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THE IMPACT OF PERSONAL VIABILITY TRAINING ON GENDER RELATIONS IN MINING COMMUNITIES: THE CASE OF LIHIR, PAPUA NEW GUINEA

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2010

The Impact of Personal Viability training on Gender Relations in Mining Communities: The Case of Lihir, Papua New Guinea

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of the requirements for the degree of
Master of Philosophy in Development Studies
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Bernadette Vaita HARO

2010

DEDICATION

This thesis is a special dedication to my darling daughter, Elma Alstonia Ahoro Haro. I know the Lord in His own Divine way, has healed you completely from your ill-health. You have been the special reason and motivation in my life to keep focused and complete this thesis without any major extended time. I hold you dearly in my heart, but more so, I know the Lord is holding you even closer, in His bosom.

ABSTRACT

Personal Viability (PV), an entrepreneurial skills and personal development training program, has become a national phenomenon in Papua New Guinea since its introduction in the country in 1995. With the support of various key leaders in Government, civic and social organisations, the Government of Papua New Guinea officially launched the program in 1996 mandating the Entrepreneurial Development Training Centre (EDTC) to carry out the training in all 20 provinces of the country. This thesis is concerned with the influence of PV training in the context of large-scale natural resource development, with the focus on Lihir, an open-cut gold mine community in the New Ireland province of Papua New Guinea. Since the gold mine operation started on the island, Lihir has experienced dramatic social, economic and political changes as a society. One element of this has been the effect on traditional gender roles and relations as a result of people's increased engagement in the global capitalist economy. As PV is promoted as a contemporary strategy for economic development thus motivating people to cultivate a spirit of entrepreneurship, this thesis explores its influence on the lives of women and men in Lihir, and in particular their attitude and behaviour toward the usage and management of wealth and resources; their participation in customary activities; and changes in their traditional gender roles and relations.

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LIST OF ACRONYMS

AusAID	Australian Agency for International Development
BSP	Bank of South Pacific
CRO	Community Relations Office
DFCD	Department For Community Development
DoC	Department of Commerce
EDTC	Entrepreneurial Development Training Centre
FODE	Flexible and Open Distant Education
GAD	Gender and Development
GNP	Gross National Product
IBP	Integrated Benefit Package
IDS	Institute of Development Studies
IMF	International Monetary Fund
ISSO	International Student Support Office
IT	Information Technology
JNC	Joint Negotiating Committee
LGL	Lihir Gold Limited
LMALA	Lihir Mining Area Landowners Association
LMC	Lihir Management Company
LMIC	Lower Middle Income Country
LNG	Liquefied Natural Gas
LSDL	Lihir Sustainability Development Limited
LSDP	Lihir Sustainable Development Program
MTDS	Medium Term Development Strategy
MUHEC	Massey University Human Ethics Committee
NCD	National Capital District
NCDC	National Capital District Commission
NCS	Niolam Catering Services
NGO	Non Governmental Organisations
NRLLG	Nimamar Rural Local Level Government
NZAID	New Zealand Agency for International Development
PIDP	Pacific Islands Development Program
PMV	Public Motor Vehicle
PNG	Papua New Guinea
PV	Personal Viability
PWA	Petztorme Women's Association

SML	Special Mining Lease
SSI	Semi-Structured Interview
UNDP	United Nations Development Program
UNHDR	United Nations Human Development Report
WB	World Bank
WID	Women in Development

CHAPTER 1: INTRODUCTION

> "Personal Viability provides only the tool; the decision still rests with the people of PNG on how best they want to move forward in life" (Sam Tam, Jr., personal communication, March 2009).

1.1 Introduction

Although rich in natural resources, Papua New Guinea (PNG) has a history of heavy dependence on foreign aid which continues to the present time. Added to this is the country's dependence upon large-scale natural resource development, particularly minerals and natural oil and gas reserves, in its efforts to meet the dreams and aspirations of its own people. There is a painful paradox between PNG's natural richness and its persistence in falling behind in socio-economic indicators as compared to some of its neighbours in the Pacific.

This continual dependence, especially upon foreign aid and investment, pushed a Papua New Guinean-born Chinese businessman, Sam Tam, to develop in the 1990s what is now a national phenomenon in PNG, known as the Personal Viability (PV) training program. PV (as it is popularly known in the country) is claimed by Tam (1997) to be a home-grown program with strategies and values specifically designed for Papua New Guineans. The ultimate aim of the training program is to develop an entrepreneurial class in PNG to address economic inequality and national dependency on foreign aid and investment (Bainton, 2006). Through the support of key leaders in government, church associations, and village groups in the country, the PV program was officially launched by the PNG Government in 1996. Currently, throughout the country, training sessions are organised through the Entrepreneurial Development Training College (EDTC), Tam's privately run business. EDTC claims the training program has been conducted in all 20 provinces of the country.

Although PV has now become a national phenomenon, this thesis is concerned with its impact on gender relations in the context of large-scale natural resource development in PNG. For this purpose, this thesis is focused on Lihir, a gold mine community in the New Ireland province of PNG, as the study site. Lihirians were introduced to the PV course in 2003 and since then a number of their leadership had hoped to learn and adopt some of the strategies and values suggested in the course to address Lihirians' continued dependency upon the mine, a factor which has also brought economic inequalities over the years (Bainton, 2006). The Lihirians' response to PV also brings into focus how Papua New Guineans are responding to their own engagement in the global economy, thus exploring contemporary ways of managing political and economic change in their quest and desire for prosperity and economic development, whilst

at the same time striving to maintain their cultural values and practices to retain the core of their identity.

This response is further complicated by the impact of shifting to a cash-based society on traditional, reciprocity-based social relationships. Increasing engagement in the global economy thus brings with it contentious issues, and the whole process of change is inevitably affecting all levels of PNG society and impacting upon traditional gender roles and relations.

The remainder of Chapter 1 of this thesis provides an introduction to the rationale, aim, and key research questions, the significance of the project and its contribution to the existing knowledge on the impact of contemporary strategies on development. The chapter also provides the context of the study site, Lihir Island, and describes its location and historical setting, including the people and culture, land tenure and ownership, and gender roles and status. The historical cargo-cult movements in Lihir are also briefly introduced with the aim of shedding some light and bringing into focus Lihirians' response to the arrival of the mine and the strategies and values of the PV training program. The chapter concludes with an outline of the thesis organisation.

1.2 Rationale of research

My interest in this thesis grew out of the popularity of the PV training program in PNG which gained significant momentum from the late 1990s. Although the program first started in the country in 1995, I only heard about it in 2005 when the media in PNG started reporting on it. My curiosity was aroused even further when various key leaders in the country described it as 'the answer for Papua New Guineans' (Sir Paulias Matane, current Governor General for Papua New Guinea, made this comment in *The National* in 2005). PV is an entrepreneurial skills and personal development training program, said to be designed specifically for Papua New Guineans (Tam, 1997). These two statements definitely caught my attention at the time and caused me to question the program's effectiveness. PV was being referred to as "education from the inside" (Unage, 2006) and was recommended for every Papua New Guinean, with the whole population urged to attend the training program to experience the difference that this training could make in their lives. In addition, PV emphasises the notion of 'hard work' for people who want to attain material wealth and become financially independent; it also advocates bringing families and communities together to work as a team (Tam, 1997). Given the diversity of the country in terms of its cultures, people and languages, I was sceptical of how this concept would work in a context such as PNG for two main reasons.

Firstly, the country is rich in natural resources and I was particularly dubious that the concept would work in natural resource-rich communities where people receive royalty and

compensation payments, and there is waged employment of indigenous people by the mining companies as well as other spin-off benefits typical of large-scale resource extraction or development. An obvious thought that further triggered my scepticism was the fact that these benefits are perceived to be 'free money' for those receiving them; hence, the notion that hard work is needed to attain material wealth and financial independence would be irrelevant in these contexts and people would not see the need for such training.

Secondly, the notion that PV training would bring families and communities together to work seemed interesting since in traditional Papua New Guinean societies this was already the case; I was particularly interested in how the PV training would encourage this and whether its focus was on promoting the Western idea of individual and nuclear families, as opposed to the extended families with which Papua New Guinean societies identify. If PV was promoting nuclear families working together, then how would this fit and, if it were to be adopted, what impact might it have on traditional gender roles and relations, particularly at the household level in PNG communities where even today women's and men's roles are strictly defined. Hence, my curiosity concerning these questions and issues was the main reason why I was prompted to further research PV. I brought these initial perspectives and angles on PV to my work, but at the same time was mindful of the fact that PV, like many other contemporary and so-called development initiatives, was new knowledge entering the country and its impact, whether negative or positive, was very much dependent upon how ordinary Papua New Guineans would respond to it.

1.2.1 Research aim and key questions

The aim of this thesis is to contribute to the literature and knowledge on the impact of contemporary strategies and values adopted by developing countries in the quest and desire for financial prosperity and economic development. Papua New Guineans continue to take advantage of and adopt new strategies and values (such as PV) which are introduced to them to manage political and economic change in their own contexts. These changes also impact upon traditional gender roles and relations in Papua New Guinean societies.

The thesis seeks to bring into focus the impact of the PV training program on gender roles and relations in large-scale natural resource development communities in PNG. The focus has been narrowed down to the context of mining, in particular mining on Lihir Island, a gold mine community in the New Ireland province of PNG. Apart from contributing significantly to the overall economy of the country, the mining industry also provides the opportunity for the indigenous population to receive royalty and compensation benefits for the use of their land for mining activities, and also provides an opportunity for them to be engaged in waged

employment. The impact of PV training on the usage and management of the money or wealth received from such benefits by women and men in Lihir is a central concern of this thesis.

Key research questions:

1. How does the PV training impact traditional gender roles and relations at the household level in mining communities in PNG?

The impact of PV on gender roles and relations is explored in this research in the context of understanding traditional gendered roles in the accumulation and distribution of wealth in society. Traditionally, women's and men's roles were defined within society and daily tasks and responsibilities were fulfilled accordingly. With increasing engagement in the global economy, these defined roles are changing and thus affecting women's and men's roles and responsibilities in providing for their families.

The household serves as the place of residence for families, as well as the location where resources are pooled together and distributed according to individual needs. Accordingly, this research seeks to better understand the social and economic relationships between women and men. The household is the primary unit where decisions are made based on the needs of family members, and it is at this level where the first key research question was focused.

2. How does the PV training influence the economic attitude and behavior of women and men in mining communities in PNG?

The second key research question is primarily concerned with attitude and behaviour change and therefore explores the influence of PV training on the use and management of money and wealth by women and men. These attitudes and behaviours include the obligation to contribute to and participate in customary feasts and exchanges which are an important element of society and hence have a significant influence on individuals' personal development of entrepreneurial skills. In addition, taking on the development of new business activities as entrepreneurs usually requires motivation and training; hence the PV training offered through the EDTC. Specifically, I am interested as to what extent PV training provides people with opportunities to become active contemporary entrepreneurs in their given contexts. The differences in the priorities accorded by women and men toward expenditure before and after PV training are also explored within this key question.

1.2.2 Research significance and contribution to knowledge

The significance and contribution of this research can be understood within two main perspectives. First is the context of large-scale natural resources development, particularly within developing countries. Resource-rich communities caught up in such developments experience rapid socio-economic changes within a short space of time, thus creating tensions in trying to cope with and manage such changes including the wealth derived from these developments. The significance of this research then, is in the additional perspective it provides regarding the viability of PV training for PNG and other Pacific Island countries (such as Solomon Islands and Fiji, who have also embarked on using some of the strategies and values proposed by the PV training). The results of this research can be considered as an attempt to inspire and empower both women and men and to encourage a change in economic attitude and behaviour, if possible, toward creating wealth, placing value on the limited wealth available through natural resources, and using and investing well the rents received for such resources for the sake of future generations. In addition, the influence of PV is assessed in the context of changing traditional gender roles and relations as a result of increased engagement in the global economy and the transition toward modernity.

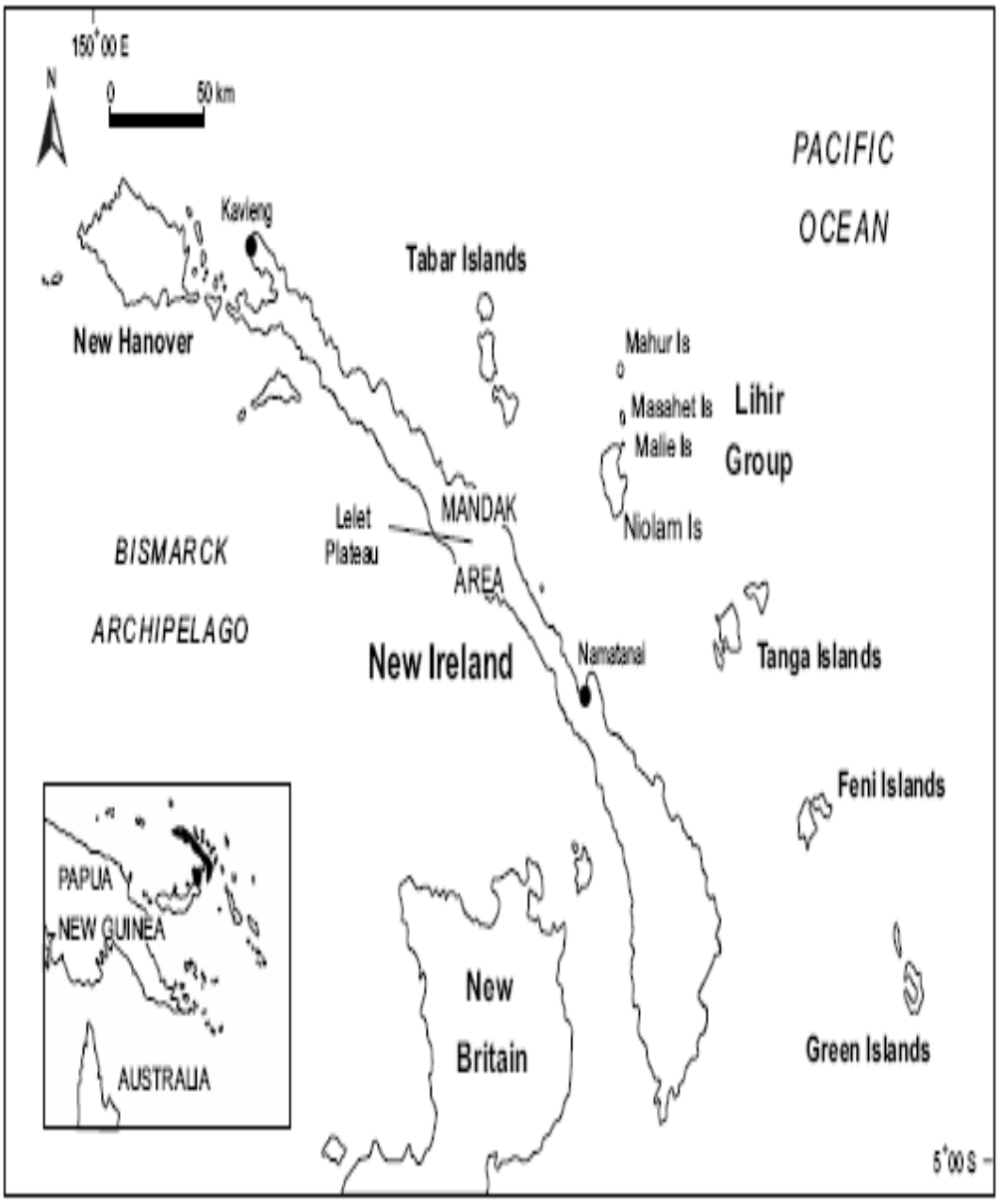
Secondly, this thesis contributes to an understanding of the tensions between the cultures of indigenous peoples in developing countries and the contemporary strategies and values for economic development being introduced to them for further engagement in the global economy. This thesis is placed in this context and contributes to the argument that indigenous peoples have been engaged in entrepreneurial activities in their own ways and in their own contexts for many generations and that when new and contemporary strategies are introduced to them over the years, these are approached from within the various indigenous contexts whilst at the same time the people strive to maintain the core of their cultural values and identities.

1.3 Location and context of study site: Lihir Island

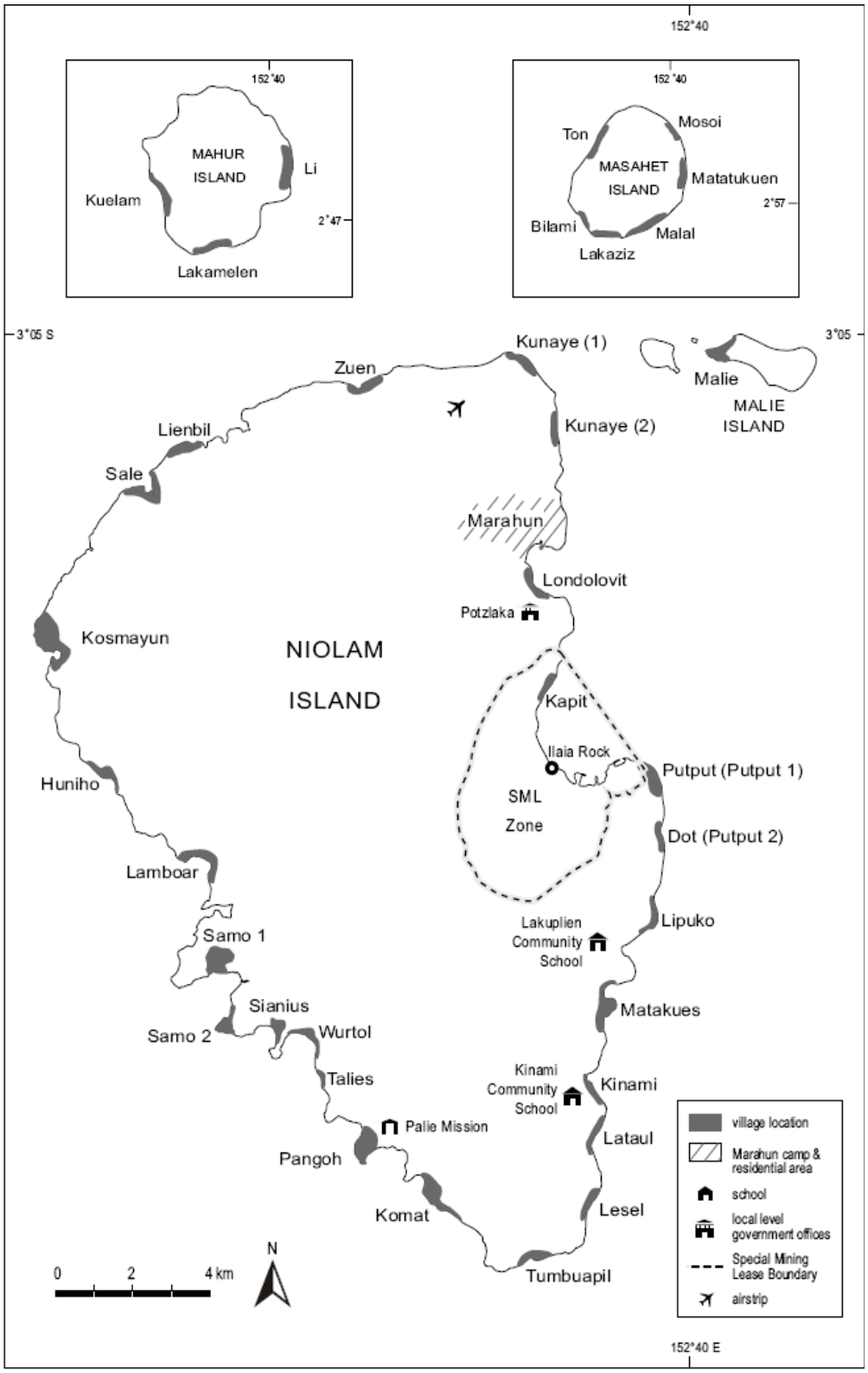
Research for this thesis was carried out in Lihir, a group of small islands north-east of Namatanai District in the New Ireland province of PNG (see Map 1). There are four islands that make up the Lihir Group of Islands, namely Niolam (the largest of the four with a total land area of 106 square kilometres) and to the north, the three smaller islands Mali, Masahet, and Mahur (see Map 2). The open-cut gold mine is situated in the Kapit Ladolam area on Niolam Island with a projected lifespan of 30 years[1] (Bainton, 2008, p.290). Lihir was formerly administered

[1] The mine was operated by the Lihir Management Company (LMC), a fully owned subsidiary of Rio Tinto, until October 2005 when Lihir Gold Limited (LGL), a publicly listed company, assumed full independent management (Bainton, 2008).

under the Namatanai District. However, when the mining development began it became a district on its own with Potzlaka as its headquarters (Lagisa, 1997, p. 3).



Map 1. New Ireland Province with the Lihir Group of Islands. (Source: Bainton, 2006).



Map 2 The Lihir Group

Map 2. The Lihir Group (Source: Bainton, 2006)

Lihir was chosen as my study site for two main reasons. Firstly, this research is about the impact of PV on gender relations in mining communities in PNG and since Lihir is currently a major gold-mining site in PNG there is an influx of money in the form of royalties, compensation, and waged employment for Lihirians. In fact, Bainton asserted that "more than 8 million kina[2] has entered Lihir each year since mining operations began in 1995, in the form of wages to Lihirian employees, royalties, and compensation payments" (2006, p. 32). Bainton also noted that by 2007, over 43 million kina in royalty and compensation payments were made and unevenly distributed in Lihir, creating further problems between 'landowners' and 'non-landowners' in the area (2008b, p.197). 'Landowners' in Lihir are those people who claim membership of the matrilineal clan groups who own land aliened for the purpose of mineral development (Filer, 1997; Golub, 2006). Given the large amount of money flowing into Lihir, it almost appears as if there is a free flow of wealth for Lihirians.

Secondly, my search to find a natural resource-rich community in PNG that had undergone PV training and was putting into practice some of its strategies and activities led me to the Lihir community. Some Lihir leaders have embraced some of the strategies and values behind PV since the introduction of the program to the island in 2003. The formation of the Lihir Sustainable Development Program (LSDP) is evidence of Lihirians' reaction to the PV training from the perspective of their own historical context. This thesis concerns itself with whether PV training has had any influence over the usage and management of the mine-generated wealth and hence, over the overall management of resources by women and men in contexts such as that of Lihir.

The following sections provide a brief background on aspects of Lihirian society that are critical to understanding responses to both the mine and PV training.

1.3.1 People and culture

Like most inhabitants of PNG, indigenous Lihirians are Melanesians (Lagisa, 1997) and historically and culturally they find themselves related to Tanga and Tabar island people as well as people from north-eastern central New Ireland (Skalnik, 1988 as cited in Lagisa, 1997). Lihirians speak their own language, called *Lir* (Lihir), and most Lihirians also speak and understand *Tok Pisin*[3] (Lagisa, 1997). Bainton, (2008b, p.196) noted that Lihir's population before mining operations began on the island in 1995 was approximately 6,000 people, and by

[2] Kina is the currency for PNG. Currently, 1PGK = ND$0.55, Bank of South Pacific (BSP) Exchange Rate as at 04/01/10, accessed from PNG Business Directory (www.pngbd.com) on 04/01/10.
[3] With over 800 languages in PNG, *Tok Pisin* as a *lingua franca* is widely spoken in most parts of PNG.

2006 had risen to 14,000 in addition to around 3,700 non-Lihirian migrants and around 1,000 national and expatriate 'fly-in-fly-out' workers.

Like many other societies in PNG and elsewhere, culture plays an influential role in the lives of Lihirians, and thus upholding and fulfilling customary obligations and responsibilities or *kastom* (custom) is a very important and significant part of everyday life. Lagisa observed that "cultural ideologies, beliefs and practices are incorporated into Lihir laws, which are influential in creating the kind of society they live in" (1997, pp. 6-7). In Lihir's case, *kastom* is "generally used in reference to the cycle of feasts and exchanges" (Bainton, 2008b, p. 209) which usually occurs in the men's house (*hausboi)*, the political and ritual centre of each village in Lihir (Macintyre, 2003). As a society, Lihirians are strongly committed to maintaining their cultural values and practices to the extent that at times, these take precedence over other issues in life, even today. For example, the mortuary feasts and exchanges which are really the celebration of the human life cycle are a very important part of Lihirians' way of life. Bainton observed that this is a major aspect of the New Ireland political economy which eventually ends in a series of feasts designed to 'finish' the deceased members of a particular lineage[4] (Bainton, 2006). However, the maintenance of these values and practices today also hinges on how best women and men can play out and fulfil their roles in accordance with tradition, taking into account the dramatic changes in the social, economic, and political life of Lihirian society since mining operations began in 1995.

Lihirians are largely subsistence farmers by tradition and are engaged in growing such foods as yams, sweet potato, and cassava while using the sea to harvest small amounts of marine life, especially fish (Foale, 2004; Lagisa, 1997). Prior to mining operations, there were few opportunities for economic or income-generating activities. This was mainly due to the isolation of the island from mainland PNG, which made it difficult for many Lihirians to engage in economic activities such as cash cropping and other small-scale business projects. Added to the issue of isolation was the expense of travelling, via plane or otherwise, to and from Lihir. While a number of families had once farmed copra and cocoa plantations, with the fluctuation in prices for these cash crops the only remaining evidence of economic activity prior to mining operations are the senile blocks which became neglected as people moved on to greener and more reliable pastures (Bainton, 2008b). More specifically, the people went about securing an income through the opportunities created by the mine. Apart from their significance in fulfilling customary obligations and responsibilities, traditional wealth such as pigs and *mis* (shell money) were also exchanged for cash whenever needed.

[4] See Bainton 2006 for a more detailed discussion of the mortuary feasts in Lihir.

1.3.2 Social and politico-economic context

Until recently, Lihir was like many rural PNG communities – neglected by the government in terms of social and economic development, mainly due to its geographic isolation from mainland PNG, which further contributed to Lihirians being economically marginalised within the country. Following the discovery of gold on the island, Lihir began to stand out as one of the most important areas of focus for the PNG government in its current pursuit for economic development. For Lihirians, the current situation is a sharp contrast to the neglect showed by successive PNG governments in the past. Against this backdrop, Lihirian leaders have continued to drive a hard bargain to this day when it comes to negotiating the overall development of Lihir[5], with the aim to minimise the State's involvement in Lihirian affairs as much as is possible.

Lihirians have always envisioned a life of prosperity and unlimited wealth, believing the predictions of their own leaders who were involved in politico-religious movements in the 1960s. Hence, when the mine opened in 1995 they were adamant that this was the fulfilment of these earlier dreams and visions. However, Bainton observed that the development of the mine brought with it greater divisions in Lihir society, largely due to the unequal distribution of the wealth from the mine. He further observed that as Lihirians became more exposed to the outside world they learnt more about their own economic marginality and the inherent inequalities that the mining industry could bring into their lives (2008a, p.289). Since mining negotiations started in 1980, Lihirian leaders have kept in full view the earlier dreams and visions of their ancestors and have sought to bring equal economic development for all Lihirians on their own terms and in their own context. However in reality, much of these efforts still remain rhetoric.

Politico-religious movements otherwise known as 'cargo-cult movements'[6] emerged in PNG in various forms. In Lihir's context, these movements were a result of Lihirians' marginality and discontent, and their desire for wealth and economic independence which did not seem forthcoming during the colonial period. Bainton observed that "these movements were a combined result of moral inequality between Lihirians and Whites and the gradual process of pauperisation that encompassed Lihir under the Australian Administration, generating a sense of 'economic frustration'" (2008a, p.290). If the process of pauperisation of Lihir holds true, the context in which Lihirians responded by forming such movements can be understood from the

[5] The Integrated Benefits Package (IBP) is an agreement between Lihirians, the PNG Government and Lihir Gold Limited (LGL), outlining all forms of compensation and development to be delivered by LGL to the Lihirian community. The first agreement was signed in 1995 and the first review was just completed in 2007 after a long negotiation process between the Joint Negotiating Committee (JNC) and LGL due to strong differences over the content of the agreement (see Bainton, 2008).

[6] Earlier cargo-cult movements in Lihir were Tutukuvul Isakul Association (TIA meaning 'stand up together to plant') which evolved into Tuk Kuvul Aisok (TKA meaning 'stand together and work) and later Nimamar, an acronym for the names of the four islands that make up Lihir Group of Islands, supposedly to imply 'unity'(Bainton, 2008).

perspective of their own struggles to fulfil their dreams and visions and realise their own potential. Given that their own efforts were also being continuously smothered by the colonial administration, the way in which they responded can be seen as a naturally fitting reaction. In a way, Lihirians have carried forward some of the defining characteristics of these movements to the present time. These have had a continuing influence on local ideology through the engagement of the contemporary political and economic climate in the context of the gold mine development[7]. The formation of the current Lihirian vision and plan (the LSDP) can thus be recognised as a continuation of earlier cargo-cult movements.

1.3.3 Land tenure and ownership

Land remains a significant asset for many, if not all, societies in PNG and Lihir is no exception. The people depend on the land for food, medicine, and other resources which they have used to survive for generations. The people's customary rights to land resources (and even marine resources) are the leverage they can use in any negotiations or dealings with the government or foreign companies, especially when it comes to large-scale natural resource development (Macintyre & Foale, 2007). Moreover Macintyre and Foale asserted that, in the case of mining, "access to land by a mining company is constrained by the fact that while the state owns the mineral deposits, the people remain the 'landowners', hence any mining company wanting to explore or exploit the resource must go through and negotiate with the local people" (p. 49).

As a matrilineal society, land and property rights in Lihir are passed down from the mother's clan lineage; that is, children belong to the mother's clan and can be allocated a block of land by her clan for subsistence agriculture, etc. They cannot claim individual ownership to it, as according to Lagisa (1997), land is not individually but communally owned. However, although Lagisa reported this observation, the context of the development of the gold mine in more recent years has prompted Macintyre and Foale (2007) to bring to light complexities involved in issues surrounding ownership of land. They pointed out the contradiction in landownership in Lihir, claiming that whilst Lihirians insist upon land being viewed as communal property, they also pursue individual registration of land to claim rights over it. Moreover, Macintyre and Foale asserted that the increasing tendency toward individual land registration must also be perceived in its social context, where any money derived from the use of land (particularly royalty or compensation for damage to it) is used to participate in customary exchanges that reaffirm traditional social ties and kinship. Whilst this may seem a paradox, Lihirians have taken advantage of what is at their disposal to magnify, indulge, and maintain the significance and importance of their *kastom* in their own context.

[7]See Bainton (2008a) for a detailed historical background of the cargo-cult movement in Lihir.

1.3.4 Gender roles and status

Due to the strong cultural values and practices that exist in Lihir, women and men have traditionally lived within defined roles and tasks and have been expected to fulfil them, although these roles were also complementary. Being a matrilineal society, Lihirian communities generally regard women as the backbone of their society (Lagisa, 1997). Women are the primary caregivers for the general wellbeing of their family and household. However, whilst women have contributed substantially to the economic life of Lihir society, they still have no political status (Macintyre, 2003), which was made overtly evident in their exclusion by men during the initial stages of discussions regarding the gold mine development (see Lagisa, 1997; Macintyre, 2003). Hence, women's domain still largely remains situated at the domestic and household level, even today.

Despite this, since mining operations began on the island some women have ventured out to find waged employment with the mining company and other contracting companies. Some are employed at the mine plant-site, although most of the jobs for women, as Macintyre (2006) pointed out, are still confined to domestic and cleaning duties with companies such as Niolam Catering Services (NCS) and most mining activities are predominantly geared toward the employment of male labour (Bainton, 2008b). Although women may appear to be gaining some ground and asserting their rights to gender equality through employment or political organisations (Macintyre, 2003), the male hierarchy is still dominant and sometimes is even manifested through physical violence (Bainton, 2008b).

Men also continue to dominate the public sphere of Lihir society where discussions are mostly centred on political and economic life and major decisions are made for the family, clan, and society at large. These discussions and decisions take place at the *hausboi* (men's house). However, Bainton asserted that in recent years Lihirian masculinity has also undergone a rapid transition in the context of the mine development, and is currently "characterised by ingenuity, disjuncture and struggles for legitimacy" (2008b, p. 195). Hence, contemporary Lihirian men increasingly find themselves caught between the burdens of tradition and modernity.

1.3.5 Lihir 'representation'

Typically, in the context of large-scale natural resource development, communities are represented through various institutions which serve as the 'voice' of the people. According to Bainton (2006, pp. 27-28), Lihirian representation takes place through a variety of institutions and bodies whose aim is to give some overall direction on community life and to deal with various social transformations in the context of the gold mine development. The main

organisations are the Lihir Mining Area Landowners Association (LMALA), the Peztorme Women's Association (PWA), the Nimamar Rural Local Level Government (NRLLG), and the church leaders who represent the various denominations throughout the island. Moreover, Bainton observed that while ideally these institutions would work together to serve the community, in reality they function in such a way as to ensure most Lihirians are not well informed about the political processes and decisions taking place on their island. Hence the power to 'represent' is concentrated in the hands of a few in a way that is novel in the traditional context.

1.4 Summary

This chapter has provided an introduction to the study topic and set the context for this thesis, including its rationale, aim, and research questions; significance; and contribution to current knowledge on contemporary strategies and values in the context of large-scale natural resource development in developing countries.

The location and context of the study site has also been identified, namely Lihir, an island community in the New Ireland Province of PNG. In addition, this chapter provides some background for understanding both the ways in which Lihirians perceive the wealth generated by the local gold mine and how the cargo-cult movements in their history set the stage for Lihrians' continued pursuit of prosperity and economic development. To some extent, Lihirians continue to manifest some of the defining characteristics of earlier cargo-cult movements, and PV can in fact be recognised as a continuation of such movements. The chapter also briefly described the people and culture of Lihir, including issues over land tenure and ownership, and gender roles and status.

The rationale for this thesis is based in the popularity of PV, a national phenomenon in PNG. More specifically, this study is concerned with PV's impact when it is implemented in a mining context and thus Lihir was selected as the data collection site. Lihir's response to PV also brings to light new information on how Papua New Guineans are adjusting and embracing new ways of managing political and economic change along their path to prosperity and economic development, whilst at the same time striving to maintain cultural values and practices in their own context.

In addition, traditional customs dictating that land be communally owned have been challenged by increasing tendencies toward individual registration of land and claims of ownership over it, as suggested by recent observations documented in the academic literature. However, this shift in claims to landownership must also be understood within the social context of Lihir, where the

consequent increase in the use of money and wealth has in turn been applied to strengthen family and kinship ties. Hence it can also be stated that instead of adopting Western perspectives of accumulating wealth and indulging in consumer behaviour, Lihirians new engagement in landownership has instead provided the means for Lihirians to participate in customary activities to an even greater extent, thus reinforcing traditional lifestyle choices.

There have been recent changes in gender roles, especially for women, although they continue to have very low or no political status at all in Lihir society. With the operation of the mine, women have been venturing out and some have become engaged in various forms of waged employment, although these jobs remain largely in the areas of domestic and cleaning duties. Mining jobs are predominantly geared toward the recruitment of male labour. Although women may appear to have gained some ground toward gender equality, male hierarchy still dominates and this can be seen in the way some contemporary Lihirian men reinforce it by sometimes engaging in violent behaviour.

The chapter also highlighted the representation of Lihirians by various institutions and bodies acting to provide some direction over community life and the various social transformations stemming from the development of the gold mine. These main institutions and bodies include LMALA, PWA, NRLLG, and various church leaders. However, it is important to recognise that the power to 'represent' Lihirians is currently concentrated in the hands of only a few people.

1.5 Thesis organisation and structure

This thesis comprises of eight chapters in total (see Figure 1). Each chapter contributes to the discussion and understanding of the impact of the PV training program on gender roles and relations in a mining community context in PNG, with particular attention to PV's effect on the lives of Lihirians living in the community where research for this thesis was conducted.

Following this introduction, Chapter 2 provides the first part of the literature review for the thesis. Since PV is an entrepreneurial skills and personal development training program, the initial section of the literature review explores the concept of entrepreneurship and its impact upon the culture and indigenous values of developing countries, particularly in the Asia-Pacific Region, and how these factors interact; that is, how culture and indigenous values influence the development of entrepreneurship in these contexts. The chapter will explore the mainstream interpretations and definitions of entrepreneurship, with a particular focus on the cultural attitudes toward entrepreneurship amongst indigenous peoples, highlighting the knowledge gap in understanding cultural perceptions of entrepreneurship and economic activity.

Chapter 3 provides the second part of the literature review which discusses changes in traditional gender roles and relations in the context of increasing engagement in the global economy and the transition toward modernity.

Chapter 4 provides a historical, cultural, geographic, and economic context within which an accurate perception of PNG can be developed. The chapter discusses some of the challenges facing PNG in its quest for development, and points out that although the country is rich in natural resources it still falls behind in comparison with other neighbouring Pacific Island countries in terms of social and economic indicators. The chapter also discusses entrepreneurship in PNG and provides a brief comparison between the highlands and the lowland coastal regions in their approaches to entrepreneurship in their specific cultural contexts. PNG's response to the PV training program can be best understood in light of the country's dependency on aid, and some of its key leaders are convinced that PV training provides 'the answer' for Papua New Guinea. The chapter also discusses the introduction of PV to Lihir and Lihirians' response to it. In particular, the LSDP − a plan to realise what Lihirian's claim to have envisioned through their ancestors as the *"Lihir Destiny"* − is described.

Chapter 5 identifies the overall methodology applied in this research and describes the field experiences encountered by the researcher. The chapter also details the methods used for collecting data and discusses the ways in which ethical issues were dealt with in the field.

Chapter 6 provides a description of the research results and an initial analysis of the findings. Two time periods in the history of Lihir were assessed when investigating the research themes and issues − firstly, the situation in Lihir before mine operations began; and secondly, the period after the mine opened and PV had been introduced (in 2003). The structure in this chapter derives from the research questions and compares data from both time periods concerning a range of issues including economic/livelihood activities, gender roles and relations, and responses to customary obligations.

Chapter 7 provides a discussion of the findings as revealed through analysis of the results of this investigation. Answers to the two key research questions are further elucidated and evaluated in the light of these findings, linking the results in Chapter Six to the earlier literature that was reviewed.

Finally, Chapter 8 provides a conclusion, tying together the major themes of the thesis. The chapter also highlights important findings and provides some direction and recommendations for further research and evaluation regarding PV in PNG and other Pacific Island countries.

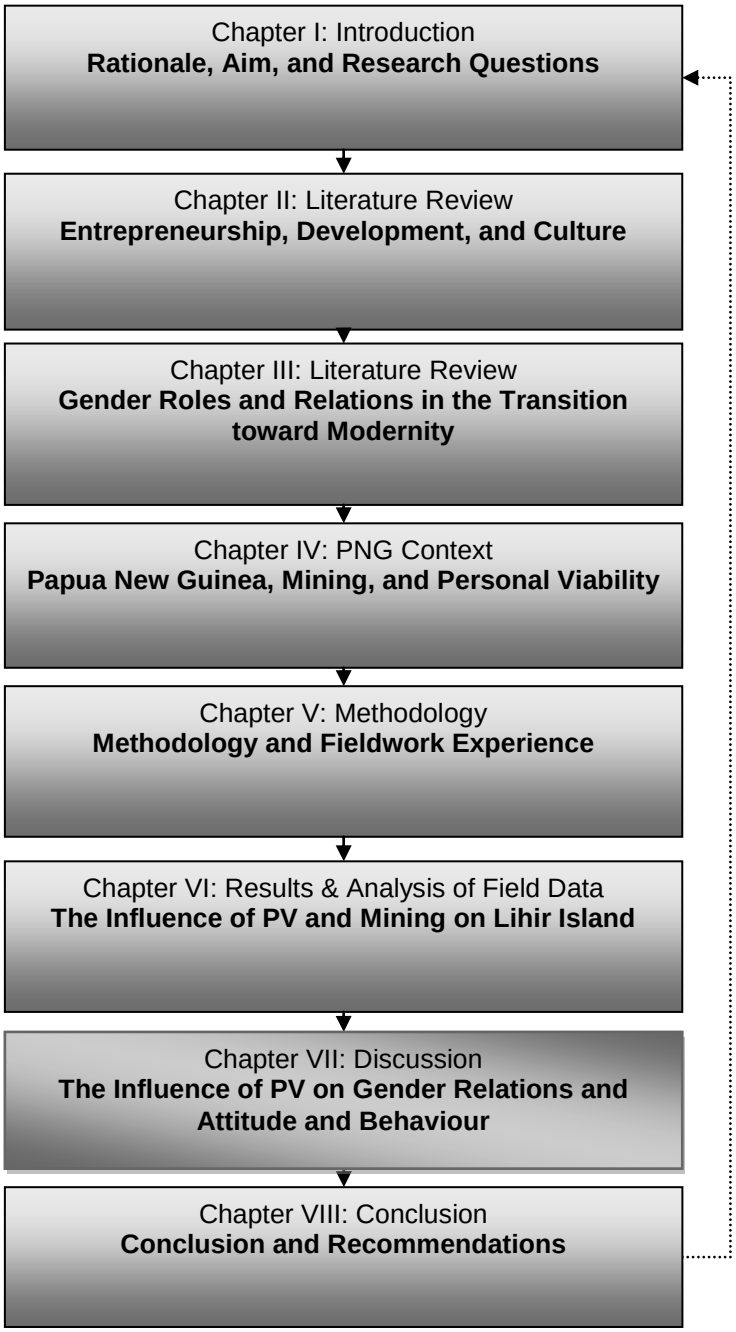


Figure 1. Flowchart outlining the organisational structure of this thesis

CHAPTER 2: ENTREPRENEURSHIP, DEVELOPMENT AND CULTURE

2.1 Introduction

There seems to be an important gap in knowledge about the cultural attitudes and the engagement in entrepreneurial activities amongst indigenous peoples linked in part to an acknowledgement that some indigenous peoples' socio-economic beliefs and values have existed since long before current Western economic orthodoxy. It is therefore important to understand the ways in which indigenous peoples and their societies and economies are organised in order to achieve insights into cultural perceptions of entrepreneurship and economic activity. Hence, as indigenous peoples' engagement in the global economy increases, the contemporary strategies and values connected with economic development that are introduced to them are increasingly recognised as being approached by these people from within their own unique contexts. However, this is not to say that the economic pressures of modern day living do not impact upon individual people in more contemporary times.

The aim of this chapter, then, is to explore and discuss the diverse definitions and interpretations of entrepreneurship in different contexts in developing countries, with particular focus on indigenous knowledge and values so as to place this research in a broader context. Mainstream definitions and interpretations, which mostly stem from the Western context, are also explored to highlight the important differences that are produced by various contexts.

The chapter will begin by providing a brief historical background for the debates within the field of development and in particular, the resurfacing of modernisation theory in the guise of neo-liberalism. However, delving too far into the detailed issues surrounding the development debate will be avoided, as the aim of the discussion here is to establish a place for entrepreneurship within the development discourse, where recent literature (see for example, Dana & Anderson, 2007; Diochon, 2003) seems to suggest that entrepreneurship has the potential to contribute to development (although the interpretation of entrepreneurship maybe viewed differently in different country and cultural contexts).

The chapter then moves on to discuss the important role that indigenous knowledge and values can play in shaping the development of entrepreneurship in a given context. Although there are factors that may or may not provide the kind of environment conducive to the development of entrepreneurship, the focus is narrowed to the importance of indigenous knowledge and values

and the ways in which these shape the engagement of indigenous peoples in entrepreneurial and economic activities. Discussion centres around the ways in which culture plays an important role in harnessing entrepreneurial skills in some developing countries, particularly in the Asia-Pacific region.

2.2 The development discourse

It is common to hear people speak of development as if it were something that can be seen or touched or even felt. However, development is actually a contentious issue (Peet & Hartwick, 2009, p. 1) and has different meanings to different people in different contexts; thus, it is a concept which may be defined in various ways. For example, to one individual, development may be seen as a new building, one which was originally built from bush materials but has now been rebuilt using modern building materials such as iron, timber, etc. To another, development may be defined as learning about modern seed technology that enhances the ability to grow sufficient food to meet basic family needs. To a third, development may be about women having more freedom and rights equal to those of men. And to yet another person, development may be about owning and operating a village trade store or canteen that generates income for the family. Hence, the quest to define development continues with ongoing debate in the development arena. Since the term 'development' means different things to different people, Potter asserts that such ideas have long been controversial and highly contested (2002, p. 61, as cited in Dessai & Potter). Moreover, Potter emphasised that since the mid-1980s, the ongoing debate has led to an increase in the literature on development theory and practice.

The 1950s and 1960s was the period in which mainstream development theories, such as Modernisation Theory, emerged with a particular focus on economic growth and its 'trickle-down' effect. As this was defined as development at the time, an increase in the Gross National Product (GNP) of a country was considered to be an indication of its development. Modernisation Theory and its approach placed emphasis on the social and cultural differences between modern and traditional societies; hence, these differences formed the basis for development policies (Peet & Hartwick, 2009, p. 123).

In addition, Rostow's (1956) Take-off Theory defined the linear process of economic growth as an industrial revolution requiring radical changes in methods of production over a relatively short period of time. Moreover, Rostow asserted that in order for economic transformation to occur there needs to be rapid growth of one or more manufacturing sectors; and, in order for these sectors to develop, there is a need for an elite group of people and/or entrepreneurs within a country or capitalist context to move things along at a rapid rate. Hence, economic

performance is dependent on changes in the social, political, and cultural sphere and these factors can either support or hinder the development of entrepreneurship, among other things.

Hoselitz (1960), for example, argued that cultural change is a precondition for economic development, emphasising the Theory of Social Deviance which holds that new things are started by people who behave differently from the norms within a society. The capitalist entrepreneur was perceived to be, socially and culturally, a marginal individual who started important and new kinds of economic activity (Peet & Hartwick, 2009, p. 124).

Development theory at the time focused on economic debate, and development in practice was mainly about developed countries providing technical assistance and capital to developing countries with the aim of stimulating economic growth. The assumption, as Griffin (2000) points out, was that an increase in production would generate higher incomes, thereby reducing poverty and improving people's wellbeing and standard of living. Brohman (1996) noted that such approaches had an influence on developing countries after World War II. However, these approaches have also been criticised (Stein & Harper, 2000) from the view that they have also contributed to the increase in socio-economic inequality in many countries (for example, see Friedmann, 1992; Willis, 2005).

In the light of the subsequent failure of major development projects, a search for alternative approaches to development became necessary. Alternative development theories thus emerged in the 1970s, focusing on "people as agents, or creators, of their own histories" (Stein & Harper, 2000, p. 69), emphasising that people's involvement and participation at every stage of the development process is a crucial element leading to their empowerment and control over decisions that affect their lives. Brohman observed that people's basic needs were the central focus of alternative development theory and went on to list these needs as "relative equitable income distribution, basic needs provisions, human resources development, popular participation and democratisation, socially and spatially balanced growth, and cultural and environmental sustainability" (1996, p. 334).

Kotval (2006) supported this, observing that since there were no significant and positive outcomes from mainstream development theories, there needed to be other ways in which development could be carried out which focused on the betterment of the physical, social, and economic environment of people and their communities. Hence, these alternative approaches took into account gender, the environment, culture, history, and other factors, and emphasised the need to define development in the context of meeting basic human needs, including social and mental change contributing to the transformation of people; however, it was felt this change should come to people at their own pace and in their own ways.

Indigenous people have also contributed to the development debate by pointing out that what is often perceived and defined as development comes mostly from a Western perspective and is not necessarily true for indigenous peoples in developing and developed countries. Because of this, some developing countries have strived to define development on their own terms and in their own contexts, using indigenous knowledge and values as the basis for their definition. For example, Gegeo (1998) emphasised the importance of defining development through an indigenous lens or world view as he delved deep into the experience and knowledge of the West Kwara'ae people of the Solomon Islands and their view of rural development. Moreover, Gegeo pointed out that *bisnis* (business) and *diflopmen* (development) are two discourses fundamental to the way in which rural development is practiced in relation to 'the good life'. The former is viewed largely as a negative activity, a perspective derived from the people's experiences of business activities introduced under the colonial government, whilst the latter is viewed as positive because it "emerges out of one's own hand" (Gegeo, p. 305). In addition, others such as Sardar (1997) argued for the multi-civilisational understanding of development based on the different cultures and traditions of the world, since these cultures and civilisations are increasing in size and influence. Sardar's argument proposed a shift in the dominant approach of development, which is largely controlled by Western culture, to an approach shaped by the diversity of human beings and their multiple cultures.

The idea may seem desirable to the non-Western society, as it appears to provide a greater flexibility in terms of defining the goals of development, but it remains a contentious issue. Despite the fact that there is now a rise in the number of strong voices sounding from non-W estern nations, the reality remains that countries with the power to control the majority of the world's resources determine the final say in political and economic arenas. Development processes are greatly influenced by institutions such as the World Bank (WB), not only through vast funding, but also through publications and policy formulation. Such institutions are still ruled by Western thinking and imagination, making it even more challenging and difficult for other cultures to compete.

Amidst the various views and debates regarding ideas about development, the 1980s period saw some of the basic arguments of Modernisation Theory re-emerge in the guise of neo-liberalism (Brohman, 1995; Schuurman, 1993). Edelman and Haugerud (2005, p. 7) defined neo-liberalism as "doctrines or policies that accord the market, rather than the state, the main role in resolving economic and other problems". Hence the essence of neo-liberalism is to deregulate markets in order to promote 'free' trade and economic development. The economic policies of many Third World countries have been significantly influenced by institutions in the West and thus some of their economic strategies include privatisation of public corporations, free trade, and the

minimal role of the state in economic development. Chossudovsky (1998) pointed out that such strategies were used by the WB and the International Monetary Fund (IMF) to provide assistance to countries that were burdened with debt, regardless of the consequences and severe social costs experienced by these countries as a result.

Neo-liberalism, in its various manifestations, is still very much debated. Edelman and Haugerud (2005, p. 26) observed that neo-liberalism has academic as well as policy support through, for example, the work of Lewellen (2002, p. 19) who argued that countries which "previously experienced heavy state intervention", now have their "domestic entrepreneurs enjoying new opportunities afforded by privatisation".

Neo-liberal strategies have pointed the way back to defining development in economic terms whilst minimising the importance of the social consequences of economic development. Even today, the tendency for many governments − as well as development agencies − in developing countries is to continue to define development primarily in economic terms whilst the social consequences of such an approach are either not given precedence or are simply ignored.

2.3 Entrepreneurship: definitions and interpretations

Mainstream interpretations and definitions of entrepreneurship or entrepreneur have their own history dating back as far as the 19th century. In a survey of the origins and meaning of the term, Dana and Anderson (2007, p. 3) pointed out some of the early definitions. For example, Jean Baptiste Say (1816) defined an entrepreneur as "the individual who unites all means of production and who finds in the value of the products...the re-establishment of the capital he employs, and value of the wages, the interest, and the rent which he pays as well as the profits belonging to himself". Say perceived the entrepreneur as someone who had the ability to bring the factors of production together so as to create new economic wealth. Dana and Anderson also pointed out that Mill (1848) considered entrepreneurship to be "direction, supervision, control and risk taking, with risk being the main distinguishing feature between the manager and the owner-manager". Schumpeter (1934, p. 34) stated "the carrying out of new combinations we call 'enterprise'; the individuals whose function it is to carry them out we call entrepreneurs". Moreover Schumpeter viewed entrepreneurs as energetic leaders motivated by will rather than intelligence (Peet & Hartwick, 2009, p. 55). Fraser (1937) associated entrepreneurs with the management of a business unit, profit taking, business innovation, and risk bearing, whilst Weber (1930) stressed that entrepreneurs were filled with Calvinist[8] ideas concerning the value of hard work and capital accumulation. Calvinist ideas promote the thinking that through hard

[8] A Calvinist is someone who belongs to a strict Protestant church which was started by John Calvin.

work and self-discipline, one is able to see the fruit of their own labour and thus, it is important to maintain frugal attitudes and work ethics in order to achieve such.

With regard to these mainstream definitions and interpretations, it seems that entrepreneurship or being an entrepreneur involves taking risks and managing or controlling one's own capital or resources with the aim of maximising profits and gaining material wealth for one's own individual gain. Such definitions and interpretations can be viewed as likely to be more Western in nature and they also fit in with Modernisation Theory. In addition, Dana & Anderson (2007, p. 3) asserted that mainstream interpretations of entrepreneurship do not seem to include the influence of indigenous knowledge and values, further stating that "the culture of indigenous people is often incompatible with the basic assumptions of mainstream theories". Hence, Dana's view emphasised the differing meanings and interpretations of entrepreneurship and the importance of culture in shaping these.

Other definitions and interpretations that emerged seem to differ from those found in the mainstream. For example, Casson (1982, p. 1 as cited in Dana & Anderson, 2007)) defined an entrepreneur as "someone who specialises in taking judgemental decisions about the coordination of scarce resources". This is interesting because of the different views and interpretations held by people and cultures concerning what is meant by 'resource'. That which one individual views as a resource may vary quite a bit from what someone from another culture or society defines as a resource, given their own circumstances. In addition, Dana (1995, p. 67) pointed out that the same is true for the word 'opportunity', where the act of identifying or responding to opportunities can be described in culture-bound ways. He suggested that "entrepreneurship should not be defined on the basis of opportunity, but rather cultural perceptions of opportunity". In addition, he wrote that what may be presented as an opportunity for some people, may be less of an opportunity for others with different sets of values. Hence, Dana (1999, p. 1) later referred to entrepreneurship simply as "the economic undertaking of entrepreneurs".

Interestingly, other recent writers have considered entrepreneurship differently. For example, Diochon (2003, p. 4) pointed out that Galtung (1981) defined entrepreneurship as being the "cornerstone of self-reliance and autonomy". Galtung's view seems to indicate entrepreneurship's contribution and important role it can play in the undertaking of self-reliance and autonomy. Indeed, Diochon later emphasised her view of the significant role entrepreneurship can play in the development process if "community-based development" is the goal to be realised. Such views indicate there are lots of different tenets on which the meaning and interpretation of entrepreneurship can be based.

Of particular interest to this thesis is the definition and interpretation of 'indigenous entrepreneurship'. Fascinating studies on this concept have been carried out by many experts and analysts. For example, McGregor (2004, pp. 389-90) recognised that "indigenous people have developed a knowledge base that ensured survival in particular environments for countless generations". Indeed, McGregor emphasised the relevance of important principles and values such as respect, reciprocity, coexistence, and harmony which are still needed in contemporary times if entrepreneurial skills within these contexts are to be further developed. In addition, Morgan (1991), in referring to indigenous people and their survival, affirmed that their continued existence throughout the centuries has been a result of the sustainability of their enterprises. Hence, in such contexts it can be stated that indigenous peoples have had to develop entrepreneurial skills to survive conditions in their given environments. In further analysing these definitions and interpretations, entrepreneurship for indigenous peoples is not necessarily about maximising profits and wealth for individual gains, but rather entrepreneurship is about survival and maintaining those principles and values that are important within society.

From the mainstream to more recent definitions and interpretations, it is agreed that entrepreneurship is viewed and practiced differently in different contexts. Mainstream interpretations seem to associate it with westernised modes of capitalism, whereas other interpretations have argued for the significance of indigenous knowledge and values that make up people's cultures in determining entrepreneurial activities in their own contexts.

2.4 Entrepreneurship and culture in the Asia-Pacific region

In the main, it seems that the rationale for developing entrepreneurship still lies in its potential to contribute to economic development. Hailey (1987) asserted that sufficient international experience points out the important role that entrepreneurs play in the economic development process. In addition, Dana (1999) asserted that research, as well as governments from around the world, acknowledges the contribution made by entrepreneurship to development. Moreover, Dana pointed out that the level of entrepreneurial activity varies considerably amongst nations, and government policies and attitudes also play an important role in the ultimate economic outcome. Furthermore, Dana pointed out that the importance of developing local entrepreneurs in the Asia Pacific region is becoming an significant element in the region's economic growth; hence, a scarcity of local entrepreneurs is seen as a major hindrance to economic progress (see for example, Dana, 1995; Dana, 1999; Dana & Anderson, 2007). A key source of economic growth is widely considered to be entrepreneurship (Wennekers & Thurick, 1999), with recent findings indicating that the rate of a country's economic growth is directly related to the level at which women and men are participating in the economy as entrepreneurs (Reynolds et al.,

2004b). In addition, Hailey (1987) argued that the role of Pacific entrepreneurs made a significant contribution to the economic growth of Pacific countries.

Entrepreneurship in Asia

Attitudes toward entrepreneurship and the motivation or reasons for engaging in entrepreneurial activities differ from country to country within the Asian region. According to Dana (1999, p. 7), entrepreneurship in this region—in particular Pacific Asia[9]—is still shaped by cultural and historical factors, even today. He emphasised that people with dissimilar experiences demonstrate different approaches to management and entrepreneurship, pointing out the example of the Chinese and Indian minorities in Pacific Asia who demonstrate a strong natural tendency for entrepreneurship. Furthermore, Dana asserted that some indigenous groups choose entrepreneurship because they find it difficult to integrate into their host societies, while others do so because cultural values make it socially desirable for them. Hence, cultural values play a significant role in shaping the development of entrepreneurship in countries in this region.

For example, Devos (1973) and Peterson (1971) pointed out that Japan's culture is oriented around achievement which encourages entrepreneurship and embraces traits such as a strong work ethic, diligence, and frugality; these traits in turn influence entrepreneurial endeavours. In addition, Min and Jaret (1985) described the cultural values of South Korea which they saw as playing a significant role in the successful development of entrepreneurship. They emphasised that Koreans are successful entrepreneurs because of cultural characteristics such as frugality and a strong work ethic. In such contexts, there is a need to cultivate a strict sense of discipline and sacrifice toward the desires of the self in order to reach financial success in the future. The cultivation of such personal traits has the tendency to lean more toward the characteristics of individualism, some of which are also identified with Western contexts.

Interestingly, other cultures view entrepreneurship differently and consider it to be a less desirable option. For example, Haley and Haley (1998) noted that Chinese tradition reviles merchants. Becker (1956) pointed out that some societies, such as the Javanese, even consider business to be an unholy occupation (as cited in Ajami & Bear, 2007). In addition, Dana (1993) pointed out that Haitians would take up self-employment only as a last resort, as it was reserved for those who were not successful at achieving a desired goal in life. Such cultural views discourage the development of entrepreneurship.

[9]According to Dana (1999), the geographic focus of his research in his book (Entrepreneurship in Pacific Asia: Past, Present & Future) was Pacific Asia which covers Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, the Philippines, Singapore, Taiwan, Thailand and Vietnam – the group of east Asian countries neighbouring the Pacific Ocean.

Entrepreneurship in the Pacific

To many Pacific Islanders, the concept of entrepreneurship as defined from a Western perspective may seem foreign; however, their histories show they were once entrepreneurs in their own way. This is evidenced through the extensive trade and commerce networks which were an integral part of Island society, even before the arrival of the Europeans. For example Hailey pointed out that:

> When the early Europeans arrived, they noted the well-established markets and the degree of economic specialisation in the different island communities. Local produce was traded regularly at recognised market places and for example, an integrated marketing system in the larger Melanesian islands linked the coastal peoples with the inland population (pp. 15-16).

Hailey further noted that "the medium of exchange was through the barter or currency equivalents such as shells, whale's teeth, feathers, stones, or even some intangible reciprocal debt or bond that could be called on in future" (pp. 15-16). In essence, many Pacific Island cultures pre-adapted their people to become entrepreneurs in their own contexts, paving the way for entrepreneurship in more contemporary times as well. Eventually, the arrival of Europeans and the process of colonisation introduced Pacific Islanders to a cash economy and the concepts of business and profit.

According to Hailey (1987), the literature reveals that most definitions of entrepreneurship are based on research conducted in urban industrialised economies of the developed world which stress individualism, acquisitiveness, and success that is measured in financial terms. Hence, these values are alien to Pacific cultures whose economies are predominantly agricultural and isolated. Moreover, Hailey suggested that the term 'Pacific entrepreneur' must have a culture-specific definition and emphasised that a Pacific entrepreneur is:

> One who shows a practical creativity and managerial ability in effectively combining resources and opportunities in new ways so as to provide goods and services appropriate to island communities and yet who can still generate sufficient income to create new opportunities for the individual, the family and the community as a whole (p. 28).

The definition given by Hailey regarding Pacific entrepreneurs brings into light the notion of social entrepreneurship where social relationships and customary obligations take precedence over profit maximisation and individual wealth accumulation. For example, studies of

successful Melanesian entrepreneurs stress the importance of fluid social systems in traditional Melanesian societies (Hailey, 1987, p. 26). These societies, with their preference for individual achievement, are pre-adapted to the performance of individualistic entrepreneurs. However these entrepreneurs, in order to be successful, must still meet and fulfil their social and kin obligations. They know that without social and kin support, their business endeavours will eventually fail.

Curry's (1999, p. 481) research on business enterprises in rural PNG defined entrepreneurship in this context, reinforcing the importance of social relationships:

> Business enterprises in rural Papua New Guinea are not focused solely on making profit; the way in which they are established, managed and patronised is an expression of Indigenous social and economic life. The act of doing business, whether as customer, manager or investor, reproduces social relationships within the community.

In addition, Henry (1999) pointed out a similar concept in his findings regarding entrepreneurship and business endeavours in the Maori culture, affirming that:

> Kaupapa Maori entrepreneurship can be described as 'social entrepreneurship' in that it is entrepreneurial activity, but it is underpinned by social objectives to improve wealth and wellbeing for the community, rather than just the individual (as cited in Dana & Anderson, 2007, p. 542).

The framework of existing social and kin relationships, as well as cultural attitudes and behaviours, plays a significant role if entrepreneurship is to thrive in Pacific country contexts. Therefore, an entrepreneur in the contemporary Pacific context must be someone who is willing to keep an open mind and take risks, where deemed necessary, in exploring new economic potentials whilst at the same time managing social and kin relationships in order to maintain his or her core identity within society. This, in reality, is a challenging task for entrepreneurs (current as well as potential) in the contemporary Pacific context.

2.5 Summary

The aim of this chapter was to discuss the concept of entrepreneurship in different cultural contexts. Mainstream and other definitions and interpretations agree that entrepreneurship is viewed and practiced differently in different contexts. Mainstream interpretations seem to associate it with westernised modes of capitalism, whereas other interpretations have argued for

the significance of indigenous knowledge and values that make up people's cultures in determining entrepreneurial activities and how it is defined in their own contexts.

Different contexts exist within different Pacific countries. However, in contemporary Pacific societies, it cannot be ignored that Pacific entrepreneurs are faced with the dilemma of whether to become individualistic, risk taking, profit-maximising businessmen/women or to accept and work within existing social values and communal obligations. This is a difficult position for Pacific entrepreneurs in the context of the economic pressures of modern day living.

This chapter has contributed to the overall aim of this thesis by pointing out that regardless of differing definitions and interpretations of entrepreneurship and the reality that entrepreneurs exist in almost all societies including the Pacific, Western thinking prevails. However if a training program on entrepreneurship such as PV is to be truly successful in the context of PNG and the Pacific, there needs to be an acknowledgement of the cultural contexts of these countries so that a suitable training content is developed which would help to balance the challenges of customary obligations in more contemporary times.

CHAPTER 3: GENDER ROLES AND RELATIONS IN THE TRANSITION TOWARD MODERNITY

3.1 Introduction

The aim of this chapter is to discuss the impact of the transition toward modern society (in a context where cash is still relatively new) on traditional gender roles and relations. This discussion is important in the context of this thesis since PV is also considered to be a contemporary strategy aimed at managing economic and political change. Hence, the impact upon traditional gender roles and relations and the change, if any, in women's and men's economic attitudes and behaviour are two key areas for this thesis.

The discussion in this chapter is presented in the context of the presence of large-scale natural resources development as well as the development of entrepreneurial skills—two factors necessary for survival in the rapidly changing socio-economic environment which constitutes modern PNG society. The rapid changes that have resulted from the modernisation process continue to influence many societies, especially those in developing countries that are caught between their cultures and the pressure to live a more modern way of life. This has generated confusion over gender roles and relations as women and men moved further away from the roles traditionally identified in their societies. Added to this is the short space of time in which these changes have occurred.

This chapter will firstly establish the background of the Gender and Development (GAD) discourse and briefly discuss the changes that have come about within its framework. Whilst the original focus of the GAD approach has remained—that is, a focus on the socially constructed definitions of male and female identities—there has been a wide acknowledgment and acceptance of the issues faced by men-as-men, and the need to address these within the GAD framework as well. This has reinforced the importance of men's involvement at every stage of a development process in achieving effective development outcomes for both women and men.

Next, the discussion briefly focuses on gender roles and relations in the transition toward a cash-based society. The current need to survive on a day-to-day basis in a cash-based society has affected social norms in many ways and thus impacted traditional male and female roles and responsibilities. Developing entrepreneurial skills provides an opportunity to engage in economic or business activities and contribute toward the alleviation of economic pressures within households. A key point is that women's engagement in economic or business activities

tends to be mostly through the informal sector of society. Ward and Pyle (1995) observed that informal sector work is "heterogeneous, encompassing entrepreneurial activities and wage labour that is unregulated by the state". Moreover, they believed that men and women enter the informal sector for different reasons which, particularly for women, usually constitute a strategy for economic survival.

Thirdly, the chapter will discuss the impact of natural resource development on gender relations, acknowledging that there are both negative and positive effects and that these are experienced by women and men differently.

3.2 The gender discourse

Since the beginning of Women in Development (WID) interventions in the 1970s, gender has come to be primarily associated with women only, even though the word pertains to socially defined concepts of what it means to be a man or woman. The realisation that little was being achieved in terms of interventions to enhance women's development prompted the need to think critically and seek alternatives, if effective economic progress was to be made. However, through the process of bringing women's issues into development, WID approaches overlooked masculinity issues, and the significance of men's roles and responsibilities in the development process. From this came widespread recognition that gender interventions will not progress as far without the involvement of men (Chant & Gutmann, 2002), which in turn gave birth to the GAD approach.

The focus of the GAD approach centres on socially defined differences between men and women. As explained by Rathberger (1990, p. 494), "GAD is not concerned with women per se but with the social construction of gender and assignment of specific roles, responsibilities and expectations to women and to men". The GAD approach strongly emphasises the need to challenge existing gender roles and relations which stem from the underlying issue of power relations between men and women. In this light, patriarchal power is perceived to be still dominant. The GAD approach is an attempt to redress the existing power imbalance with interventions designed to include men's perspectives in the development process, in the hope that opportunities for more equal power sharing between men and women can be brought about. Rathgeber (1995, p. 212) observed that if patriarchal structures are to be challenged, change in men's lives are as important as any attempts or plans to change women's lives. Moreover Rathgeber emphasised the need for "structural shifts in male-female power relations", observing this as "a necessary precondition for any development process with long-term sustainability".

The GAD approach in theory encompasses the importance of including men and their perspectives in relation to women in the development process, although such discussions are relatively recent. However, in actual practice, Chant and Gutmann (2002) observed that interventions remain largely focused on women only and programs are still designed by women for women. Moreover, they claimed that men are still excluded from GAD interventions and much rhetoric remains in its policy; hence, they maintained that very little has changed in the move to GAD.

In as far as gender is widely accepted as the socially constructed definition of male and female identities, it has become increasingly important as well to acknowledge and recognise the considerable and rapid changes in gender roles, relations, and identities in recent times, and to bring the issues faced by men-as-men into focus within the GAD framework. Chant and Gutmann (as cited Edelman & Haugerud, 2005, p. 240-49) pointed out that during the last 10 years there has been growing discussion on men in crisis, troubled masculinities and men at risk, emphasising the need to consider issues faced by men which in most cases are different than those faced by women. Furthermore, Chant and Gutmann argued that for gender interventions to be effective, it is crucial that issues faced by men are addressed with men themselves being involved at every stage of the development process. However this is not to refute the fact that overall, women are still disadvantaged in many ways, socially as well as economically, and that some patriarchal structures remain to be challenged.

Safa (1995) observed that in many parts of the world there have been major shifts in the balance of power within households as more women become engaged in paid employment and employment opportunities for men fall, especially those for unskilled or semi-skilled men. Moore (1994) and Silberschmidt (1999) also shared similar views and emphasised that declining employment opportunities lessen men's chances of maintaining their economic responsibilities and hence, their widely idealised male role of 'breadwinner'. This is a significant factor contributing to the undermining of their status and identity within their households. More recently, Morrel (2001) and Obote Joshua (2001) observed that there is growing concern among men about being unable to provide for their wives and children due to circumstances beyond their control.

Having established a basic understanding of gender issues for the purpose of grasping the interventions within the GAD approach, it must also be argued that gender issues vary in different contexts in different parts of the world. The current framework and intervention models are based primarily on the challenges and experiences of women in Western countries. The widely held perception that what is experienced by women in the West is universal has

been challenged by feminists in developing countries. For example, Morgan (1984) observed that before the 1980s there was a tendency to assume women's oppression was common worldwide; however, in many cultures women and men held complementary roles (see also Bulbeck, 1993; Davis, 1982; McEwan, 2001).

Every writer has his/her own perceptions and assumptions when writing about a particular topic or issue. Hence, the situation of Third World women as portrayed in literature is often a result of the way in which writers have written about their own situations and the common perceptions that still prevail in present times. Such portrayals in literature consequently had an influence on how specific concerns were addressed by the first development initiatives. Women and their activities were frequently ignored by foreign researchers and often misinterpreted in the literature by writers suggesting that women were very dependent on men (McCormack, 1989, p. 19). Even feminist researchers from the West have tended to undermine the significance of Third World women's lives, suggesting that their lives are not as meaningful as those of liberated women. As Mohanty (1988, p. 80) indicated, "third-world women are defined as religious, family oriented, legal minors, illiterate and domestic". The familiarity of such definitions can be recognised in the development debate, where Third World countries were perceived to be backward and traditional.

The most common perception within gender studies when making reference to women in the Third World or developing countries is that traditionally, they lacked power to influence the political and economic spheres of their societies. However, there are examples from many developing countries that show this was not the case. For instance, Gustafsson (as cited in Ferro & Wolfsberger, 2003, p. 21-44) made observations in PNG and pointed out that by "including other aspects of society, such as control of ritual power and production of valuable objects", there was evidence that women had power and were very influential in their societies. In most Melanesian societies, for example, the 'men's house' was the place where important decisions were made regarding the life of the local community or society as a whole. However, to an extent, these decisions were influenced by women as they engaged in daily discussions with their husbands within the confines of their households regarding the political, economic, and social life of their own communities.

Moreover, Gustafsson argues that the traditional patrilineal system is not responsible for the inferior position that women experience today. Rather, consideration should be given to the influence of the modernisation process, in which foreign ideas and concepts about gender are introduced into developing countries and contribute to confusion in roles and responsibilities for

both women and men. Such an argument reiterates the notion that gender remains a Western or European concept and is not relevant in developing countries' contexts.

3.3 Gender roles and relations in a cash-based society

Moser (1989) asserted that women had triple roles in society and categorised these under reproductive, productive, and community management roles. Moser defined the reproductive role as "the childbearing and rearing responsibilities" and household duties including, for example, cooking which is unpaid domestic work usually performed by women (1989, p. 1801). In addition, Moser stated that although there are no clear and defined roles for men in this category, they still provide assistance to women in these roles. These domestic duties may include for example, fetching water and helping to look after children.

Women's productive roles are those that involve women "as secondary income earners" (Moser, 1989, p. 1801) which in the rural setting refers to agriculture or farming activities and in the urban setting refers largely to women's engagement in the informal sector to earn income for the family. Moser further argued that the perception that prevails in the Third World is that men are the primary income earners, which is not necessarily true. In addition, changes experienced in these contemporary times may indicate that in some cases, more women are becoming primary income earners as well.

Furthermore, Moser (1989, p. 1801) asserted that women's community management roles are "based on the provision of items for collective consumption" whilst men's roles include "community leadership". Even though women and men perform their roles in this category, Moser's definition reiterates that men's role is played out in the public domain whilst women's involvement in these roles is still confined to the domestic domain and can be seen as an extension of their domestic work.

Changes in gender roles and relations can be better understood within the wider historical context of changes in the global economy and the rapidly shifting socio-economic environment. As people and cultures around the globe become more closely connected, especially through new and sophisticated technology, many societies are being pressured to let go of their former traditional life and identify with the latest and most modern ways of living so that the 'catch-up' process can continue and 'no-one gets left behind'—hence the process of modernisation. In some developing countries, this process of change has been introduced in such a short space of time and carried out so rapidly that the impact on traditional life (social, economic, and political) has been great, to some extent bringing about confusion and contributing to other

social problems such as domestic violence, alcoholism, and prostitution, etc (Gustafsson, as cited in Ferro & Wolfsberger, 2003).

Many societies in the world are constructed around specific gender roles, even if these are defined differently within each culture. Generally, these roles outline the work tasks needed to be executed by each gender so the society functions in a normal way and according to each culture's own specifications. Traditionally, within Melanesian societies, men and women worked side-by-side as partners in order to manage certain responsibilities and fulfil the obligations required of them hence, the rights and responsibilities of men and women were structured in a parallel way rather than hierarchically, and the organisation of each gender cut across both public and private life (Sillitoe, 2000). This showed that women and men's roles were complementary to each other. However, in the name and process of development, certain traditional forms of work have been redefined and therefore excluded from the public arena. This has meant that certain needs and work tasks, more often those of women who are working outside the formal sector, have become "depoliticised and segregated as personal or domestic, and therefore private" (Jackson, 1997, p. 152). For example, in most traditional Melanesian societies, Melanesian women often played an active role outside the household and commanded respect from their families and communities in a variety of kinship roles, such as pig husbandry, which gave them prestige and status and the ability to influence decisions. In essence, women enjoyed the roles accorded to them and contributed to the harmonious functioning of the system within their own societies. There was no competition with men for equal status and power hence to an extent there was equality between women and men within traditional societies, at least within the Melanesian societies. However when the missionaries began to arrive, their cultural model contained a qualitative separation between male and female activities, and between the domestic and public aspects of life (Jolly, 1989; Ralstone, 1989). For example, they introduced the thought that women's involvement in public activities was most unbecoming.

With regard to entrepreneurship, there are various reasons why women engage in entrepreneurial activities; however, the prevalent motive is economic. The modernisation process has created a need for more and more women to venture out and look for opportunities to earn extra income. Hailey (1987) asserted that where women are engaged in the cash economy, it is often through the informal economy in income-generating activities such as handicrafts, sewing, or selling produce from their gardens. However in more recent times, some women are going ahead to establish their own individual businesses in the formal economy.

The increasing need for money and/or cash has contributed to the inequality experienced by men and women in today's society. For example, Gustafsson observed that in some parts of

PNG, in the past, women did not depend on men for wealth in order to contribute to the ceremonial exchanges in their societies however nowadays, if a woman wants to contribute to exchanges, she cannot obtain the goods herself and cannot purchase them without money (as cited in Ferro & Wolfsberger, 2003). He further asserted that women need to become engaged in activities that will give them the opportunity to have access to money hence, women and men no longer engage in their separate but related forms of production, trade, and partnership. Gustafsson's observations seem to point out that, women and men spend more time now in the search for money. Economic factors, hence the pressure of living in a cash-based society, push both women and men to learn appropriate skills to adapt in order to survive the rapidly changing times. Thus they engage largely in the informal economy to earn money. This includes women's increased engagement in waged employment as well as seeking to develop entrepreneurial skills to further engage in entrepreneurial activities.

3.4 Gender and natural resource development

Natural resources such as gold, copper, silver, forest for timber, marine life, etc, are deemed to be valuable assets to many developing countries for the obvious reason that they are a significant source of potential revenue. Developing these resources usually requires major efforts made on a large scale. Large-scale extraction of these resources, usually by outside and foreign-owned companies, is necessary to sustain the economies of these developing countries. The potential benefits from the development of these resources (for example, in mining) are not only supported by the governments of such countries, but often also by the local communities in which the resources are sourced. For example, O'Faircheallaigh (1991, p. 230) observed the case of some mining communities and reported that the potential benefits of mining were readily welcomed as the people "are often badly in need of the additional economic opportunities which mining can generate".

Mining (for minerals such as gold, copper, nickel, etc), in particular, remains a very significant industry in many developing countries. Hence, Connell and Howitt (1991, p. 91) claimed that for those countries with significant quantities of minerals, mining receives high prioritisation on the government's development agenda. Rising national debt and heavy dependence on foreign aid are two of the justifications these countries offer for their dependence on the mining sector to solve their economic problems, as well as finance their development efforts (Emberson-Bain, 1994, p. 91). Moreover, as Emberson-Bain pointed out, mineral resources often constitute a major percentage of all exports and foreign exchanges earned by a country.

There are both positive and negative effects from the development of natural resources and these effects are experienced differently by women and men. Sadly, it is usually women who

carry the brunt of the negative consequences (Lagisa & Scheyvens, 1998). Whilst the governments of these countries have their own agendas in developing resources, they are also obliged to deal with issues of ownership, particularly since the land on which the resources are found has recognised owners; hence the politics of dealing with landowners (such issues are common in almost all Melanesian societies). Generally, when it comes to the ownership of resources, it is usually men who are considered to be the owners and thus who are always the ones involved in the planning processes regarding production, consumption, and distribution of the benefits received from the development of these resources. In most cases, women's opinions and views are overridden and they do not have the opportunity to have any significant influence over the decisions made. Even in matrilineal societies, particularly in Melanesian countries, women leaders are often being overlooked in negotiations for development projects and are increasingly being replaced by their brothers and sons (Lagisa, 1997, p. 53). In this regard, women continue to lose control even if they are the traditionally recognised owners of the natural resources under consideration.

3.5 Summary

This chapter discussed the impact of the transition toward a cash-based society on traditional gender roles and relations. The discussion was presented in the context of the development of large-scale natural resources development as well as the development of entrepreneurial skills—two factors necessary for survival in the rapidly changing socio-economic environment which constitutes modern PNG society. The rapid changes taking place in more recent times continue to influence many societies, especially those in developing countries striving toward a more modern life. This has generated confusion over gender roles and relations as women and men moved further away from the traditional roles identified in their societies over a long period of time. Added to this is the short space of time in which these changes have occurred, which has contributed to the rise in social problems.

The current need to survive on a day-to-day basis in a cash-based society has in many ways affected the norms of society and thus, traditional male and female roles and responsibilities. Developing entrepreneurial skills provides an opportunity to engage in economic or business activities and contribute to the alleviation of economic pressures within households. Hence many women today venture out to engage in small income generating activities, mostly for economic reasons.

The next chapter offers information about PNG, its mining industry and the Personal Viability training program. The discussion also briefly focuses on how some PNG societies have been adapted for the development of entrepreneurship within their cultural contexts.

CHAPTER 4: PAPUA NEW GUINEA, MINING AND PERSONAL VIABILITY

4.1 Introduction

The PNG Government officially launched the PV training program in 1996 mandating EDTC to carry out the training program throughout the country. Subsequently, EDTC claims it has now conducted the training in all 20 provinces of PNG (Sam Tam Jr., personal communication, March 2009). The aim of this chapter, then, is to discuss and highlight some historical and background circumstances that provide a basis for understanding why the country has responded the way it has to the PV training program, although this response has varied in different parts of the country. The chapter begins by providing a context for some of the development challenges the country continues to face, highlighting the complex social and cultural patterns of the country which have influenced its overall development.

Following this is a discussion on the socio-economic conditions of the country which highlights the minimal or complete lack of growth in these areas since political independence in 1975. PNG has a dual economy: the traditional economy which supports about 85% of the country's population and the formal economy which, according to Stein (1991), is more geared toward exports, public administration, some manufacturing, and a small services sector. The discussion in this chapter is focused on the traditional economy which is largely subsistence-based involving growing vegetables and staple crops as well as raising livestock, mainly pigs. This informal economy is the source of most employment and economic activity for Papua New Guineans and also gives them an opportunity to engage in the cash economy, as they occasionally sell some of their goods and crops for money or even operate small-scale micro-enterprises. The discussion highlights the type of environment the informal sector can create for both rural and urban dwellers, creating and motivating the spirit of entrepreneurship. The relevance of this discussion is to determine if PV training has a place within the informal sector to encourage the development of entrepreneurial skills in both rural and urban environments.

Building on from the literature on Chapter 2, the discussion then moves on to focus on the development of entrepreneurship in PNG in the context of its indigenous and cultural values. Some of the differences between the coastal lowlands and the highlands regions are briefly highlighted, and the reasons why one region and not another has embraced the spirit of entrepreneurship. Changes in traditional gender roles and relations are briefly discussed in the

context of changes within contemporary PNG society. A brief description of the PV training program is then provided, highlighting some of the principles and values taught in this course.

The chapter then explores the overall response of the Lihir community to the PV program in the light of the plan that its leaders have produced, called the LSDP. According to some of the leaders committed to developing this plan and realising it, PV is the vehicle meant to fulfil what Lihirians have always envisioned as the "Lihir Destiny" and is regarded as a means to achieve it (John Bosco, personal communication, May 2009).

Building on the literature reviewed in Chapter 3, the discussion then centres around the development of PNG's natural resources, focusing particularly on the mining industry. The mining industry plays a significant role in the economic development of the country because it is distributing hefty amounts of money in royalty and compensation payments to local communities or landowners affected by the extraction of minerals while also providing waged employment for the indigenous people within these communities (Banks, 1993; Connell & Howitt 1991). The aim of the discussion is to highlight the impact of such developments on traditional gender roles and relations, a process with particular relevance to the Lihir community.

4.2 Development challenges

Different countries face different challenges in their desire for development. As a country, PNG possesses many positive attributes along with the potential to become an economically independent country, given its richness in natural resources and also the resilience of its own people during difficult times. However, recent history has shown that this young country has struggled over time and continues to do so in many different aspects of its development.

4.2.1 The dimensions of diversity

PNG is geographically situated in the south-west Pacific, north of Australia, and shares a border with West Papua Province of Indonesia. The country consists of the eastern half of the Island of New Guinea and the outer islands of New Britain, New Ireland, Bougainville, and 600 other smaller islands or archipelagos. It has a land mass of approximately 465,000 square kilometres (Connell, 1997) and a population of about 6 million people comprising over 800 distinct tribal groups and languages spread across 20 provinces. Approximately 85% of the population lives in rural areas and due to the rugged mountainous terrain of the country, many tribes still remain isolated. These tribal communities have little or no contact with each other or the outside world,

and radio is the only form of communication with some of these areas (Population Media Centre, 2009). The rest of the population, approximately 15%, lives in the urban areas.

Sillitoe (2000, pp. 14-15) reported that Papua New Guinea's first contact with Europeans occurred when Jorge de Meneses, a Portuguese navigator, visited briefly in 1526. Meneses discovered the main island of New Guinea, naming it *Ihas dos Papuas* – *papua* being a Malay word meaning 'frizzy-haired'. The country was officially colonised by the governments of Great Britain and Germany, who were also responsible for dividing the country. The south-east part of the island then was known as the British Protectorate of Papua and became a colony of British Empire. The north-east part of the island was known as German New Guinea and belonged to the German imperial government (Sillitoe, 2000, pp. 24-25). When Australia assumed control in 1906, it renamed British Protectorate as Papua. Australia also took over administration of German New Guinea in 1914, during World War I. The two colonies then became united as the Territory of Papua and New Guinea and later gained political independence from Australia in September 1975, becoming an independent Commonwealth nation known as Papua New Guinea (Sillitoe, 2000, pp. 27-28). Outspoken national leaders such as Narokobi (1980, p. 20) argue, however, that the country had never truly been separated as Papua *and* New Guinea, but instead was extensively connected through trade, barter, and exchange systems and marriages, thus existing as a united entity prior to European contact. The country still maintains a special relationship with Australia, being its former colony, and is the largest recipient of Australian aid, although Connell (1997, p. 1) observed that this relationship became more difficult and complex after 1975.

Like many other developing countries around the world, PNG has a unique identity stemming from its diverse cultures and languages. This diversity proves challenging when generalisations are made about its culture and people. Traditionally, the people were governed by independent and localised tribal laws which reflected the accepted norms in different parts of the country and their way of life was supported mainly by subsistence agriculture and fishing. Papua New Guineans have evolved farming systems adapted to local environments, with the history of cultivation on the island of New Guinea dating back over 7,000 years, making it one of the oldest agricultural societies in recorded history (Government of PNG, 2004).

The country is divided by languages, customs, and traditions, and this has contributed in some areas to low level tribal conflicts between neighbouring communities, some of which have lasted for generations. In more recent times, modern weapons (including homemade guns) and the growing trend of rural-to-urban migration have worsened and greatly magnified the impact of lawlessness. Connell (1997) argued that the movement toward urbanisation, focused in Port

Moresby and other major centres of the country, accelerated in the 1990s giving rise to an increase in squatter settlements, ethnic disputes, unemployment, and other prevalent social problems, especially violent crime.

Despite the vast differences and complexity of its various cultures, most of the indigenous people of PNG are Melanesian (Connell, 1997), apart from some areas of the Central province where more Micronesian and Polynesian features can be recognised in the population, as well as on the outer atolls of Bougainville where a small population of Polynesians live. Systems of organisation and leadership differ substantially within the various cultures. For example the matrilineal pattern of land heritage and property rights is found in the eastern islands of the country − that is, New Britain, New Ireland, Bougainville, and parts of Milne Bay − whereas the rest of the country predominantly follows a patrilineal pattern.

The diversity of languages has given rise to a lingua franca, such that *Tok Pisin* (Pidgin English) is widely spoken in most parts of the country and *Motu*, a language of trade amongst the Papuan people, is spoken only in the Papuan region, especially around Port Moresby. However, even in *Motu*-speaking areas, *Tok Pisin* has fast become the lingua franca in recent years, with young people adding more slang to the language and contributing changes to the modern version. Within the country's current education system, children are taught in their vernacular in elementary or preparatory classes and then as they advance, graduate to English, which has remained the language of education and daily government business and commerce.

PNG's constitution declares that it is a Christian country hence approximately 96% of Papua New Guineans are of the Christian faith, comprised of Roman Catholics, Evangelical Lutherans, Methodists, and Seventh Day Adventists (Connell, 1997). There are also significant numbers of followers of the Evangelical Alliance, Pentecostal, and Anglican Churches. However, regardless of how people align their Christian faith many still retain their beliefs in traditional religion and customary practices (Lipscomb, 1998). Other religions, such as Jehovah's Witnesses, Baha'i Faith, and Islam, have entered the country in more recent years and are also growing at rapid rates.

The above discussions highlight the important dimensions of diversity within PNG itself and are also key in understanding the various responses within the country in relation to the development of the PV training program.

4.2.2 Minimal growth in socio-economic conditions since gaining independence

The socio-economic conditions within PNG provide a very interesting comparison to those of other developing countries. Although rich in natural resources, the country's social and economic indicators (hence, the general living standards of its people) have not improved much since it gained independence in 1975. The country is ranked 149th out of 179 countries and is considered to be a lower-middle income country (LMIC) (United Nations Human Development [UNHD], 2007/2008); however, it still fares badly in comparison to other Pacific Island countries in the region, as indicated in Table 1. The country remains dependent in part upon foreign aid to meet its development needs and aspirations.

Assessments of the country's slow-to-nonexistent progress toward economic and social improvement can seem paradoxical given the obvious fact that it is a naturally rich country; hence, PNG is often seen as a failed state. Bainton (2006) suggested that the lack of growth has been blamed on a wide range of factors including poor governance, foreign aid dependency, bad policy decisions or a lack of policy implementation, cronyism and political corruption, law and order problems, declining morality, refusal to adopt land registration reforms, dependency upon economic rents, inappropriate trade policies, budget consumption, disproportionate levels of importation, current education policies, inefficient bureaucracy and service delivery, fast money schemes, enduring tribalism, 'cargo' or handout mentalities, 'get rich quick' attitudes, and a host of other social problems (see also Government of PNG, 2004). Against this backdrop, the future of the country appears bleak. The picture painted by such observations stems from a foreign perspective of development issues and perspectives.

Table 1

Regional Comparison of Key Social Indicators

Indicator	**PNG**	**Fiji**	**Vanuatu**	**Samoa**
Infant Mortality (deaths, per 1000 live births)	64	18	34	20
Under Five Mortality (deaths, per 1000 live births)	89	21	42	25
Maternal Mortality (deaths, per 100 000 live births)	300	75	130	130
Life Expectancy (years, at birth)	54	70	69	70

Source: Adapted from the Medium Term Development Strategy, 2005-2010: (a) Recent Fertility and Mortality Indices and Trends in Papua New Guinea, PNG National Statistical Office (2000 Census data); (b) Human Development Report 2004, United Nation Development Program

Table 2

Basic Social and Economic Indicators – Papua New Guinea

Indicator	**Amount**
Land area	462,800 km2
Sea area	3,120,000 km2
Capital	Port Moresby
Population (2007)	6.5 million
Population average growth rate	2.7 percent a year
Total fertility rate (2000-2005)	4.1 births per woman
Life expectancy at birth (2004)	56 years
Infant mortality (2005)	55.2 per 1000 live births
Under 5 mortality rate (2005)	74.4 per 1000 live births
Maternal mortality ratio (2000)	300 per 100,000 deliveries
Malaria incidence (2002)	1430 cases per 100,000 people
Population using improved water sources (2004)	39%
Immunisation against measles (2004)	44% of infants under 12 months
Estimated HIV prevalence (2007)	2% of population
Adult literacy rate (2004)	57.3% of age 15 and above
Female adult literacy rate (2004)	51%
Women in government (2006)	0.9% of seats
Gross national income per capita, Atlas method US$ (2005)	$660
GDP growth rate (2005)	3%

Source: Adapted from Australian Agency for International Development (AusAID) website

Australia, Papua New Guinea's largest aid donor, has been relatively concerned with the lack of growth and minimal improvement in the country's social and economic indicators. According to Bainton,

> More recently, the Australian Government has been concerned with the prospect of a 'failed state' in close proximity to its borders. Low economic growth has been equated with an interminable downward spiral that would create an environment attractive to transnational criminals, people smugglers, drugs and arms traffickers, and more importantly – terrorists. Doubtless there are traces of truth in these arguments, and given that Australia has poured over 12 billion dollars into Papua New Guinea since 1975 – with seemingly very limited results - there is genuine concern over the direction of this nation, its dependency upon aid and the ways in which this money and aid is delivered and consumed (2006, pp. 2-3).

A dual economy

One way that the PNG economy has been characterised or described is as a "dual economy" comprising a formal and informal sector. The formal sector, which employs around 15% of the population, provides a narrow employment base consisting of workers engaged in mineral production, a relatively small manufacturing sector, public sector employees, and service industries including finance, construction, transportation, and utilities (AusAID, 2003; Government of PNG, 2004). Around 85% of the population is engaged in the traditional subsistence economy. Migration to major city centres in the past decade has also contributed to an increase in urban unemployment and many other social problems (AusAID, 2003) including conflicts with indigenous landowners of the urban areas such as the Motu-Koitabu people who own most of the land in Port Moresby. The increase in urban unemployment, however, is only measured against formal sector employment and does not take into account the growing and significant number of Papua New Guineans who are self-employed and supported through the informal sector, especially in the urban environment.

The increase in rural-to-urban migration can also be perceived in a positive way, in that it provides an opportunity for motivated, creative, and enterprising people to take opportunities and cultivate a spirit of entrepreneurship in the informal sector, which they need to do if they are to survive in an urban environment. In Port Moresby for example, people have come up with creative ideas and ways to sell their produce (such as carvings, food, and betel-nut) hence paving the way for the informal sector to become a vibrant and indigenous sector and contribute significantly to the country's overall economy. In fact, studies have also shown that millions of Kina not recorded in the country's national accounts circulate in the National Capital District (NCD) alone (Government of PNG, 2004).

The most common informal enterprises are small-scale food vendors or catering services, betel-nut and tobacco vendors, security services, domestic services, home-based garment

manufacturing, second-hand clothing merchants, and basic mechanical workshops. In recent years the range of businesses has extended out to include the production of indigenous handcrafts and artefacts, mainly for tourists. Another enterprise which is thriving in the informal sector is the sale of store-bought items such as batteries, watches, sunglasses, etc which are offered cheaply on the streets. (Many of these items are Asian-made products and how they get into the hands of vendors is another issue beyond the scope of this thesis). Informal workers also provide a valuable service to those employed in the formal sector—for example, by providing affordable meals through catering services or selling betel-nut, cigarettes, and tobacco in the vicinity of offices where the formal workers can easily have easy access to such products. However, laws and regulations have appeared limiting the sale of betel-nut and tobacco in certain areas to prevent littering and to discourage loitering. Such legislation has been enacted by the National Capital District Commission (NCDC) in Port Moresby, for example.

Hence, the development of the informal sector through the promotion of entrepreneurship is an important means of improving the livelihoods of those Papua New Guineans living in urban communities who are not engaged in formal sector wage employment. Small-scale enterprises in the informal sector also provide an environment where entrepreneurial Papua New Guineans can become motivated and aspire to further their business and business ideas to perhaps eventually enter the formal economy, provided there is sufficient support from the government and other relevant organisations. Whilst the majority of Papua New Guineans still depend on a combination of subsistence and cash crop production for their livelihood, the government has also recognised the growing number of people who earn a living from operating small-scale informal businesses or being employed in the non-formal workforce; in fact, the government's recognition of this important sector was formalised through the passing of new informal sector legislation in 2004 (Government of PNG, 2004).

This legislation is known as the 'Informal Sector Development and Control Act 2004' and has two main objectives. Firstly "to provide the facilities and encourage the development of informal businesses in urban and rural areas; secondly, to regulate and control the development of informal business for the protection of public health and safety" (Informal Sector Development and Control Act, 2004). The government, through its Medium Term Development Strategy (MTDS) for 2005-2010, is committed to supporting and harnessing the informal sector by creating an enabling environment for its development. This legislation also provides an opportunity for the promotion of entrepreneurship and the role that PV may play in this regard.

Having discussed the significance of the informal sector for Papua New Guineans and its potential for the development of entrepreneurship, it is also acknowledged that the motivation

and reasons for engaging in small-to-medium scale enterprising can be different for both rural and urban dwellers. However, a common reason in people's pursuit of such enterprise relates to their financial needs or the need to survive in a cash-based society whilst also fulfilling customary obligations and responsibilities through the money that is earned. The reciprocity-based system of exchanges in PNG adds a significant dimension to the way in which Papua New Guineans are expected to get involved in business activities. Hence Sillitoe (2000, p. 101), in describing the reciprocal obligations of exchange within the highland societies in PNG, asserted that the aspiring highlands businessman "takes on added significance in the context of the reciprocal obligations to which he is subject". Sillitoe's observation reiterates the importance of maintaining social and kin relations, even through entrepreneurial or business endeavours in PNG.

4.3 Entrepreneurship and PNG culture

In order to understand the extent of the influence of entrepreneurship and the development of enterprise activities in PNG, it is first necessary to understand the social, political, and economic structures within their cultural contexts. This is important in the context of this thesis in order to recognise the various responses to PV within PNG, particularly in relation to gender roles and relations and people's economic attitudes and behaviours, the key areas for this research.

Sillitoe (2000, p. 91) pointed out that some Melanesian values and aspirations promote positive responses to the changes which were necessary after contact with the industrial world. As has been established, the cultural context of entrepreneurship development within PNG varies, given the country's complexity and diversity, especially in its social and political organisation. Central to this is the type of leadership that is found in different areas. Most Papua New Guinean societies follow a patrilineal pattern, where leadership, land rights, material wealth, and property are passed on from the father to the eldest son of a family. A few societies, especially from the New Guinea Islands region (i.e., Bougainville, New Ireland, East and West New Britain), follow a matrilineal pattern, where land rights and property are inherited from the mother's clan lineage.

In the Highlands region, however, leadership status is achieved on the basis of one's ability to attain traditional and material wealth. The authority of leaders there is based on personal ability rather than being awarded through hereditary means (Connell, 1997), whereas in the Lowlands or Coastal regions, especially in the Central and Milne Bay provinces, it is inherited. Hau'ofa (1981, pp. 291-292) affirmed that in these regions, "a formal office of headship was hereditary within a particular lineage or family". Even in the Highlands region though, there is a hereditary element involved in the process of identifying community leaders (Brown, 1978; Strathern,

1975). This comes from the influence of their patrilineal pattern, in which the eldest son within a family retains the advantage of inheriting from his father. However, to achieve leadership, or *big-man* status, he also must take on the responsibility of working hard in order to first accumulate traditional and material wealth, and then redistribute this wealth for his own status and name's sake. Finney (1987, p. 9) reported that leadership in traditional Gorokan society was also "achieved and not ascribed"; hence, it was "exercised by individuals who had earned the title of *big-man"*.

Chowning (1977) asserted that the "political organisation of most Melanesian societies seems to include the characteristics of *big-man*". The *big-man* system is structured in a way that encourages personal ambition and achievement of leadership status through the competitive exchange and accumulation of wealth. In addition, Lipscomb (1998, p. 34) emphasised that "although a *big-man's* son had a head start in life, he still needed to demonstrate qualities of his own: hard-work, bravery, leadership, trading skill, magical knowledge". Given these complex diversities, it is not surprising that various societies within PNG seek different characteristics in their leaders; however, the one common desirable leadership quality is the ability to garner, manage, and control economic assets (Connell, 1997). Hence, wealth is a necessary element for any man who decides to develop supporters and maintain power and prestige.

The influence of capitalism in some PNG societies can be analysed within the various leadership structures and the ways in which leaders have carried out their roles, in both colonial and post-colonial times. Modjeska (1982, p. 93) compared the *big-man* with capitalist entrepreneurs, claiming each was "like a capitalist financier, risking other people's wealth more than his own". In support of this argument, Feli (1984, p. 38) concluded that the "Highlands exchange constitutes an intricate economic situation involving credit, finance and repayment, often with interest". However, this was criticised by Lipset (1990, p. 139), who argued that the exchange was "based on sentiment rather than contract". Moreover, Lipset observed there was "no accumulated profit obtained, since pig exchange eventually evens out".

Finney (1987) asserted that Gorokan businessmen did not distance themselves from their clan affiliations. Finney went on to say that although these men were engaged in the modern capitalist system, they always returned to the source of their strength and support, which was their own tribesmen; hence, there was acknowledgement that without the support of their tribesmen, they would have failed in their business aspirations. Amidst all these complexities was the desire to maintain social relations within and among Papua New Guinean societies. However, these relationships, as Connell (1997, p. 247) observed, "have become intricately

entangled" because of "social obligations, economic strategies, the goods and the media of exchange linked to them".

Papua New Guinean societies, like others in the world, have gone through many struggles to adapt and survive in a hostile environment. Connell (1997, p. 248) observed that PNG was pre-adapted to change because of its "traditional values and institutions", as were many Melanesian societies. Finney (1987) echoed a similar view, emphasising that "Gorokan society can be considered to be pre-adapted for the emergence of entrepreneurship once the people were exposed to market opportunities". This conclusion was drawn on the basis of the *big-man* system which provides an environment conducive to the development of entrepreneurs. However, not all societies in Papua New Guinea are pre-adapted to capitalism. For example, Stephen (1974, p. xxii) observed the Mekeo in Central province, and reported that the "hereditary leadership, the social condemnation of competitive behaviour, and the strong conservative force created by sorcery fears, operate against their own desire for progress". Hence, even today in parts of Central province these are the main reasons why few people are engaged in large-scale business development.

Trade or exchange was a significant way of life for Papua New Guinean societies during pre-contact times. Some of these trading activities covered vast distances requiring days of travel, but people took on the trade primarily for the purpose of building and maintaining social relations, apart from the exchange of goods to obtain what each needed. Many important traditional items were widely used during these exchange events, including the valuable shells often known by different names in different geographical regions—for example, *toea* in the Motu areas of Central province, or *mis* on Lihir Island of New Ireland province. These shells were used as a "general means of exchange" and were assigned "standard values" in different parts of the country (Connell, 1997). However, with the introduction of money (cash) and all the advantages it offers in the modern world, shell money now only retains its role in culturally significant social exchanges, such as bride price payments and other feasting events. The relevance of the discussion in this section is to highlight that to some extent, the traditional culture of the cycle of exchange systems in PNG societies also provided an environment conducive to the development of entrepreneurial skills in the sense that producing these valuable means of exchange required specialised skills and knowledge, as well as creativity. In addition, the ability to maintain important relationships meant that an established market was also maintained for the valuables in exchange. Hence the potential for entrepreneurship can be recognised even within these traditional exchange systems.

4.4 Entrepreneurship and gender roles and relations

Sillitoe (2000, p. 101), asserted that the *big-man-to-business-man* entrepreneurial model in PNG focuses on men, and as such portrays the idea that indeed, PNG women were not entrepreneurs; however, this is untrue. Rather, according to Sillitoe, there are examples of PNG women engaged in various enterprising and business activities such as coffee processing, successful management of trade stores, and operating local bus services. However, there were more men engaged in these activities than women, hence men's engagement in cash crops such as coffee, tea, cocoa, etc, may have contributed to women being overlooked in the roles they did play in also contributing to the cash earned through the sale of these crops. In some cases, women's entrepreneurial activities were the only source of income for a family, and Sillitoe recognised this contribution as "bringing in sizeable incomes for their families from the sale of their garden produce" (p. 101). This is often attributed to the active and major role women fulfilled in, for example, farming activities.

The major role that women play in contemporary PNG, particularly in enterprising and business activities can also be connected to the traditional roles they have played within their households in the past. Although there were defined gender roles within PNG households, these roles were complementary to each other and allowed women and men to enjoy a relationship that emphasised equality; hence, it was not hierarchical in structure. The prestige gained or lost in the public sphere was a reflection of the household and thus it was important that the individual roles accorded to each family member were fulfilled as required. Sillitoe (2000, p. 101) pointed out that the household, as a most important environment where domestic activities took place, "is embedded in, not isolated from, the wider political economy". Moreover Sillitoe observed that,

> Individual members within the household have relationships outside it and around these relationships articulate socio-political exchanges. Hence the accumulation and production of the wealth distributed in these transactions are household activities, albeit assigning women and men different responsibilities. Both women and men have influence and the household does not function without cooperation between them (p. 102).

The modernisation process has contributed to further complicating the changes experienced in PNG societies today. While socio-political exchanges continue in traditional PNG societies, the emphasis and value is placed more on cash and purchased commodities nowadays, which further undermines the position of women, their important role, and the significant contribution they make. For example, local produce from a woman's garden, such as yams and bananas, are

deemed insignificant when compared to cash and store-bought items, such as bags of rice and flour, whose values are measured in financial terms.

Sillitoe, however, asserted that regardless of various recommendations from gender experts, "PNG women are going their own way, by managing whatever changes they can in their household role and continuing to perform their highly valued domestic duties whilst at the same time increasingly engaging in the market-dominated world" (p. 104). Interestingly, a recent study by AusAID in 2008 on PNG women in business revealed that, in general, the desire for PNG women to engage in business activities is increasing; however, women expressed the desire to also start businesses that operate for community benefit and inclusion. The study also revealed that while many PNG women are involved in subsistence agriculture and sell their produce in the local markets, larger markets abroad hold significant appeal (AusAID, 2008). However, such endeavours require relevant and appropriate skills and information for them to flourish.

4.5 The Personal Viability training program

According Tam (1997, p. 11),

> PV is the perpetual self-discovery, perpetual re-shaping to realize one's best self, to be the person one could be. It is the sustainable development of human resources with individual skills to be their best. PV involves the emotions, character, personality, deeper layers of thought and action, adaptability, creativeness and vitality. And it involves moral spiritual growth….it is about finding yourself and owning yourself.

The PV program was devised in the late 1990s by Sam Tam (sentimentally known as 'Papa Sam' by those who have gone through his PV program), whose lineage is Chinese, but who was born in Papua New Guinea. Tam is a businessman who has continued to argue that it is possible for PNG to become a viable nation despite the negative image of the country that has been portrayed by the media at the international level. The PV program is part of his plans to develop the country on a national level.

The program has been in operation in PNG under the EDTC since 1997. The training curriculum can be considered a new body of knowledge entering into the country's education system and targeted toward all Papua New Guineans, regardless of age and sex. Hence, an article in one of Papua New Guinea's daily newspapers stated "personal viability is different from the usual way of education, where knowledge is merely imparted, but it is a way of

thinking and doing, thus, leading to a way of life...it is 'education from the inside'" (Unage, 2006). According to Bainton (2006, p. 3),

> Tam aims to transform Papua New Guinea from the 'grassroots' up, and has been taking active steps for the last ten years to reverse the negative trends about the country. Rather than depend on the State, or national policies, multinational companies, or foreign aid donors, Tam's prescribed strategies put the responsibility on the individual to work hard and achieve material and financial prosperity. He attributes the apparent 'failures' over the past thirty years and the decline in national living standards to a lack of entrepreneurialism or 'personal viability'. Entrepreneurialism or 'personal viability' would supposedly inspire and generate the sort of development that Papua New Guineans have been trying to achieve.

The fundamental message behind PV is that anyone can achieve their desired quality of life if they are willing to work hard and live by the required principles, hence the promotion of a strong work ethic. Bainton (2006) made reference to Comaroff and Comaroff, (2001, p. 2), saying that essentially, PV promotes "a capitalism that presents itself as a gospel of salvation; a capitalism that, if rightly harnessed, is invested with the capacity to wholly transform the universe of the marginalized and disempowered".

The following is a basic description of what is taught in the course, gathered mostly during an interview with Tam (Jr.)[10]:

A basic 2-week PV course currently costs K250 per person[11] and is open to anyone, including children, who are encouraged to learn PV through the PV Home School Program. The venue for the training is usually a community or church building that is accessible to the whole community.

The course basically teaches participants how to manage their finances effectively and how to balance the demands of social obligations such as the traditional custom activities. They are encouraged to discipline themselves when it comes to these demands. Participants are also told that time is of the essence and the course teaches it is the most valuable asset. Hence, it should not be wasted doing anything other than productive work. For example, sitting around all day and gossiping, visiting relatives, etc is identified as unproductive whereas, working in the

[10] Sam Tam (Jr.) is the son of Sam Tam (Sr.) and is currently the Executive Director for EDTC. I sincerely appreciate what Tam (Jr) was able to share about the basic content of the PV course since this kind of information is not generally available and one has to enrol in order to find out what the course is all about. In addition, see Bainton (2006) for a more detailed description of the PV course content. Bainton attended a 2-week PV training course and provides a more detailed description and analysis of the course content. What I have outlined is basically gathered from my interview with Sam Tam (Jr.) and some observations made by Bainton.
[11] K250 is approxiamtelyNZ$138. PV training cost given by Sam Tam (Jr.) during a personal interview in Port Moresby in May 2009.

garden, fishing, or selling/marketing produce are all activities considered to encourage a person to be productive. Participants are also taught not to entertain people who want to borrow money from them for various reasons, as these are the type of people who will run their businesses down, and facilitating such borrowing encourages the borrower to be lazy and fall into debt.

Bainton (2006) pointed out that PV is divided into four growth disciplines—productivity discipline, law of success discipline, economy discipline, and integrity discipline—which form the basis of the PV grading system. Moreover, Bainton pointed out that the "grading system is designed to gauge an individual's viability and quantify their ability", which according to Tam (1997, p. 36) "add(s) value to themselves and commodities". Furthermore, Bainton asserted that,

> By measuring the quantity sold, or the profit achieved, and the rate of expansion and personal progression, 'viable people' can prove that they are constantly 'adding value'. These disciplines specifically target economic output (productivity), savings and investments (economic), ability to meet projected business targets and maintain satisfied customers (law of success), and finally the ability to fulfil obligations in all areas of life, such as business, family, *kastom*, or church (integrity) (2006, p. 15).

The focus is at the home level, where the nuclear family is the base in which the PV mentality has to be instilled. The family members need to be organised in a corporate structure where each is required to be productive in order to contribute to the weekly living expenses for the whole family. Hence, every person is responsible in the home and has a part to play. Weekly family meetings are encouraged so that each member's contribution is recorded in order to see their productivity level, which should continue to show an increase. If each individual family member productively contributes, then the nuclear family's productivity increases and the outcome should be a community of like-minded families living in the same neighbourhood.

To provide continued support and enthusiasm, the next level is to form PV clubs where resources, finances, and labour for individual and group projects are pooled together. Bainton (2006, p. 24) observed that:

> Some function as a microfinance resource, providing small interest-free loans to members (anything up to K200) to start another 'money garden' project, pay school fees or for other emergencies. From Tam's perspective, when left to their own devices Papua New Guineans inevitably fall by the wayside of PV. Clubs provide support and encouragement for floundering entrepreneurs. Modelled on corporate organisations, clubs elect a president and various office holders, coupled with committees for different

> projects. Ideally there should be a club for every village and a head member for each local government ward. Their duty is to make sure clubs function effectively, to help recruit new followers, and guard against declining interest or enthusiasm.

According to one of the originators, "PV only provides the tool, but in the end, the decision still rests with the people in what ways they want to move forward" (Tam, Jr., personal communication, March, 2009). In addition, Tam pointed out that PV helps families to work together by encouraging each member to take on responsibilities which contribute toward the family's source of income in order to optimise survival in a changing and cash-based society, hence creating a ripple toward independence. However, it is interesting to note that in traditional PNG societies, people have always worked together and their expected roles and responsibilities were complementary. PV promotes a set of values that encourage entrepreneurship and the desire and opportunity to engage in capitalism. However, Bainton (2006, p. 1) argued that this kind of engagement is an introduction to what Macpherson (1962) described as 'possessive individualism', and as such, represents values that come into constant contradiction with Melanesian ways of life and support of kin. Moreover, Bainton asserted that "the course is to do with modern desire which essentially means to speak of individual desire" (p.19), hence the notion of individualist behaviour, motivation, achievement, and all the needed psychological traits as argued by the Modernisation theory.

If the notion of individualist behaviour is of any relevance in the contemporary PNG context, then Sillitoe's (2000) observation regarding social change in Melanesia needs to be highlighted. He attributed the capitalist-like developments in Goroka society partly to the "dynamic innovations of individuals modelling themselves on the traditional big-men role" (p. 93). Moreover, Sillitoe emphasised that "today's new businessmen build up their commercial and cash cropping enterprises largely through their own individual efforts, and this is a salient point given the premium placed by the traditional stateless and fiercely egalitarian societies of the highlands on individual actions" (p. 98). Sillitoe's observation brings into light the social and economic changes that continue to affect PNG societies (and other Melanesian societies, for that matter) in more recent times, which stem largely from individual desires and choices to engage in economic and business activities. Hence, PV takes advantage of the current dilemma and capitalises on the promotion of a set of values that arguably encourage individualist behaviour, but it cannot be assumed that these attitudes and behaviours are a result of PV training. Moreover, within traditional PNG societies the individual played a significant role to some extent, since the household or clan depended very much on each individual's contribution to ensure the system functioned as expected.

The PV course has been endorsed by the PNG National Government. In addition, some of the country's highly respected leaders and elites, such as the current Governor General (Sir Paulias Matane) and the current Prime Minister (Sir Michael Somare), are convinced this training is specifically designed and tailored for Papua New Guineans. PV has even extended its reach to other Melanesian countries in the Pacific (according to PV newsletters, several training sessions were conducted in Solomon Islands and Fiji in 2005). The ideology of PV is also come to be supported and embraced by various religious institutions—notably, the United Church—since the notion of hard work is a fundamental principle of the Bible in Christianity. PV is now seen as the needed missing link that will offer Papua New Guineans a vehicle for attaining self-reliance and individual financial autonomy. Unage (2006) and Nalu (2006) reported that the government has regularly used the PV course as a capacity building exercise. However, a recent interview with Tam, Jr. pointed out that little has eventuated since the government's decision to use PV in this way, due to bureaucratic red tape that continues to hinder progress (Sam Tam, Jr., personal communication, March 2009). Moreover, Nalu further observed that there is growing interest in the PV course among local community groups who are looking for opportunities to advance their own grassroots economic activities.

Whilst the fundamental principle of the PV concept is the promotion of hard work in order to attain financial prosperity and material goods (Tam, 1997), Bainton (2006) has argued that this concept is not applicable to naturally resource-rich communities, for example Lihir, where people—particularly landowners and their families and tribal clans—receive royalty and compensation benefits and do not see the necessity of working hard to achieve as such. The PV training program was conducted in communities around the Island in 2003 and to date there remains a mixed response among the islanders (Bainton, 2006). Nonetheless, the LSDP was developed by LMALA based on some of the strategies and principles of the PV course. Overall, Bainton concluded that many Lihirians don't see the necessity for having PV in their lives since it was "introduced at a time when most Lihirians had an advanced level of involvement in the cash economy and greater ability to consume commodity items compared to their neighbours, hence the widespread belief that the mining company will continue supplying wealth to Lihirians meant that many Lihirians failed to see the necessity for PV" (Bainto 2006, p. 30).

4.5.1 PV program and the LSDP

The LSDP is considered by some well-educated Lihirians to be the way forward and the plan for sustainability for Lihirians after the mine closes. It is considered to be their guide for achieving what they called the 'Lihir Destiny'. The 'Lihir Destiny' is what Lihirians, in particular the local leaders, claim their ancestors had envisioned; that is, that Lihir will become a city one day. This vision is entangled in the earlier cargo cult movements that arose in Lihir

over the years. Today, the local leaders' aim is to curb the "hand-out mentality" or "resource dependency syndrome" and "achieve self-reliance" and "financial independence" (Bainton, 2008b). They are convinced that by employing some of the strategies and principles behind PV, they will be preparing their people for mine closure and helping each individual become more responsible in the use and management of the mine-derived wealth; this, according to one of the leaders, is possible through "changing the mindset of the people" (John Bosco, personal communication, May 2009). The LSDP forms the basis for the revised IBP agreement which was finally signed in 2007 and is based on some of the strategies and principles of the PV program, including the development of entrepreneurial skills. According to Bainton (2006), LSDP is a "blue print for a new order established through mine-derived benefits and sustained through individual entrepreneurialism"; however, not all Lihirians are convinced they should follow this strategy.

Moreover, Bainton observed that although there are some disagreements between Tam and the Lihir leaders who have devised the LSDP regarding the nature and ownership of the PV strategy in Lihir, Tam has generally remained supportive because of the considerable amount of returns that he and his business can realise from there[12]. Bainton also pointed out that some people have embraced PV as a way of life, whilst others are struggling with it, especially with regard to PV's emphasis on entrepreneurial development and the conflict it can create with traditional Lihirian values.

A number of people (both Lihirians and non-Lihirians) with whom I spoke informally expressed that there are too many "white consultants" and/or expatriates and foreigners engaged in the development and implementation of the LSDP, which is claimed to be "home-grown". On the other hand, those who are vocal and spearheading LSDP, when interviewed, said that the "white consultants" referred to are not consultants per se, but are expatriate employees of LMALA engaged purposely to help build the capacity of the LMALA staff in certain areas such as information technology (IT), human resources, etc, and have no involvement in the implementation of the actual plan. It is interesting to note, however, that some of these positions could also be filled by qualified Papua New Guineans and do not necessarily require the engagement of the "white consultants".

Different views and motives, mixed with political issues, exist with regard to LSDP and its future implementation. The relevance of its discussion in the context of this thesis is to highlight the aims of the local leaders in their desire to encourage attitude and behaviour change toward the use and management of natural resources through the strategies behind the PV training

[12] Some 10 million kina has been commited in the IBP for the implementation of PV programs throughout Lihir (Bainton 2008b).

program. The next Chapter, in fact, reveals some of the changes that have been experienced by those who have undergone the PV training, particularly with regard to the control they now have over the use and management of their own resources, as well as the changes they can reflect on regarding gender relations within their households.

4.6 PNG and the development of its natural resources

As a country, PNG is endowed with natural resources which mainly include minerals, forests, and marine life. However, this endowment is fast diminishing as exploitation for economic development accelerates and contributes to environmental degradation and pollution of the land and sea, home to the many diverse flora and fauna, some of which are unique to this country alone. Proponents argue that large-scale extraction must continue for the sake of economic development, even at the expense of the environment and the people; hence, the impact of these development efforts can be both negative and positive and in most cases, women bear the brunt of any negative impact, as outlined in the previous chapter. Lagisa and Scheyvens (1998) asserted that women are also left to deal with the social and environmental consequences that accumulate as a result of these extractions and still tend to be excluded from major decision-making processes.

Although both the fishery and forestry sectors also contribute towards the overall economy of the country, this section will briefly focus on mining as a key factor in the context of this thesis.

4.6.1 The mining industry in Papua New Guinea

PNG is rich in mineral resources, and the mining industry in the country contributes significantly to its overall economic development, particularly in export earnings. The country has a rich and diversified mineral resource base, of which gold, copper, silver, and oil are found in abundance in deposits of significant importance (Government of PNG, 2004). In 2007, PNG ranked fourth in mine production of copper and gold in the Asia and Pacific region, and ranked ninth in global mine production of gold, accounting for 2.4% of the world's gold production (U.S. Geological Survey Minerals Yearbook, 2007). The country's copper mine production accounted for 1.1% of the world's total copper mine production (International Copper Study Group, 2008, p. 11-12; World Bureau of Metal Statistics, 2008, p. 79). The first half of 2007 saw a total contribution from mining of 80% of the country's total exports (Papua New Guinea Chamber of Mines and Petroleum, 2008a, p. 2). Most copper and gold are produced from the Porgera, Ok Tedi, and Lihir mines, the country's main current mining sites.

In the context of mining, a mining company's access to land is constrained by the fact that whilst the State owns the mineral deposits, the local people are the landowners (Macintyre & Foale, 2007). As noted earlier, land plays a significant role in the life of Papua New Guineans and in some cases land disputes can hinder the progress of the mining industry, especially when compensation demands by the landowners and their communities are not met by the government or the mining company. Connell (1997, p.121) observed that "mining has brought both great wealth and conflicts over resources, localised environmental degradation and political problems of unparallel severity, thus its impact has been much more than economic".

Major mining areas in PNG have experienced rapid monetisation of their local economies in a short timeframe through the payment of compensation, royalties, and waged employment; added to this has been the creation of business opportunities (Banks, 1996; Connell & Howitt, 1991). Indigenous landowners and their local communities affected by mining receive compensation payments for the use of their land, as agreed upon with the government and the operating company. Banks (2001) observed that cash tends to be the most common form of compensation payment, and the terms vary greatly in regards to when and to whom it is paid. Moreover, Banks pointed out that in most cases, community members or representatives are told when an upcoming payment will be made, and those who are regarded as owners of the land arrive on the day to receive their payment. Various studies have also shown how these compensation payments are distributed within families or clans in the affected communities (Banks, 2001; Filer, 1997). The distribution of these payments within the affected communities remains a major issue and source of debate and conflict around most resource projects. This is certainly the case in relation to the Lihir gold mine, the focus of this research.

4.7 Summary

This chapter highlighted some of PNG's historical or background conditions in an attempt to understand the reasons why the country has responded to the PV training program the way it has, although this response has varied in different parts of the country. It is obvious that continuous dependence on foreign aid is the main reason why the PNG government mandated the PV training program in the country.

PNG's dual economy, and in particular the traditional subsistence economy, supports 85% of the population. The discussion in this chapter highlighted the type of environment that this informal economic sector can create for both rural and urban dwellers, stimulating and motivating the spirit of entrepreneurship to become a vibrant and industrious sector of the country's economy, provided the proper systems and support are in place. In addition, more and

more women are now engaged in entrepreneurial activities with the desire to engage in more formal business activities outside of PNG.

Overall, some PNG cultural contexts pre-adapted the country for engagement in entrepreneurial activities. However, there are important reasons why some cultures and not others have embraced the development of entrepreneurial activities. The traditional *big man* system played a major part in this regard, particularly in the Highlands region. Hence, the notion that PV promotes individualist behaviour must be viewed critically in the context of PNG cultures where individual responsibilities also played a major part in fulfilling and completing socio-economic exchanges within society.

CHAPTER 5: METHODOLOGY AND FIELDWORK EXPERIENCE

5.1 Introduction

This chapter explains the methodology that was applied over the course of this research project and describes some of the fieldwork experiences of the researcher from the preparation stage to the actual data collection.

Firstly, the preparation stage included thinking about and planning how to deal with ethical issues in the field, gaining access to communities and research participants, and the development of an initial plan to work with research assistants. Secondly, the research methods used were semi-structured interview (SSI), observation, and informal walks. The SSI had both open-ended and close-ended questions to analyse both qualitative and quantitative data. The qualitative data was collected through open-ended questions and the quantitative data was collected through close-ended questions. This chapter provides an explanation regarding the wording of the questions posed as part of the data collection process.

For the purpose of this research, I use the term 'primary research participant' to refer to ordinary women and men living in their villages or communities without holding any responsibility in terms of leadership, decision making, etc that would affect the overall life of their communities in a major way. This also indicates the level of importance I place on this group of people whom I believe are the ones primarily affected by any development project in Lihir. Thus, the individual responses received from this group provide an important basis on which the degree of PV's influence is assessed in this thesis.

The term 'secondary research participant' is used in this thesis to refer to those people who represent Lihrians and hold some form of leadership role and status through which their decisions and actions have a profound and significant influence on the overall population of Lihir. The various responses received from this group also give some indication of the level at which PV training has been approached and the role it may play in future plans for Lihir as a society.

5.2 Research philosophy and practice

5.2.1 My position as the researcher

Machi and McEvoy (2009, p. 7) asserted that it is crucial for the researcher to approach research with an open mind and view all results without pre-determined conclusions. Keeping an open

mind means the researcher also needs to acknowledge his or her own personal biases, positions, and subjectivity, hence the researcher needs to be as reflexive as possible.

As a Papua New Guinean woman growing up in a patrilineal society, it was an interesting experience to conduct this research in a matrilineal society. As this was the first time I had travelled to Lihir, I was anxious to find out for myself some of the differences between my own traditional system and the one I was going to study, such as those involved in the acquisition and distribution of land and traditional wealth. Before I went into the field and whilst putting together my research proposal, I read Leonard Lagisa's (1997) thesis on *The Impacts of a Major Development Project on Women's Lives: A Case Study of Mining in Lihir, Papua New Guinea,* which provided sufficient background information for me on the Lihirian way of life, particularly women's lives. Lagisa concluded that although Lihir was a matrilineal society, Lihirian women were never included in major decision-making processes. This was particularly evident at that time (1996), when a large gold mine development was about to take place on the island. To some extent, this conclusion influenced the second key question in my research, which concerns the influence of PV training on gender relations at the household level. The assumption I had at the time of writing my proposal was that if PV training did influence gender relations at the household level in a positive way—for example, by creating more open dialogue and consultation between a husband and wife in major decisions affecting them as a family—then it was possible that the gradual effect of this influence could be seen and felt at the wider level in future, thus creating more open dialogue and consultation between women and men on major development project initiatives affecting them as a society. This would mean that women would have the opportunity to voice their opinions and concerns in major decision-making processes, asserting a degree of influence over these decisions and bringing about a feeling of empowerment in the process.

As a Papua New Guinean woman who has also had the privilege of attaining tertiary education and the experience of formal wage employment for several years, I have had my share of personal experiences and the "burden" of customary obligations in my own life, which have given me my own personal bias on this as well. I was therefore open to acknowledging my own position in this regard and was very careful when asking questions relating to *kastom wok* (customary obligations) to avoid influencing the primary participants in this research study with my own personal bias.

5.2.2 Preparing for the field

The preparation process for this research took place in two locations, since I had to leave New Zealand earlier than expected to go to PNG for fieldwork due to the ill-health of my daughter.

Before travelling, I needed to ensure that a draft literature review was complete; that I had appropriate interview questions (separate sets of questions were prepared for primary and secondary research participants); and I needed to draft a methodology plan and undertake the ethics process as required by the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants, developed by the Human Ethics Committee of Massey University. My initial contact on Lihir was Dr. Nicholas Bainton[13] and communication with him was established via e-mail for logistics and travel dates to the Island.

I arrived in Port Moresby on 1 February 2009 and continued to work on structuring and finalising the interview questions. Follow-up communication was initiated with Dr. Bainton, who further established other contacts for me with the Lihir Gold Limited Company (LGL), through their Community Relations Office (CRO) in Lihir. The CRO deals with community issues and liaises with the community on behalf of the company in addressing these issues. The office is also responsible for research, which is why I had to work through its staff as a matter of courtesy.

Although prior planning is important, unexpected disruptions can sometimes happen and cause delay resulting in the need to readjust plans. I had initially planned to travel to Lihir by mid-March 2009 to interview the primary participants and some secondary participants, particularly the PV coordinators and trainers on Lihir, before returning to Port Moresby and completing the interview process with the rest of the secondary participants. However, there was delay in several logistical arrangements, the first one being accommodation, of which there were two options available to me. The first option was to be accommodated at one of the mine campsites[14] and the second option was to be accommodated in one of the communities. My own preference was to live in the community, close to the people so that there would be flexibility in scheduling to meet with them. Community people have their own daily tasks and priorities to attend to, and as much as possible I wanted to avoid disrupting these priorities. This, along with the fact that there were no rooms available at the campsites for the period of my stay in Lihir, led to the final agreement that I would be accommodated by a female staff member (employed by LGL in the CRO) and her family in their house[15] in the community of Zuen.[16]

[13] Dr. Nicholas Bainton is currently a Research Fellow at the Centre for Social Responsibility in Mining at the University of Queensland and was engaged as a research consultant with the Lihir Gold Limited at the time of my research. His initial research on the Personal Viability training program in Lihir in 2006 provided background information for my own research in this area.
[14] Mine campsites are the accommodation provided by LGL for its employees, particularly for non-Lihirians and expatriates.
[15] In Lihir Island, some families let out a room in their house for a small rental fee, as low as K10/night (approximately NZ$5/night), as an informal arrangement. Meal arrangements can be made with the owners as well, usually at an added cost.
[16] Zuen was one of two communities in which I collected my data for this research. The other community was Kunaiye 1.

The second cause for delay was the difficulty of getting a confirmed seat on Air Niugini[17] for travel to Lihir, which resulted in a hold-up of another 4 weeks in Port Moresby. However, I tried to remain positive by readjusting my interview schedule, and decided to make arrangements to interview the secondary participants located in Port Moresby first. Hence, I was able to meet and interview the Executive Director of EDTC, as well as one of the key PV trainers in Port Moresby. However, several attempts to interview staff from government departments, particularly the Department for Community Development (DFCD) and the Department of Commerce (DoC), were unsuccessful.

5.2.3 Dealing with ethical issues in the field

Schram (2003, p.137) stated that "ethical considerations are inseparable from your interactions with study participants in the field". This indicates that there are procedural ethics and ethics in the field which sometimes do not marry institutionally or personally. It was therefore important that this research was conducted in an ethical manner, ensuring the participants' rights and wellbeing; hence the methodology used adhered to the *Code of Ethical Conduct for Research, Teaching and Evaluations involving Human participants developed by the Human Ethics Committee of Massey University* (2008) wherever possible. In addition, Ruane (2005, p. 18) emphasised that priority should be given to "the physical, psychological and emotional well-being of participants".

The interview process basically followed a consistent pattern. Firstly, before any questioning began and even before I introduced myself, the participants were always thanked for sharing their time and making themselves available to share their knowledge, experiences and perspectives for this project. This was important as a gesture to acknowledge and appreciate the participants' presence and availability, and to emphasise that without their participation, the outcome of this research would be incomplete and inaccurate. Secondly, I briefly introduced myself and then described the purpose of and reason for the research. This was followed by an explanation of the participants' rights, including the right to withdraw from the interview at any time during the interview process, and also the right to refuse to answer any or all of the research questions posed to them. I had also planned to use a digital recorder for the purpose of recording the interviewees with their permission, and so explained that they had the right to refuse to be recorded. As a result, the majority of the participants refused to be recorded even after I explained that the recording would be treated with the utmost confidentiality and was

[17] Air Niugini is the main airline for Papua New Guinea. LGL has chartered flight arrangements with Air Niugini for its employees who are given priority; hence the difficulty in getting a confirmed seat to Lihir for other Air Niugini passengers. The Air Niugini office in Port Moresby has little control over flight bookings to and from Lihir, which are mainly controlled by the Air Niugini office in Lihir. It seemed that the dates for my travel to Lihir coincided with the period when most of the LGL employees were going back to their home provinces on field break, via Port Moresby.

specifically for my own use only, to cross-check my information and capture their words and thoughts correctly.

Another challenge I encountered was in trying to get written consent from the participants. Many of them were not comfortable with this and asked to give oral consent only; this was obtained, where possible, before each interview began. Although oral consent can still be recorded through the use of recording devices such as tape or digital recorders, it was difficult in this research since most of the primary research participants did not want the interview process to be recorded in anyway apart from me taking notes in writing. However, on the other hand, obtaining oral consent was in fact appropriate for protecting participants' privacy, as it constituted respectful treatment of their preferences while ensuring the "promise of anonymity and confidentiality" (Ruane, 2005, pp. 24-25). This research was given a 'low risk evaluation' by Massey University's Human Ethics Committee (MUHEC), and therefore only individuals over 18 years of age were allowed to take part in this research; thus all the research participants were adult women and men.

An important ethical issue I kept in mind throughout my fieldwork was to be prepared to deal with unequal power relations (Scheyvens et al., 2003, p. 149) between myself and the participants. Although I am a Papua New Guinean, I was also conscious of the fact that once I introduced myself as a student studying in New Zealand, some of the participants—particularly young women—might feel intimidated; they could feel intimidated by seeing me as a woman with *save*[18]. To minimise such perceptions, Scheyvens et al. (2003, p. 151) advised that equal power relations be created by "placing ourselves in positions in which our informants are comfortable". In applying this to my own experience, I had to maintain awareness that a few of my research participants were women employed by LGL who had just basic computer knowledge and had gone only as far as Grade 10 or 12 in their formal education. I sensed that these women were intimidated by my presence as being the 'more knowledgeable one' compared to them. Hence, after each interview process, I made sure to spend a bit more time with each of them, listening to some of their own life experiences and genuinely showing an interest when they shared some of their dreams and aspirations with me. In turn, I shared my own experiences and as a result, at least three of these women expressed interest in seeking advice for further study to attain a higher level of formal education. I therefore shared with them some of the processes I was aware of for obtaining scholarships and identifying other avenues they could try to pursue. Currently, there is an opportunity available in Lihir through the

[18] *Save* is a term meaning knowledge in the *Tok Pisin* language, referring mostly to highly educated Papua New Guineans, in terms of formal education. The *Tok Pisin* language is mainly derived from English, commonly and widely spoken by Papua New Guineans. In this context, I was conscious of being perceived as someone highly educated and more knowledgeable than the women participants themselves.

government's facilitation of the Flexible and Open Distant Education (FODE) which the Lihir Sustainable Development Program has plans to support. The whole process of sharing, listening, and finding commonalities in our life experiences contributed to minimising any initial perceptions of unequal power and ended up creating an atmosphere of trust, confidence, and openness.

To further address the issue of unequal power relations at the wider community level, I reminded myself to always sit in a position that placed me at an 'eye-to-eye' level with the participants. For example, if they were sitting on the ground or on a mat, I would sit with them; likewise, if they were sitting on the platforms or in seats, I would join them. This created an open and informal environment, making it comfortable for sharing and exchanging ideas and experiences.

Another important ethical consideration was the issue of benefits for the participants. Because of my own experiences in other parts of Papua New Guinea, I anticipated a potential question that could be asked during this research, which was: "How would the participants or the people of Lihir benefit from this research?" Miles and Huberman (1994, pp. 292-293) pointed out that a research process can contribute to creating an unbalanced or a one-way relationship between the researcher and participants. However, Scheyvens et al. (2003, p. 155) suggested that research findings can inform other people and organisations and lead to change. In the research process, participants avail themselves by offering their valuable time. The intellectual knowledge and experiences they have and are willing to share with the researcher are unique and highly valuable; hence, it is appropriate they be compensated by the researcher. In this research experience, one of the questions commonly asked by participants was how the findings of this research would impact upon and improve the situation of their community, or even their household. This was not an easy question to answer; however, I responded by pointing out that while change may not be seen immediately, in the long term, the findings of this research could possibly contribute towards influencing those at decision-making levels.

5.2.4 Access to communities

Before travelling to Lihir, I sent a letter to one of the Lihir PV coordinators asking for assistance in selecting which villages to visit for conducting the interviews. However, since no feedback or response was received from this person, I decided to leave this decision until I got to the site. The Lihir Group of Islands is made up of four small islands, the largest of which is Niolam, and I had no prior information as to which communities had participated in the PV training program. It was also not possible, given the timeframe of this research, to conduct interviews in all the

villages on all four islands. In the end, I had to decide strategically which communities to visit in order to get useful information for the research.

Upon arrival in Lihir (on Niolam Island), I was met at the airport by Dr. Bainton and another officer from CRO who drove me to Zuen community, about 5 kilometres from the airport, where I met with my landlord. After settling into my accommodation, I had initial discussions with the landlord and her husband and found that the husband was the PV coordinator in the Zuen community. He agreed to help by introducing me to some of the people in the community, particularly those who had participated in the PV training program. The next day, I went to the CRO, where I had a brief discussion with Dr. Bainton. He provided me with some other useful academic references, particularly his own work and research in Lihir as well as that of others, and a map of Lihir Group of Islands. He also assisted in driving me to the mine site and the areas that have a Special Mining Lease (SML) agreement with LGL. These communities are the ones that are directly affected by the mining operations, and are called the Putput 1, Putput 2, and Kapit communities. This gave me some idea about the geography of the island and helped me get my bearings so I could decide in which communities to locate my research.

Deciding which communities to visit for this research proved to be challenging, given some of the limitations I faced in the field. Whilst it would have been worthwhile to visit as many communities as possible, I was limited in time, transport, and securing the research assistance on which I had initially planned; therefore, I had to settle for communities and participants which were convenient and accessible to me, as long as I could find participants who would fit with the criteria I had developed. Since I was accommodated in the Zuen community and had already established contact with the PV coordinator there, this became my first interview site. Kunaiye 1 was the second community I chose, since it was the next closest to Zuen and could be accessed by driving into Londolovit town. The rest of the participants were employed by LGL in the CRO and were from the other three smaller islands, i.e., Mali, Masahet, Mahur, and a few other communities around Niolam Island.

5.2.5 The research participants

5.2.5.1 Primary research participants

The primary participants for this research were ordinary women and men living on Lihir Island. Although I was more interested in the impact of PV on indigenous Lihirians (as opposed to non-Lihirians)[19], and preferred to interview only them, I was also mindful of the fact that it would take time to identify who belonged to this group and, given the time limitations of this research

[19] Any person who is not an indigenous Lihirian is referred to as a non-Lihirian (this includes anyone who is from another part of the New Ireland province in Papua New Guinea).

and also the inter-marriages between Lihirians and those from other parts of the New Ireland province, I decided to keep an open mind concerning this throughout the selection process for the primary participants.

A non-random samples strategy was used in this research—more specifically, handpicked sampling and snowball sampling—to select the primary participants. "Handpicked sampling involves the selection of a sample with a particular purpose in mind" (O'Leary, 2004, p. 109); hence it was appropriate in this research since I had a particular purpose and criteria in place for the selection of participants. Snowball sampling was also appropriate since I could not easily identify and access participants to fit into the criteria I developed and had to rely on referrals to build up my sample.

Criteria were developed for selection of the primary research participants, focusing on PV training and direct benefits received from the mining operations—particularly royalty, compensation, and waged employment with LGL. There are other spin-offs as a result of mining operations in Lihir, but for the purpose of this research, benefits were limited to only royalty, compensation, and waged employment with LGL, since these are regarded as the major ways that people directly benefit. The criteria included the following:

(A) Participants receiving royalty/compensation/waged employment with LGL who have undertaken PV training

(B) Participants receiving royalty/compensation/waged employment with LGL who have not undertaken PV training

(C) Participants not receiving royalty/compensation/waged employment with LGL who have undertaken PV training

(D) Participants not receiving royalty/compensation/waged employment with LGL and who have not undertaken PV training

The above criteria were developed with the aim of identifying the influence of PV training, if any, on the research participants' attitudes and behaviours. Specifically, the research sought to pinpoint PV's influence on the use and management of wealth and other resources that participants may have accumulated individually or as a family at the household level.

Since categories A and C required participation in PV training, most research participants were recruited from these two categories, hence category A had the highest with 17, followed by category C with 16. Recruiting more participants from these categories was necessary since it provided relevant information from which the extent of PV's influence on the participants' lives

could be based and conclusions reached for the purpose of this research. Category B provided information on how money or resources are managed without the influence of PV. Category D was taken as a form of "control group" to provide information on the ordinary daily life that most people would face in Lihir; that is, without direct benefits from mining as well as without the influence of PV. Having a "control group" was critical to validating PV's influence.

It is important, however, to point out that as a result of the criteria used to categorise the primary research participants, the findings of this research should not be used to make generalisations about the overall response to PV and its influence on the wider Lihir population. The key findings as analysed and presented in this thesis are mostly based on individuals' responses to the influence of PV training on their lives and thus the findings remain confined to the primary research participants in this study.

A total of 54 primary research participants were interviewed (27 women and 27 men) with the age range from 25-75 years. This number included two group interviews (one comprising 3 women and the other comprising 3 men) that were carried out in the field. There were several reasons why these two group interviews were held. For example, in the women's group, there was an elderly woman who could not fully understand *Tok pisin* and needed another person to explain things to her in *Lir* (the local language spoken in Lihir). Therefore it was agreed that the two women who were waiting to be interviewed next should join her so that one interview process took place. Likewise, the three men expressed that they would be more comfortable if they were interviewed together. The advantage in having these group interviews was that there was a lot more interaction and participants were able to discuss their responses amongst themselves in *Lir* before they would respond to the questions asked in *Tok Pisin*. A disadvantage, which I noted in the men's group, was that one participant was more dominant than the other two; however, I was able work out a way to engage the other two men in the discussions as well, for example by asking them often what their opinions and answers were to a particular question.

Table 3

Categorization of 54 Primary Research Participants

Category	Men	Women	Total	%
A	8	9	**17**	**31**
B	5	5	**10**	**19**
C	8	8	**16**	**30**
D	6	5	**11**	**20**
Total	**27**	**27**	**54**	**100**

Source: Fieldwork (May 2009)

There are six main clans in Lihir; however, there are also many different sub-clans to which people relate. For the purpose of this research, the participants were asked to name their main clan; hence Table 4 shows the main clan names only, except for one participant who was a non-Lihirian (from north-east Kavieng) and from the Panasaae clan.

Table 4

Primary Research Participants Interviewed from Each Community and Clan

Name of Community	Men	Women	Total		Clan Name	Men	Women	Total
Zuen	13	8	**21**		Unawos	5	7	**12**
Kunaiye 1	6	10	**16**		Tinetalgo	5	4	**9**
Londolovit	1	1	**2**		Lamatlik	4	5	**9**
Kapit	2	2	**4**		Nissal	6	3	**9**
Mahur Island	2	1	**3**		Tengawom	3	3	**6**
Malie Island	1	1	**2**		Nayal	4	4	**8**
Putput 2	1	1	**2**		Panasaae		1	**1**
Lamboar	1	0	**1**					
Sale	0	1	**1**					
Samo 2	0	1	**1**					
NE Kavieng	0	1	**1**					
Total	**27**	**27**	**54**		**Total**	**27**	**27**	**54**

Source: Fieldwork (May 2009)

5.2.5.2 Secondary research participants

There were no set criteria used to select the secondary research participants in this research project. However, the aim was to interview leaders at various levels to gauge their views about the PV training program in Lihir. For this reason, leaders from the following organisations were

interviewed: Lihir Mining Area Landowners Association (LMALA); Petztorme Women's Association (PWA); Lihir Sustainable Development Limited (LSDL); and The Lihir Microbank. It was also important that EDTC's views were represented in this research and therefore the Executive Director for this organisation was included in this group. Two PV coordinators in Lihir were also interviewed.

A total of 7 people (6 men and 1 woman), as indicated in Table 5 below, were interviewed as the secondary research participants. The majority of those in leadership positions within these organisations were men. Initially, I had planned to have a focus group discussion with some of the women representing PWA; however, I was informed on arrival in Lihir that the group was not active at that moment as there was 'infighting' amongst the women in this organisation. I was then directed to one of the leaders and therefore the interview process was one-on-one.

Table 5

Organisation and Number of People Interviewed

Organisation	**Men**	**Women**
LMALA	1	
PWA		1
LSDL	1	
Lihir Microbank	1	
EDTC	1	
PV coordinators in Lhir	2	
TOTAL	***6***	***1***

5.2.6 Work with research assistants

I had initially planned to seek the guidance and assistance of two research assistants for this project, since it was my first time travelling to the research site. Although a Papua New Guinean myself, I was still mindful of the fact that PNG is a diverse country with many cultural differences, and I anticipated that guidance would be needed in clarifying any differences that became an issue. Part of the role of the research assistants was also to have advised me on how to get around to the communities, suggest appropriate times to meet with participants, and most importantly, to translate interview questions into the local language (*Lir*) if participants were not able to speak and understand *Tok Pisin* or English. Whilst these situations were anticipated, it turned out that I didn't require the guidance of research assistants. Instead, my visits in both communities were coordinated by the Lihir PV coordinators who also provided advice and

introduced me to my first participants. After this point, I moved around in the communities with the help of other women and men living there who were willing to assist me.

5.3 Methods for collecting quantitative and qualitative data

This research applied both qualitative and quantitative methods for collecting and making sense of the field data. According to Brockington and Sullivan (2003, p. 57), "qualitative methods are used to explore the meanings of people's worlds – the myriad personal impacts of impersonal social structures, and the nature and causes of individual behaviour". Berg (1995, p. 7) asserted that this involves methods to help examine how people learn about and make sense of their lives and surroundings. In contrast, quantitative methods capture information in numbers which are measurable and standardised in order to obtain a "comprehensive and multifaceted understanding" (Patton, 2002, p. 14). Hence Miles and Huberman (1994, p. 40) emphasised that "numbers and words are *both* needed if we are to understand the world". It was therefore important that both be applied in complement with each other, such that they could validate, clarify, and support the findings of this research. The main methods used to collect the data for this research were semi-structured interviews with individuals, groups, and married couples (husbands and wives); informal walks; and observations.

Whilst interviewing was a good fit for this research, O'Leary (2004, pp. 162-166) noted that conducting an interview is actually not an easy task, since it involves trying to handle three things all at once: "listening to the interviewee and trying to correctly interpret what they are saying; attempting to question, prompt and probe to gather the best data possible; trying to manage the overall process in order to be efficient and effective". And in fact, such were the challenges during each interview process. It was therefore important for me to keep focused on the interviewees and try to comprehend what was being communicated; hence, practicing good listening skills was worth the effort.

The interview questions for both primary and secondary research participants were prepared in advance before travelling to Lihir and were used as a guide. The interview questions especially for the primary research participants were adjusted accordingly after the first five interviewees to ensure the appropriateness of the questions posed. Since most of the research participants did not consent for me to use the digital recorder during each interview process, I took notes by hand and as much as possible, transcribed every evening so that important thoughts and information could be recalled whilst still fresh in my mind.

Both open-ended and close-ended questions were prepared. For example, questions posed to the primary research participants were divided into five sections. The first section was administered

as a simple survey to collect the quantitative data and covered general questions such as location of the interview; clan name of the participant; sex; marital status; type of live-in house (permanent, semi-permanent, or temporary); and who lives in the house (number and sex of adults and children). The second section covered questions related to the participant's life experience prior to the mine operations, such as his/her source of income; what were some of the priority spending areas/items from this source of income; whether he/she consulted anyone (e.g., spouse, parents) before spending the money; and whether he/she saved or invested money and for what reasons. The third section covered questions related to the participant's *current* life experiences (now that the mine was operating) and included similar queries as to the participant's current source of income; his/her priority spending areas; and whether he/she saved or invested his/her money. The fourth section covered questions related to PV training, such as whether the participant had attended any PV training sessions; what important lessons were learned from the training; the influence of the training on his/her life in terms of usage of money and resources; and his/her views on customary obligations after having gone through the training. The fifth section covered questions related to gender roles and relations and included traditional gender roles in domestic affairs and community affairs as well as in wealth accumulation and distribution; and the participant's observation regarding the changes in these roles as a result of increasing engagement in the global economy or the pressures of living in a cash-based society. (Refer to Appendix C for full details of the interview questions for the primary research participants).

The interview questions for the secondary research participants were prepared separately and specific to each organisation, and were also less structured. For example, questions for LMALA covered main issues such as its aim and vision; PV training; and LSDP. Questions posed to PWA included its aim and vision; views on PV training; women's issues, and more specifically, changing gender roles and relations in the context of increased engagement in the global economy; whether women were consulted by men more often now than before, etc. Questions for EDTC covered issues such as the purpose of PV and its relevance in PNG's context (and in the Pacific, for that matter); documents (specifically, evaluation reports) regarding PV's impact or influence in other parts of PNG; EDTC's observation of PV's impact in Lihir, etc. (Refer to Appendix D for full details of the interview questions for the secondary research participants).

The open-ended interview questions were aimed at gauging the views of the primary participants specifically in relation to changes they were experiencing in their personal or family lives as well as their observations within the wider Lihir society. Specific questions were asked about changes in gender roles and relations and customary obligations, hence the influence of PV in this regard. The close-ended interviews were helpful in clarifying or cross-checking some

of the participants' responses to questions asked earlier (Refer to Appendix C for full details of the close-ended interview questions for the primary research participants).

5.3.1 Observation and informal walks

Keeping a daily journal and taking notes in the field were vital components of this fieldwork (Patton, 2002, p. 302). Given the fact that most participants did not consent for me to record them digitally, it was helpful to keep a journal. A daily reflection on the interview processes was a useful tool for discovering whether the research questions and methods had revealed the required information. In particular, the first five interviews brought a number of changes and new ideas for the next day's interviews. In the course of this research, interview questions were altered slightly, due to either unsuccessful responses or the recognition by the researcher that the question was not appropriate. In the process, additional questions were designed to reveal more information.

The method of observation was used to observe the daily life of a married couple and to further validate some of my impressions from these observations. Questions regarding gender roles and relations in households were specifically posed to some of the married couples whom I interviewed together. However, as stated earlier, the findings in this research should not be used to generalise across Lihir's population, and these findings are confined to the individuals or married couples interviewed in this research. To further validate some of the data from the observations made, similar questions were specifically posed to the women participants in this study, who agreed to share their views. The small market in Lonodolvit town was also a good place to stroll around and make observations on how women and men spent their money, what goods and items in the market were in high demand, etc. Details are outlined in Chapter 6.

Lihir is generally a safe island; hence, taking informal walks in the evenings in the first few days presented an opportunity to familiarise myself with the geography of the island as well as meet other people. For these walks, I was accompanied by Michael, the 12-year old son of my landlord who showed me around, especially in the Zuen community. Taking these walks also helped me to engage in informal discussions with some of the people who did not participate in my formal research interviews.

5.3.2 Data sorting and analysis

The choice of words used when structuring interview questions is significant, as the outcome of the research can be greatly influenced by them. In particular, both the researcher and the interview participant need to have the same understanding of the questions that are posed. Clear

language and a simple phrase structure were important in order to accurately communicate the intended message to the participants.

In this research, the interview questions were firstly written in English and then later translated into the *Tok Pisin* language (Refer to Appendix C for both versions). To ensure that the meaning of the questions remained when translated from English to *Tok Pisin*, every word was re-assessed by the researcher in the *Tok-Pisin* language with the assistance of a member of the researcher's family. Answers from the participants were firstly written in English; however, important *Tok Pisin* terms were noted during the interview process as a reminder for the researcher of any important issues that surfaced during the interview. In some cases, important quotes by participants were instantaneously written in *Tok Pisin.* Due to the ambiguity of the *Tok Pisin* language, any clarity of response was sought by the researcher before each interview concluded and in most cases the participant's answers to each question were repeated back to him/her to ensure that the correct meaning of what was being said was clearly picked up by the researcher. All translations (whether from English to *Tok Pisin* or vice versa) were done at the end of each day and on the same night by the researcher herself, including the transcribing of interview notes for each participant.

For every interview, with both primary and secondary participants, notes were transcribed through a lengthy process, as most of the interview notes were taken by hand and only a few recorded through the digital recorder when permitted by the interviewee. After translating and transcribing all the interview notes, the main themes of the research were then identified and the process of coding by themes was used to analyse the data and to identify which notes would be used for quantitative data and which would be used for qualitative data.

The survey questions in Part I (General population survey) and Part VI (Close-ended or survey-type questions) of the interview guide were the main sections used to generate the quantitative data. In addition, some data gathered in the other sections (Part II – Part V) were also used for this purpose. The open-ended questions were used primarily for the qualitative data. The qualitative data is also presented as the 'voice of the people' in the quotes captured throughout the next chapter. These quotes were purposely selected to show the differences of opinions between the elderly and the young, based on their own personal experiences and observations about the changes affecting them as Lihirians.

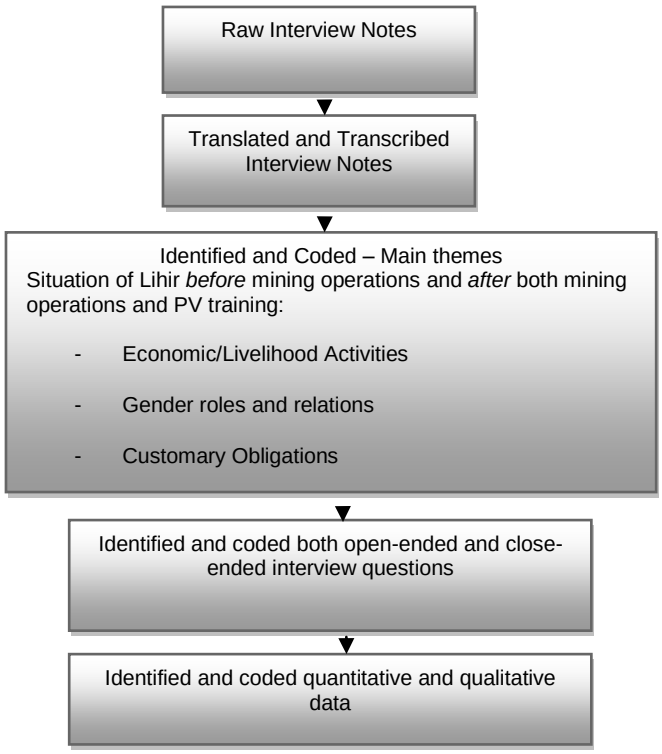


Figure 2. Process of data coding and analysis

5.4 Summary

This chapter explained the methodology and the overall fieldwork experienced in this research. It also provided a discussion of the research methods that were applied in the field to gather data. Semi-structured interviews were conducted with individuals on a one-to-one basis, with two groups, and with married couples; observations and informal walks were also undertaken and documented, and a field journal was kept for daily reflections. The interview questions were both open-ended and close-ended, which revealed some valuable findings. The survey-type questions helped to clarify or cross-check information from the primary research participants which further helped during the data sorting and analysis process.

The next chapter presents the results of the research that emerged from the methods used and described in this chapter.

CHAPTER 6: THE INFLUENCE OF PV AND MINING ON LIHIR ISLAND

"Going through the personal viability training has made me realise the importance of managing the limited resources that I have. It has given me a sense of accountability and a need to be more responsible in my decisions given today's fast-changing society" (A young Female Interviewee, 14 May 2009, Lihir Island).

6.1 Introduction

The aim of this chapter is to present the research results. The main theme running through the chapter is a comparison of the conditions in Lihir between two periods, that is, *before* the mining operations and *after* both the mining operations and the PV training program. This brings into focus the changes in people's economic and/or livelihood activities, gender roles and relations, and the responses to customary obligations (or what Lihirians refer to as *pasin blong Lihir* meaning "the Lihirian way of life") which are identified as the variables in this research and which also set the parameters for the discussion in the next chapter.

The chapter provides a description of the situation of Lihir before and after the mining operations and the introduction of PV training. This focuses on economic and livelihood activities, addressing specifically the sources of income or types of economic activities and the priorities for spending money and resources. Concerns about gender roles and relations are also discussed; and lastly, views on customary obligations are also addressed. Close-ended interviews are presented next in this chapter. The types of questions asked in close-ended interviews were specific, aimed at gauging the views of individual participants. This research set out with two key research questions regarding the PV training program in the context of local mining communities in Papua New Guinea, and these provide the structure for the remainder of this chapter.

The first key question is concerned with the impact of PV training on gender roles and relations at the household level. For this research project, this issue is explored within the context of understanding traditional gendered roles in the accumulation and distribution of wealth in society. Traditionally, women's and men's roles were defined within a society so that daily tasks and responsibilities were fulfilled accordingly. With the increasing engagement in the global economy, these defined roles are changing in ways that impact women's and men's roles and responsibilities in providing for their families. For example, more women and men find themselves engaged in waged employment or economic activities to earn a regular income for their families, and developing entrepreneurial skills becomes necessary in such situations.

This research question was also informed by Lagisa's (1997) thesis which concluded that women in Lihir were not involved in decision-making processes regarding major development projects that affected them, such as the large scale development of the gold mine in Lihir. This research project assumes that if PV training had a positive influence on gender relations in the sense of providing an avenue for women to openly communicate with their husbands at the household level, then the impact might gradually be felt at the wider community level in future. Specifically, it assumes that more open communication and dialogue would occur between women and men regarding development initiatives that affect them as a community, once they had experienced PV training.

The second key research question is concerned with attitude and behaviour change, and therefore explores the influence of PV training on the use and management of money and wealth by women and men. These attitudes and behaviours include the obligation to contribute and participate in customary feasts and exchanges which are an important element of society, and thus reflect any influence on an individual's own personal development of entrepreneurial skills. Secondly, the development of new business activities as entrepreneurs usually requires motivation and training, such as the PV training offered through EDTC. Thus, I was interested in the extent to which PV training motivates people to become active entrepreneurs in their own given contexts. The differences in priorities accorded by women and men toward expenditure before and after PV training are also explored within this key question.

6.2 The situation in Lihir before mining operations

The PV training program was introduced in Lihir in 2003, 7 years after mining operations had begun on the island. The primary research participants were asked to think of their own situations before the PV program was introduced. Thus, their responses relied on memory to reflect their situations prior to the commencement of mining operations. This thesis discovered there is no fine line that can be drawn between the period prior to PV and the period prior to mining operations, especially in terms of people's economic or livelihood activities. It is also found that PV was introduced in Lihir at a time when people were beginning to advance in some economic activities due to the opportunities created from the mining operations. The results in this section are therefore presented as the situation in Lihir before the mining operations, and not necessarily simply before PV training.

6.2.1 Economic/livelihood activities

Prior to the gold mining operations, Lihirian people lived a subsistence farming lifestyle depending mostly on their land and gardens for food (yams, sweet potato, cassava, and green vegetables) as well as engaging in some hunting and fishing, and the collection of fruits and nuts when they were in season (Lagisa, 1997). The land was also used sporadically for small scale economic activities—principally for cocoa and copra from coconut plantations, which were the main cash crops during this period (Bainton, 2006). Moreover, Bainton noted that raising and owning pigs was also an important source of wealth and income as pigs were (and still are) traditionally very significant, particularly when it comes to fulfilling customary obligations (known in Lihir as *kastom wok*).

Shell money (known locally as *mis*) was very valuable and was also sold or exchanged for cash when needed. However, in general, there was not much economic activity taking place on a large scale in Lihir, mainly due to the isolation of the island from mainland Papua New Guinea which made it difficult to transport goods to suitable markets (Lagisa, 1997). Table 6, based on responses by the primary research participants, illustrates this scenario.

Table 6

Primary Sources of Income/Economic Activities before Mining Operations

Source/Economic Activity	**Men**	**Women**	**Total**	**%**
1. Didn't see need for cash – depended mostly on land and sea for survival	5	5	**10**	**19**
2. Sale of garden food, e.g. banana, yams	0	0	**0**	**0**
3. Sale of fish/marine life	2	0	**2**	**4**
4. Waged employment, e.g. government employee, tradesman/woman, cocoa/copra plantation worker	5	4	**9**	**17**
5. Operated personal/family-owned trade store	1	1	**2**	**4**
6. Operated personal/family-owned PMV or dinghy	1	1	**2**	**2**
7. Sale of personal/family-owned pigs	3	5	**8**	**15**
8. Sale/exchange of *mis* (Shell money)	4	3	**7**	**13**
9. Personal/family-owned cocoa/copra plantation	3	4	**7**	**13**
10. Other cash crop businesses outside of Lihir	0	1	**1**	**2**
11. Other (sale of betel-nut, cigarettes, scones, etc)	0	0	**0**	**0**
12. Depended on parents/relatives	3	3	**6**	**11**
Total	**27**	**27**	**54**	**100**

Source: Fieldwork (May 2009)

Table 6 shows the primary sources of income for the participants and/or the economic activities they were engaged in before mining operations began on the island. The sources/economic activities 2, 3, 5, 6, 7, 8, 9, 10, and 11 indicate that the participants were engaged in entrepreneurial activities and could be considered as entrepreneurs in these cases. The table also indicates that there were 14 out of 27 men and 15 out of 27 women engaged in these activities. Hence, there were slightly more women than men engaged in these activities.

Data contained in Table 6 demonstrate a very low level of economic activity in Lihir, although there was the sale or exchange of pigs (15% of participants) and shell money (13% of participants) as valuables used to maintain the traditional economy and system of wealth exchange.

Of the primary participants, 19% indicated that prior to mining activities on Lihir, they didn't see the need for cash as most of their food came from gardening, hunting, and fishing. Many of the participants stated that if they needed cash, it was mainly to buy certain items such as soap, salt, batteries, and kerosene. Only 4% of the participants were involved in the sale of marine life, particularly fish. This is supported by results showing there was no sale of garden produce, as it was used primarily for consumption and preserved only for traditional ceremonial exchanges. As one elderly female participant (60 years old) further explained:

"Taim mi yangpela, ol gaden kaikai blong mipela, olsem ol mami na banana, em blong ol kastom wok tasol. Ino blong salim long narapela" (When I was in my youth, our garden food, especially yams and bananas, were preserved mainly to fulfil customary obligations. They were not for sale to anybody).

The low level of economic activity is also indicated by the fact that only 4% of participants were operating personal/family-owned trade stores and 2% operated public motor vehicles (PMV) or dinghies to provide public transport. Additionally, the results show there was no engagement in other income-generating activities such as the sale of betel-nut[20], or goods bought from the store and resold at road side markets or residential areas, such as cigarettes, sweets, scones, etc.

Waged employment had been held by 17% of participants, and involved positions such as working for the government, using their qualifications and skills as tradesmen/women (i.e., as carpenters, plumbers, etc), and working on cocoa and copra plantations on the island. Another 13% of the participants either owned or belonged to a family that owned cocoa and copra plantation blocks and the sale of these cash crops was their main source of income. However, some participants said the amount of money they made from their cash crops was determined by overseas markets, which explains the sporadic nature of the efforts made in continuing to maintain these crops on the island.

Only 2% of the participants made efforts to start businesses outside of Lihir or in other parts of Papua New Guinea. These participants explained that they could not maintain their businesses for two main reasons. Firstly, it was an expensive exercise to manage their businesses from Lihir, given the isolation of the island and the airfares involved in travel to and from Lihir. Secondly, even if they were making profits, these were spent mostly on maintaining and

[20] A tropical nut widely used in the coastal region of Papua New Guinea purposely for exchanging and socialising, hence establishing friendship and peace during important ceremonial gatherings. The nut is chewed together with powdered lime and mustard seed and turns red with continuous chewing, making one feel more relaxed and happy, easily and openly engaging in conversations with other people (Lagisa, 1997; Connell, 1997).

fulfilling customary obligations and responsibilities, which they said was a very important part of life for them. As one of the male participants further explained:

"Kastom wok, em mipela Lihir. Nogat kastom, em mean olsem, nogat Lihir" (Fulfilling and maintaining customary obligations is what makes up Lihir. Without these, there is no Lihir).

Another male participant made this comment:
"Blut blong Lihir em stap insait pinis long mi. Mi ken traim long kamapim gudpela bisnis,na gat planti moni or gudpela haus, tasol taim mi lus tingting long kastom wok na mi no mekim kastom wok, em mi man nating, na mi rabis man" (Lihirian blood is already in me. I can try to bring up a good business, have plenty of money, or have a good house, but if I forget my customary obligations and responsibility and don't fulfil them, I am just a man, worth nothing, and I am a rubbish man).

Table 7 below shows the research participants' priorities in spending using a scale of 1 to 7, with 1 representing the most significant or highest priority and 7 the lowest. This table can be compared to Table 10 (Current Priorities in Spending after Mining and PV Training) in relation to the second research question.

Table 7

Priorities in Spending before Mining Operations

Priorities in Spending	**Men**	**Women**	**Total**	**%**
1. Customary obligations or *kastom wok*	10	6	**16**	**30**
2. Contributions toward church/religious activities	5	8	**13**	**24**
3. Basic needs, e.g. food, clothing, medical expenses	4	7	**11**	**20**
4. School fees for children/siblings/extended family	4	6	**10**	**19**
5. Building materials to build a permanent house	3	0	**3**	**5**
6. Personal needs	1	0	**1**	**2**
7. Savings in bank and other investments	0	0	**0**	**0**
Total	**27**	**27**	**54**	**100**

Source: Fieldwork (May 2009)

Spending on customary obligations or *kastom wok* was the top priority for 30% of the primary participants (10 men and 6 women). Some participants explained this was important for maintaining social relationships, and—particularly for the men—for maintaining status in society. Some of the participants—again, particularly the men—further explained that they prioritised spending on *kastom* in order to secure rights to land. However, a number of the women expressed that giving priority to *kastom wok* also meant that the needs of their own families, particularly their children, were not being met most of the time.

Contribution for church/religious activities was the second highest priority for 24% of the participants (5 men and 8 women). Involvement in church/religious activities was associated with receiving spiritual blessings and wellbeing, especially by women. A number of the women participants interviewed expressed that this was a priority for them for the sake of the wellbeing of their families and particularly, their children's future. However, it was not clearly expressed how these blessings impacted on their lives.

Interestingly, basic needs such as food and clothing, and school fee payments were third and fourth priorities, respectively. When asked further, some of the participants explained they did not need to buy food from the store or market since they relied heavily on their own gardens to survive. They also did not see education as a priority for their children, and thus did not bother too much about school fee payments.

None of the participants thought that savings and investment (in terms of money) for the future was important. In fact, one of the elderly male participants made this fitting comment:

"Savings em wanem samting? Taim mi yangpela, mipela save kamapim gaden kaikai long stron blong mipela. Sapos ol kaikai redi long gaden, mipela save kamautim long graun, na sampela mipela kisim go long haus, na sampela, mipela save karamapim bek long graun. Em olsem, mipela savim long behain taim na ol kaikai no save bagarap" (What is savings? When I was in my youth, we made gardens with our own strength. When the harvest was ready, we dug them up and took some home, and buried some back into the soil. This was savings for us for later times and the food never went bad).

There were also some differences in opinion with regard to savings and investment for the future. Although none of the participants thought it mattered during the period prior to mining and the PV program, a younger male participant expressed his opinion as follows:

"Ol tingting blong ol lapun emi narapela. Na tu, ol tingting blong mipela ol yangpela emi narapela kain. Mi ting olsem, emi gudpela samting sapos mipela tingting long behain taim

blong mipela. Mipela nidim moni long stap long dispel taim. Moni emi no samting no gud, tasol mipela mas usim moni gud, olsem long behain taim, emi bai lukautim mipela (The old people have their own ways of thinking and so have we, the younger generation. I think it is good that we start thinking about our future. We need money to survive nowadays. Money is not a bad thing, but we must use money wisely, so that in future, it can look after us in return).

6.2.2 Gender roles and relations

Lihir is known to have a matrilineal system where land rights and property are passed down from the mother's clan lineage. However, interviews with some of the older women suggested that women did not participate in exchanges and decision-making in their own right regardless of the matrilineal system. The men's house *(hausboi)* has always been the ritual and political centre in all Lihir villages where important decisions are made for the whole community (Macintyre, 2003).

Photo 1: *Hausboi* (men's house) – the ritual and political centre of a village – Kunaiye 1

As a society, Lihir is strongly committed to maintaining its cultural values and practices to the extent that these sometimes take precedence over other issues in life. Due to these strong cultural values and practices, women and men have had defined roles and responsibilities to fulfil in their daily tasks. Traditionally, women's roles have been in the domestic sphere, basically focused on the wellbeing of their families and households; that is, they cared for the children, made sure the pigs were fed and taken care of, and the food gardens were looked after, etc. On the other hand, men's involvement in daily life was in the public sphere, where they made decisions on the affairs of the family, clan, or village. Macintyre (2003, p. 122) noted that "the separation of daily activities by gender is presented as fixed but like most 'rules' allows for variation and flexibility". For example, women are generally not permitted to enter the *hausboi* at anytime. However, Macintyre observed that women from the clan can bring in food to feed

the men and boys and to clean it when needed. Moreover, Macintyre observed that many men work in the gardens, and that both women and men fish and feed the pigs.

According to Lagisa (1997), traditionally there was a significant difference in the various tasks performed by women and men on a daily basis, as indicated in Table 8 below. These tasks specified what women and men were expected to do, thus contributing to the daily fulfilment of tasks within the family and community. Lagisa's findings also confirm Macintyre's observations of some of the daily tasks of women and men.

Table 8

Traditional Daily Work Performed by Lihir Women and Men

Category	**Women**	**Men**
Domestic	Responsible for overall household management and well-being: cook daily food; fetch water; sweep and clean around house; feed pigs; bear and rear children; care for the sick; get children ready for school; teach daughters roles and work performed by women	Collect building materials; build houses; do all repair work (e.g. sago roof thatching); maintain pig and village boundary stone wall fence; feed pigs; road and grass cutting work; prepare *mumu*[21] during big feasts; teach boys men's roles; responsible for major decision-making
Subsistence agriculture	Cut undergrowth vegetation; burn and clear dried leaves and branches; plant, rear and harvest crops; carry harvest home; teach daughters about women's duties in gardens; collect and carry firewood home	Cut undergrowth and chop big trees; pile and burn bigger tree branches; break soil for yam planting; plant bamboo poles for young yam creepers to grow or climb on; build fence around the garden; teach boys about men's duties in gardens; harvest coconut, betel-nut, and fruits from tall trees; and collect wood for fire in the *hausboi*
Hunting, fishing and gathering	Dig wild fowl and turtle eggs; use bamboo poles and nets to fish in shallow water; collect *kina*	Dive for fish on reefs; catch deep sea fish using nets, fishing lines and spears; hunt wild animals like

[21] "Traditional way of cooking food using hot stones" (Lagisa, 1997, p. 17)

	shells from river and sea, prawns from river; collect crabs; collect ripe mangoes, wild yams, *marita, taun, galip* and other fruits/nuts	pigs, possum, big black snakes, wallabies and wild fowl. Birds are also hunted
Handicraft production	Weave baskets and mats from coconut leaves, *karuka, marita,* and *woiwoi leaves;* make clay pots; and prepare *mis*	Weave small baskets from coconut leaves; weave food baskets from rattan; weave nets for fishing; prepare materials for wild pig trap; make spears from *libung* (palm stem); make musical instruments like *garamut, kundu* and bamboo drums and *tavur* (conch shell); prepare *mis*
Festive occasions	Plant certain crops for a feast; bake tubers in earth oven; harvest and carry vegetables for *mumu*; peel and clean vegetables; collect and prepare *mumu* stones; *mumu* pig meat and vegetables for women and children	*Mumu* pork in *hausboi* premises during feasts; assist women with their *mumu*; kill and butcher pigs; smoke fish; carry big firewood for *mumu*; and scrape coconuts during feasts
Cash crops	Help men cut grass and clear around coconut and cocoa plantations; collect dried coconuts and pick ripe cocoa pods; help prepare for drying or smoking	Mark and clear land for cocoa and coconut plantation; plant and maintain crops; sun-dry or smoke copra and cocoa beans; pack them into bags for shipment; sell dried copra and cocoa at nearest market

Source: Lagisa (1997, pp. 17-18)

Older women interviewed recalled that when they were younger, women's lives were more restricted and male authority was not contested. In other words, the decisions that men made were final and there were no arguments about them. As one older woman recalled:

"Taim mi yangpela, mipela ol meri ino save tok aut tumas. Mipela bihainim wanem samting ol man blong mipela save tokim mipela" (When I was in my youth, we women did not speak up a lot. We just followed what our men instructed us to do).

However, another interesting comment was made by a younger woman (who spoke English very well) who said:

"Women were responsible for raising/feeding/caring for pigs and doing all the dirty work and men only took over when the pig was ready to be exchanged for other valuables, e.g., mis or cash. Women worked hard so that men could fulfil 'kastom wok' and have a good name and status in society. Women were the backbone of men's good name and status in society".

Photo 2. Feeding a pig – traditionally, a role of both men and women

Participants were also asked about the traditional gendered roles of wealth accumulation within a family or clan. The older participants explained that traditional wealth was accumulated through the exchange of valuables, mainly pigs and *mis*, which took place at marriage and bride price ceremonies or feasts to 'farewell the dead' *(hararum)*. Pigs and *mis* were acquired through *kastom wok* which involved a lot of feasting and *singsing* (traditional dancing and singing).

Producing *mis* required the special skills and knowledge of both women and men at various stages of its production. Both women and men worked together to create an end product.

Photo 3: A young couple displaying their *mis* (shell money)

Photo 4: An elderly woman weaving a traditional basket used to carry garden food

Traditional gender roles are changing in Lihir society due to the rapid socio-economic shifts affecting how women and men relate to each other in these modern times. The next section further describes and analyses some of these changes.

6.3 The current situation in Lihir (after the start of mining operations and PV training)

The lifestyle of the Lihirian people has gone through rapid changes in a short time, since mining activities began on the island in 1995. The need to engage in economic activities is greater now than before for many reasons, one of which can be attributed to the increasing demands of a cash-based society that must be met in order for people to survive.

However, people's increasing engagement in economic activities in Lihir has not been primarily influenced by the introduction of the PV training program on the island in the last 6 years. The results of this research, as shown in the remaining tables in this chapter, bear this out. Moreover, it is fair to say that the increase in people's engagement in economic activity has been encouraged by the opportunities available to them due to the current mining operations on the island.

6.3.1 Economic/livelihood activities

Table 9 shows some of the current primary sources of income or economic activities in which people engage, and can be compared with Table 6 (Primary Sources of Income/Economic Activity before Mining) above. Although most of the activities are the same in both tables, it is important to note the increase in the number of participants in some of these activities, as compared to Table 6.

Table 9

Current Primary Sources of Income/Economic Activities after Mining and PV Training

Source of income/economic activity	**Men**	**Women**	**Total**	**%**
o Royalty/compensation benefits from LGL	6	2	**10**	**19**
o Waged employment - LGL and others	4	7	**9**	**16**
o Sale of garden food, e.g., banana, yams	2	1	**3**	**6**
o Sale of fish/marine life	2	0	**2**	**4**
o Operates personal/family-owned trade store or canteen	3	3	**6**	**11**
o Operates personal/family-owned PMV or dinghy	3	2	**5**	**9**
o Sale of personal/family-owned pigs	3	2	**5**	**9**
o Sale/exchange *mis* (shell money)	1	3	**4**	**7**
o Personal/family-owned cocoa/copra plantation	0	0	**0**	**0**
o Other cash crops or businesses outside Lihir	0	0	**0**	**0**
o Other (including sale of betel-nut, cigarettes, sweets, scones/flour balls, etc)	3	7	**10**	**19**
Total	**27**	**27**	**54**	**100**

Source: Fieldwork (May 2009)

Concerning current economic endeavours in Table 9, it is important to note the entrepreneurial activities people are currently engaged in, that is, sources of income and/or economic activities 3, 4, 5, 6, 7, 8, and 11. The table indicates that 17 out of 27 men and 18 out of 27 women are engaged in these activities. Hence, there are slightly more women than men engaged in entrepreneurial activities.

In all, 19% of the participants stated they receive either royalties or compensation benefits from LGL, which they expressed was the major source of income for them. In addition, 16% of the participants are now engaged in waged employment with either LGL or other companies from which they receive their source of income. More women are currently in waged employment than there were previously, as demonstrated by comparing Table 9 to Table 6.

Interestingly, 6% of participants said they now sold produce from their own gardens, especially bananas and yams, which were traditionally reserved for ceremonial feasts and exchanges and for personal or family consumption only. When probed further as to why they were doing this, the expected response was received, namely the need for money to buy store-bought items such as rice and tinned fish or meat, and to pay for school fees and other needs.

While only 4% of the participants reported being engaged in operating trade stores or canteens in Table 6, Table 9 shows that currently 11% are engaged in this type of activity. Also, 9% now operate personal/family owned PMVs or dinghies, providing public transportation.

Photo 5: A woman entrepreneur successfully operating a small village trade store

Anecdote:

The woman (shown in Photo 5, above) started her trade store with the support of her husband a few years ago. She started off by selling little things like scones and sweets in front of her house. She said she did this to supplement her husband's income since the cost of living was rising and his income was not enough to take them through to his next pay. She attended the PV training in her community and after the training, seriously thought about expanding her little business, expressing that the PV training introduced her to ideas she had not considered before. After further discussions with her husband, they both decided that she should start a small trade store. She expressed that there have been challenges along the way since the trade store started, in terms of contributing to customary obligations and other activities in her community, but she tries to make decisions in a way that the operation of her little business is not compromised as well.

When asked if the sale of pigs was still a very important source of income for them, 9% of the participants said yes, while 7% said they still exchanged *mis* for cash. Additionally, 19% of the participants said they were now involved in small-scale income generating activities such as the

sale of betel-nut, sweets, or scones and flour-balls. These minor sales activities typically take place near residents' houses or at a nearby road-side. Since most of the participants in this activity were women, I asked further why they did not take their little goods to the main market in town to sell, where they could access more diverse customer base and probably make a quick sale. Many of the women responded by saying that they were not used to selling what they had to their own people, or even to other people for that matter. However, the main reason why they sold little items was out of need to make just enough money to buy basic store items such as rice, tinned fish and meat, soap, salt, etc, and selling these items within the vicinity of their villages was more comfortable for them than the main market.

Table 10

Current Priorities in Spending after Mining and PV Training

Activities	**Men**	**Women**	**Total**	**%**
1. Customary obligations or *kastom wok*	6	3	**9**	**16**
2. Basic needs, i.e., food, clothing, medical expenses	4	4	**8**	**15**
3. School fees for children/siblings/extended family	4	4	**8**	**15**
4. Savings in bank/other investments	3	5	**8**	**15**
5. Contributions toward church/religious activities	3	5	**8**	**15**
6. Building materials to build permanent house	4	3	**7**	**13**
7. Personal needs	3	3	**6**	**11**
Total	**27**	**27**	**54**	**100**

Source: Fieldwork (May 2009)

Spending on customary obligations *(kastom wok)* was still the top priority for 16% of the participants, but was down from the 30% shown in Table 7. This was followed by several categories of spending that were each rated as the second highest priority by 15% of participants, including basic needs, school fees for children/siblings, and contributions toward church/religious activities.

Interestingly, 15% of the participants (3 men and 5 women) said they were saving their money in the bank now through the Lihir Microbank, as compared to no participants reporting such savings in Table 7. When asked why they were saving, there were various responses including

the need to save for their children's school fees, to build a permanent house for themselves, and to start little businesses such as trade stores, etc.

6.3.2 Gender roles and relations

An elderly woman's observation of the current generation of Lihirian women was put this way:

"Bikpela sanis i kamap long ol meri long Lihir nau. Oli gat save nau na oli free long mekim long laik blong ol....mi ting olsem, oli wok moni nau na ol gat sampela pawa long mekim tok" (A big change has taken place for Lihirian women now. They have the knowledge and more freedom now to live their lives...I think it's because they are working for money which gives them some kind of power to have their say).

Table 11

Close-ended interview questions 38-41

	Q38: Do you think traditional gender roles are changing in your society?		Q39: Do you think there are more women in waged employment now than before?		Q40: Do you think the change in gender roles causes conflict in relationships between husband and wife?		Q41: As a man, would you be happy if your wife was engaged in waged employment?	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Agree	37	69	30	56	30	56	9	34
Disagree	13	24	16	29	17	31	15	55
Don't know	4	7	8	15	7	13	3	11
Total	**54**	**100**	**54**	**100**	**54**	**100**	**27**	**100**

Source: Fieldwork (May 2009)

All 54 participants (both women and men) were asked close-ended questions. When asked, 69% agreed that traditional gender roles are changing in Lihir, compared to 24% who disagreed and were of the view that these roles were not changing. For those who agreed, particular reference was made to women no longer fulfilling their traditional role in raising and caring for pigs, and also not tending to food gardens the way they used to. In addition, 56% of the participants agreed that more women are now engaged in waged employment than before, and 56% also agreed that changes in traditional roles, particularly for women, cause conflict between a husband and a wife. Although the participants generally agreed that these changes were taking place, many of them were also unsure whether these changes were good for them as a society or not, hence there were still uncertainties in their responses.

Out of the total number of 27 male participants in this research, 34% agreed that they would allow their wives to have waged employment, especially because this would supplement the

men's incomes. They also agreed it is becoming more and more necessary to have two pay packets to survive rather than one, when trying to meet the demands of a cash-based society. This kind of view was expressed by men who were currently employed. However, a majority of the men (55%) still disagreed and were of the view that women should continue to stay at home and provide the care and fulfil the primary responsibilities that are expected of them.

6.3.3 PV 'way of thinking' versus customary obligations (kastom)

The primary research participants were also asked to state some of the advantages and disadvantages of customary obligations in Lihir. For Lihirians, the term *kastom* denotes those activities and beliefs which are traditional or customary and often occurs in the men's house *(hausboi)* where there is a cycle of feasts and exchanges (Bainton, 2008b, p.209). The following is a summary of the responses of all 54 participants, which includes those who had not undergone PV training:

1. Some advantages of customary obligations:
    - Necessary, especially for securing rights to land. Land is life in Lihir and through *kastom wok* this is reaffirmed and secured.
    - Identifies one as a Lihirian. As expressed by one of the male participants: *"Kastom wok em pasin blong mipela ol Lihir"* (Customary work is our way of life as Lihirians).
    - Strengthens and affirms social, family and community relationships
2. Some disadvantage of customary obligations:
    - Customary obligations can be very expensive, given the current challenges of living in a cash-based society.
    - No proper planning now by people because of spin-offs received from mining activities. *Kastom wok* can be held at anytime of the year, without giving people time to prepare and budget for the event. In the past, most custom activities were properly planned and took place according to food harvests mainly of bananas and yams (garden produce that are significant in Lihir).
    - Lihirians have no choice as far as *kastom wok* is concerned – they are obliged to participate in it, regardless. *"These obligations are very hard to ignore because you are born into such a culture that binds you to the roots of who you are"* (as expressed by a PV participant).

With regard to the influence of PV on customary obligations, Table 12 shows a summary of the responses from PV participants (in Category A and C). It is important to note the responses of the PV participants in regard to customary obligations.

Table 12

Close-ended interview questions 42-45

	Q42: After PV training, did you still participate in *kastom wok*?		Q43: Does conflict arise within your family when you decide not to participate in *kastom wok*?		Q44: Do you think some of the expensive *kastom wok* should be done away with?		Q45: Do you think PV is in conflict with Lihirian *kastom*?	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Agree	33	100	33	100	20	60	1	3
Disagree	0	0	0	0	8	24	25	76
Don't know	0	0	0	0	5	16	7	21
Total	**33**	**100**	**33**	**100**	**33**	**100**	**33**	**100**

Source: Fieldwork (May 2009)

A total of 100% (33 participants) maintained they will still participate in *kastom wok*, but will be more adamant about ensuring that it is within their budget and 'justified' before they participate. A vast majority even pointed out that PV is not against *kastom wok*, but as one participant commented: *"it (PV) helps us rethink some of the decisions we have been making unwisely all this time".*

When asked about family conflict concerning *kastom wok,* 100% (33 participants) did agree that conflicts do arise when they decide not to participate in *kastom wok* for various reasons. However, they maintained they would explain their reasons for not participating and by doing so, hopefully raise awareness of the unrealistic burden of some of these obligations.

Some participants, 60% (20 participants) in all, agreed that some of the very expensive *kastom wok* must be done away with. Particular reference was made to the obligation to 'farewell the dead', which requires three phases of feasting and involves huge expense in the provision of food, pigs, cash, *mis*, etc.

Interestingly, only 3% (1 participant) stated that PV was in conflict with *kastom.* This was explained as due to PV's teaching that 'everything one has should be turned into money'. The participant felt that in the process of thinking this way, one's culture is neglected. An example was given on the custom of giving a visitor special food from the garden when he or she is leaving. But PV teaches that even food in the garden must be turned into money, meaning it

must be sold and not given away for free. In the participants view, this clearly contradicts the Lihirian way of life. Such a response brings into light what Bainton (2006) stated as 'mixed response' toward PV training in different parts of the island. However, it is interesting to also note that the majority of the participants in this research maintain their position to participate in *kastom* work, but only as a more controlled approach.

6.3.4 Influence of PV training on gender relations

Table 13

Close-ended interview questions 46-47

	Q46: Has PV positively impacted upon your relationship with your spouse?		Q47: Has PV training helped you to work better together as a family?	
	Freq.	**%**	**Freq.**	**%**
Agree	30	91	22	67
Disagree	3	9	11	33
Don't know	0	0	0	0
Total	**33**	**100**	**33**	**100**

Source: Fieldwork (May 2009)

Of the participants with PV training, 91% agreed (30 participants) that PV training had positively impacted their relationship with their spouse. They felt that there was now, more open communication and dialogue concerning issues, especially finances, and the priorities for where money or resources should be spent. Some of the men interviewed admitted that they never used to do this before.

In all, 67% (22 participants) agreed that PV training helped them work better together as a family. Some of the participants further explained that even their children were taking responsibility by trying to be careful in using money and whatever little resources there were around the home.

6.3.5 Influence of PV training on usage of money and resource management

Out of 54 participants that were interviewed to collect the primary data for this research, 61% (33 participants - 16 men and 17 women from categories A and C combined) had attended PV training sessions at various points in time. Some of the lessons learnt or influences from the PV training are summarised below:

- 5 participants (3 men and 2 women) stated that they were now more responsible in managing whatever little resources they have, i.e. a "sense of stewardship for resources they are blessed with" (as expressed by one of the participants).

- 4 participants (2 men and 2 women) said that the training helped them learn how to prioritise the important things in life for them.

- 32 participants (15 men and 17 women) expressed that the training was an eye-opener for them in learning how to earn, use, save and invest money.

- 10 participants (4 men and 6 women) expressed that the training is helping them to identify their 'needs' from 'wants'. It was further expressed that there are some things in life that they don't necessarily need to have in their lives. Particular mention was made for store-bought items such as tinned fish and tinned meat and to be more dependent upon garden produce.

- 12 participants (7 men and 5 women) expressed that they feel they are becoming more self-reliant in the sense that they don't expect others to help them in some of the work that they can do by themselves. Particular reference was made to garden work, building/repairing a house. It was also expressed that nowadays, other people will not work for you 'free of charge'. They will expect to be paid, especially with cash or feeding them. They find that this incurs extra cost for them and the training helped them realise that they can actually do things on their own without depending on another person.

- 30 participants (13 men and 17 women) expressed that they feel they have more open communication with their spouses in planning together for their own future as a family.

- 20 participants (12 men and 8 women) said they learnt the concept of saving and investment and the importance of these for their own future.

- 8 participants (5 men and 3 women) said that the training helped them to realise the importance of diversifying their resources, regardless of how small these maybe and turning whatever is at their disposal into money or cash.

- 6 participants (3 men and 3 women) expressed that they have realised the importance of time management in order to be productive on a daily basis.

- 20 participants (10 men and 10 women) said that they learnt the importance of budgeting money and sticking to the budget. Some even expressed that they find there is enough money for savings when they seriously stick to their budgets.

Analysing the influence of PV training in relation to the second research question, that is, the influence of PV training on economic attitude and behaviour, there is an obvious indication that PV has influenced the attitude and behaviour of the participants with regard to the use and management of money and resources. The participants' responses also indicate the potential for these women and men to cultivate entrepreneurial skills and start their own businesses if they seriously want to pursue in this direction. The anecdote on page 86 of this thesis (Photo 5 – A woman entrepreneur) is one such example of women (and men) who are prepared to put into practice what they have learnt in PV training.

To further encourage savings and investment in the light of the PV training, LMALA requested the establishment of the Lihir Microbank in September 2008 so that Lihirians could save and access bank loan services to start up small to medium scale businesses. Further discussions with a senior executive from the Lihir Microbank confirmed however that although PV training is not a pre-requisite for someone to access the bank's loan services, applicants who underwent PV training are still given special consideration in the review process.

For the other 39% (21 participants – 11 men and 10 women from categories B and D combined) who did not underwent PV training, it was generally expressed that life has not changed much for them and they continue to live their usual day to day lives. However five of the participants from category D expressed that they have observed changes in some of their neighbours who had undertaken PV training. They even expressed that because of the changes that they observe in their neighbours they would be willing to participate in PV training if the opportunity arises. They were of the opinion that these changes were positive for their neighbours in the sense that it helped them to be more decisive in the daily decisions that they made.

Key observations of the five participants on their PV-trained neighbours included:

- Importance of budgeting money
- Importance of savings and future investments, especially for their children
- More open communication between husband and wife for future planning
- Being able to identify 'need' from 'want'.

6.4 Summary responses from secondary research participants

A total of seven participants (6 men and 1 woman) were interviewed as the secondary participants in this research (Refer to Table 5). They were leaders from LMALA, LSDL, PWA, EDTC, as well as two PV coordinators in Lihir and a senior executive from the Lihir Microbank. The participants were interviewed individually and some of their responses regarding PV training in Lihir are quoted below:

- "LMALA's vision is for Lihir to achieve self-reliance and sustainable development by focusing on our human resource and we as Lihrian leaders are positive that the strategies behind the PV program can assist us to achieve this. We believe in developing our human resource before we can develop other material things such as roads, hospitals, etc. If people develop good attitudes which can help them look after themselves and what is in their communities, then I believe other things would flow naturally" (LMALA representative, personal communication, May 2009).
- "LMALA owns LSDP and LSDL was specifically formed to implement the LSDP. As Lihirian leaders we have a vision for our community and our people and we must be given that opportunity to see it through" (LSDL representative, personal communication, May 2009).
- "PWA was actively involved in coordinating PV trainings in 2003 through the United Church and Catholic Church women's groups and remains in support of this concept encouraging women to take up this training" (PWA representative, personal communication, May 2009).

The quotes expressed above are evident of the support that some of Lihir's leaders are showing for the PV training program but whether this is due to political influence is another issue which is beyond the scope of this thesis. I have included these quotes purposely to show that some Lihirian leaders are adamant of the difference that PV training can make in the lives of

Lihirians, as a community. However, I am of the view that such quotes should be analysed with caution since the power to 'represent' Lihirians is still concentrated in the hands of a few people.

6.5 Summary

This chapter presented the results for this research. Based on these results, the following summary is outlined. The main theme that ran through the chapter is the condition of Lihir *before* the mining operations and *after* both the mining operations and the PV training program.

Before the mining operations, there was very low economic activity on the island and people lived very simple subsistence farming lives, living mainly off the produce from their land and the sea. This situation changed dramatically after mining operations began in 1995 and then later in 2003 the PV training program was introduced on the island. It should be noted that Lihirian's increased engagement in economic and small business activities is not necessarily a result of the PV training but is mainly a result of the opportunities presented to them through the mining operations. However, analysing the influence of PV training in relation to the second research question, that is, the influence of PV training on economic attitude and behaviour, there is an obvious indication that PV has influenced the attitude and behaviour of the participants with regard to the use and management of money and resources earned from the mine. The participants' responses also indicate the potential for women and men to cultivate entrepreneurial skills and start their own businesses outside of mining if they seriously want to pursue in this direction.

Changes were also identified regarding gender roles and relations in Lihir. Before mining and PV training, traditional gender roles, especially for women were in seclusion with their family's care and wellbeing a primary responsibility for them. Caring/feeding/raising a pig was regarded as both a woman's as well as a man's responsibility. After the period in which mining operations began more women are now engaged in waged employment than before and also pursuing small business activities to earn an income.

Changes in the way people responded to maintain or fulfil customary obligations were also identified. However, it was noted that it is very difficult and challenging for people to ignore or totally turn their backs on customary activities. One of the main reasons that stood out was the fact that land remains to be the backbone of Lihir society (as well as for many PNG societies) and the main way to acquire land for oneself or for his/her family was by fulfilling certain customary obligations. The main issue for those participants who underwent PV training was the expense involved in maintaining some of these obligations. They expressed that they are still

Lihirians and will engage in their tradition, but at a more controlled rate given the demands of living in a cash-based society now. PV's influence in this regard becomes an important factor in providing people with a tool to manage such obligations.

Some Lihirian leaders are in full support of the PV training program as noted in this thesis. However it was also pointed out that the power to represent Lihirians are sanctioned in the hands of a few and therefore caution should be taken when analysing such quotes or comments.

CHAPTER 7: THE INFLUENCE OF PV ON GENDER RELATIONS AND ATTITUDE AND BEHAVIOUR

7.1 Introduction

The previous chapter presented the findings of the fieldwork. This chapter will focus on the analysis of the results in the light of the literature discussed in Chapters 2 and 3 as well as the discussion in Chapter 4 regarding the influence of PV in the PNG context. The following main themes became apparent when analysing the data regarding Lihir: changes in economic/livelihood activities; altered gender roles and relations; and changes in attitudes towards customary obligations. In line with the key research questions, the discussion will thus, centre around these themes with a particular focus on entrepreneurship and traditional gender roles and relations in the light of social and economic changes in recent times.

7.2 General discussion on key findings

This thesis set out to investigate the influence of PV training on the lives of women and men in Lihir Island, a gold mine community in the New Ireland province of PNG. PV is considered to be a contemporary strategy aimed at developing people through training that builds their entrepreneurial skills and emphasises the notion of hard work in order to achieve self-reliance, financial independence and economic development. Hence PV is geared toward promoting a set of Western-derived principles and values to encourage entrepreneurship and economic activities, which must be assessed within PNG cultures and other cultures which may be embarking on PV, particularly the Pacific Island countries.

7.2.1 Key research questions

How does the PV training impact on traditional gender roles and relations at the household level in mining communities in PNG?

The influence of PV on gender roles and relations was explored in the context of understanding traditional gendered roles in the accumulation and distribution of wealth in PNG society. In traditional PNG societies, women's and men's roles were defined within the household so that daily tasks and responsibilities were fulfilled accordingly hence the accumulation and production of the wealth distributed are household activities, assigning women and men different responsibilities (Sillitoe, 2000, p. 102). With the increasing engagement in the cash

economy in recent times these roles are changing, thus have affected women's and men's traditional roles and responsibilities in providing for their families. The focus of the discussion is on PV's influence at the household, which is the primary unit where decisions are made based on the needs of the families and where individual responsibilities are assigned.

As presented in Chapter 6, the results of the in-depth interviews held with 54 primary research participants indicated that 39% agreed that traditional gender roles were changing in Lihir. Particular reference was made to women no longer fulfilling their traditional role in raising and caring for pigs, and also not tending to food gardens the way they used to. In addition, 30% of the participants agreed that more women were now engaged in waged employment than before. The basic assumption that can be drawn based on these results is that women's time could be divided between their domestic or household duties and economic activities for the purpose of earning an income for the families. This confirms what Moser (1989) points out in Chapter 3 of this thesis about women's triple role.

With regard to the influence of PV, 28% agreed that PV training had positively impacted their relationship with their spouse. A number of the participants felt they now experienced more open communication and dialogue concerning issues, especially to do with finances, and the priorities on which money or resources should be spent. Some of the men interviewed admitted that they had never done this before, and the process of opening communication and dialogue had helped them to see their wives as partners in addressing the important issues they faced together as a family. In addition, 20% agreed that the training helped them work better together as a family.

The literature discussed in Chapter 3 revealed that the rapid socio-economic changes which emphasise the need to live more in a cash-based society continues to influence people, particularly those in developing countries, who are challenged with the desire to maintain their traditions and cultures whilst at the same time adjusting to the demands of modern-day life. Thus the challenges faced in this dilemma also have growing influence on traditional gender roles and relations creating further confusion over these roles within the household. This confusion is further exacerbated by feminist perspectives that argue for more equal power relations between women and men. However in the traditional context of Melanesian countries, this was perceived to be irrelevant. For example in PNG societies, as discussed in Chapter 4, women and men had a relationship that showed in essence an egalitarian one hence both women and men have influence and the household did not function without each one's cooperation (Sillitoe, 2000, p. 102). Thus men's reputation in the public sphere was in many ways, a result of women's influence within the domestic sphere and the prestige that was gained or lost was a

reflection of the household hence it was important that individual roles accorded to each family member were fulfilled responsibly.

The demands of living in a cash-based society have further complicated the changes as experienced in contemporary PNG societies today. While socio-political exchanges continue as in traditional PNG societies, the emphasis and value is placed more now on money and purchased commodities which undermines the position of women and the significant role they contribute. However, to some extent women's engagement in entrepreneurship and economic activities can be attributed to the traditional roles they played within their households. Hence Sillitoe (2000, p. 104) asserted that regardless of various recommendations from gender experts, "PNG women are going their own way, by managing whatever changes they can in their household role and continuing to perform their highly valued domestic duties whilst at the same time increasingly engaging in the market-dominated world".

How does the PV training influence the economic attitude and behaviour of women and men in mining communities in PNG?

The second question was concerned with attitude and behaviour change and therefore explored the influence of PV training in the use and management of money and resources by women and men. These attitudes and behaviours include the obligation to contribute and participate in customary feasts and exchanges which are an important element of society thus has an influence on one's own personal development of entrepreneurial skills; secondly, the development of new economic activities as entrepreneurs usually requires motivation and training, hence the PV training offered through the EDTC.

The literature reviewed in Chapter 2 focused on the meaning and interpretation of entrepreneurship which revealed that entrepreneurship differs in different cultural contexts in different parts of the world. Hence there seems to be an important gap in the current knowledge, namely the means to draw on an interdisciplinary understanding of the way that indigenous societies are ordered, and the resulting insight into cultural perceptions of entrepreneurship and economic activities. Mainstream definitions or interpretations of entrepreneurship originate mostly from a Western or Eurocentric perspective, which stresses individualism, profit maximisation, risk taking, and acquisitiveness as defined characteristics of any 'rational' entrepreneurial activity; thus Hailey observed that from this perspective, "the measurement of a successful entrepreneur is in financial terms" (1987, p. 3).

However from the perspective of indigenous peoples in developing countries (as discussed in Chapter 2), engagement in entrepreneurial activities has always been about maintaining their

social relationships and cultural knowledge and values. They continue to work to develop their entrepreneurial skills within their own contexts, and thus have adapted to change as a means of surviving through generations, whilst at the same time retaining the core of their social and cultural identity. Added to this are the challenges faced by developing countries in the process of transitioning toward modernity and the engagement with the cash economy, hence the continuous interaction between contemporary strategies and indigenous knowledge and values related to managing and shaping political, social and economic change. To some extent, indigenous peoples have taken advantage of the processes of these changes by building up their own cultural values to an even bigger and more expensive scale.

In the context of Lihir, the results in Chapter 6 revealed that Lihirians' engagement in business or economic activities is not solely for earning or maximising profits for their own individual gain. For example, the primary research participants who are currently engaged in small scale enterprising activities (65% - refer to Table 9) expressed that even if they were making profits, these were spent mostly on maintaining and fulfilling customary obligations and responsibilities, which they said was a very important part of life for them. Hence for Lihirians, indigenous social values and a moral sense of responsibility toward customary obligations thus, maintaining and strengthening social kinship and family ties still take precedence and are important in the identity of a Lihirian involved in such activities. Similar examples in other PNG societies exist. For example, Curry (1999) observed the case of operating village trade-stores by people in the Wosera sub-district in the East Sepik province and concluded that business enterprises in rural PNG is not driven solely by the desire to accumulate profit. Moreover Curry emphasised that from the way a business activity is established through to its management, the sense of expressing the indigenous social and economic life in that context can be recognised. Banks (2008, p. 90) also observed the case of Porgera, another mining community in PNG, and asserted that Porgerans involvement in business activities is "primarily to serve their local (socio-political) agendas" hence "a different perspective from western-style economic systems".

Furthermore those who underwent PV training (31 participants – 94%) maintained that as Lihirians, they would still feel obliged to participate in their *kastom* or cultural activities. However, their stated intent was to limit their participation where necessary to avoid spending too much on these activities and compromising the wellbeing of their nuclear families. It was also expressed that such decisions have to be made in the light of the challenges and difficulties of living in a cash-based society, where nowadays almost everything costs money. Others were of the view that the benefits received from the mine have, in turn, contributed to an increase in expenses involved in maintaining the cultural cycle of feasts and exchanges in Lihir.

Traditionally, such events were carefully planned before they took place, so they could be dependent upon harvests from garden produce. However, in present times people can initiate feasts at any time because they have the money and resources to do so. Whilst some Lihirians may have taken advantage of the benefits of the mine to further these cultural feasts and expenses on a bigger and probably even better scale, the downside of this expansion is its contribution of extra pressure and burden on those who do not benefit from the gold mine wealth, and thus cannot afford to keep up financially.

As noted in Chapter 4, the cultural conditions in the lowland coastal societies of PNG were not as conducive as the highlands, to people from this region aspiring to personal ambition and achievement. The system of hereditary leadership condemned competitive behaviour and in the past, the fear of sorcery was so prevalent that people were almost forbidden to engage in competitive activities. However, this is not to say that people in this region have not attempted at all to take advantage of the opportunities and challenges of the present times. Additionally, although the desire for personal ambition and achievement was not encouraged given the cultural conditions, such traits as communalism and reciprocity still prevailed, thus maintaining social and kinship ties and obligations as a priority in this region, as well.

Regardless of differences in the cultural conditions in PNG societies, the common traits that are still valued are those of communalism, reciprocity in the cycle of feasts and exchanges of wealth and goods, and leadership status. These social factors are important to many Papua New Guineans and continue to be maintained. It is within this context then, that the key findings for the second research question, is considered.

The results in Chapter 6 provide evidence for the argument that PV does have an influence on the lives of women and men of Lihir Island concerning the usage of money and resources however, the extent of this influence may still vary in different villages on the island for a number of reasons. As indicated by the results in Chapter 6, 20 participants who underwent PV training, for example, stressed the importance of budgeting in order to provide for future savings and investments was expressed, although such concepts still seemed relatively new to some participants. As one participant expressed, there is a *"sense of stewardship for resources we are blessed with"*. Emphasis was also placed on being able to save for the future needs of their own children, especially needs related to education and health. To further encourage the concept of savings and investments, and to start up small-to-medium businesses, LMALA requested from LGL, the establishment of the Lihir Microbank, which started operations in September 2008 in Lihir.

Others (12 participants) expressed that the PV training helped them to work toward self-reliance. The concept of 'self-reliance' is interesting in this context, in the sense that in traditional Lihirian society, as elsewhere in PNG, there is an expected obligation to help one another with heavy tasks; for example, in building or repairing a house, clearing and planting gardens, there would be a reliance on extended family kinships to provide assistance as needed. Whilst the context in which this was expressed can be understood, given that people nowadays want money or food in exchange for the assistance they provide, the concept of self-reliance undermines the credibility of the extended family network that is unique to PNG's context, and further weakens its value.

However PV's aim in instilling the concept of self-reliance in people can also be recognised and appreciated from the broader perspective of curbing the 'dependency syndrome', particularly as it relates to foreign aid, that the country finds itself in. Hence, to motivate Papua New Guineans to become more self-reliant in their daily activities may in fact create a class of citizens that develop an attitude of dependence on their own skills, knowledge and resources, and come to realise their own individual potential in the process, rather than waiting for someone to do things for them.

Interestingly out of the total number of 27 male primary participants in this research, 34% agreed they would allow their wives to take up waged employment, especially because this would supplement the men's income. They also agreed it is becoming more and more necessary to have two pay packets to survive, rather than one, when trying to meet the demands of a cash-based society. This kind of view was expressed mostly by men who were currently employed. However, a majority of the male participants, 55%, disagreed. These men were of the view that women should continue to stay at home, care for the household, and fulfil the primary responsibilities that are expected of them. Hence based on these findings, there is still a strong tendency for men to prefer women to give priority to their domestic household responsibilities. The other 11% were unsure in their responses.

7.3 Conclusion

Based on the results in Chapter 6, it seems that PV's influence in impacting upon gender relations could be applauded as a positive influence. In the light of what has been discussed in Chapter 4, it should also not be overlooked that the notion of working together in households or families already existed within traditional PNG societies thus such perceptions should also be analysed with caution as the principles and values promoted by PV for entrepreneurial skills development are considered to be more Western and Eurocentric. Hence the notion of PV promoting a nuclear family model as compared to the extended family and social relationships

which are an important and essential part of PNG societies. However, PV's influence in promoting a nuclear model of family is perhaps with the intention to help families cope with current social and economic changes, even if it undermines traditional custom form of behaviour. In addition, the positive influence of PV is in changing behaviour and attitudes toward good use and management of money and resources. PV is having an impact, although in a small way compared to other bigger forces, but perhaps is influential in transforming Lihirian society and individual families.

Large-scale mining and resource extraction is a massive industry with profound effects across PNG societies. Thus the wealth that is derived from mining for the local communities who receive some benefits, especially in the form of royalty and compensation payments, need an intervention whereby they are positively encouraged to promote good investment for the future benefit of the next generation, that is, their own children. PV can help shape positive outcomes and practices in the light of rapid social and economic changes. Hence, PV provides only a tool among many, to help people cope with these changes.

CHAPTER 8: CONCLUSION AND RECOMMENDATIONS

> "While local entrepreneurs are a significant force in fomenting commercial growth and consequent social change, they can only have a limited impact on their societies if their members are not prepared to tolerate activities that conflict with traditional expectations" (Sillitoe, 2000, p. 108).

8.1 Concluding comments

I began this thesis by investigating the influence of the PV training program on gender relations in the context of mining communities in PNG. In order to achieve this, two key research questions were asked. Firstly *"How does the PV training impact on traditional gender roles and relations at the household level in mining communities in PNG?"* and secondly *"How does the PV training influence the economic attitude and behaviour of women and men in mining communities in PNG?"* hence data for this research was gathered in Lihir, a gold mine community in the New Ireland province of PNG.

As PV is considered to be an entrepreneurial skills and personal development training program, the research was conducted from the angle of identifying and exploring the concept of entrepreneurship in different contexts. PV promotes a set of principles and values geared toward entrepreneurship, which must then be critically assessed within the context of PNG cultures as well as other Pacific Island countries. Moreover, it should not be overlooked that some PNG societies were already pre-adapted for engagement in entrepreneurial activities within their own specific cultural contexts. The desire for personal ambition and the achievement of leadership status already exists, motivating the development of entrepreneurship. At the same time, their engagement in the capitalist system is also according to their specific cultural contexts, ensuring that social relations and obligations are maintained and fulfilled to the best of their abilities.

The extended family network, which almost all Pacific island societies identify with, can no longer be supported as people become more concerned with the survival of their own nuclear families (i.e. husband, wife, and their own children). The perception that people are becoming more westernised and individualistic is not necessarily the case in PNG since the pressures of modern day living also impact the way people are forced to live their lives. In the context of mining communities, there are evidences that the royalty and compensation payments are distributed unevenly amongst the affected populations in PNG (see Banks, 2001; Bainton, 2008a; and others). For those who do not benefit from these payments, there is a need to look for alternative means to survive economically and developing entrepreneurial skills becomes a way out for them. PV can be seen as a positive force in helping develop these.

In conclusion, PV offers a set of strategies and values that maybe foreign to PNG's cultures, however it must also be acknowledged that it presents opportunities for people to decide for themselves according to what is best for them in their own contexts in order to move on in life. Where opportunities exist, people tap into what is offered by both worlds to see where they can adjust their lives. In fact this has been the strategy over generations where people have adapted to changes, survived and moved on hence the notion that no culture remains stagnant.

There is a dilemma now facing many Papua New Guinean entrepreneurs in the sense that they are faced with decisions about how to cope with social and economic changes. Do they drop all adherences to tradition, or stick to it, or like many, try and find a balance? This thesis shows that PV training has a place in providing opportunity and potential to help people make choices and pursue lifestyle paths.

8.2 Recommendations for further areas of research on PV

Three main points highlighted for recommendation in this thesis regarding PV training:

- Since the training has become a national phenomenon in PNG, more effort should be made by EDTC or other partners to evaluate the impact of the training throughout the country. Similar research, like the one made in this thesis, should be conducted in other natural resource-rich areas with the aim of assessing attitude and behaviour change, if any, toward usage and management of wealth and resources. This thesis relied heavily on research previously conducted in Lihir on PV by one person, since there was not much literature documented on PV's influence elsewhere in PNG.
- The issues surrounding gender roles and relations in other parts of PNG and Pacific Island countries could also be further researched in the context of PV's influence.
- Further research could also be conducted to explore indigenous or social entrepreneurship in other parts of PNG. This could be used to assess the level of engagement and response to PV in the context of PNG cultures and whether some of the findings have changed over the years, for example, taking into account the work of Hailey (1987); Finney (1987); Curry (1999).

8.3 Importance of research for development thinking and practice

The PV training program is considered in this thesis as a contemporary strategy introduced to Papua New Guinea and other Pacific Island countries to manage economic and political change affecting them. The large-scale development of natural resources in developing countries brings with it inevitable changes at all levels of society, including gender roles and relations, both in the affected communities as well as the country hence these changes also impact upon women and men differently.

The main discussions in this thesis have centred on the responses of indigenous peoples to such strategies as PV in the light of changing times, particularly the increased engagement in the global economy and moving toward modernity. Since Development Studies is concerned with the theory and practice of development, the discussion and findings in this thesis could be further explored to tease out the arguments regarding the development of entrepreneurship in non-Western contexts as well as changing traditional gender roles and relations as a result of such contemporary strategies. Such strategies as PV could be viewed as positive tool in the context of managing economic and social change for indigenous peoples in both developing as well as developed countries.

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APPENDICES

Appendix A: Consent form for research participants

The impact of personal viability training on gender relations in mining environments: The case of Lihir, Papua New Guinea

CONSENT FORM

I have heard the Information Sheet read and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate in this study under the conditions set out in the Information Sheet.

Name (first) : ……..

Signature : ……

Date : ……

Interview location : ……

Appendix B: List of primary research participants

Interview Code	Sex	Age	Married (Yes/No)	Category (A, B, C, D)
SSI-F-001	Female	34 years	Yes	A – employed by LGL
SSI-F-002	Female	45 years	Yes	B – employed by LGL
SSI-F-003	Female	28 years	Yes	B – employed by LGL
SSI-F-004	Female	28 years	Yes	A – employed by LGL
SSI-F-005	Female	48 years	Yes (but separated)	A – employed by LGL
SSI-F-006	Female	25 years	Yes	A – receives royalty payment
SSI-F-007	Female	30 years	Yes	C
SSI-F-008	Female	56 years	Yes	A – receives royalty payment
SSI-F-009	Female	60 years	Yes	B – receives royalty payment
SSI-F-010	Female	40 years	Yes	A – receives compensation payment
SSI-F-011	Female	30 years	Yes	C
SSI-F-012	Female	58 years	No (widow)	D
SSI-F-013	Female	40 years	Yes	D
SSI-F-014	Female	25 years	Yes	D
SSI-F-015	Female	25 years	Yes	D
SSI-F-016	Female	36 years	Yes	B – receives royalty payments
SSI-F-017	Female	34 years	Yes	C
SSI-F-018	Female	30 years	Yes	D
SSI-F-019	Female	25 years	No (never married)	B – receives compensation payment
SSI-F-020	Female	28 years	No (never married)	C
SSI-F-021	Female	30 years	Yes	C
SSI-F-022	Female	48 years	Yes	D
SSI-F-023	Female	36 years	Yes	B – employed by LGL
SSI-F-024	Female	50 years	No (widow)	B – employed by LGL
SSI-F-025	Female	36 years	No (never married)	A – receives compensation payment
SSI-F-026	Female	25 years	Yes	B – receives compensation payment
SSI-F-027	Female	39 years	Yes	C
SSI-M-001	Male	45 years	Yes	A – employed by LGL
SSI-M-002	Male	35 years	Yes	C
SSI-M-003	Male	36 years	Yes	C
SSI-M-004	Male	25 years	No (never married)	D
SSI-M-005	Male	28 years	No (never married)	B – waged employment (other)
SSI-M-006	Male	36 years	Yes	C
SSI-M-007	Male	38 years	Yes	B – employed by LGL
SSI-M-008	Male	40 years	Yes	D

SSI-M-009	Male	30 years	Yes	D
SSI-M-010	Male	35 years	Yes	D
SSI-M-011	Male	45 years	Yes	B – receives royalty payment
SSI-M-012	Male	50 years	Yes	D
SSI-M-013	Male	55 years	Yes	B receives royalty payment
SSI-M-014	Male	60 years	Yes	B – employed by LGL
SSI-M-015	Male	65 years	Yes	C
SSI-M-016	Male	75 years	No (never married)	D
SSI-M-017	Male	46 years	Yes	A – receives royalty payment
SSI-M-018	Male	45 years	Yes	A – waged employment + royalty
SSI-M-019	Male	50 years	Yes	A – receives royalty payment
SSI-M-020	Male	36 years	Yes	A – receives royalty payment
SSI-M-021	Male	40 years	Yes	C
SSI-M-022	Male	45 years	Yes	D
SSI-M-023	Male	50 years	Yes	B – employed by LGL
SSI-M-024	Male	49 years	Yes	B – employed by LGL
SSI-M-025	Male	55 years	No (widower)	D
SSI-M-026	Male	65 years	Yes	D
SSI-M-027	Male	35 years	Yes	A

Note - Categories:

(A) Participants receiving royalty/compensation/waged employment with LGL who have undertaken PV training

(B) Participants receiving royalty/compensation/waged employment with LGL who have not undertaken PV training

(C) Participants not receiving royalty/compensation/waged employment with LGL who have undertaken PV training

(D) Participants not receiving royalty/compensation/waged employment with LGL and who have not undertaken PV training

SSI – Semi-structured interview

F – Female (Total of 27 Females)

M – Male (Total of 27 Males)

Appendix C: Interview guide for primary research participants

Note:

There are four categories of population under this study according to reception of Direct Benefits from Lihir Gold Limited (LGL) and participation in Personal Viability (PV) training. The four categories are:

A: Receive direct benefits from LGL and PV training

B: Receive direct benefits from LGL but no PV training

C: Receive no direct benefits from LGL but PV training

D: Receive no direct benefits from LGL and no PV training

Direct Benefits refer to payment in cash/money received by the beneficiaries hence in this research it is limited only to **Royalty, Compensation, and Waged employment with LGL.**

There are other ***indirect benefits*** received in kind, for example, permanent houses to all Lihirians under the Village Development Scheme (VDS) initiated by LGL and others through the Local Level Government (LLG), water supply and rural electrification.

Category: _____ Interviewee Code No.: _____

Direct Benefit Received: _____

Part I: General Population Survey

1. Location: _____(Name of community)
   Nem blong komuniti we interview kamap
2. Clan Name: _____ (Name of the Clan)
   Nem blong tumbawin (clan)
3. Does the clan receive royalty/compensation benefits? _____
   Tumbawin (clan) save kisim royalty/kompensesen moni?
4. Do you receive any of this benefit? _____ (If No, why not?) _____
   Yu save kisim royalty/kompensesen moni?
5. Sex _____
   Man or meri?
6. Age _____
   Wanem krismas blong yu?
7. Marital Status: _____
   Yu marit o nogat?

8. Type of live-in House (permanent, semi permanent or temporary)_____
   Haus yu stap long en emi permanent or yu kamapim long bus material?
9. If Permanent, did you build the house yourself or was from VDS?_____
   Suppose haus emi permanent, yu kamapim or yu kisim long VDS?
10. Who Lives in house? How many adults (m/f), children (b/g)? _____
    Husat stap long haus? Hamas bikpela man-meri, na hamas pikini?

Part II: Pre-Lihir Gold mining

11. Before the mine started what did you do to earn some money (cash)?
    Bipo long mine kamap, yu save wokim wanem samting long kisim sampela moni?

_____

_____

_____

12. On what things did you mostly spend your money? (priority spending)
    Yu save baim wanem samting long dispel moni? Wanem samting yu lukim long dispela taim emi nid blong yu na emi bikpela samting long yu mas baim o usim moni blong yu long en?

_____

_____

13. Did you consult anyone (e.g. men, your wife) for spending the money? _____
    Taim yu kisim dispel moni, yu save toktok wantaim sampla lain (e.g. man blong yu) bipo long yu usim moni?
14. On what things would you consult your partner for spending the money earned?
    Wanem kain samting yu save toktok wantaim bipo long yu usim dispela moni?

_____

_____

_____

15. Did you put some money away for use in the future? _____
    Long dispela taim, yu save putim sampela moni long bai yu usim long bihain taim (e.g. putim long bank)?

Part III: Present Lihir Gold mining

16. What do you do now to earn some money or from where do you receive money?
    Long stap blong yu nau taim, yu save wokim wanem samting long kisim sampela moni?

_____

_____

_____

17. On what things are you mostly spending your money on now? (priority spending)
Wanem samting yu save usim moni blong yu nau long en na yu ting emi bikpela samting?

_____

_____

_____

18. Do you consult anyone (e.g. men, your wife) for spending the money? _____
Yu save toktok wantaim sampela lain (e.g. man blong yu) bipo yu usim moni blong yu?
19. On what things would you consult your partner for spending the money received?
Wanem kain samting yu save toktok wantaim bipo long yu usim dispela moni?

_____

_____

_____

20. Do you put some money away for use in the future? _____
Yu save putim sampela moni nau long usim long behain taim (e.g. putim long bank)
21. What is your aim in putting this money away for future?
Wanem plan or driman blong yu long usim dispela moni blong bihain taim?

_____

_____

_____

_____

Part IV: Personal Viability (PV) Training

22. Have you heard about PV training? ____ (If No, go to question 24 only)
Yu bin harim long PV skul/training?
23. Have you attended a PV training session/s? _____(if Yes, go to question 25)
Yu bin skul long PV?
24. Would you attend if you were given a chance to attend? _____
Sapos wanpela skul blong PV kamap, bai yu laik go skul?
25. What important things did you learn from this training?
Wanem bikpela samting yu lainim long dispela PV skul?

_____

_____

_____

26. How has this learning experience helped you on what you spend your money on now?
PV skul halivim yu olsem wanem long usim moni blong yu nau?

_____

27. How has PV training influenced your life?
PV skul kirapim tingting blong yu yu olsem wanem long laip blong yu?

_____

_____

_____

28. How has PV training helped you manage your resources?
PV skul halivim yu olsem wanem long usim moni na ol sampela samting blong yu?

_____

_____

_____

29. On what things would you invest your money on now?
Wanem samting bai yu tingitng nau long putim sampela moni long usim bihain taim?

_____

_____

_____

30. Having gone through PV training, how do you feel about some of your cultural obligations, e.g. *'kastom wok'*?
Yu lainim PV skul nau na wanem tingting blong yu nau long ol kastom wok blong yu?

_____

_____

_____

31. Do you find any conflicting issues for you and your family in terms of 'PV way of thinking' and *'kastom wok'*? In what way?
Yu painim olsem sampela hevi kamap long PV skul na kastom wok blong Lihir? Hau?

_____

_____

_____

Part V: Gender Roles and Relations

32. What were men's roles and responsibilities in accumulating traditional wealth?
Wanem wok blong ol man long kisim ol kastom moni (e.g. pig na mis)?

_____

_____

_____

33. What were women's roles and responsibilities in accumulating traditional wealth?
Wanem wok blong ol meri long kisim ol kastom moni (e.g. pig na mis)?

_____

_____

_____

_____

34. What are some of the changes in these roles and responsibilities you observe now?
Wanem kain senis yu lukim i kamap long dispela ol wok blong man na meri?

_____

_____

_____

_____

35. Why do you think these changes are taking place?
Yu ting olsem wanem na dispela ol senis i kamap?

_____

_____

_____

36. How does the change in these roles affect the relationship between women and men (or you and your spouse/partner)?
Dispela ol senis i kamap, yu ting olsem ol kamapim hevi long family or wantaim ol marit lain?

_____

_____

_____

37. Do you think PV training has any influence over these changes? How?
Yu ting olsem PV skul i bin gat sampela kain way long contribute long senisim dispela?

_____

_____

Part VI: Close-ended or Survey-type Questions

Close-ended Interview Questions 38-41

	Q38: Do you think traditional gender roles are changing in your society? *Yu ting olsem ol wok meri na man save wokim long taim blong tumbuna i senis or nogat?*		Q39: Do you think there are more women in waged employment now than before? *Yu ting olsem planti meri ol wok-moni nau, long dispel taim?*		Q40: Do you think the change in gender roles causes conflict in relationships between husband and wife? *Yu ting olsem ol senis i kamap long wok blong meri na wok blong man long taim tumbuna i kamapim hevi nau wantaim ol marit lain?*		Q41: As a man, would you be happy if your wife was engaged in waged employment? *Yu man, na u ting olsem bai yu hamamas taim meri blong yu wok-moni?*	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Agree								
Disagree								
Don't know								
Total								

Close-ended Interview Questions 42-45

	Q42: After PV training, did you still participate in *kastom wok*? *Yu kisim trening pinis long PV na yu ting olsem bai yu go het yet long ol kastom wok?*		Q43: Does conflict arise within your family when you decide not to participate in *kastom wok*? *Yu ting olsem hevi save kamap long famili blong yu taim yu les long kastom wok?*		Q44: Do you think some of the expensive *kastom wok* should be done away with? *Yu ting olsem yupela mas lusim sampela ol kastom wok ol i kamapim traipela moni?*		Q45: Do you think PV is in conflict with Lihirian *kastom*? *Yu ting olsem PV kamapin hevi wantaim kastom wok?*	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Agree								
Disagree								
Don't know								
Total								

Close-ended Interview Questions 46-47

	Q46: Has PV positively impacted upon your relationship with your spouse? *Yu ting olsem PV kamapim gudpela sindaun wantaim meri/man blong yu?*		Q47: Has PV training helped you to work better together as a family? *Yu ting olsem PV halivim yu long wok bung wantaim famili blong yu?*	
	Freq.	**%**	**Freq.**	**%**
Agree				
Disagree				
Don't know				
Total				

Appendix D: Interview guide for secondary research participants

Lihir Mining Area Landowners Association (LMALA)

1. What does the acronym LMALA stand for?
2. What is LMALA's aim, purpose and vision?
3. Who funds LMALA?
4. How has LMALA responded to the strategies or principles behind PV concept?
5. What is LSDP?
6. What is the difference between formal and informal education in the context of PV training?
7. How is the royalty payment broken down?
8. Is LMALA engaging expatriate consultants for the implementation of the LSDP?
9. What about PNG expertise? Is LMALA looking to employ other Papua New Guineans, not necessarily Lihirians?
10. What would be the difference between LSDP and PNG Sustainable Development Program?

Petztorme Women's Association (PWA)

1. What does the acronym PWA stand for?
2. How long ago was the PWA formed?
3. What is the purpose and vision of PWA?
4. How has PWA responded to the strategies and principles behind the PV concept?
5. What are Lihirian women's response to the PV strategies and principles?
6. Do you think the 'PV way of thinking' is in conflict with Lihirian culture or *'kastom*?
7. With more women now engaged in wage employment or activities to generate income for their families, does this contribute to problems within the households? How?

Lihir Sustainable Development Limited

1. What is LSDL?
2. What is its purpose/aim?
3. What are the basis for LSDL's activities
4. How does LSDL understand the concept of LSDL?
5. Does LSDL see PV 'way of thinking' in conflict with Lihir culture?

Lihir Nationwide-Micro-bank

1. When was Lihir Nationwide Micro-bank established in Lihir?
2. How many people, especially Lihirians, have opened Micro-bank accounts?
3. What are some of the reasons for people opening Micro-bank accounts in Lihir?
4. What are some of the conditions before approving a bank loan for customers?
5. Is PV training a requisite for accessing a bank loan from the micro-bank?

Entrepreneurial Development Training Centre (EDTC)

General questions:

1. What is PV's purpose in PNG?
2. How long has EDTC/PV been operating in PNG?
3. How relevant is this concept/training for PNG as a country?
4. How many PV trainings have you conducted in PNG?
5. Where are the specific areas where these trainings have been carried out?
6. Are some of these areas natural resource-rich areas, e.g. mining and logging?
7. Has any evaluation or follow-up training being conducted in these areas/sites, especially the mining areas/sites, to assess its impact and influence?

8. According to your assessment, how have people in the mining environments responded to PV training/concept, especially since they are receiving royalty/compensation benefits?
9. The training is said to be "specifically designed for Papua New Guineans". How is this so? In what ways?
10. Is there any evidence that can be shown that the PV concept is working for Papua New Guineans? Examples of success stories
11. Would you say that the concept is being embraced by the people of PNG?
12. Some critiques of PV say that "PV is in conflict with the Melanesian ideals of 'community' and 'morality' which often shape local economic behaviour and compromise entrepreneurial endeavour". In your opinion, would you say that the PV concept is in conflict with some of PNG's cultures? Give examples
13. Has the PV concept being introduced to other Pacific Island nations? If so, how well are they responding? Name the countries

Lihir:

14. Given that Lihir is a mining environment and the people are receiving royalty benefits, how well have they responded to the PV concept/training?
15. What difference has the PV concept made in their lives?
16. How has PV influenced their economic behaviour?
17. In your opinion, has PV come into conflict with any of their cultures? Give examples
18. Like many other PNG cultures, it is generally said that women are not consulted in major decision making in the communities, do you think Lihirian women are economically empowered now as a result of PV training? If so, how has this affected gender relations, if any?

Government:

19. Which Government departments have used the PV training package for 'capacity building exercise'? Name them. Any contacts you can give me?
20. How relevant and effective is this training for the Government Officers/staff?
21. What difference has it made for them, in terms of work ethics/attitudes?
22. What is the PNG Government's response to the PV concept as a nation?

Appendix E: The PV Story

Founder of EDTC Personal Viability

Samuel Tam MBD, CSI, OL; was born in 1948, Rabaul, East New Britain. His father was a Singapore Chinese mechanic. On his mother's side, his grandparents migrated from Canton, China to Rabaul in 1917 during the German Administration. His mother was also born in Rabaul, in 1921.

Samuel Tam was educated in Rabaul High School during his primary years. During the 1950's, like most PNG born Chinese, members of the Tam family were naturalised Australians and the children sponsored by the Australian Government to receive their secondary school education in Australia.

After completing his matriculation at the Scots College, Warwick, Queensland, Tam began to acquire practical business experience in businesses such as Burns Philip (retail, wholesale, coastal shipping), Service Station & Mechanical Garage for Vehicles, Customs Agent & Transport, and General Merchant.

In 1968, Tam migrated from Rabaul to Port Moresby where he co-founded the Cathay Club, pre-dominantly to service the Chinese community. It was a foundation to do community work in Port Moresby and surrounding villages in Central Province. Tam also served on the National Executive Council of Red Cross Society for a number of years.

The First Missing Link discovered

In 1970, Tam started his own business with a start-up capital of A$300. At the same time Tam assisted two Papua New Guineans to set up and manage two trade stores in June Valley, Port Moresby. These two entrepreneurs were Mr Mairi Mairi of Rigo, and Mr Paulus Arek of Popendetta. Both these gentlemen borrowed A$6000 each from the PNG Development Bank which they fully repaid within 9 months. This feat was unusual because at that time the failure rate for national Trade Store operators in PNG was around 96%.

The Stretpasin Stoa Scheme

Because of this, the PNG Development Bank took the initiative and requested Tam to develop a scheme to assist Papua New Guineans to successfully run retail stores. It was Tam who developed the Development Bank's Stretpasin Stoa Scheme in 1974.

The experience gained from the nation-wide successful Stretpasin Stoa Scheme provided the first "missing link" to the concept of Personal Viability.

Also in 1972, Tam wrote a small booklet "HOW TO SET UP AN URBAN TRADE STORE" which was printed and presented to the Department of Business Development by the Chinese Businessman's Association during an official dinner. Sir Julius Chan was one of the main guests during the presentation.

A PNG Agriculture Bank article of 1992 (to commemorate its SILVER JUBILEE celebrations) said:

Development of retail businesses owned and operated by Papua New Guineans has a lot to offer to a developing nation. The resources are managed and owned by Papua New Guineans and provide the goods & services that satisfy the needs of society. In addition these PNG owned and operated businesses are associated with employment creation, income generation and improvement in the standard of living which is crucial in developing nations.

The Stretpasin Stoa Scheme, which was established by the Agriculture Bank, has shown over the years that given the right and necessary support Papua New Guineans can successfully manage businesses.

When you consider the fact that 80% of small businesses fail within the first three years and the majority of these failures can be traced to poor management, then the 80% success rate of the Stretpasin Stoa Scheme is rather remarkable.

The success rate is a combination of the unique aspects of the Stretpasin Stoa Scheme which are provided by the Agriculture Bank's Retail Management Services.

- The selection Process to recruit store managers.
- The twelve weeks residential training programme.
- Store evaluation and Selection.
- Supervision and Assessment of store managers for as long as it takes for them to develop the attitude and habits of successful businessmen and to pay off the loan.

The establishment of stores is by way of 100% loan finance by the Agriculture Bank and the managers do not bring any equity into the business. Many of the managers (ranging from clerks, salesmen, bankers, teachers, academics, engineers and self-employed) may have no previous experience with retail management.

Regular on the job training, weekly and monthly reporting, quarterly accounts and monitoring helps effective management of the store. Weaknesses of individual managers are identified so that corrective action is taken by giving advice, guidance, direction and assistance.

Committed and effective managers inevitably produce profitable stores.

To date the Scheme has established over 125 stores throughout Papua New Guinea. The Scheme has conducted over 20 training courses and trained over 150 students.

The Scheme has gained popularity in PNG and around the Pacific. Delegations from Pacific Island countries such as Fiji, Tonga, Vanuatu and the Solomon Islands come to learn about the Scheme. A similar Scheme has been established in Fiji along the lines of the Stretpasin Stoa Scheme.

The Agriculture Bank can be proud of the success of the Stretpasin Stoa Scheme.

In 1981, The Queen appointed Samuel Tam to be an Ordinary Member of the Civil Division of the Most Excellent Order of the British Empire (MBE) in recognition of his contribution to the Stretpasin Stoa Scheme.

Business and Training Roles Expand

Tam left the Scheme in 1978 to continue his own business in wholesale warehousing and supermarkets based in Port Moresby which was developed into a multi-million Kina turnover enterprise.

In 1982, Tam was appointed to the Board of the Agriculture Bank where he served two terms for a total of six consecutive years.

In 1986, Tam met Nalden Matautu, President of Liklik Bisnis Manmeri Association (LIKBA). Matautu requested Tam to assist Likba members in business training. Tam agreed to assist and conducted many theoretical and practical courses in his warehouses at Six Mile and Four Mile covering a wide range of subjects including:

Management	Bookkeeping	Trade Stores
PMV	Fishing	Contractors
Purchasing	Feasibility Studies	Taxation
Motivation	Banking	Cash Flows
Supervision	Retail	Wholesale
Manufacturing	Insurance	Agriculture
Forestry (Timber)	Statutory requirements	Costing & Pricing

The Second Missing Link discovered

During this period Tam established Inter-Pacific Finance Ltd to assist the small Papua New Guinean entrepreneurs. The venture was short lived as repayments on loans were not forth-coming. The experience of this costly lesson and his association with LIKBA was to become the second "missing link" of the training course "ARE YOU VIABLE?"

Bankrupt, and The Third Missing Link discovered

Tragedy struck in 1989. Within 3 short months the general manager of Inter-Pacific Finance Ltd passed away suddenly followed quickly by the death of Tam's business partner and, lastly, Tam's mother of cancer.

Unfortunately, Tam's friend Nalden Matautu, President of Liklik Bisnismanmeri Association also passed away in 1992.

Years of problems followed during which Tam lost all his material possessions. Tam was a bankrupt in1994. This experience with problems and failures proved to be Tam's most valuable lesson and it provided the third "missing link" to the concept of Personal Viability.

False Starts Breed Perseverance

Tam was determined to find answers to business failures through research and from his own experience. He resolved to find a use for his experience, good and bad, successes and failures.

In 1994, when Mr Shem Pake, Managing Director of Agriculture Bank requested Tam to develop another scheme, he agreed and commenced work immediately. However this association was not to be, as a new management team took over the reigns of the Agriculture Bank that would concentrate on the business of a financial institution and not the development of entrepreneurs.

This setback did not deter Tam. In fact it hardened his resolve to find a solution to this worldwide problem of the cause of business failures. Tam decided to continue on his own and developed a series of strategies to test his products. He conducted many courses with many types of people including university graduates down to grade 3 standard from 17 years to 56 years old, men and women, urban and rural dwellers, public servants and private sector, Christians and non-Christians. In short, Tam covered the whole spectrum of people.

The challenge is in developing a training course that is practical and is suitable for everyone.

The Tipping Point - The Fourth Missing Link discovered

In 1995, Tam assisted members of the Boroko United Church at the request of Pastor Samson Lowa. This became a weekly affair and people began to request written articles on discussion topics to take home. This proved to be the turning point in Tam's product development for he discovered a greater need among the common majority who just wish to provide for their family's needs. In fact, there is a far greater need for human development than for entrepreneur development. Everyone needs to be viable, not just entrepreneurs. As a result, Tam set aside his business courses, for the time being. There at the Boroko United Church was the beginning of what is now known as the EDTC Personal Viability Training Course. That was how the fourth "missing link" arrived.

The Fifth Missing Link discovered

During the two years of product development and field testing, another curious thing occurred. Participants began to ask Tam if he was aware that many of the success behaviours in his training course are found in the Bible. Because Tam has not read the Bible, his students began to teach him about success recipes contained in the Bible.

Tam then realised that the Bible is probably the best book on business success in practical terms.

His students provided the fifth and final "missing link". Thus it is no coincidence that Christians everywhere are among his strongest advocates for this training course.

THE Immediate PV Family

Samuel Tam's family includes his wife Dawn and three boys, Alexis, Damien and Samuel Jnr.

THE Wider PV Family

The success of the PV programme is attributed to a small silent group of people. Without them, the PV Programme remains a concept.

These people have one common denominator – their love for their country, its people and environment. They are not prepared to sit and watch things go from bad to worse. They are prepared to do something about it. In fact they have given their lives for Papua New Guinea. It would be hard to find a more dedicated group of people anywhere in this world.

- Evangeline Kaima, East Sepik Province – National Coordinator and Master Trainer who was instrumental in the areas of awareness (marketing), organising courses, pidgin translation of handbook, training of trainers and many others.

- Emmanuel Raussi, West New Britain Province – Trainer, wrote the foreword in the handbook, and was responsible for SBDC's short-lived involvement. Currently, Emmanuel in charge of developing the EDTC Business Development & Advisory Services.
- Melepia Eliab, East New Britain - Trainer
- Robin Apelis, East New Britain – Trainer
- Steven Kiwi, Bougainville – Trainer
- Robert Taula, New Ireland – Trainer and Chairman of Grassroots Housing Scheme.
- Sister Chanel FMI, West New Britain – Trainer
- Relida Pau, East New Britain – Trainer
- Paul Wiau, Sandaun – Trainer
- Tobias Arnold, East Sepik – Trainer
- James Ipa, New Ireland – Trainer
- Deborah Navogi, New Ireland - Trainer
- Dawa Kale, Simbu – Trainer
- Janet Bulda, Western Highland – Trainer
- Alphonse Kamo, East New Britain – Trainer
- Jesse Magum, Bougainville – Trainer
- Joe Nelson, Bougainville – Trainer
- Mary Soondrawu, East Sepik – Trainer
- Remi Numbos, East Sepik – Trainer
- Mathew Hapoto, Madang Province - Trainer
- Angela Soso, Eastern Highland – Coordinator
- Patrick Imaroto, Western Province - Coordinator
- All the provincial Executives of Grasruts Pawa Mekim Kamap Assn & Grasruts Moni Gaden.
- Alois Lavu & Staff of SBDC; Judith Day, Trevor Mayhew, John Orea, Onnie Teio, Maria Hayes, Pastor Samson Lowa.
- Organisations include Catholic Church, United Church, SBDC, National Council of Women, Papua New Guinea Council of Churches, National Planning Office, a number of Provincial Welfare & Youth offices, a number of Provincial Commerce offices.
- Bougainville Provincial Government, Bougainville People's Congress, BRA, Chiefs, leaders and ordinary people of Bougainville.
- East New Britain Provincial Government
- Special mention for St Johns Seminary, Kairiru Island, East Sepik Province.
- Also staff members of the following jails: Bomana-NCD; Boram-ESP; Lakiemata-WNBP; Kavieng; and Vanimo.

- Last but definitely not least, Daniel Murray of Kairiru Island whose music and songs have ignited the imagination of the rural and urban people alike.

The list is endless and we apologise to those who are not mentioned here. Many grassroots people assisted in spreading the PV program. They are too numerous to mention. But they are the real unsung heroes of this program.

They are the concerned mothers and fathers, the youths, public servants, pastors and priests, nuns, teachers, businessmen & women. Truly the PV programme belongs to all grassroots people of PNG. Grassroots people of PNG, those who have attended PV, proudly call it the Grassroots University (Grasruts Yunivesiti). The spread of PV has much to do with the name Grasruts Yunivesiti.

Some PV Milestones

1996	The Personal Viability Program was officially launched by the then Minister for Planning, Honourable Moi Avei MP on September 16, 1996 at the Boroko United Church. This event was witnessed by a small group of people that included Pastor Samson Lowa, Alois Lavu - Managing Director of SBDC, Lady Carol Kidu, Sir Paulias Matane, John Orea and family and friends. Soon after, courses were conducted in NCD and later in Wewak, East Sepik Province.
1997	PV courses were conducted in East Sepik, West New Britain, NCD, Morobe, and Bougainville.
1998	PV courses were conducted in East Sepik, Sandaun, East New Britain, Bougainville, New Ireland, Southern Highlands, Manus, Madang, Milne Bay, NCD.
1999	Inaugural EDTC Trainers Accreditation Course was conducted at St Johns Seminary, Kairiru Island, East Sepik Province. This three-months TOT course commenced in February and concluded in May. PV courses were introduced in Eastern Highlands, Enga.
2000	The 2nd EDTC Trainers Accreditation Course was successfully completed on Kairiru Island. PV courses were introduced into Western Province and Western Highlands.

2001	The 3rd EDTC Trainers Accreditation Course was again held at St Johns Seminary, Kairiru Island, East Sepik Province. The inaugural launching of the EDTC Commercial Courses took place on Kairiru Island from 7th May to 25th May 2001. 17 participants attended the highly successful launching of the EDTC Business Courses from various provinces around the country. These include Bougainville, NCD, Morobe, West New Britain, New Ireland, Western Province, Sandaun and East Sepik. Official Guest Speaker of the Inaugural Graduation was none other than Catholic Bishop Tony of East Sepik.
2002	Training of Business Trainers (TBT) launched by EDTC.
2005	Joint venture with Rural Development Bank
2008	Joint Venture with the Global University of Life Long Learning

Source: EDTC website

Accessed September 28, 2009 at www.edtc.ac.pg