550	45%
Canteen and Billiard Table	\$ 6,720	\$ 2,640	\$ 4,080	41%

Total Income

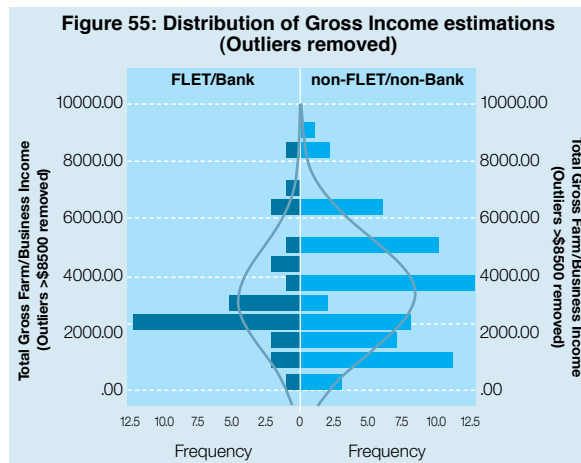
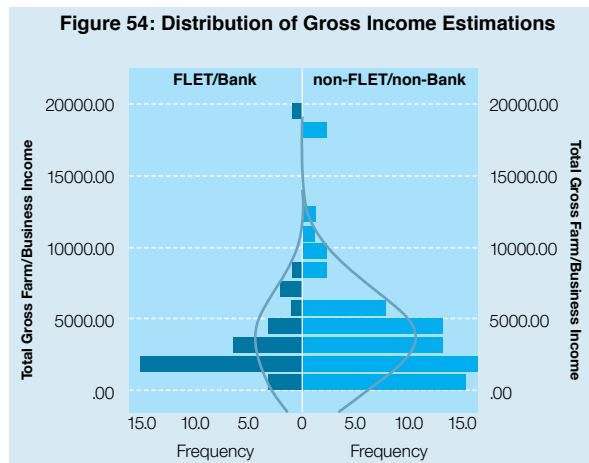
At the level of the household, there is significant comparability between levels of farming and business income, and average household income between all households which participated in the study. Differences appear to result from the financial competence of the husband in managing farming cash-flows, rather than the size of the plots farmed or agricultural activity per se.

Table 29: Farming and Business Estimated income and Expenditure Overview

		FLET/ Bank	non-FLET/ non-Bank
Farm	Average Income PA	\$ 3,684	\$ 3,728
	Expenses PA	\$ 592	\$ 525
	Net Income PA	\$ 3,098	\$ 3,357
Business (Households with a Business)	Income PA	\$ 3,513	\$ 3,825
	Expense PA	\$ 1,948	\$ 2,511
	Net Income PA	\$ 1,730	\$ 1,314
	Expense/ Income Ratio	66%	62%
All	Average Household Income	\$ 3,460	\$ 3,571

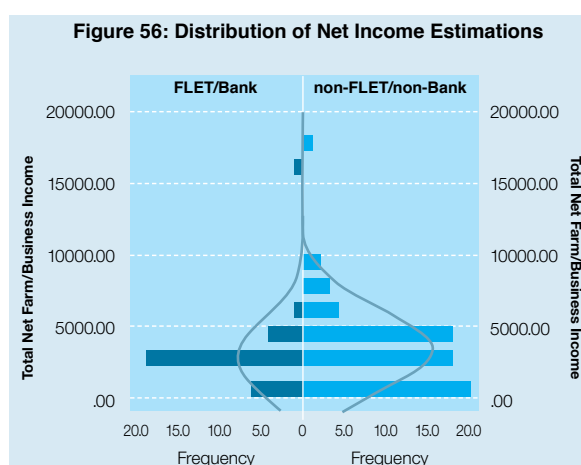
⁴⁷ Caution is required as the number of non-canteen businesses is very low.

However, households in which neither principal financial decision maker participated in the Rural Financial Services Initiative appear to estimate higher levels of household income and a broader range of income levels relative to households in which either the husband or wife attended the Financial Literacy Training Workshop and has a Rural Savings Account (not necessarily the same decision maker). This is particularly evident when outliers are removed:



The over-estimation of income and under-estimation of expenditure by households which did not participate in the Financial Literacy Training Workshops and which do not have a Rural Savings Account, relative to households which did participate in the workshops and which have a Savings Account, leads to significantly higher estimations of net income by these households:

These factors, when combined with lower holdings of livestock, lower levels of irrigation, fewer farm implements and lower expenditure on supplements suggest households which did not participate in the Financial Literacy Training Workshops and which do not have a Rural Savings Account have a lower level of financial competence than households in which at least one of the principal financial decision makers attended the financial literacy training and has a Rural Savings Account.



Household Expenditure

Both the male and the female financial decision makers were asked to estimate household expenditure. Frequently, both men and women did not answer or could not answer questions relating to household's expenditure in all of the household expenditure categories. Women were generally better able to answer expenditure on food, household contributions (*vanua*, village and church), and new items for the house and school fees. A considerable number of women could not answer questions relating to the household's expenditure on the house (repairs etc) and the household's loan commitments. Overall, however, estimates of expenditure by men were less comprehensive than estimates made by women. In addition, categories of household expenditure in which women were less able to provide spending estimates were typically expenditure categories in which the household had a lower level of expenditure relative to other major expenditure items. Consequently, for consistency, estimates of household expenditure made by men have been excluded.

There is a broad similarity across households in respect to estimates of expenditure across key categories of expenditure. Where it has been possible to do so, estimates of expenditure have been compared with the estimates of expenditure in the 2002-3 HIES. Villagers' estimates appear to be comparable to those in the HIES. Villagers in rural Naitasiri,

however, estimate higher percentages of household expenditure on transport and education than rural Fijians generally. This is likely to be a consequence of the relative isolation of many villages and the higher cost of travel to the nearest town and the greater need to board children attending secondary school. Food⁴⁸, general household and medical expenditure⁴⁹ levels are, however, comparable to those in the 2002-3 HIES.

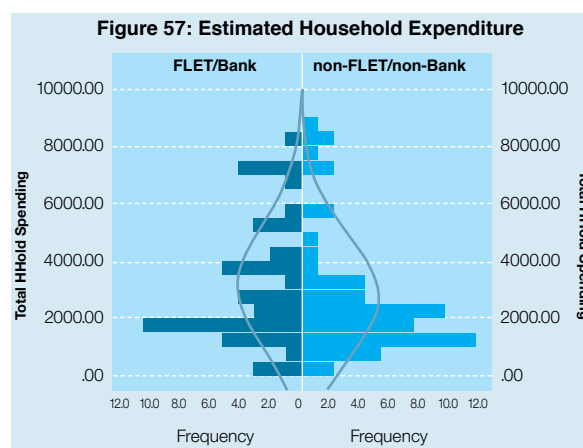
One category of expenditure where there is a very significant difference between the present study and the 2002-3 HIES is in respect to contributions villagers make to the community, to the church and to the extended family. Villagers estimated they commit approximately 20-24% of household income to the broader community. The 2002-3 HIES notes rural Fijians on average gift 9% of income. The reason for this difference may be definitional as the current study has sought to include family contributions which may not be captured by the 2002-3 HIES. It is also possible villagers in rural Naitasiri continue to emphasise traditional reciprocal obligations relative to villagers living closer to urban areas. The reason for the lower level of telecommunications expenditure and medical expenditure by non-FLET/ non-Bank households is not known:

	FLET/ Bank		non-FLET/non-Bank		All	2002-3 HIES ⁴⁹
	\$ pa	%	\$ pa	%	%	%
Food	\$ 1,249	41%	\$ 1,415	48%	46%	42%
Telecomm	\$ 239	12%	\$ 130	5%	8%	NA
New Items (for house and/or family)	\$ 409	13%	\$ 378	16%	14%	NA
House	\$ 836	15%	\$ 931	22%	16%	18%
Education	\$ 569	11%	\$ 464	13%	10%	2.4%
Medical Expenses	\$ 237	6%	\$ 62	2%	5%	3.3%
Transport Expense	\$ 518	14%	\$ 520	18%	15%	9.4%
Community/ Church Contributions	\$ 461	21%	\$ 390	20%	22%	NA
Other Spending	\$ 227	8%	\$ 201	9%	9%	NA

Overall, households which did not participate in the Financial Literacy Training Workshops and which do not have a Rural Savings Account estimate lower levels of household expenditure than household which participated in both elements of the Initiative:

Household Net Cash Flow

An analysis of rural villagers' household cash flows is inherently difficult. It is difficult to build a picture of actual household income and expenditure. Household diaries have been used in an effort to record income and expenditure as it is incurred. However, in a rural context in which villagers have limited functional literacy and in which most cash flows do not pass through a bank account, it can be difficult to build an accurate picture. Households typically estimate expenditure *post hoc* and do not have income or expenditure receipts for verification. Studies seeking to build regression models of rural villagers' economic position based on estimated expenditure are plagued by problems. In respect to the present study, a regression model using net household income as the dependent variable and (inter alia) participation in the Financial Literacy Training Workshops and/or the Rural Banking Service as independent variables, will produce



	FLET/ Bank	non- FLET/ non-Bank
Average Farm/Business Net Income PA	\$ 3,460	\$ 3,571
Average Household Spending PA	\$ 2,925	\$ 2,320
Average Household Surplus PA	\$ 535	\$ 1,251

48 Expenditure on food does not include an imputed cost for food produced by the household. Virtually all households produce at least 50% of the food consumed by the household.

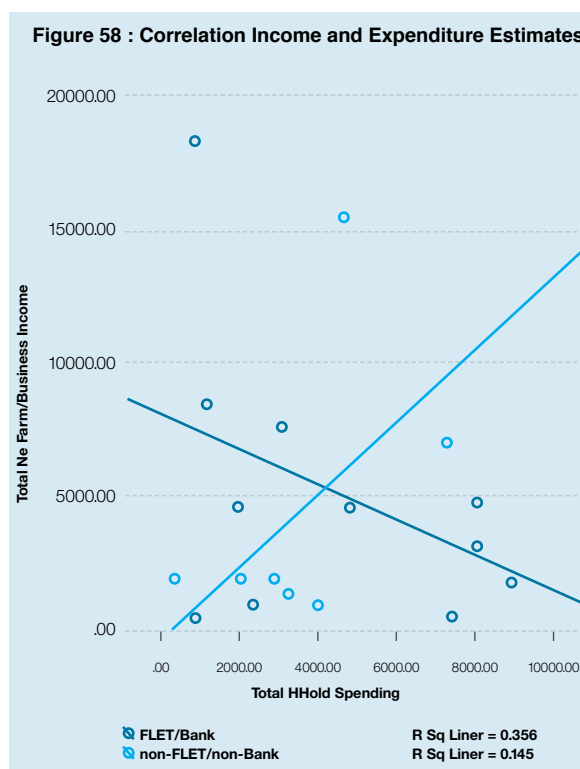
49 There appears to be a difference in expenditure pattern between households which participated in the Initiative and households which did not participate in the Initiative. Participating households appear to have higher levels of medical expenditure, both in absolute terms and as a percentage of estimated expenditure. Further research is required to explain the difference.

50 Figures will not sum to 100% as percentages are average household expenditure as % of income – where the household is incurring the expenditure.

51 Adjusted to 100% from 85% (total excluding savings), refer p50 2002-3 HIES.

an inverse relationship. Net income will be higher for households which did not participate in the Rural Financial Services Initiative.

The reasons for this can be explained by the extent to which households are conservative in estimating household income and expenditure. Households which demonstrate higher levels of financial competence are typically more conservative and more consistent in estimating farming income and expenditure and household expenditure. Households which did not participate in the Financial Literacy Training Workshop or do not have a Rural Savings Account tend to estimate higher farm income for the same hectareage and crops, and to be less consistent in income estimation despite having lower levels of supplement expenditure, fewer farm implements, less irrigated hectareage and less livestock. These households also typically estimate lower levels of household expenditure yet incur similar (or identical) input costs, have very similar houses and have a similar household composition. Overall, households which did not participate in the Rural Financial Services Initiative exhibit lower levels of financial knowledge and skill and lower levels of competent financial behaviour.

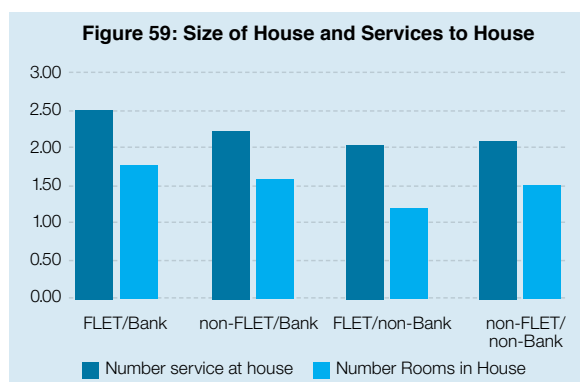


Households which are less financially competent consequently over-estimate cash available for discretionary spending. The lower level of household budgeting by these households would appear to be a significant factor. Importantly, households which evidence a lower level of financial competence estimate an inverse relationship between their household income and expenditure. Rather than estimating higher levels of expenditure as income increases, households which are not financially literate estimate lower levels of household spending.

An important consequence of over estimating net surplus is a greater level of cash shortfall for day-to-day expenditure. This explains why these households must rely more heavily than financially competent households on store credit and hire purchase.

House and Services

There is little difference in house size (as measured by the number of rooms) between villagers' households. There is also little difference in the general condition of villagers' houses⁵². Approximately 50% of houses have a flush toilet; in most houses the toilet is separate from the house. Households with a Rural Savings Account are more likely to have a flush toilet. There is little difference in the percentage of houses which have access to electricity (60% - usually by generator)⁵³ or telephone (either land-line or mobile). The level of electricity is comparable to the percentage of rural households with electricity on the 2002-3 HIES (62%). Most households use wood or kerosene for cooking. Very few households use electricity for cooking (2-5%). This is consistent with the level of households using electricity for cooking in the 2002-3 HIES (2%). Between 12-16% of households use gas for cooking; this is significantly lower than the level in the 2002-3 HIES (31%). The reasons for the disparity are not known. Overall, households which attended the Financial Literacy Training Workshop and which have a Rural Savings account have slightly larger houses and more services connected to the house. The differences are not, however, significant.



52 Interviewers were asked to subjectively assess the general condition of the villager's house. 90% of houses were assessed as either good or acceptable.

53 The non-Bank/ FLET cell has a lower level of electricity. However this cell has fewer households and therefore greater variability in responses.

However, the size of the house and number of services connected to the house is likely to precede the Rural Financial Inclusion initiative. This suggests that households with larger houses and more services to the house may have had a greater level of economic wellbeing prior to the commencement of the initiative, which may also indicate a higher level of financial competence prior to the Financial Literacy Training Workshops.

Household Durables

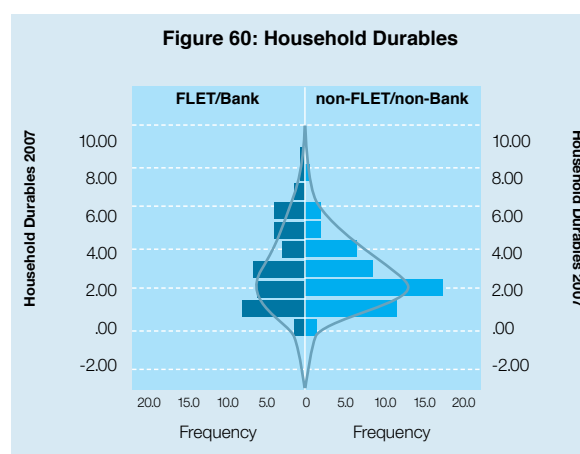
Villagers generally own fewer electrical durables than the average for rural Fijian households in the 2002-3 HIES. Whilst the number of households with electricity is similar between the current study and the HIES, villagers in rural Naitasiri do not usually have access to permanent mains electricity but source electricity from a household generator. This may, in part, explain the lower level of ownership of electrical durables requiring permanent electricity (for example refrigerators). The lower level of income reported by rural villagers in Naitasiri may also, explain the difference in household durable ownership. The higher level of telephone ownership by villagers participating in the study, relative to the 2002-3 HIES is likely to be a due to the expansion on the mobile network in rural Fiji subsequent to data being collected for the 2002-3 HIES:

		FLET/ Bank		non-FLET/non-Bank		2002-3 HIES
		% HHold Own	Purchased	% HHold Own	Purchased	
Appliances	Refrigerator/ Freezer	11%	2004	3%	2005	22%
	Washing machine	15%	2004	0%		12%
	Oven	24%	2001	14%	2004	31%
Entertainment	Television	26%	2002	21%	2004	28%
	Radio	54%	2003	64%	2003	NA
Furniture	Bedroom furniture	87%	1998	91%	2000	NA
	Living room furniture	35%	1997	22%	2004	NA
Transport	Car/van	2%	2007	0%		8%
Communication	Telephone/ Mobile Phone	28%	2006	19%	2007	11%

Households which participated in the Financial Literacy Training Workshop and which have a Rural Savings Account had a higher level of household durables prior to the commencement of the Rural Financial Services Initiative in 2005. This includes (electrical) kitchen appliances. This would tend to support the conclusion that these households had a higher level of financial competence prior to the Financial Literacy Training and the introduction of the Rural Banking Service:

	Average <2005	Average >2005
Bedroom furniture	62%	88%
Living room furniture	18%	24%
Refrigerator/Freezer	4%	7%
Oven	15%	15%
Washing Machine	2%	5%
Sewing machine	9%	14%
Television	12%	17%
Radio	24%	49%
Telephone	1%	19%
Car/van	1%	1%

	FLET/ Bank	non-FLET/ non-Bank
Durables pre-2005	2.0	1.4
Durables Purchased post-2005	1.2	1.2
Total Durables 2007	3.2	2.6
Kitchen Appliances	0.6	0.2



	Household Durables pre2005	Household Durables post 2005
Household has electricity	.155*	.314**
Village distance from town	.225**	.350**

All households increased their ownership of durables in the period between 2005 and the field work for the study in 2007. The rate of increase was consistent across households.

However, the disparity in household durables ownership between households which participated in the Financial Literacy Training Workshops and the Rural Banking Service and households which did not participate was maintained during and post the period of the Initiative. It is reasonable to conclude that households which were more financially competent were more willing to participate in the Rural Financial Inclusion initiative and have benefited accordingly in respect to a further improvement in household cash flow management:

There is a significant correlation between the household having access to electricity and the village's distance from town and the number of durables owned by the household prior to the commencement of the Rural Financial Services Initiative in 2005. The correlation with household access to electricity has increased. It is probable this is because the percentage of houses in the sample villages with access to electricity has increased between 2005 and 2007:

Health

There is no difference in villagers' health relative to their level of financial competence. Villagers generally appear to be healthy. Whilst 50 – 55% households reported some form of illness in the three months prior to the study, between 77% - 93% of illnesses reported were either common illnesses (childhood diseases or colds and flu) or muscular – due primarily to the high levels of physical work undertaken by villagers.

Summary

In general terms, and at the risk of appearing overly simplistic and gender-bound, the wellbeing of rural Fijian households in Naitasiri Province is based on the husband's ability to generate agricultural income (augmented by small business income generated by the wife) and the wife's ability to manage the household cash flows. What separates households in rural Naitasiri is not the size of the plots farmed, the size of the family or the size of the household, but the ability of the household to re-invest surplus in further income generation and to manage household expenditure prudently. There is strong evidence that households which are better able to do this (households which are more financially competent) enjoy a better standard of household wellbeing than those which do not develop the household's ability to generate income or manage the household cash-flows using a budget and a bank account.

Households in which the principal financial decision makers are more highly educated are typically more functionally literate and more likely to have higher financial knowledge and skill and to adopt more positive financial behaviours. These households are more likely to attend Financial Literacy Training and to open a Rural Savings Account. They are less likely to resort to the use of credit for daily needs and if they borrow, are more likely to borrow for investment purposes.

Households which participated in the Rural Financial Services Initiative (in particular households which participated in both the Financial Literacy Training Workshop and the Rural Banking Service) appear to have already been more financially competent and more affluent (measured in terms of household durables) than households which did not participate in either element of the financial capability initiative. Households which participated in the Rural Financial Services Initiative evidence greater financial competence across a range of aspects of the management of agricultural, business and household cash flows. Importantly, we can attribute knowledge of, and the use of, budgeting to participation in the Financial Literacy Training Workshop⁵⁴, in addition of course, to access to the banking system.

It is reasonable, therefore, to conclude that villagers who participated in the Rural Financial Services Initiative did so primarily to re-enforce and enhance existing positive financial behaviours by increasing the household's financial knowledge and access to the formal banking system (which had previously been very difficult to access). The Rural Financial Services Initiative has therefore enhanced participants' knowledge of budgeting (and within this context household cash flow management generally) and has facilitated enhanced financial behaviour in respect to both budgeting and the use of a bank account for safe custody. Villagers who have opened a Rural Savings Account consider they have derived a greater range of financial goal related benefits than anticipated prior to opening the Account.

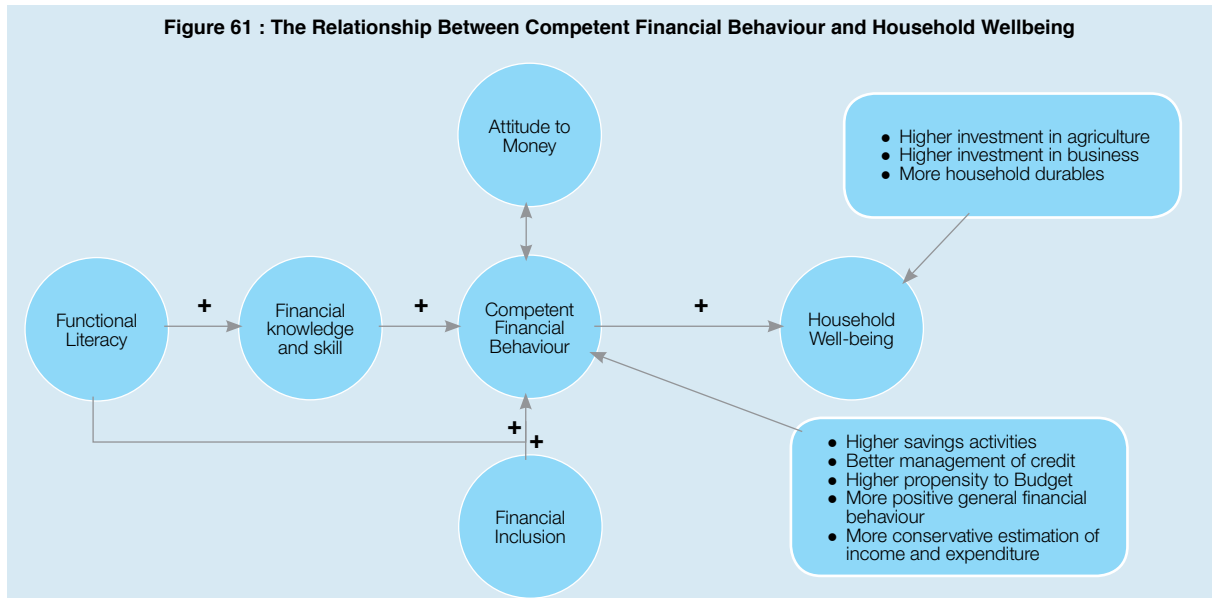
Villagers who did not participate in the Workshop and/or do not have a Rural Savings Account evidence a lower level of financial competence, in respect to both financial knowledge and skill and financial behaviour. However, immediate household and community priorities are accorded precedence over other goals by all households.

54 ***= p<.001, **= p<.01, *= p<.05

55 Calculated from households in which both male and female provided responses in respect to household durables.

56 It is important to bear in mind that the Financial Literacy Training Workshop covered only two topics: Household Budgeting and the operation of a Savings Account

In summary, we can conclude that enhancing financial capability by enhancing financial knowledge and skill and increasing opportunities for financial inclusion can lead to enhanced financial competence and this, in turn, can facilitate increased household wellbeing. Functional Literacy is, however, an important pre-condition. We can also conclude that financial competence can be enhanced by an appropriately structured financial capability initiative. There does not, however, appear to be a relationship between financial competence and subjective wellbeing:



The study also supports findings from earlier studies. The relationship between level of education, financial literacy and financial participation found in earlier studies was also found in the present study. The relationship between participation in the formal financial system and household wellbeing found in earlier studies was also found in the present study.

This study has further developed our understanding of factors influencing the financial competence of rural villagers in the Pacific. The study has further developed the financial capability construct and has linked financial capability, financial inclusion, financial behaviour and attitude to money into a broader financial competence construct.

Chapter 5: Policy and Strategy Recommendations

Summary of Recommendations

It is evident rural villagers are engaging with the money economy and are using a broad range of financial services. It is likely villagers use of financial services will increase in the medium term and with this the need for a heightened level of financial sophistication will also increase. The study has also found there is a positive relationship between villagers’ financial competence and the wellbeing of their households. The study has found that the Rural Financial Services Initiative was successfully implemented and provides a model for similar capability development initiatives.

If little is done to facilitate rural villagers’ engagement with the formal financial system there is a very real possibility that levels of alienation will rise rapidly. Alienation from the money economy reduces peoples’ ability to enhance their wellbeing. It also brings a greater risk of financial exploitation as people seek informal sources of credit in order to cover cash shortfalls. Arguably there are already signs of this in the present study. Villagers who are financially competent have tended to take the opportunity to enhance their financial knowledge and skill and have opened bank accounts in order to better manage household cash and to provide for future spending requirements. Villagers who are less financially competent have tended not to take the opportunity and appear to be falling behind, both in terms of financial knowledge and skill and financial behaviour, and in respect to household wellbeing. The findings from this study suggest increasing widening of difference in the wellbeing of household in rural villagers may already be underway. This has potentially profound economic and social ramifications for rural villagers and for society generally.

Promote Financial Inclusion	1. Adopt a Systemic Approach Focusing on the Formal Financial Sector
Promote Financial Education	2. Develop Financial Literacy Training Programs for Women 3. Develop Delivery Models Appropriate for Villagers with Limited Functional Literacy 4. Develop School Based Financial Literacy Training Programs 5. Focus on Credit
Develop a National Strategy to Enhance Financial Competence	6. Use Financial Competence as a Basis for National Strategy 7. Develop Financial Competency Frameworks 8. Undertake Base-line Studies

The findings from the study indicate action is required to enhance financial competence in the Pacific. Enhancing financial competence cannot be left to random experience. The study has found financial competence can be enhanced by the deployment of appropriately structured initiatives. The following policy and strategy recommendations follow from the findings from the study:

Promote Financial Inclusion

Contemporary development theory suggests a lack of access to finance is a significant factor in slower growth and persistent income inequality. Developing the financial sector and improving access to finance may accelerate growth and facilitate a reduction in income inequality and therefore promote an increase in wellbeing for the disadvantaged (RBI., 2008). Demirguc-Kunt and colleagues have shown that even in societies with the same average income, those

with deeper financial systems have lower absolute poverty (Demirguc-Kunt, Beck, & Honohan, 2008, p. 107). Bringing more unbanked customers into the financial mainstream can lead to higher household savings levels, which in turn can lead to a rise in savings levels in the economy and asset building in communities (OECD, 2005a, 78).

Those who do not access the financial system tend to be marginalized. Lack of access to transaction banking facilities restricts access to the formal payments system. This imposes increased transaction costs and reduces ability to access a range of common transaction and payment services. Financial exclusion restricts access to regulated credit and forces individuals to utilise higher cost (and potentially predatory) sources of credit. Financial exclusion also limits opportunities for secure savings - both short/medium term and longer term savings. Conversely, bringing more unbanked households into the financial mainstream can lead to higher household savings levels which in turn lead to a rise of savings levels in the economy and a fostering of home-buying and asset building (OECD, 2005, p. 78).

The development of an appropriate financial services environment specifically for the unbanked poor can play an important role in enhancing positive participation in the money economy, enabling access to the formal payments system (both domestic and international), secure savings and well regulated and affordable credit. Evidence from the present study suggests there is a relationship between household wellbeing and participation in the money economy. Consequently the development of an inclusive and accessible financial sector is a potentially powerful tool in the fight against poverty in the Pacific.

Recommendation One: Adopt a Systemic Approach Focusing on the Formal Financial Sector

Conroy (2006) in a review of microfinance for a recent Pacific Islands Forum Economic Ministers Meeting, summarized the situation in respect to the provision of financial services to financially excluded communities in the Pacific (adapted):

- Rural and low-income people need a broader range of financial services.
- (Forum island) governments would do better to focus on 'financial inclusion' as an overriding policy goal.
- Diversity is desirable: a wide range of approaches and institutions will be needed to eliminate financial exclusion.
- Governments need to think in a more 'systemic' manner, to consider how the whole financial *system* might be made more inclusive.
- Private sector investments and public/private partnerships have great potential and government should facilitate such initiatives.

The findings from the present study offer support for Conroy's proposals. A key issue in the provision of financial services to the poor is the ability to achieve economies of scale or leverage existing economies of scale. A primary issue for many microfinance initiatives is both a lack of scale and an inability to achieve scale and unacceptably high management and governance costs. Overheads can remain persistently high, compliance costs can be prohibitive and consequent interest rates charged must be high to achieve cost recovery. In addition, whilst the poor may be credit worthy, on a portfolio basis there is little risk diversification and little ability to diversify risk due to borrower concentration. Consequently MFI's are exposed to inherently higher credit and liquidity risks.

Commercial institutions have a mixed track record in the provision of financial services to marginalised communities. Malkin (2003), for example, in a study of financial education in indigenous American communities⁵⁷ found that the failure of financial institutions to understand, or acknowledge, opportunities in indigenous communities was a significant barrier to increasing financial inclusion. Nevertheless, commercial bank inclusion is possible. Evidence from the present study supports a focus on outreach centered on commercial banks. ANZ Bank was able to quickly and efficiently extend to rural areas and in doing so did not need to alter the existing risk profile or core systems. The Rural Banking Service was able to open in a matter of months a similar number of accounts which has taken previous microfinance programs several years to open.

If the products and services offered are grounded in competencies identified by the community to whom the service is offered and are closely linked to training to use the product, the provision of financial services to the poor is more likely to lead to more competent participation on the money economy. Simply offering a savings account or loan is insufficient. Offering a savings account which is safe (and therefore likely to be provided by a regulated and therefore commercial organisation) with concurrent training in the use and operation of a savings account and management of household cash flows is more likely to lead to competent behaviour which, in turn, is more likely to lead to an improvement in household wellbeing.

⁵⁷ Refer First Nations website: www.firstnations.org

The provision of financial services for the poor is more likely to be successful if a systemic approach is adopted with the locus of activity being the extension of outreach through the formal financial system, with regulatory and supervisory oversight undertaken as an extension of current processes.

Promote Financial Education

There is a positive relationship between financial knowledge and skill and financial inclusion. Rural Fijian villagers generally have a low level of financial knowledge and skill. Villagers' understanding of the formal banking system, the taxation system and the superannuation system is weak. There is a pervasive lack of understanding of investment and credit. Many villagers cannot read and understand a salary slip. A low level of financial knowledge and skill can lead to inappropriate financial behaviour and an enhanced risk of financial exploitation.

Low levels of financial literacy are not unique to rural communities in the Pacific. Worldwide people tend to overestimate their financial skills and knowledge (Miller, Godfrey, Levesque, & Stark, 2008). Findings from previous studies show a common pattern and are supported by the present study:

- There is a positive correlation between a person's level of financial literacy and the number of years of formal education they have completed
- People tend to feel they know more about money than is actually the case
- A significant number of people do not understand the risks associated with the financial products and services they purchase
- Many people do not exhibit financially competent behaviour

Whilst low levels of financial literacy are not unique to rural villagers in the Pacific, the consequences of poor financial decisions are potentially more significant for rural communities with limited financial resources to draw on and few sources of independent and unbiased financial advice. Evidence from the present study suggests rural villagers who have a low level of financial literacy are at greater risk of self-selected exclusion from the formal financial system. Financial education is therefore a key enabler facilitating an increase in financial inclusion by rural communities.

Recommendation Two: Develop Financial Literacy Training Programs for Women

Gender is an issue in financial exclusion globally (United Nations, 2006). Whilst it is a truism that in many societies' women manage the household and are responsible for obtaining food, ensuring children's education is provided for and basic health care needs are met, it is also true that women frequently do not control cash flows and do not have access to a bank account if the household participates in the formal financial system.

A key finding of the present study is the importance of ensuring financial inclusion programs focus on women. It is evident women are primarily responsible for the management of the expenditure in rural Fijian households. Women place greater emphasis on sound household financial management practices. Women also have a greater understanding than men of the importance of budgeting and household record keeping.

However, despite the key role undertaken by women in the management of household finances, it appears fewer women were asked to participate in the Financial Literacy Training workshops than men. In addition, more men than women own Rural Savings Accounts, even though it appears women may be operating the savings account more frequently than men.

A focus on financial inclusion should target women, in respect to both financial literacy training and banking services. Financial education Programs should therefore be developed specifically for women and delivered in an environment which encourages women to participate.

Recommendation Three: Develop Delivery Models Appropriate for Villagers with Limited Functional Literacy

Functional literacy has been consistently shown to be a cause of financial exclusion. Those who are illiterate tend to self-exclude. In addition, those who cannot read are more often unaware of potential services which they can access or their rights in respect to arrangements they have entered into. Villagers who participated in the Financial Literacy Training workshops appear to be more functionally literate than villagers who did not participate. Villagers with lower levels of functional literacy appear, therefore, to have self-excluded themselves from the opportunity to increase their financial knowledge and skill.

Financial literacy training programs for rural villagers should place emphasis on visual rather than text based curriculum delivery (acknowledging that participants must be able to write, for example a simple budget, to be able to derive benefit from the training). If training materials require a reading age greater than that of participants, their learning will be limited and fewer villagers will participate in the program.

Recommendation Four: Develop School Based Financial Literacy Training Programs

Developing and deploying large scale adult financial literacy programs is both expensive and time consuming. The development of financial literacy training programs specifically for delivery in primary and secondary schools offers a range of potential benefits. Financial literacy programs can be linked to related areas of the core curriculum and delivered by trained teachers in a classroom environment. Importantly, school based programs can be readily standardized and are auditable. Clear, formal learning outcomes based on competencies can be more readily developed to guide classroom activity and appropriate measures of learning outcomes can be determined.

The UK House of Commons Treasury Committee, in a report of the 2006-7 Session “Financial Inclusion: the roles of government and the FSA and financial capability” (House of Commons, 2006) noted:

“Schools are unique in having access to, and influence on, all young people across social, economic, ethnic and religious groups. If we can ensure that young people leave school as informed and independent consumers with the confidence to engage with the finance sector, this will provide a firm foundation and prevent many of them from getting into financial difficulties as adults.”

These findings are equally valid in the context of Pacific Island communities. The likely continuation of urban drift and the trend toward wage and salary incomes in rural Pacific communities generates a greater impetus for the development of financial education programs in schools.

Recommendation Five: Focus on Credit

Villagers’ lack of knowledge and understanding of credit is a significant issue. This is likely to become increasingly serious as villagers’ engagement with the formal financial system increases. Credit is the basis by which household’s typically accumulate major household assets. Credit is also used to smooth cash flows when incomes are irregular. It is evident rural villagers are currently accessing credit to purchase consumer durables and to smooth income. It is also evident many villagers have a limited understanding of formal credit and do not understand store-credit is a form of loan. A lack of understanding of credit carries an increased risk of poor credit decisions and increased vulnerability to predatory lending. Expanding the scope of community based financial literacy training programs to encompass responsible borrowing appears, therefore, to have a degree of urgency as villagers’ use of credit is likely to increase.

The benefits accruing from careful management of the household’s finances and from saving can be destroyed by a single poor credit decision, the consequences of which can be life-long. Poor credit decisions can be ruinous for individuals and households, and ultimately can have serious consequences for communities and the wider economy. From a policy perspective consideration should be given to ensuring financial literacy training programs incorporate a focus on credit management as a core component of curriculum.

Develop a National Strategy to Enhance Financial Capability

The Enabling Environment

An increasing number of countries have recognised the importance on ensuring the adult population is able to manage household cash-flows and to competently engage with the formal financial sector. Several countries have implemented national strategies to enhance the financial competence of their populations:

- The US Government established the Financial Literacy and Education Commission in 2003. The US Treasury has established an Office of Financial Education and several Reserve Banks across the USA have developed financial education and financial inclusion strategies.
- The Financial Services Authority in the UK implemented a national strategy on financial capability in 2003.
- The Australian Ministerial Council on Education, Employment, Training and Youth Affairs developed a framework for financial capability in 2005.
- The New Zealand Retirement Commission implemented a financial literacy strategy in 2006.
- Pacific Islands Finance Ministers and Central Bank governors committed to the Coombs Declaration on strengthening financial capability in August 2008.

Financial competence is a national issue and requires a coordinated response enacted through an appropriate

policy framework. There is considerable value in Pacific Island States developing a coordinated national approach to the development of the financial competence of their populations in particular as, unlike OECD countries generally; the enabling environment required for competent participation in the formal financial system is still developing. The development of national action plans and strategies enables a diverse range of actors to work together to enhance the financial competence of Pacific Island communities and populations and the development of an appropriate enabling environment.

Competent engagement with the formal financial system requires an appropriate enabling environment. Financial capability strategies developed in OECD countries are situated in highly developed enabling environments with well developed regulatory and supervisory frameworks, a broad range of consumer financial services products and services provided by a range of competing institutions, a depth of financial literacy training capability and well developed consumer protection. The enabling environment required for competent engagement with the money economy and the formal financial system varies across Pacific Island Countries, but is generally continuing to develop, particularly in rural areas.

Regulatory and Supervisory Environment:

Whilst several central banks in Pacific Island Countries have initiated programs to facilitate financial inclusion by excluded households and communities, the regulatory and supervisory regime required to facilitate (for example) account opening, in particular by individuals who may not be able to fulfill formal documentation requirements, has yet to be widely implemented. In addition, reporting requirements for commercial banks implementing programs to foster financial inclusion are still to be developed in most Pacific Island Countries.

Accessible Financial Products and Services:

Most rural communities in Pacific Island Countries do not have access to the formal financial system. Where access is available, minimum balance requirements and fee structures can be prohibitive. The assumption that a passbook savings account with no access to the domestic electronic transaction system will be adequate for currently excluded households is incorrect, in particular given the prevalence of remittances, the linkages between households and self-employment and the continuing increase in paid employment.

Whilst engagement with the money economy is increasing across the Pacific, the banking sector in many Pacific Island Countries is not currently meeting the needs of Pacific Islanders. The Asian Development Bank, in a study of financial sector development in the Pacific (ADB, 2001, p. 30), noted:

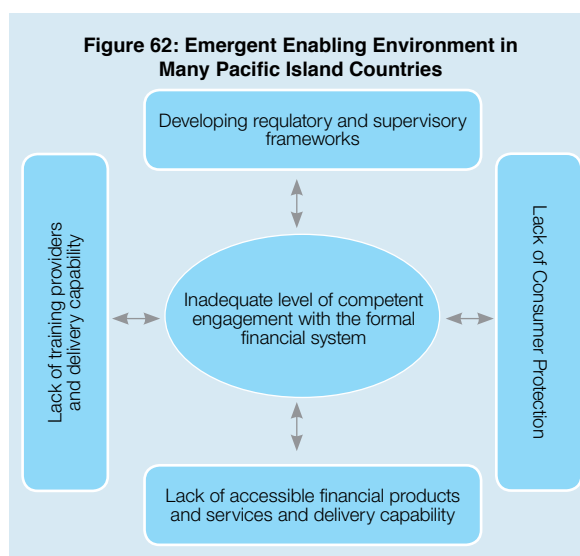
“Banking Sectors in PDMC’s⁵⁸ are oligopolistic and dominated by foreign banks. A lack of competition has permitted them to maintain high interest margins and high profitability, locating operations mainly in urban areas and showing little interest in provision of banking services to rural areas.”

Training Providers and Delivery Capability:

The number of financial literacy programs is increasing in several Pacific Island Countries. However, there is no broad based movement to develop adult financial literacy. Within this context, there are no minimum standards for training providers, no core curriculum, no formal measures of training outcomes and no link to the other key enablers required for competent participation in the money economy.

Consumer Protection:

Consumer protection is limited in most Pacific Island Countries. Purchasers of financial products and services may not, therefore, be provided with adequate levels of product disclosure, in particular disclosure of terms and conditions of product use (including interest rates, fees



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and other charges), investment risk, or the consequences of default on a credit contract. In addition, sources of impartial professional financial advice are frequently limited. Consumers must therefore resort to seeking advice from the product provider or from family and friends. Without adequate consumer protection and access to appropriate advice Pacific Islanders are at heightened risk of making poor investment decisions (which may include participation in investment scams), predatory lending and exposure to unduly high fee and interest charges.

Recommendation Six: Use Financial Competence as a Basis for National Strategy

The implicit assumption that an increase in capacity will result in an improvement in wellbeing is inappropriate. Interventions tend to assume competency will be present or will naturally follow from an intervention to increase capability. Any activity which seeks to intervene in the lives of people to facilitate improvement should not simply be focused on identifying capability deficiencies and seeking to remedy these, but should be grounded in the community, household or individual's requirement to be able to "do something".

To date, the formal development of competence and capability has not been used in rural financial capability development interventions. The concept of competency is, of course, implicit in development activity. Development implicitly seeks to increase the ability of people to "do something" in order to enhance their wellbeing. Informal competencies cannot, however, be measured and therefore a potentially significant component of development interventions often goes unmeasured or, if measured, cannot be compared with other similar interventions in other contexts. In measuring program or project outcomes we typically seek to determine whether the project has been implemented successfully, whether the stakeholders are satisfied with the outcomes. Yet, all too often, we do not measure the change effectively; or if we do measure outcomes we tend to use post-hoc measures rather than measures embedded in the project and directly related to the change in the participants' demonstrated competence.

Using competence as a bridge we can establish situated measures of causality which link a community level development intervention to a change in the wellbeing of members of the community. An intervention to improve wellbeing must ensure individuals and their households, and their community of households, have access to an appropriate means of developing capability are able to operationalise capability, thereby exercising choice and demonstrating competence. Financial capability is of value only if it enables individuals, households and communities to engage in financial activity which can increase wellbeing.

A competency based focus enables financial capability development interventions to be grounded in the situated needs of the community and, most importantly, defined by the community. Following the determination of competencies, the capabilities required to enable the enactment of the competency can be determined and interventions developed. Relevant measures of each competency can also be determined.

Recommendation Seven: Develop Financial Competency Frameworks⁵⁹

The development of financial competency frameworks for Pacific Island Countries will facilitate the development of inclusive financial sectors and will contribute to ensuring households and communities can competently engage with the money economy and the formal financial sector, thereby reducing the risk of alienation and marginalisation.

A financial competency framework for Pacific Island Countries will also provide a guide for Central Banks in fostering both an inclusive financial sector and the development of appropriate enabling regulatory and supervisory regimes to guide and support an inclusive financial sector. A framework is a potentially useful tool in guiding the development of appropriate products and services, an appropriate delivery environment and appropriate disclosure and can guide the development of learning outcomes for financial literacy training providers and the development and measurement of appropriate financial literacy training initiatives.

Recommendation Eight: Undertake Base-line Studies

With the exception of work undertaken by the Financial Services Authority and the Basic Skills Agency in the UK, financial capability and competence has been generally assumed to be a function of the financial capability requirements of the urbanized, middle class households targeted by most financial services providers.

This assumption is unlikely to be valid in respect to most communities in Pacific Island States. However, other than the present study, and the study of financial capability of rural households in Guadalcanal, Solomon Islands, little is known of the financial competence of communities across the Pacific, or Pacific Island people's requirements of

59 Refer to: "Developing a Financial Competency Framework for the Pacific" (Sibley, 2009)

the formal financial system. It is not known, for example, whether the financial competency requirements of rural communities are common across the Pacific. Perhaps most importantly, little is known of the financial competence requirements of urbanized communities, in particular the rapidly increasing informal urban communities which have formed at the perimeters of several cities in Pacific Island States as rural populations move to urban areas in search of work.

Methods of money management which may be relatively straight-forward for households in which all adult members have a post-secondary school reading age, are likely to be beyond the reach of those who have not completed secondary school or, as is frequently the situation in Pacific Island States, have only attended primary school. Paper based budgeting using extensive categorisation and consequent addition and multiplication, even at the level of a

single household requires base competence at arithmetic and may be difficult for someone with limited formal education. Calculating interest (in particular compound interest), annualizing fees, determining the true value of discounts or the real cost of interest free periods is likely to be beyond the capability of someone who has not attended secondary school.

Accessing the formal financial system is increasingly part of the life of Pacific Island communities and yet little is known of the financial services requirements of Pacific Island communities. Findings from the present study demonstrate that, even for villagers living in a remote rural community, access to a passbook savings account, whilst important, is inadequate to meet villagers financial intermediation requirements. It is likely households in urban environments will require an even greater range of financial services.

Baseline studies, similar to those undertaken in the UK, Australia and New Zealand are required to map the current situation in respect to functional literacy, financial activity, financial knowledge and skill and attitude to money of populations in Pacific Island States. Without base-line studies it is difficult to develop an appropriate set of educational, financial services, regulatory and consumer protection initiatives in order to enhance the financial competence of Pacific Island communities.

Chapter 6:

Financial Literacy Training Program Recommendations

Requirements for Successful Financial Literacy Training Programs

From a policy perspective, careful consideration must be given to the provision of support for programs which are tied to a specific provider of financial services. The OECD review of UK based training programs (OECD, 2005) identified problems in the delivery of financial literacy programs when the roles of providers and instructors were unclear and the aims of the program were uncertain. The OECD concluded a classroom environment, preferably in a community or small group setting with a trusted community leader as instructor worked well. Purely paper-based materials were not found to be the most effective. The OECD recommended materials be varied and where possible entertaining.

In rural communities in the Pacific, the use of community based training is generally the only viable option. Community based adult financial literacy programs are commonly developed by a range of providers, using a range of methodologies. Worldwide there is a significant ad hoc element to this approach. An ad hoc approach, however, can lead to difficulty in determining the efficacy and effectiveness of programs, difficulty in measuring program outcomes and difficulty in developing and deploying a structured range of programs to meet national requirements and a tendency to focus on one-off workshops rather than ongoing programs. From a policy perspective there is potentially significant benefit in focusing support for financial literacy education programs through the formal education system in order to develop the financial literacy of secondary school pupils and to use the system as a means of achieving outreach to the adult community. The following training recommendations follow from the findings from the study

Table 37: Recommendations for Financial Literacy Training Programs

- | |
|--|
| 1. Adopt La Raza guidelines |
| 2. Use competency based training methodologies |
| 3. Modularise the curriculum |

Recommendation One: Adopt La Raza Guidelines

The National Council of La Raza⁶⁰ (2004) reviewing financial literacy programs for Latinos resident in the USA determined a set of baseline issues financial literacy providers must address:

- Language: material needs to be developed within the language and culture in which the training will be delivered and not simply translated literally from an existing program developed in a second language. Unless this material may be unintelligible
- Participation: Programs must allow for participants ability to attend (especially if holding down multiple jobs)
- Cultural experience: Programs must take account of relevant cultural experience (e.g. lack of experience at using reliable financial instruments).

La Raza determined five key guidelines for successful implementation of financial literacy training Programs. These guidelines, whilst developed for the Latino community in the USA, are nevertheless very relevant in the Pacific as key factors for the success of programs targeted to the requirements of homogenous community groups which are currently largely excluded from the formal financial system.

Table 38: La Raza Guidelines for Successful Financial Literacy Programs

Programs should be linked to relevant financial products.	Stand alone programs have less chance of success than programs linked to access to products or tools (e.g. savings accounts, mortgage products).
Programs should be customized.	Generic programs are less successful than programs tailored to the unique requirements of Latinos.
Community based programs are more successful.	Programs developed and implemented through a community based channel were more credible to Latino households and therefore had a greater impact.
Financial Education Programs must be relevant.	Good instruction was (not surprisingly) found to be critical to engaging Latino audiences. Good instruction requires connecting with audiences, interacting with participants to determine their financial interests and tailoring classes to meet those interests and involving experts (as required) to address participants.
Programs should be outcomes focused.	The objective of a financial education program should be behavioral change – in respect to both financial behaviour and engagement in lifelong learning. This should include measurement of outcomes and, if possible tracking over time. In addition programs should be grounded in capability ('how to' do something).

In respect to measurement La Raza (2004) noted:

- Participation levels alone do not denote an effective financial education program
- Program visibility, marketing and promotion have little utility (due to high demand for programs by the Latino community)
- Generic pamphlets, guidebooks and brochures are not effective for many Latinos (even if translated into Spanish)

Additional Factors for Successful Financial Literacy Training Programs

A range of studies reviewing financial literacy programs have identified factors which are important for the success of a financial literacy training program. These are summarised below:

Table 39: Factors Required for Successful Financial Literacy Training Programs

Program objectives	Programs require a clear mission and purpose
Program focus	Product-centered programs may be more successful for communities with little current engagement with the formal financial system
Program delivery	The most common form of delivery is an 'expert'-led workshop or seminar. A significant number of programs augment this with one-to-one counseling. Use of partners can enhance successful local delivery of programs.
Curriculum	Curriculum must be developed specifically to meet the needs of the target group. Generic curriculum is inappropriate. However, three core financial activities form the basis of most financial education programs: <ul style="list-style-type: none"> ● Budgeting ● Savings ● Managing credit/debt
Program evaluation	Evaluation is necessary: <ul style="list-style-type: none"> ● Immediately following the program to determine respondents satisfaction with the program ● Follow up measurement is required to determine behaviour change.

Recommendation Two: Use Competency Based Training Methodologies

The competency approach to training is grounded in assessing learning relative to an external benchmark, typically the demonstrated ability to 'do something' (TAFE-NSW, 2008). The concept of competency encompasses both the acquisition of knowledge and skill and the *enactment* of the acquired knowledge and skill.

Competency based training models typically use a structured approach to developing and delivering training and assessment that is directed toward achieving specific outcomes which are clearly stated so that learners know exactly what they have to be able to do and trainers know what training or learning is to be provided. The emphasis in competency based training is on "knowing and performing" rather than simply "knowing".

Norton (1987) defines five core elements of the competency approach to training:

1. Competencies should be carefully identified, verified and public.
2. Criteria to be used in assessing achievement (and the conditions under which achievement will be assessed) should be explicit and public.
3. The instructional program should provide for the development and evaluation of each of the competencies specified.
4. The assessment of competency should take the participant's knowledge and attitudes into account but should require demonstration of the competency as the primary source of evidence.
5. Participants progress at their own rate by demonstrating the attainment of the specified competencies.

Competency based training typically seeks to assess each learner prior to the commencement of the training in order to determine the gap between the skills the learner needs and the existing skill set. The objective of the training program is to bridge the skills gap. The concept of competency offers a robust, situation specific and readily deployable model for both the development and measurement of field-based training interventions.

Recommendation Three: Modularise the Curriculum

The financial literacy training program examined in this study is typical of financial literacy programs in many jurisdictions. The focus of the program is on management of the household cash-flows and the use of a simple savings account to support household cash-flow management. This focus is, of course, important. However, there is evidence, both from the present study and studies conducted in other countries that financial literacy education must be flexible and encompass a broad range of elements. Financial literacy learning requirements are situated and are not generic. Consequently the use of a modularised curriculum offers significant advantages over a generic standardized curriculum.

Development of a modularised curriculum requires greater initial investment; however, the longer term benefits are potentially significant as modules can be updated as required and delivered in a variety of contexts depending on need. A modularised curriculum also enables the development and deployment of well structured financial literacy programs and provides a means of shifting away from ad hoc financial literacy training.

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Appendices

Appendix 1: Research Design

Overview

A core objective of the study was to ensure stakeholders are fully engaged in each aspect of the research. In particular, the method of data collection and the level of intrusion into villagers' lives needed to be carefully managed.

A control and treatment group research design was considered to be the most appropriate design for the study. Quasi-experimental methods (Cook & Campbell, 1979) using validated instruments, are the most reliable means of detecting significant changes in villagers' financial knowledge and skill, financial behavior, attitude to money and household wellbeing. Control and treatment groups can be drawn from the same population, and many exogenous factors can be controlled due to high levels of social, cultural and economic homogeneity between villagers.

Qualitative techniques are not an appropriate means of obtaining scale data required to determine levels of functional literacy, attitude to money, self-reported happiness and objective wellbeing. Qualitative techniques are not appropriate for obtaining comparative data which is required to determine whether there has been a change in villagers' financial knowledge and skill and financial behaviour as a consequence of participating in the financial literacy training workshops and/or opening a Rural Banking Savings Account.

Self-completion surveys were considered inappropriate given villagers low level of formal education. Interviewer completion was therefore used. A closed question survey, administered in Fijian, with additional semi-structured questions to gain an un-prompted understanding of villagers' perceptions was considered to be the most appropriate basis for data collection. It was also considered appropriate to collect data in Fijian.

Closed question surveys can be criticized for forcing respondents to choose from a set of pre-determined alternatives rather than answering in their own words. However, as closed questions explicitly state response options, they are more specific than open questions and therefore better able to communicate the same frame of reference to all respondents (Converse & Presser, 1986, p. 33).

Initial Design

The design selected for the study was a field experiment using an untreated control group with pre-test and post-test. It was intended that the field-experiment design would be supported by the collection of detailed household data from a subset of households using a small scale longitudinal study.

An untreated control group design with pre-test and post-test is generally considered to be capable of causal inference (Cook & Campbell, 1979, p. 103). Maturation threats can be managed by ensuring the sample size is large enough to allow for reasonable levels of drop-out. Instrumentation threats can be managed by using validated scales. Local history issues (changes to the local environment which affect the control or treatment group but not the control and treatment group) can be managed (but not eliminated) by careful geographic selection.

Field work for the study was to be undertaken over 22-24 months in coordination with the completion of the UNDP sponsored financial literacy workshops and the planned extension of the ANZ Rural Banking Service. Data collection was to commence late January/ early February 2007 and be completed late October/ early November 2008. The

study would not collect data during the Christmas period due to the difficulty of arranging and conducting interviews during the Christmas holiday season and changes to household financial behaviour over Christmas (If data were to be collected over the Christmas period, typical savings behaviour may be exaggerated).

As part of the design, the Financial Literacy Training Program was to be further developed to ensure all competencies determined by the stakeholder workshop were covered by the training.

Treatment groups were to be randomly selected from households in villages to which the UNDP Financial Literacy Training and ANZ Rural Banking Service had been extended at the time of the commencement of the study. Control Groups were to be drawn from villages in which it was not expected the financial literacy workshops and rural banking service would be extended during the duration of the study. It was proposed that all villages participating in the study would receive the opportunity for financial literacy training and visits by the ANZ Rural Banking Service.

Revised Design

Preparations for the field-work were well advanced when in December 2006; Fiji experienced a third military coup. The coup, of itself, did not affect the field work for the study. However, in March 2007, as a consequence of the economic downturn following the coup, the Head of ANZ Bank in Fiji advised UNDP that ANZ could no longer extend the Rural Banking Service to new villages as had been previously planned and that some contraction of the service provided to existing villages may be required. As a consequence the study was unable to proceed as planned.

Two options were considered:

Narrow the scope of the field experiment

Narrowing the scope of the field experiment and continuing with an untreated control group pre-test and post-test design would have resulted in the study measuring the impact of the financial literacy training and ceasing to measure the impact of the ANZ Rural Banking Service.

The study could potentially have examined the impact of enhanced access to the formal financial system ex post facto. However, this would have resulted in a mix of designs:

- Untreated control group pre-test and post-test for the knowledge and skill component
- Ex post facto for the financial inclusion component.

This approach would also have resulted in significant implementation delays as additional time would have been required to revise the instruments and related documentation. The unstable situation in Fiji meant there would be increased risk of the field-work not being able to commence. Importantly, the research would need to focus solely on households which participated in the Rural Banking Service. Given much adult learning is experiential, it is likely access to banking services will have resulted in an increase in financial knowledge and skill, irrespective of whether the villager had attended the Financial Literacy Training Workshop. Therefore the impact of further training may not be significant relative to the impact of the Rural Banking Service. Because of the likely low Effect (J. W. Cohen, 1988) a significant increase in sample size would be required if this approach was adopted. This was not viable and therefore this option was discounted and the decision was taken to continue with the current scope but to modify the research methodology.

Continue with initial scope and revise the methodology

Continuing with the initial scope required the study to change from a prospective field experiment using households which at the commencement of the study did not have access to either Rural Banking Services or Financial Literacy Training, to a retrospective field experiment using households which had previously been provided with the opportunity to open a Rural Savings Account and/or attend a Financial Literacy Training Workshop.

The revised scope shifted the design to focus on current financial activity. The use of a causal-comparative design did not require the survey instruments to be redesigned. However the sample size was increased as there was a greater risk of low Effect and therefore reduced Power. The time period for data collection was truncated in order to reduce the risk of data collection issues arising from unforeseen circumstances.

Causal-comparative designs generally involve the use of pre-existing groups to explore differences between or among the groups (Schenker & Rumrill Jr., 2004). Subjects are not randomly assigned to groups and the treatment is not randomly assigned to groups.

The use of a causal comparative design does not reduce confidence in the delivery of the Rural Banking Service (which is ongoing), but does reduce confidence in the financial literacy training having been delivered appropriately as the training has been delivered prior to the commencement of the study. It is not possible to be certain the training was delivered effectively at all locations. This risk is considered to be manageable as the training program was audited in situ by UNDP. In addition master trainers accompanied trainers during the initial training workshops to ensure the program was delivered appropriately. It is, however, possible that villagers who participated in the Financial Literacy Training Workshop did not evidence the level of increase in financial knowledge and skill that could have been achieved had each training session been monitored as part of the field experiment.

There was also an increased possibility that the impact of the Financial Literacy Training Workshop will have been both diluted and diffused in the period between the training workshop and the administration of the survey:

- Workshop participants and non-workshop participants will have engaged in a range of money related activities and it is likely experiential learning will have occurred
- In a significant number of households (60%) only one adult in the household attended the Financial Literacy Workshop. It is therefore likely that there will have been knowledge transfer within households.

Importantly, whilst these risks impact the ability to draw conclusions in respect to the efficacy of the Financial Literacy Training Workshop, they do not impact the ability to draw conclusions in respect to the relationship between financial knowledge and skill and financial behaviour.

Defining Wellbeing

Objective Wellbeing

The study compares household wellbeing across a range of elements in order to develop a comparative understanding of household wellbeing between households which participated in the Financial Literacy Training and/ or the Rural Banking Service and households which did not participate. However, general household wellbeing is an inappropriate dependent variable for the study:

- Villagers are generally able to meet basic human needs and therefore food security is not an issue.
- General household expenditure, including expenditure on consumer durables, is not indicative of competent financial behavior. Expenditure on consumer durables (for example a new television) may equally be the result of prudent financial management or reckless financial management. In addition, expenditure may be situational (for example expenditure on electrical items following the household gaining access to electricity).

Household investment activity is a more appropriate dependent variable. Household investment activity comprises activity to protect and/or enhance the household's wellbeing and includes:

- Investment in income producing assets:
 - Agricultural supplements, land cultivated, farm equipment and higher yielding agricultural activity (for example animal husbandry)
 - Businesses
- Investment to ensure the family home is in good condition and built of permanent materials
- Use informal savings and investment instruments
- Investment in secondary education (per child).

Subjective Wellbeing

The study has compared subjective wellbeing across respondents in order to develop a comparative understating of self-reported happiness between villagers who participated in the initiative and villagers who did not participate in the initiative. However, causal propositions were not being formulated in respect to the relationship between capability, financial competence and self-reported happiness as there is insufficient prior research to enable propositions to be formulated.

Establishing Causality

An increase in financial competence can derive from a wide range of factors. The capability based interventions investigated in this study are one means of increasing financial capability. ANZ is not the only provider of banking services in Fiji. Furthermore, banks are not the only providers of safe custody for rural villagers' savings. Formal training programs are one way villagers can increase their knowledge and understanding of the formal financial system and

how to manage household cash flows. There are a range of other means by which villagers can increase their financial knowledge and skill.

The concept of causality has been controversial in social science. The CGAP Working Group on Impact Assessment Methodologies (M. Cohen, 1997) noted that an impact study “cannot really prove impact” but can show “plausible association”. Nevertheless, the present study seeks to “make claims based on strong empirical evidence that has a high likelihood of validity” (M. Cohen, 1997).

For causality to be inferred, it is usually considered three criteria must be present (Babbie, 2004, p. 90; Davis, 1985):

- There must be a correlation between the two variables
- The cause must precede the effect in time
- Other possible causes must be ruled out (the relationship must be shown to be non-spurious).

The first two criteria can be demonstrated in both field experiment and causal-comparative design. Management of spurious relationships can be more complex in causal-comparative design, primarily due to the absence of random selection and a pre-test. This creates the possibility that post-test differences between groups may be attributable to either to the treatment effect or to selection differences between the groups (Cook & Campbell, 1979, p. 98).

The attribution risk can be mitigated by ensuring all subjects are drawn from an homogenous group which differs only in respect to the treatment. Attribution risk cannot be eliminated in social science research. The study has sought to minimise attribution risk by sampling from a population that has a high degree of demographic, socio-cultural, and economic homogeneity.

The use of a control group increases the confidence in inferring a relationship between the independent and the dependent variable. However a relationship is always potentially mediated by the range of confounding variables, a subset of which may not be measured during the study. The ability to infer a relationship between capability and competence is stronger than the ability to infer a relationship between competence and wellbeing due to the presence of fewer potential confounding variables in the capability competency relationship than in the competency wellbeing relationship. The best means of reducing the potential for confounding variables is to collect data across a broad range of elements of financial knowledge and skill, financial behaviour and objective wellbeing.

Claims to causality are enhanced if a similar study has found similar results. This is the case with the present study. A study of the financial competence of rural villagers in Guadalcanal, Solomon Islands found similar relationships in respect to key components of financial competence. Whilst the scope of the study was more limited than the present study (the study did not include an examination of the relationship between financial competence and household wellbeing), a pre-post design with control group was used. In addition the instrument used for the Solomon Islands study was derived from the instrument used for the present study. It is therefore possible to support findings from the present study in respect to the elements of financial competence, and the relationship between functional literacy and financial competence, by reference to findings from the Solomon Islands study.

Research Ethics

The study was conducted under the auspices of the Massey University Ethics Committee (HEC: Southern A Application 06/57). The Massey University Code of Ethical Conduct was adhered to.

An interview protocol was developed for interviewers. Adherence to the protocol was mandatory and was checked by an independent auditor who reported directly to UNDP in Suva. All participants were enrolled on the basis of informed consent. An information sheet was provided to each participant prior to villagers being asked if they would participate in the study. Villagers were given time to read the Information Sheet (often several days prior to formal enrolment) and an opportunity was provided for each villager to ask questions about the study. The information sheet stressed participation in the study was voluntary and villagers were under no obligation to answer any or all of the questions in the survey. Each interview was conducted privately at a location determined by the villager.

All interviewers were indigenous Fijians with a deep understanding of, and respect for, traditional village life, customs and protocols. Data collection was anonymous. Villagers’ names were not recorded on the survey or on the enumerator check sheet. Covert data collection methods were not used. Participants were not remunerated for participating in the study. Villages participating in the study were provided with a donation to the village fund.

Threats to Validity

There are several threats to the validity of the findings of the Study:

Translation

Very careful attention was paid to translating the instrument from English to Fijian. However, despite the careful attention paid to the translation of financial terms, there is a risk that financial terms have not been accurately translated into Fijian and therefore the level of villagers' financial competence has been mis-stated. Analysis suggests this is not the case. However the threat to validity cannot be eliminated.

Interviewer Completion

All data was collected verbally by interviewers. A fixed format, forced choice instrument with a pre-determined question script was used from which interviewers were not permitted to deviate. The surveys were audited independently. However, there is a risk that some interviewers may have departed from the fixed script and this may bias results.

Self Reported Behaviour

All behaviour was self-reported. Behavior was independently verified. Whilst there is consistency in reported behavior between households and between villages the threat to validity cannot be eliminated.

Measurement validity

The study is ex post facto and therefore caution needs to be exercised in respect to causality. It is possible other factors not measured by the study account for variance. It is possible the instruments have not measured the constructs. Validated psychological scales have been used and previously deployed financial knowledge and skill and financial behaviour questions have been used. The functional literacy questions are not intended as a formal measure of literacy and numeracy. Rather they are intended as a guide to the likely level of numeracy and literacy, and an indication of villagers' ability to cope with the arithmetic and language they are likely to encounter in daily life.

Reliability

Results across the financial knowledge and skill and financial behavior variables measured follow a very similar pattern to the initial findings from the Fiji study and are considered to be reliable.

Statistical Validity

Whilst the sample sizes are adequate to minimise the risk of Type I error, the measured Effect is generally moderate-low rather than moderate to high. This reduces the statistical Power and increases the risk of Type II error.

Limitations

There are, as with any study, limitations to the generalisability of the study. The results of the study can be generalised for rural Fijian communities and indicative within the wider context of rural communities in Melanesia with similar social and economic structures. However caution should be exercised in generalizing the results to urban and Indo-Fijian communities. In addition, any study of this nature is point-in-time. Monetization, engagement with the formal financial system and the agencies and instruments which comprise the formal financial system continue to evolve. Care needs to be taken in assuming situational continuity.

Appendix 2: Financial Competencies used in the Study

The FSA Adult Financial Capability Framework was used as the basis for the development of a competency set relevant for rural Fiji.

FSA Adult Financial Capability Framework

The Adult Financial Capability Framework developed by the Financial Services Authority in the UK in conjunction with the Basic Skills Agency (2003, 2006) has established and codified a broad set of financial knowledge and skill and behavioral factors across a range of financial and related activities at several levels of engagement with the formal financial system. The primary purpose of the Framework is to guide learning and skill interventions to develop individual financial competence.

The Adult Financial Capability Framework is the most comprehensive general model of financial capability and competence developed to date⁶¹. The framework is adaptable and can be deployed within both highly monetized urbanized contexts and transitional environments in which engagement with the money economy is increasing.

The Adult Financial Capability Framework does not clearly differentiate between financial knowledge and skill and financial behaviour. The Framework therefore needs to be adapted if the intention is to determine a set of competent financial behaviours and the related knowledge and skill requirements.

Structure of the Adult Financial Capability Framework

A broad set of capabilities and competencies has been determined which can be clustered into subsets depending on specific individual or environmental requirements. The Framework is structured as a set of components, grouped into three domains, across three levels of competence:

Levels of Financial Capability and Competence

Basic understanding and developing confidence:

Adults who have achieved this level of competence are typically not engaged in, but require knowledge and skills to make informed judgments about personal and household finances and to use appropriate financial services.

Developing competence and confidence:

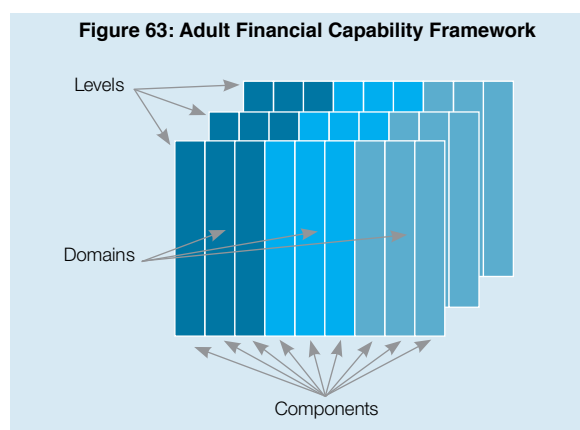
Adults who have achieved this level of competence have a basic competence in handling financial services, and have sufficient knowledge to use their skills to meet their needs but need to further develop their financial knowledge and skill in order to increase their engagement with the formal financial system (for example longer term borrowing).

Extending competence and confidence:

Adults who have achieved this level of competence are those who require extensive knowledge and skills to understand, to make informed decisions about and use a wide range of financial services (for example superannuation planning).

The Adult Financial Capability Framework is linked to the UK Basic Skills core curriculum. The three financial competency levels have been referenced to the three levels of the UK Adult Literacy and Numeracy Core Curricula (DCSF, 2000):

- Basic Understanding is referenced to a 'survival' level of adult literacy and numeracy
- Developing Competence is referenced to a 'functional' level of adult literacy and numeracy
- Extending Competence is referenced to an 'operational' level of adult literacy and numeracy



⁶¹ Australia has also developed a framework. Refer Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 2005) for an overview of the Australian Financial Literacy Framework.

Financial Capability Domains and Components

The Framework has been clustered into nine components which have, in turn, been clustered into three domains:

Financial knowledge and understanding:

- Different types of money and payment mechanisms
- Managing income generation
- Managing income disposal (spending).

Financial skills and competence:

- Gathering financial information and record keeping
- Financial planning – saving, spending and budgeting
- Understanding and managing risk and return.

Financial responsibility:

- The financial implications of personal choices
- Consumer rights and responsibilities and sources of advice
- Understanding the formal financial system.

Development of Financial Capabilities and Competencies Relevant for Rural Fiji

Capabilities and competencies must be grounded in the financial life of rural villagers. It was not feasible to attempt to determine a set of competencies de novo for rural Fiji. The FSA Framework provided an appropriate basis for the development of a set of financial knowledge and skills and financial behaviours relevant for rural Fijian villagers. In August 2006 a working group⁶² was convened in Suva, under the auspices of UNDP Pacific Centre, to determine a set of competencies relevant for rural Fiji. The decision was taken to select generic competencies from Levels one and two of the FSA Framework. The Working Group was composed of subject matter experts with considerable knowledge of the financial environment in Fiji and a deep understanding of contemporary village life and rural financial requirements. A set of 33 competencies relevant for villagers in rural Fiji was determined. The competency set was used to guide the development of the survey instrument:

Financial Competency Model

Managing Money

Making payments

a) Forms of Money	
Knowledge and skill competency	Behaviour competency
Recognise there are different forms of money and understand cash isn't the only way to pay for goods/services.	Use different forms of money to pay for goods and services.

b) Forms of Payment	
Knowledge and skill competency	Behaviour competency
Understand different forms of payment including cheques, debit cards automatic payments and direct debits.	Use different forms of payment, including cheques, debit cards automatic payments direct debits, to manage financial commitments.

Managing household income

a) Types of income	
Knowledge and skill competency	Behaviour competency
Recognise there are regular and unpredictable sources of money.	Monitor household income, differentiating between regular and unpredictable sources of money.

b) Calculating earnings	
Knowledge and skill competency	Behaviour competency
Understand how earnings and salaries are calculated.	Periodically check earnings and salary for accuracy.

Managing household expenses

a) Managing household expenditure	
Knowledge and skill competency	Behaviour competency
Understand household expenditure and how to manage it. Be able to prioritise different needs working within the constraints of limited resources.	Monitor and manage overall household expenditure. Prioritise household expenditure relative to household income.
b) Differentiating between one-off and regular financial commitments	
Knowledge and skill competency	Behaviour competency
Differentiate between one off household expenses and regular financial commitments.	Identify and periodically monitor the household's one-off household expenses and regular financial commitments.
c) Differentiating between essential and non-essential spending	
Knowledge and skill competency	Behaviour competency
Understand the difference between essential and non-essential spending and prioritise spending.	Prioritise household essential spending and non-essential spending.
Identify items that may not be bought from 'regular' income.	Plan for expenditure on items that may not be bought from 'regular' income.
d) Managing taxes and FNPF	
Knowledge and skill competency	Behaviour competency
Begin to understand taxes, and the FNPF system. Understand why and how deductions, such as tax and FNPF, are deducted from earnings.	Keep knowledge of taxation and FNPF system up to date. (Salaried) Check tax and FNPF deductions from salary for accuracy. (Self-employed) Calculate and provide for future tax payments.

Keeping records of household income and expenses

a) Keeping financial records	
Knowledge and skill competency	Behaviour competency
Be able to keep a simple record of money coming and going out.	Keep a simple record of money coming and going out.
Know about some official financial records (e.g. Bank statements, ATM vouchers, passbooks, bills) and the need to keep financial records.	Keep official financial records (e.g. Bank statements, ATM vouchers, passbooks, bills).
b) Checking financial records	
Knowledge and skill competency	Behaviour competency
Be able to check for accuracy bank statements, utility and other bills.	Periodically check for accuracy bank statements, utility and other bills.

Making Financial Choices

Saving

a) Keeping money safe	
Knowledge and skill competency	Behaviour competency
Recognise the options available to keep money safe.	Keep money in a safe place.
b) Saving money	
Knowledge and skill competency	Behaviour competency
Begin to understand that saving can offer options for planned future spending.	Save money for planned future events.

Saving (continued)

c) Using a bank account for saving money	
Knowledge and skill competency	Behaviour competency
Understand keeping money in an account.	Keep money in a bank account.

d) Forms of saving money	
Knowledge and skill competency	Behaviour competency
Understand the different ways of saving and places to save.	Use methods of saving appropriate for planned future spending.

Borrowing

a) Implications of debt	
Knowledge and skill competency	Behaviour competency
Begin to understand the implications of being in debt.	Repay loans in accordance with terms and conditions.

b) Managing debt	
Knowledge and skill competency	Behaviour competency
Begin to understand how to plan and manage household debt.	i) Keep a record of household borrowing and repayments. ii) Ensure household debt can be repaid from household net cash flow. iii) Ensure household debt can be repaid if an unexpected event occurs.

c) Forms of debt	
Knowledge and skill competency	Behaviour competency
Understand different forms of debt and related terms and conditions.	i) Use short term debt effectively to manage household cash flows. ii) Use medium-long term debt effectively to purchase items not able to be purchased from regular income.

Making financial decisions

a) Cost of money	
Knowledge and skill competency	Behaviour competency
Understand that you need to pay (interest) to borrow money and will be paid (interest) money if you save money.	Monitor the interest rate and interest received on household deposits and the interest rate and interest charged on household loans.
Begin to understand that interest rates vary over time.	Ensure household financial commitments allow for adverse changes in interest rate.

b) Financial terms and conditions	
Knowledge and skill competency	Behaviour competency
Begin to understand that both savings and borrowing are offered on differing terms and conditions.	Compare different savings or borrowing options against household requirements before entering into, or when reviewing, a financial commitment.

c) Financial organizations	
Knowledge and skill competency	Behaviour competency
Know about and understand the roles of financial organizations.	Select a financial organization based on suitability and risk.

d) Local/National financial issues	
Knowledge and skill competency	Behaviour competency
Begin to understand that local/national finance can impact on your own life and personal finances.	Be informed about local and national financial issues.

Planning Ahead

a) Budgeting	
Knowledge and skill competency	Behaviour competency
Understand how to use simple budgets as a means of planning and controlling spending.	Develop and utilise a simple overall household income and expenditure budget.
Understand how to use detailed budgets (and other ways of recording income and expenditure) to plan and control personal spending.	Develop and utilise detailed household budgets for different components of household income and expenditure.
b) Planning	
Knowledge and skill competency	Behaviour competency
Begin to be able to plan and think ahead, considering choices based on financial information gathering, identifying needs and what needs to be spent.	i) Develop household financial goals and a plan to achieve the goals. ii) Monitor achievement of the household's financial goals and periodically adjust the household financial plan as the household's situation changes.
Begin to understand the consequences of having more or less money.	Have a workable contingency plan to cover potentially negative changes in the household financial situation.
Be able to identify short, medium and long term needs. Begin to understand the difference between short term and long term financial commitments and how planning and decision making for these differs.	Identify and differentiate short, medium and long term household needs. i) Differentiate between short term and long term financial household commitments. ii) Develop separate financial plans to cover short term and long term household financial commitments.

Getting Help

a) Obtaining financial advice	
Knowledge and skill competency	Behaviour competency
Begin to understand different sources of advice/information, how to access such information/advice and know some local contacts, including advice on managing debt.	Access locally available reputable sources of financial advice.
b) Critically assessing advice	
Knowledge and skill competency	Behaviour competency
Understand that different people and organisations may give different advice on finances.	Critically review finance advice, or consult multiple sources of advice before entering into a financial commitment.
Be aware of the purpose of advice, advertising and marketing information and how it might influence customer choice.	Critically assess advertising or marketing material, or seek advice, before entering into a financial commitment.

Appendix 3: Survey Instrument

Principals Used to Develop the Instrument

In order to ensure valid data was collected a set of principles was established to guide the development of the data collection instruments:

Develop an understanding of the village environment:

Answers provided by villagers are contextualised relative to their village environment. It is therefore important to understand key environmental influences. A separate survey instrument was required for village level information.

Develop an understanding of household financial behaviour and wellbeing:

The primary focus of the study is to develop an understanding of the financial knowledge and skill and the financial behaviour of key household financial decision makers, and the impact this has on household wellbeing.

Collect data in Fijian, using bi-lingual interviewers:

The language spoken in villages is Fijian. It was considered inappropriate to undertake the study in English. Interviewer data collection was considered preferable to self-completion as villagers' primary method of information transfer is verbal.

Use forced choice and tabulated questions as the primary data collection method:

To ensure commonality across interviewers and households, it was considered preferable to use forced choice questions and standard tabulations of household financial and economic activity. Closed questions are more specific than open questions and more likely to communicate the same frame of reference to respondents (Converse & Presser, 1986, pp. 33-38).

Use existing instruments:

It was considered preferable to use existing instruments rather than to seek to develop an instrument de novo. Preference would be given to instruments which had been used in a range of environments and which could be localised for conditions in rural Fiji.

Use validated scales:

It was considered preferable to use scales previously validated in a cross-cultural context to collect data in respect to attitude to money and subjective wellbeing.

Accept respondents' answers:

It was not considered feasible to require respondents to substantiate the truth of their answers, in particular their answers to questions relating to household income and expenditure and assets and liabilities. Verbal reports can be accepted as data (Ericsson & Simon, 1980). Respondents were not required to substantiate the date they stated they had purchased household or agricultural durables or to produce product receipts for expenditure. Land area under cultivation, farm receipts and business receipts were not validated. It was determined this would be too intrusive and would result in significant reluctance by villagers to participate in the study.

Elements of the Village Survey

The objective of the village survey was to obtain contextual information, primarily to inform the analysis of the household surveys. A standard template was used for data collection. Information was collected by an interview with the village *Turanga ni Koro*⁶³. The interview was conducted by the leader of the village interview team. One survey was completed for each of the fourteen villages which participated in the study. Data was collected in respect to the following topic areas:

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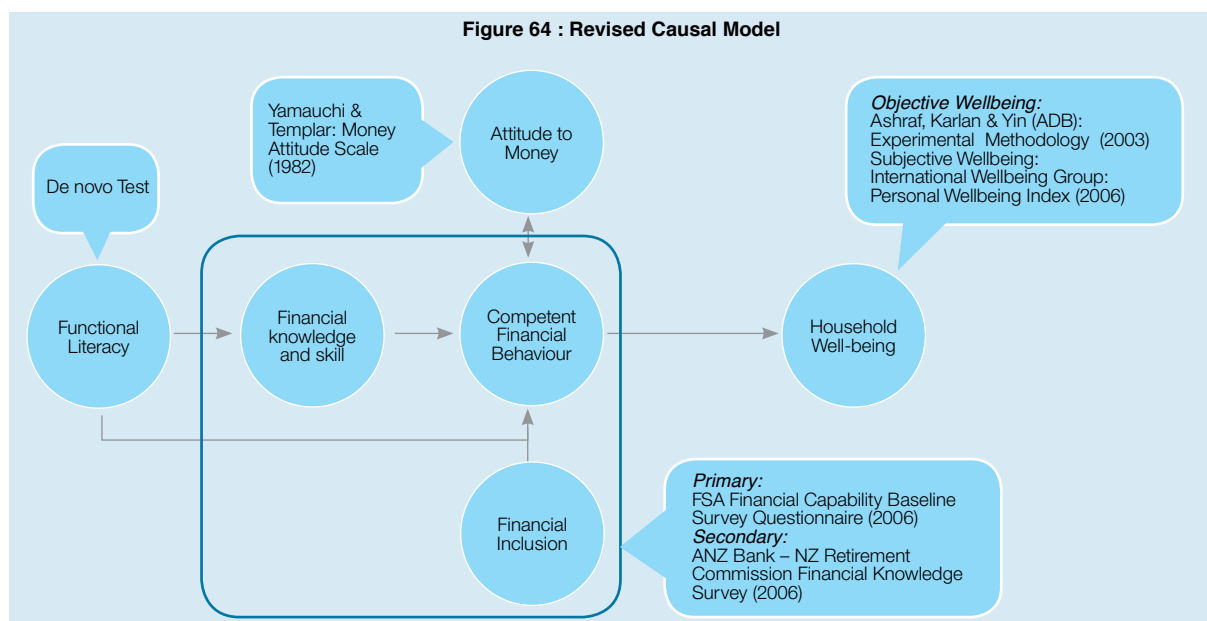
Table 40: Village Survey Elements

Topic	Data
Financial literacy training and Rural Banking Service	Date of training/commencement of Rural Banking Service. Households participating
Access and geography	Distance to nearest town, bank, schools and medical services. Road access.
Population	Village population, households, working age population.
Sources of income	Principal sources of income
Projects	Current village and church projects
Services	Access to public transport, health services, household electricity
Environmental influences	Recent positive and negative environmental changes

Information provided by the *Turanga ni Koro* was not independently verified for accuracy. However, a comparison was made with the 1996 census to determine the difference between the reported village population and the population reported at the last census.

Elements of the Household Survey

The following instruments were used as the base components for the Household Survey. As there was no suitable instrument to measure functional literacy a brief test was developed:



Functional Literacy

The test of functional literacy comprised two components:

- A brief literacy test
- A brief numeracy test

The functional literacy test was not intended as a formal test of respondents' level of literacy or numeracy, but as an indicator of functional literacy. The test was based on the Fijian language version of the ANZ Rural Banking brochure. The literacy questions were designed to measure respondent's ability to identify key information contained in the brochure. No interpretation was required. The English language reading level equates to OECD Level One (Murray et al., 2005; OECD, 2000). The Fijian language reading level cannot be determined. The English language version was pre-tested by administration to a group of randomly selected 9-11 year old native English speakers, each of whom was able to answer the questions successfully.

The numeracy questions tested respondent's ability to use common arithmetic operations, including common compound operations (for example adding two figures and then multiplying the sum by a third figure).

Financial Knowledge and Skill and Financial Behaviour (including Financial Inclusion)

The financial knowledge and skill and financial behaviour components of the household survey were derived from two instruments:

- FSA Financial Capability Baseline Survey Questionnaire (2006)
- ANZ Bank – NZ Retirement Commission Financial Knowledge Survey (2006)

The FSA survey was used as the primary instrument. Additional knowledge and skill questions were sourced from the ANZ-NZ Retirement Commission survey. The FSA and ANZ survey components were mapped to the FSA Financial Capability Framework. Questions used to develop the draft instrument were those which measured the draft set of competencies to be tested by the study. The draft questions were then workshopped (in conjunction with the draft competencies), with the working group and a comprehensive set of questions was developed examining financial knowledge and skill and financial behaviour within the context of the set of competencies relevant for rural Fiji.

Attitude to money

The Money Attitude Scale (MAS) (Yamauchi & Templer, 1982) was selected as the most appropriate scale for use in the study. The MAS is psychometrised and has been validated in a context in which respondents are less likely to be educated beyond secondary school and are also likely to be less familiar with the contemporary money economy⁶⁴. The scale comprises 32 items and can be efficiently administered as part of a broader study. The use of the Yamauchi and Templer scale provides an opportunity to determine whether a common factor structure exists between respondents in a developed economy, an urbanised developing economy and a rural developing economy. Four questions from the MAS were excluded as these questions relate to respondents quality focused choice set. The questions were not considered to be relevant, and therefore meaningful, in the context of purchasing behaviour in remote rural Fijian villages.

Subjective wellbeing

The Personal Wellbeing Index (International Wellbeing Group, 2006) has been validated in a broad range of studies in a range of cultural settings and has been successfully translated into several languages. The Scale comprises nine elements and was suitable for inclusion as part of a broader impact assessment.

Objective wellbeing

The ABD Experimental Methodology for evaluation of savings product innovations (Ashraf et al., 2003) provides a framework and templates which were readily adaptable for use in the present study. The templates enable a comprehensive overview of household (and related enterprise) economic portfolios to be developed.

Structure of the Household Survey

The financial knowledge and skill and financial behaviour questions were grouped into common activities. The activity grouping proposed by the FSA (2006) was used. Knowledge and skill questions generally preceded behaviour questions in order. A set of Show-cards was developed to support key questions. The survey sections were ordered to facilitate administration. Two versions were developed to simplify administration:

- A version to be administered to men which (inter alia) asked objective wellbeing questions in respect to the Farm and/or Business
- A version to be administered to women which (inter alia) asked objective wellbeing questions in respect to the household assets, health, and age structures.

The survey is, against any measure, very long. The minimum number of questions (depending on use of financial services) is 270, the maximum 331. The working group considered rural villagers would be willing to participate for up to three hours and interest in the survey would facilitate participation.

Translation

Translation is always complex. Translation of the survey from English to Fijian has an additional layer of complexity as the Fijian language has few words to encapsulate financial constructs commonly taken for granted in English and has

64 Refer Medina (1996)

no equivalent for terms such as: Credit card, ATM card, or (financial) loan. In addition to ensuring accurate translation, it was important not to effectively answer questions when translating constructs.

There is no perfect translation model. The commonly used translation/ back-translation approach was not considered satisfactory due to the need to carefully consider definitions used to describe key terms and the risk that the use of two translators would reduce confidence in the translation of key constructs. Geisinger's (1994) modified direct translation methodology was employed as the translation technique uses an open panel review which is better able to consider the success of the translation of financial terms. Geisinger's model was amended to include elements of Brislin's (1973) 'Ultimate Test' methodology. An independent pre-translation English language review was also conducted to ensure the wording of the English language version was suitable for translation into Fijian. Following direct translation, group review and adjustment of the translated text, the English language and Fijian language versions of the survey were administered to the team of interviewers at the commencement of the training program (in two tranches with 50% completing the English version and 50% completing the Fijian version in each tranche). Each interviewer was fluent in English and Fijian and understood the key financial terms. Following dual completion of the survey, responses to both versions of the survey were compared and further adjustment was made to the translation.

Table 41: Household Survey Questions

Section	Sub-section	Questions
Demographics		7
Functional Literacy		11
Managing Money	Making Payments	13
	Managing Income	8
	Managing Expenses	32
	Taxes & FNPf	17
	Keeping Records	14
Making Choices	Saving	33
	Investing	21
	Borrowing	37
	Cost of Money/Financial Terms	13
	Financial Organisations	11
Planning Ahead	Budgeting and Planning	29
Getting Help	Seeking Advice	9
Attitude to Money		38
Subjective Wellbeing		8
Objective Wellbeing	Household	9
	Farm	12
	Business	9
Total Questions		331

Appendix 4: Sampling

Multi-stage cluster sampling (Babbie, 2004, p. 210) was used to select households to participate in the study.

Determination of the Population of Interest

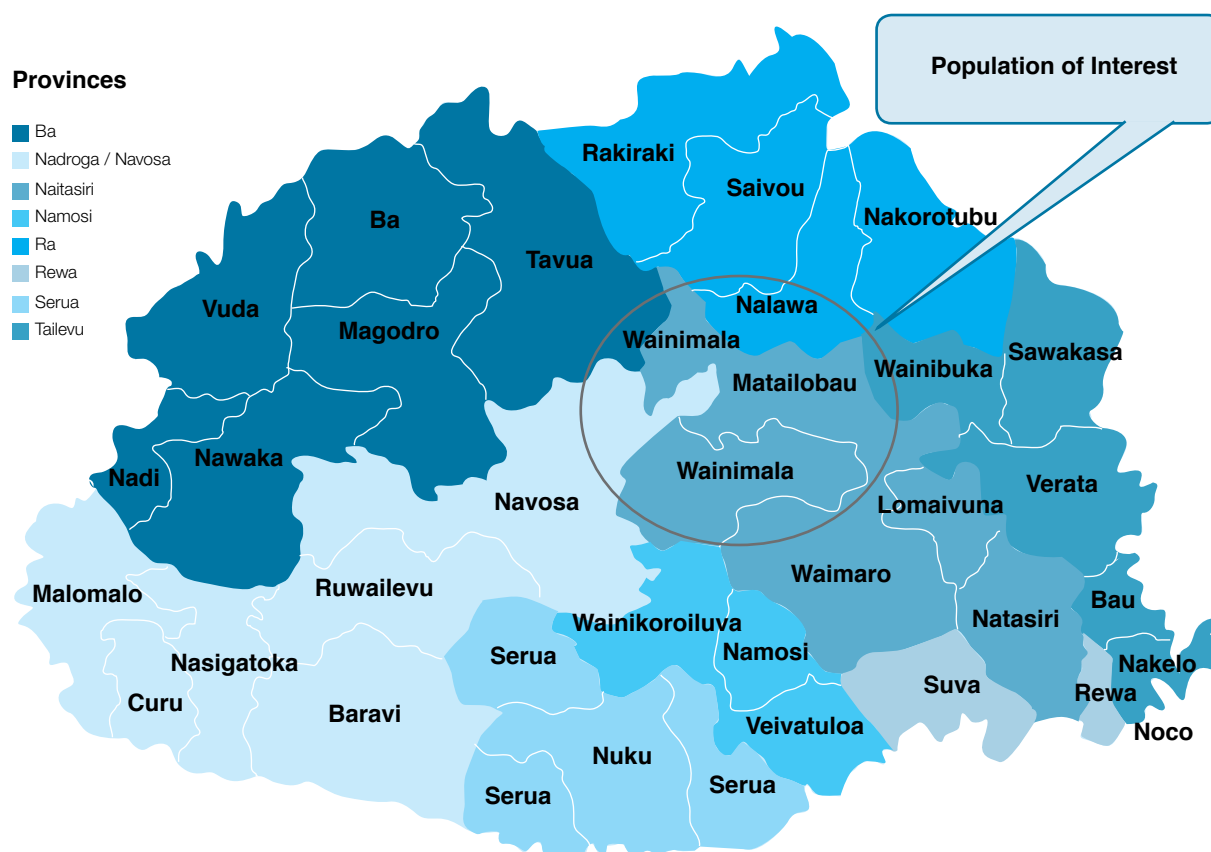
The study focused on Fijian villages on the main island of Viti Levu rather than Indo-Fijian settlements for two reasons:

- Both the rural banking service and the financial literacy training were centered on rural villages in Viti Levu.
- The Fijian communities evidence a high level of cross-community and intra-community commonality. Community structures, traditions, lifestyles, sources of income, family structures and roles are very similar across households and villages. Consequently a broad range of social economic and cultural factors can be controlled. This would not be possible if the research included the more diverse Indo-Fijian community.

Naitasiri Province was selected as the most appropriate region from which to sample as:

- Financial literacy training workshops were held in villages in Naitasiri
- ANZ Rural Banking regularly visited villages in the Province.
- There is socio-cultural and geographic homogeneity
- Villages derive income primarily from agriculture
- Access to day-day banking services was difficult. All villages were at least 20km from the nearest bank, Post Office, ATM or EFTPOS terminal
- There were no other savings services (village bank, MFI, credit union) available to villagers.

Figure 65: Geographic Focus for Study
Provinces and Tikinas - Viti Levu



Naitasiri, Waimaro and Lomaivuna Tikina were excluded due to proximity to the Suva-Nausori corridor. An initial population of 49 villages met the sampling criteria:

Due to the small number of villages which had not received financial literacy training, these villages were excluded from the sample. In addition, villages which did not receive Rural Banking visits but were adjacent to a village which did receive visits ($\leq 1\text{km}$) were excluded, along with villages which were on the Rural Banking schedule but were only visited occasionally. A final population of 25 villages was determined: Six villages were randomly selected from the set of villages in each cell. Remaining villages were held in reserve in the

Table 42: Initial Village Population

	Rural Banking Visits	No Rural Banking Visits
Financial Literacy Training	21 villages 780 households	21 villages 600 households
No Financial Literacy Training	2 villages 76 households	5 villages 148 households

event there were insufficient households in the selected villages. During enrolment two additional villages were required in order to achieve the required minimum number of completed surveys.

Enrolment

The Provincial Council and village elders were approached to gain permission to conduct the study. Formal protocols were observed. Households were also formally enrolled in the study. A presentation was made by the National Centre for Small and Micro Enterprise to the Provincial Council and agreement to participate was gained. Following this meetings were held in each village with village *Turanga-ni-Koro* and other village elders to gain agreement to

Table 43: Final Village Population

Rural Banking Visits	No Rural Banking Visits
8 villages	17 villages

participate. Following agreement, meetings were held in the village to outline the study and to answer questions. Each household was then visited by the enrolment team, information about the study was provided and individual agreement to participate was gained. Enrolment was undertaken over a two month period, with all villagers having the opportunity to consider whether they wished to participate in the study.

Selection Bias

Random sampling was the principal means of controlling for selection bias. All households, including control households (households which did not have access to the Rural Banking Service and which had not participated in the

financial literacy training) were selected from cells within a common population. Selection bias risks were identified and managed:

Table 44 : Selection Bias

Selection Bias ⁶³	Management
Difficulties in finding a location at which the control group's economic, physical and social environment matches that of the treatment group	This was not an issue due to the high level of socio-cultural and economic homogeneity
The treatment group systematically possesses an 'invisible' attribute which the control group lacks (often identified as entrepreneurial drive and ability)	There was a risk of selection bias in respect to participation in the financial literacy training workshop by households in villages visited by the Rural Banking Service and villages which were not visited by the Rural Banking Service, as it was possible there could be different motivational factors depending on access to banking. Villagers who did not attend the training were asked why they did not attend. There was no difference in the structure of the answers between households in villages visited by the Rural Banking Service and villages not visited by the Rural Banking Service. The overwhelming majority of respondents who did not attend stated they were absent because they were not in the village at the time the training was held. Consequently motivational bias between sampling cells was considered to be minimal.
Receiving any form of intervention may result in a short term positive response from the treatment group (Hawthorne Effect)	The study undertaken 2.5 years after the financial literacy training was held in the villages and the Rural Banking Service commenced in the villages.
The control group becoming contaminated by contact with the treatment group	This is inevitable in respect to participants in the Financial Literacy training. However due to geographic constraints between villages which receive Rural Banking visits and villages which do not receive visits, this is considered unlikely in respect to the Rural Banking Service
The fungibility of the treatment.	This is only an issue for the Rural Banking component of the intervention and is not an issue for the present study as the focus of the Rural Banking Service is on savings rather than credit, the purpose of which is often not determined prior to commencement of saving, as opposed to credit, the purpose of which must usually be specified at the time of applying for the loan.

Unit of Measure

The principal unit of measure used for the study was the family. The World Food Organisation definition⁶⁶ was used:

A type of household consisting of two or more persons related by blood, marriage or adoption who also satisfy the conditions of sharing the same housing unit and making common provisions for food and other essentials of living.

Household income was modeled on a farm-household model with joint income and asset utility between the adult household members (Chen & Dunn, 1996). Consequently the Household Economic Portfolio encompasses household expenditure and assets, farm income, expenditure and assets, business income, expenditure and assets and wage/ salary income (if present). Households were measured on an individual basis and no attempt was made to measure economic linkages within the village.

Within the family, the principal male and female financial decision makers (Principal Financial Actors) were identified. The Principal Financial Actors were usually, but not exclusively, the husband and wife.

Target Household Sample Size

It is difficult to estimate the likely effect (J. W. Cohen, 1988) between cells in the sampling frame. In the absence of other information a 'medium' effect ($W^2 = 0.06$) was assumed between Control and Treatment cells. A primary objective of the sampling is to ensure a high Power (≥ 0.80). A minimum sample size of 44 households (88 PFA's) per cell was established (Erdfelder, Paul, & Buchner, 1996; Keppel & Wickens, 2004, pp. 172-173). In order to allow for inaccurately completed surveys, a target sample size of 50 households per cell was established.

Selection of Households

Households in each village were mapped to the following sampling grid:

Households were randomly selected from households willing and available to participate in the study. On average 28% of households in villages participating in the study were surveyed:

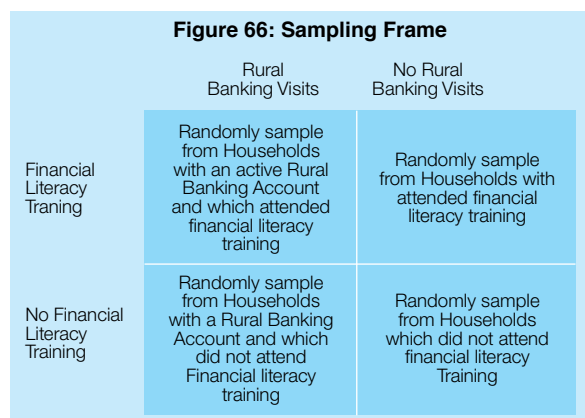


Table 45 : Villages and Households Participating in the Study

Village	Rural Bank Visits	#Households	#Households Sampled	%Households Sampled
Naitavoli	No	32	14	44%
Laselevu	Yes	32	13	41%
Nadovu	Yes	34	9	26%
Lomai	No	50	29	58%
Nauluvatu	Yes	48	15	31%
Naivucini	Yes	107	15	14%
Nakorasule	Yes	113	16	14%
Nasele	Yes	32	9	28%
Delailasekau	Yes	32	7	22%
Naseuvou	Yes	36	6	17%
Sawanikula	No	62	34	55%
Bukunivatu	No	13	6	46%
Botenaulu	No	30	17	57%
Nabukaluka	Yes	126	16	13%
Total		747	206	28%

66 http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/---stat/documents/normativeinstrument/wcms_087510.pdf

Completed surveys

The target of 200 households surveyed was achieved. In total 389 surveys were completed. Each of the surveys completed was useable. A sample size of at least 44 households per cell was achieved for three of the four sampling cells. However, a sample size of 34 households was achieved for the cell representing households which attended the financial literacy training but did not have a Rural Savings Account. On the assumption of a 'medium' effect, the probable power for this cell is therefore slightly lower (estimated to be 0.60).

Table 46 : Completed Surveys

	Rural Banking Visits	No Rural Banking Visits	
Financial Literacy Training	91	63	Est. Population
	48 (49)	63 (103)	
No Financial Literacy Training	179	414	Sample HH (Sample Ind)
	34 (51)	61 (186)	

Appendix 5: Fieldwork

Timeline

The initial project timeline telescoped due to need to revise the research design and sampling following the political events of December 2006. The need to restructure the project added approximately 12 months to the project duration. Difficulties were also encountered in sampling which required time to resolve. Data entry was protracted due to the large volume and complexity of data.

Date	Activity
October 2005	Exploratory Fieldwork
December 2005 – July 2006	Project development
-	Research design
-	Instruments
-	Sampling
August 2006	Workshop to review proposed competencies and instrument
September 2006 – December 2006	Revision of competencies and instrument
	Initial translation of instrument
December 2006	Coup
January 2007 – June 2007	Project Restructure
-	Revision of Research Design
-	Revision of sampling
	Continuing translation of instrument
July 2007	Interviewer training and pilot
August 2007 – September 2007	Final revision of instrument
	Emergence of sampling issues and resolution
October 2007 – December 2007	Field work
February 2008 – January 2008	Data entry
August 2008	Presentation of initial results
October 2008	Solomon Islands Impact Study (partial replication)
February 2009 – Sept 2009	Analysis and write up

Pre-Test and Pilot

Completion Time

The English language version of the household survey was pre-tested with test respondents in order to estimate average question completion time. Question length varies significantly. The average time required to complete a block of questions of varying length averaged 45 seconds per question. A model of respondents was developed in order to estimate overall survey completion time. It was estimated the survey would typically take two hours to complete.

The duration of each completed interview was recorded on the Enumerator Checklist. The typical interview duration was between 1.45 – 3.00 hours.

Pre-Test and Pilot

The household survey was pre-tested during the interviewer training workshop. Questions were adjusted following a feedback session. The survey was subsequently piloted in two villages. The objective of the pre-test and pilot was to determine whether the survey could be successfully administered to rural villagers. It was evident from the pilot that interviewers were able to successfully administer the instrument to villagers. It was also evident villagers were willing to answer all questions in the survey. Villagers participating in the pilot provided feedback in respect to elements of the survey they considered could be improved. Following the pilot the ordering of questions was revised. Villagers' responses were analysed to determine whether there were indications questions had not been understood, in particular questions relating to financial constructs. There were no indications in answers provided of misunderstanding or reluctance to answer.

Data Collection and Field Work

Field Work

Data collection was managed by the National Centre for Small and Micro Enterprise Development. An initial group of interviewers was selected following an advertisement in several national newspapers. An initial group of twenty interviewers was selected to participate in the interviewer training workshop. Following the workshop a group of twelve interviewers was selected to undertake the field work. All candidates were fluent in Fijian and English and had prior experience as interviewers. Several interviewers were familiar with and had participated in the financial literacy training workshops.

Interviewer training took place over three days in June 2007. However, due to environmental issues data collection could not commence until October 2007. Two teams of interviewers travelled to villages, staying in villages and interviewing in the morning or evening. Male and female PFA's were interviewed separately in order to promote open answering of questions. UNDP Pacific Centre employed a full time coordinator to support the team of interviewers. An independent auditor was also employed by UNDP Pacific Centre to review surveys in order to ensure surveys were completed correctly and in accordance with the interview protocol.

Data collection was completed December 2007. The completed surveys were sent to Australia for data entry and analysis late January 2008.

Data Entry

Data entry took place during 2008. Due to the number of surveys and complexity of questions, data entry was undertaken in two tranches. Simple questions were entered by teams of students at Central Queensland University Melbourne Campus under the supervision of two experienced researchers. Students attended a training workshop prior to commencing data entry and undertook data entry in pairs. Entry of the complex questions was undertaken by the principal researcher. Data was entered into Excel spreadsheets, which were merged, consolidated and checked. Surveys were sample checked for accuracy. Two questions were not included in the merged data set as it was discovered during data entry these had been misinterpreted by some interviewers and had not been completed correctly. The questions were independently re-translated. A possible ambiguity was discovered and the questions were excluded from the data set.

Appendix 6: Financial Competency Workshop

WORKSHOP ON FINANCIAL COMPETENCE CROSS-SECTIONAL SURVEY OF RURAL COMMUNITIES IN FIJI
10 & 11 August 2006, UNDP PC, 2nd Floor, JJ's on the Park, Suva

List of Resource Participants

Fiji Bureau of Statistics

1. Epli Waqavonovono, Chief Statistician, Household Surveys

Reserve Bank of Fiji

1. Christina Rokoua, Manager Financial Institutions Supervision 3
2. Abdul Habib, Analyst, Policy, Research & Statistics, Financial Institutions Group
3. Abigail Chang, Analyst, Policy, Research & Statistics, Financial Institutions Group

Microfinance Unit, NCSMED

1. Luse Kinivuwai, Director
2. Luse Motoya, Financial Literacy Coordinator
3. Akanisi Waqanicakau, Research Officer

Foundation for the Peoples of the South Pacific International (FSPI)

1. Leonie Smiley, Project Coordinator, IFAD MORDI Program
2. Vikash Kumar, Regional Training, Monitoring and Evaluation Officer, MORDI

ANZ Bank Rural Banking

1. Aporosa Draunibaka, Fiji Rural Banking

Massey University, NZ

1. Jonathan Sibley, Survey Designer & Researcher

UNDP Pacific Centre

1. David Abbott, MDG and Poverty Reduction Team Leader & Macro Economist
2. Jeff Liew, Regional Sustainable Livelihoods Specialist
3. Roderic Evers, Regional Entrepreneurship Development Specialist
4. Tom Victor, Financial Literacy Master Trainer (short-term consultant)

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