

Lund University

Lund University Master of International Development and Management

May 2010

REMITTANCE SENDING BEHAVIOUR OF INTERNAL MIGRANTS IN VIETNAM:
A MIXED METHODS APPROACH

Authors: Rebecca Elias
Jean-Francois Trinh Tan
Supervisor: Martin Andersson

Abstract:

This paper explores the gender differences of remittance sending behaviour of internal migrants in Vietnam. This study emerges from the context of rapid economic growth, feminisation of migration and the real potential of remittances for poverty alleviation. This twofold study investigates the determinants of remittances, and then explores if there are differences in proportions of income remitted and motivations between genders. This study uses a sequential mixed methods approach using both quantitative and qualitative approaches. Each research question is addressed using a different sequence of quantitative and qualitative methodologies.

The findings of the study indicate that the remitting behaviour of migrants is driven by altruism, exchange and mutual beneficiary arrangements. It is also apparent that there are factors that affect migrants' capacity to remit at destination. Moreover the study finds that there are some gender differences in remitting behaviour. It was evidenced that women tend to remit for altruistic motives while exchange motives appeared to be more prevalent amongst men.

Acknowledgments:

Thank you to the Lund University Master in International Development (LUMID) Programme from where everything started. We also acknowledge the support of the Swedish International Development Agency for providing funding to engage in field-based courses and research, Action Aid Vietnam for providing indispensable field resources, the General Statistics Office of Vietnam and the International Organization for Migration, Vietnam.

Special thanks to our supervisor Martin Andersson, Nguyen Hai Duong and to our families for their unconditional support. Et un sincère remerciement à ma copine Christa pour sa tolérance et sa patience sans bornes.

Table of Contents

Abstract:	2
Acknowledgments:.....	3
Table of Contents	4
Acronyms	5
1. Introduction	6
1.1 Purpose of the Study	9
1.2 Previous Research.....	9
1.3 Analytical Framework	11
1.4 Research Framework	14
1.4.1 Theoretical Perspective.....	14
1.4.2 Defining the Mixed Methods Approach.....	15
1.4.3 Ethical Considerations	21
2. Findings and Analysis	22
2.1 Part A: Determinants of Remittances	22
2.1.1 Empirical Results	24
2.2 Part B: Gender Difference in Remittance Sending Behaviour.....	32
2.2.1 Differences in Amount of Remittances between Genders.....	32
2.2.2 Differences in Sending Motivations between Genders	34
3. Discussion and Conclusion.....	46
3.1 Key Findings.....	47
3.2 Emerging Findings.....	49
3.3 Critical Reflection on Inferences	50
3.4 Policy Implications and Further Research	51
References	52
Appendix 1 – Descriptive Variables	57
Appendix 2 – OLS Estimator	60
Appendix 3 – Qualitative Interview Guide	62

Acronyms

AAV – Action Aid Vietnam

C&D – Centre for Human Resource Development and Co-operation

GDP – Gross Domestic

OLS – Ordinary Least Square

QUAL – Qualitative

QUANT – Quantitative

S.D. – Standard Deviation

UNFPA – United Nation Population Fund

US – United States

VLSS – Vietnam Living Standard Survey

VMS – Vietnam Migration Survey

1. Introduction

This paper explores the gender differences of remittance sending behaviour of internal migrants in Vietnam, It will do so, by first investigating the determinants of remittances and then explore if there are differences in proportions of income remitted and motivations between genders. This introduction provides background context to the problem, the rationale behind the purpose of this study.

Internal migration patterns in Vietnam have undergone significant changes in the last 20 years in light of the country's economic transformation. The biggest shift in migration patterns were prompted by Vietnam's official economic reforms, the Doi Moi, which took place in the mid 1980's and promoted industrialisation and modernisation, encouraging multi-sectoral, market economy and international integration (Tien & Ngoc 2001). Prior to this policy, migration was mostly state controlled under a strict household registration system. Subsequently, the implementation of more lenient internal migration policies lead to a significant increase in spontaneous labour migration during the mid 1990's and onwards. Rural to urban migration was further intensified by economic growth and the expansion of the manufacturing sector around urban centres. Migration is mostly temporary or circular which distinguishes this study from simply understanding the effects of 'urbanisation' that internal migration often falls under. In this context, labour migration is an important economic survival strategy which can provide a vital source of income in migrants' communities of origin. Hence, remittances become a key area of inquiry within the phenomenon of internal migration in Vietnam.

Remittance flows associated with labour migration act as a key livelihood diversification strategy for rural households and communities. In 2006 it was estimated that remittances made up 7.4% of the country's GDP (World Bank 2006). Data from the 2004 Vietnam Migration Survey (VMS) indicates that over 50 percent of internal migrants were remitting money to their households of origin, and that domestic remittances were steadily increasing at a faster pace than remittances sent from overseas. The vast majority of domestic remittances were sent from urban centres to rural areas. Moreover, migrants sent on average 17% of labour-market earnings to the household of origin in 2004 (Niimi & Reilly 2008).

The role of remittances has been a contested issue as some authors maintain that remittance encourage dependency of community of origin and are not a significant means to rural development (Jensen & Meckling 1976). Others argue that remittances are an important outcome of migration processes which have positive impacts for rural households and communities it provides a significant contribution to rural household income for consumption as well as much needed capital and savings for investment which may stimulate local economic growth (Osaki-Tomita 2008; Nguyen 2005; Griffin, 1976; Deshingkar 2008). 'Remittances directly augment the income as well as enhance the wellbeing and economic security of recipient household by providing resources for food housing and health care' (Osaki-Tomita 2008:158). Whilst recipients use remittances for satisfying consumption and basic needs, remittances may be channelled into savings and investments which can improve income distribution and alleviate poverty (Osaki-Tomita 2008).

Unfortunately, data on remittances is often unreliable as domestic and international remittances can be difficult to decipher in communities of origin and informal remittance sending channels can be difficult to measure. It is, however, generally agreed that the volume of worldwide remittances is on the rise and is increasingly present in policy discourse as an important component of development and poverty reduction strategy approaches. In 2007, the total amount of remittances sent through official channels was estimated to be as high as USD 318 billion, of which 240 billion was being sent to developing countries (Ratha 2007). Informal channels could inflate this estimate by another 50%.

Although there has been much literature on the importance of international remittances and development, domestic remittances and development also stands to be an important area of inquiry within international development. There is much evidence to support that domestic remittances can bring benefits to the global economy by redistributing wealth to rural areas. Domestic remittances can help to expand businesses from the rural sector and arguably decrease inequalities if they are treated as an exogenous factor (Anh 2003; Afsar 2003; Barham & Boucher 2003 in Deshingkar 2008:186). Moreover, there is some evidence suggesting that internal circular migrants often remit more money than permanent migrants (Deshingkar 2008). Given the increasing trend of circular and temporary migration patterns in Vietnam (UNFPA 2010), this study makes this a particularly interesting case study related to internal, rather than international migration.

Gender, Migration and Remittances in Vietnam

Women account for approximately 54% of migration flows in Vietnam (UNFPA 2010, p.11). As such, their contribution to the maintenance of their households of origin through remittances can be assumed to be essential. The ‘feminisation of migration’ has been prompted by increased growth in sectors such as garment, textiles and service industries. The demand for female labour in these services and industries has triggered ‘autonomous female migration’ where women are migrating independently. Women’s assumed dexterity and low labour costs along with an increasing social acceptance of young, unmarried women migration has contributed to increases in female labour migration in Vietnam (Deshingkar 2008). Since the Doi Moi reforms, gender has surfaced as an important distinction for understanding how economic growth benefits society and the various subgroups of a population (Long et al. 2000; Tien & Ngoc 2001; Pfau & Long 2008).

Gender differences prevail as a critical area of inquiry as Vietnam has transformed from a traditional patriarchal social structure of Confucianism, to structures of formal equality under socialism to its current market economy (Pfau & Long 2008:14). Arguably, sons continue to represent future economic security within the existing kinship system since they are responsible for caring for their parents in old age. Moreover, evidence suggests that new work opportunities for young women in Vietnam continue to exist within a cultural paradigm of that kinship system. In this context, sons are indispensable due to their intrinsic symbolic value entrenched by both pre-socialist and post Doi Moi practices (Bélanger, 2002 in Belanger & Pendakis 2010).

Packard (2006) argues that Vietnam remains to be an interesting case study in terms of gender perspectives of development. While the country appears to be success story due to women’s relatively high socio and political status historically, there is also evidence supporting the opposite trend. Packard’s (2006) study demonstrates that women’s status may be diminishing with the country’s rapid transition into a market economy as its economic growth has been associated with both greater gender and income inequalities. Although this research does not explicitly focus on the relationship between gender equality and economic performance, it does employ a gender sensitive approach to better understand *one* of the effects of the current

economic transition in Vietnam. Hence, a gender difference in remittance sending behaviour in Vietnam's current economic growth has thus become the loci of inquiry.

Indeed, it is generally assumed that women send a greater share of their earning (Sørensen 2005:1). In literature for international remittances, there is evidence to suggest gender differences in remitting behaviour. Studies in Cuba, Mexico, Thailand and Philippines find that female migrants have a higher propensity and remit greater amounts than male migrants (Blue 2004; de la Cruz 1995; Osaki 1999; Chant 1998). Moreover Vanwey (2004) and Osaki (1999) suggest that there are gender differences in motivations to remit. This background research coupled with gender differences in the Vietnamese labour market (employment opportunities and wage inequalities) and societal norms precludes the purpose of this study.

1.1 Purpose of the Study

Within the context of Vietnam's economic growth, the feminisation of migration and the potential impacts of remittances, this research aims to examine the determinants of remittance sending and, following on from there, whether there are gender differences. In short, this research aims to address the research problem sequentially in two stages:

- a. *What are the determinants that affect proportion of income remitted?*
- b. *What are the gender differences in remittance sending behaviours?*

This study uses a sequential mixed methods approach using both quantitative and qualitative approaches. The research framework section will provide a more detailed description on how qualitative and quantitative approaches are employed in each stage of the research problem.

It is also worth noting that this study is one step short of analysing the effects and impacts of remittances. Its underlying assumption remains to be that remittances play an important role in development and hence, the potential returns of internal migration could be enhanced if there was a greater body of knowledge on remittance sending behaviours of internal migrants.

1.2 Previous Research

A discussion of existing research is outlined in order to situate this study within existing knowledge of domestic sending behaviour in Vietnam. Previous research conducted on the topic has used data from the 1997-1998 Vietnam Living Standard Survey (VLSS) and the 2004 Migration Survey (VMS).

Niimi et al. (2008) use the 2004 VMS to identify some of the underlying motives of migrants to send different amounts of remittances. The authors apply a censored regression model to estimate the determinants of remittances. They argue that a linear regression method such as the ordinary least square (OLS) method would be inappropriate considering that the proportion of migrants that do not remit money back to their relatives is significant. The dependent variable is the value of remittances a migrant sends back home to relatives annually. The study reveals that altruism is unlikely to provide a sufficient explanation for the motivation to remit as migrants send money as part of an insurance strategy in the face of economic uncertainty, and sheds light on how remittances are useful in terms of risk-coping and mutual support within the family.

Niimi & Reilly (2008) argues that there are there no convincing results supporting gender differences in remitting behaviour in Vietnam. The author mentions that males and females remit for both altruism and insurance purposes, while female migrants seem to be more reliable remittance senders than male migrants.

Pfau & Long (2008) apply a Logistic regression model to compute the probability for men and women to receive or send remittances, using data from the 1997-1998 Vietnam Living Standard Surveys (VLSS). They argue that women have a higher probability than men to send and receive remittance. Conversely, they find that married men tend to be more responsible for sending and receiving remittances when both spouses are living together. However, this study does not explore what motivates migrants to send different amounts of remittances. In a different study, Pfau (2008) suggest that women and urban remittance senders are underrepresented in the survey data of the VLSS, which causes some concern over the generalisability of results on remittance behaviour and the impacts of remittances.

Our approach builds on previous research in that it integrates a qualitative and a quantitative component in order to tackle the issue. The results generated in past studies should be interpreted with caution since there are considerable data gaps in both the VLSS and the VMS. For instance, the VLSS does not differentiate between international remittances and

domestic remittances. Moreover, current studies on remittance sending mostly use a Tobit regression model to estimate the determinants of remittances since samples contained migrants who remit and those who do not remit. This research however, uses the OLS method because the studied sample focuses only migrants who remit money back to their household of origin.

1.3 Analytical Framework

This analytical framework uses key motivations for sending remittances in order to understand determinants of remittance sending behaviour. Motivations for sending remittances have been evidenced in past literature stemming from Lucas and Stark's (1985) seminal work which was among the first to explore, empirically, the determinants of remittances using data from Botswana. Subsequent literature on determinants has accumulated knowledge on a variety of motivations and theories that continue to be debated. For example, more recent literature has presented diversified motivations such as pride and perceived obligation (De Bruyn & Wets 2006:9). Research generally concedes that motivations are not mutually exclusive and can have common indicators such as a positive correlation between migrants' income and remittances (Schiopu & Siegfried 2006; Hagen-Zanker & Siegel 2007). This framework has grouped the variety of motivators in three distinct categories: altruism, exchange and intermediate motivations which have been classified as 'mutual beneficiary arrangements' for the purposes of clarity.

Migration theories such as new economics of labour migration (Lucas & Stark 1985) are often axiomatic in more recent theoretical literature on motivations of sending remittances (Hagen-Zanker & Siegel 2007:4; Carling 2008:583). In order to focus on determinants of remittances this analytical framework has similarly suspended migration theories in its discussion.

1.3.1 Altruism

Becker (1974) was the first to formalise a model in which altruistic behaviour is derived from the remitter's utility using the consumption level of the recipient. Hence, the sender gains utility from the well-being or consumption level of recipients by providing additional income

(De Bruyn & Wets 2006; Grigorian & Melkonyan 2008). Gaining utility from recipient's increased income, consumption or living standard represents altruism even if it is to the detriment of the senders' standard of living (Vanwey 2004:740-1). Moreover, Orozco et al. (2006) highlights that the consumption of the recipient is independent of a sender who is motivated by altruism. It is also accepted that there is an attachment between the sender and members of the household of origin.

Previous empirical studies provide expectations for remittance sending if behaviour is motivated by altruism. The remittance decay hypothesis provides that remittances decline with time, or duration of migration, as senders become less attached to the household of origin (Lillard & Willis 1997; Agarwal & Horowitz 2002). Rempel & Lobdell (1977) argue that migrants remit more when they maintain social ties with family and community of origin. Further, Carling (2008) notes the positive relationship between visits to community of origin and likelihood of remitting can reflect a sustained attachment. If motivated by altruism, remittances reportedly covary with both the sender's income, as well as with the size and income needs of the receiving household (Orozco et al. 2006:3; Hagen-Zanker & Siegel 2007). Similarly, Osili (2007) measures the altruism motive by looking at the effect of increased household or migrant income on the probability and the amount of remittances. The author finds a positive relationship for the effect of the migrant's income on remittances. Finally, if altruistic behaviour is present, there should be an inverse relationship between immediate family members at destination and amount of remittances since it may suggest weaker ties to household of origin (Markova & Reilly 2007).

1.3.2 Exchange

Cox (1987) initially elaborated a model in which exchange was the main driver for private transfers of capital. Exchange, or self-interest, refers to the sender paying for a future or prior service from household of origin (Orozco et al. 2006). Remittances would therefore represent a payment for services rendered. This could include repayments for education, payment for child care or anticipation of future inheritance, bequests or return to the household of origin (Lucas & Stark 1985; Regmi & Tisdell 2002; Orozco et al. 2006; De Bruyn & Wets 2006).

The receiving household's income or composition is not thought to affect remittances for exchanges purposes (Vanwey 2004; Stark, 1999 in Orozco et al., 2004, p.4). Moreover, there

is an expected positive relationship between the amount of remittances and the education level as remittances can be considered a repayment for migrant's education (Lucas & Stark 1985; Hoddinott 1994; Poirne 1997; Lillard & Willis 1997; Orozco et al 2006). Finally, remittance expenditures on business at household of origin may be a proxy for an exchange motivation if sender is planning to return to household of origin (Niimi & Ozden 2006:1).

1.3.3 Mutual Beneficiary Arrangements

Although altruism and exchange are often presented as dichotomous motivations, there remains to be intermediate motivations that have been classified here as 'mutual beneficiary arrangements' which also shape remitting behaviour. A mutual beneficiary arrangement can explain remittance sending behaviour when senders and receivers both gain from the transfer. In this case, altruistic and exchange motives complement each other as contractual gains are self enforcing due to mutual altruism (Orozco et al. 2006:4). These contractual arrangements have been conceptualised as 'enlightened self interest' or 'tempered altruism' which embody repayments of investment in human capital and support under a co insurance contract (Lucas & Stark 1985 in Carling 2008:583).

Co-insurance refers to remittances as a risk-sharing strategy or diversification plan within the family livelihood strategy by gaining an alternative source of income (Stark 1995; Gubert 2002; Chimhowu et al. 2003; Black 2003; Lucas & Stark 1985; El-Sakka & McNabb 1999). Correspondingly, the household of origin serves as insurance for income shocks at destination (Solimano 2003; de la Brière et al. 2002; Stark 1991 in Orozco et al. 2006:4). For this reason, informal sector labour could prompt remittance sending as a form of insurance against uncertain income flows. Moreover, remittance expenditure on farming activities at household of origin could similarly indicate a mutual beneficiary arrangement as it may signify the diversification of family livelihood in order to become more resilient to exogenous shocks.

Using data on Mexican immigrants in the US, Amuedo-Dorantes & Pozo (2006) found that increases in sender's income uncertainty significantly increases both the propensity and the proportion of income remitted for family provided insurance. The authors empirically distinguish between "purchasing" family-provided insurance and self-insuring by relying on immigrants' information regarding the end use of remittances. In particular, they consider whether remittances are intended for current family consumption or to accumulate assets.

The analytical framework is used to provide a critical lens in which to understand remittance sending determinants. This framework will guide interpretations of the findings presented in Part A. It will then be used in Part B to analyse qualitative data in order to inquire about gender differences of remittance sending behaviours. The analytical framework will then guide quantitative data analysis in order to test the relevance of such a framework. Finally, there will be a consideration of the applicability of this framework given Vietnamese context of labour migration and family relations.

1.4 Research Framework

This section provides an outline of the mixed methods approach used to answer the research questions. It briefly considers the theoretical perspective of the research framework and subsequently presents the mixed methods design. Finally, it outlines both quantitative and qualitative methodology and discusses limitations and ethical considerations.

1.4.1 Theoretical Perspective

Considering the complexity of the research topic, it was appropriate to adopt a pragmatic research paradigm since it matched well the epistemological and ontological stance. Pragmatism is an approach used in mixed methods which uses pluralistic approaches to derive knowledge about the research problem (Cherryhomles 1992 in Creswell 2003). Its logic is both inductive and hypothetico-deductive. The epistemology adopts both objective and subjective points of view while the ontology also embraces pluralism in viewpoints regarding social realities.

The pragmatic approach itself can be viewed with a variety of contemporary perspectives. The complementary strengths thesis is one way of applying the pragmatic paradigm. This perspective argues that the quantitative (QUAN) and qualitative (QUAL) components must be kept separate so that the strengths of each paradigmatic position can be realised (Teddlie & Tashakkori 2009: 98).

1.4.2 Defining the Mixed Methods Approach

Qualitative and quantitative methods have limits in understanding and explaining the research problem. Therefore, the strength of combining methods in a complementary fashion enables qualitative and quantitative methods to address the shortcomings of the other, “the situation today is less quantitative versus qualitative and more how research practice lies somewhere on a continuum between the two” (Newman & Benz 1998 in O’Dowd 2008:2). Justifications for bringing quantitative and qualitative methods together are evidenced in Punch (2006):

Qualitative research may facilitate the interpretation of relationship between variables. Quantitative research readily allows the researcher to establish relationships among variables, but it is often weak when it comes to exploring the reasons for those relationships. A qualitative study can be used to help explain the factors underlying the broad relationships that are established.

(Punch 2006:242)

The use of qualitative methods addresses threats to internal validity of quantitative data by facilitating the interpretation of causal relationships. Conversely, triangulation of the methods allows us to address threats to external validity of qualitative methods posed by small sampling size and context specific inferences.

The research has taken a mixed methods multi strand design by which quantitative and qualitative approaches will be sequentially mixed (Teddlie & Tashakkori 2009:151). The research design will begin by focusing on Part A, initially through quantitative methods with a subsequent interpretation using qualitative data analysis. It will then focus on Part B, initially using qualitative methods and use quantitative data analysis to examine if qualitative findings could be generalised. This process is outlined in Figure 1:

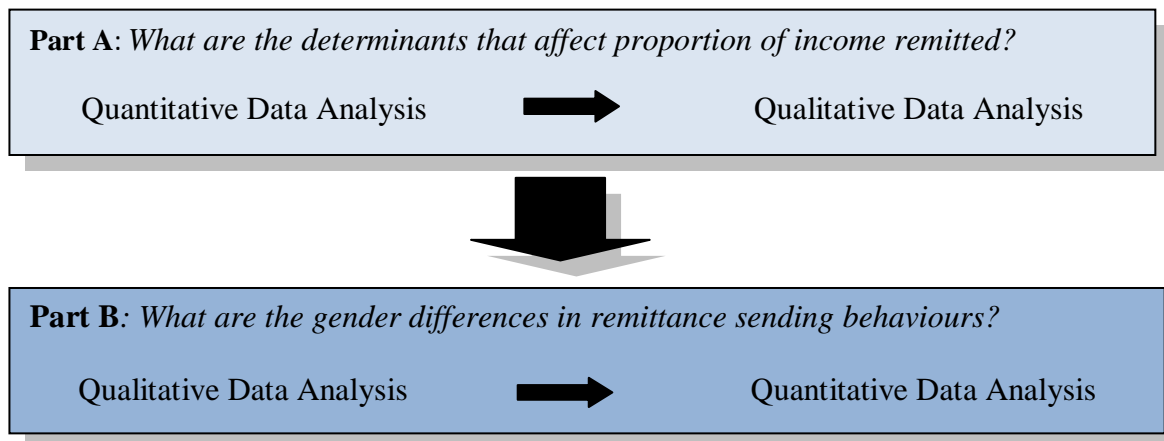


Figure 1: Mixed Methods Research Design

1.4.2.1 Quantitative Component

In order to carry out quantitative analysis, this study employs the 2004 Vietnam Migration Survey (VMS) which provides data from internal migrants on migration processes, socio-economic and demographic characteristics of migrants, facilitating factors of migration, characteristics on reproductive health, characteristics on attitude, awareness of the surveyed population in relation to their moves. The survey has a total sample of 5000 migrants.

To address the first research question, we identified a set of explanatory variables in the 2004 VMS that can shape remittance sending behaviour by using past literature on remittance behaviour (Niimi et al. 2008; Pfau & Long 2008; Orozco et al. 2006; Amuedo-Dorantes & Pozo 2006; Carling 2008). It also used initial observations from the qualitative interviews such as observed emphasis by respondents regarding the presence of children at destination. The variables used in the model are illustrated in Appendix 1.

This study used a multiple regression to study the relationship between the explanatory variables that influence remittance sending and the dependent variable, the proportion of income that migrants remit back to their household of origin. The values of the regression coefficients were obtained using the ordinary least square (OLS) estimation method. The OLS method is a regression model that assumes a linear relationship between the independent variables and the dependent variables. The OLS method is used in this study because the subsample only considers migrants who remit a positive amount of remittances, which invalidates the need to use a censored regression model such as in other recent studies.

In the first research question, the determinants to remittance sending will be analysed by estimating the following equation.

$$(1) \quad Y_p = \alpha + \beta_1 X_{1p} + \beta_2 Z_{2p} + \varepsilon_p$$

The dependent variable Y_p is the proportion of income that migrants remit back to their household of origin. This variable was computed using the value of remittances sent back to the household of origin in the 12 months prior to the interview and the average monthly labour market earnings approximated to

X_p is a vector of variables relating to the characteristics of the migrants at the individual level, and Z_p is a vector of variable relating to the characteristics of the migrant at destination. It is assumed that the error term are normally distributed such as $\varepsilon \sim iid N(0, \sigma^2)$.

The OLS estimator $\hat{\beta}$ is obtained using the sum of squared prediction mistakes with respect to each element of the coefficient vector, setting the derivatives to zero, and solving the estimator $\hat{\beta}$. The estimator is illustrated in equation (2) in matrix form. A detailed mathematical demonstration of the OLS estimator is elaborated in Appendix 2

$$(2) \quad \hat{\beta} = (X'X)^{-1}X'Y$$

Subsequently, gender differences in remittance sending behaviour, in Part B, are examined by estimating a similar model using an OLS regression method but estimated separately for male and female subsample such as illustrated in equation (3) and (4)

$$(3) \quad Y_m = \alpha + \beta_1 X_{1m} + \beta_2 X_{2m} + \varepsilon_m$$

$$(4) \quad Y_f = \alpha + \beta_1 X_{1f} + \beta_2 X_{2f} + \varepsilon_f$$

Equations (3) and (4) essentially contain the same set of variables as equation (2) except that the former do not include a dummy variable for “female”.

Limitations of the quantitative approach:

Given that we are using secondary quantitative data, we cannot be assured of the extent to which the data collection process produced valid and reliable data. For example, there are issues related to conducting structured interviews that can potentially create bias in the data

which we cannot control for. For instance, wording of interview questions (leading or suggestive questions), interview fatigue, setting of the interviews or the skill set of the research team can create biases in social research data as suggested by Gregersen (2007). Moreover, experience from interviews in the field suggests that obtaining accurate data on amounts of income, remittances and expenditures is often difficult. Consequently, there is some concern that there may be bias in the data which can possibly reflect in the results.

Furthermore, there was no attitudinal data towards remittance sending which prompted us to use proxy variables in order to investigate motivations to remit. Given this data gap, this study collected qualitative data on respondent's attitudes as outlined below. The lack of data regarding the household is expected to create omitted variable bias in the estimators. This type of bias arises because a variable that is a determinant of the dependent variable and is correlated with a regressor is omitted from the model. This may pose a threat to internal validity of the quantitative data analysis. It is quite likely that characteristics of the household of origin, such as the economic situation of the household, determine the remittance sending behaviour of migrants.

Moreover, quantitative research generally fails to emphasise on meaning and adequately contextualise findings by turning a blind eye to the individual's point of view. Consequently, Bryman (2006) states that the analysis of the relationships between variables creates a static view of social life that is independent of people's experiences (Bryman 2006:79). In other words, the quantitative research framework prevents researchers from understanding how their findings connect to the context of people's daily life. This weakness in the quantitative research approach has been addressed by complementing and extending the quantitative methods with qualitative methods as illustrated in the research strategy in Figure 1. However, we acknowledge that there is a significant time differential between the quantitative and qualitative data collection. Given the rigidity of behavioural change we do not expect that this time differential will significantly affect results relating to individual remittance sending behaviours.

1.4.2.2 Qualitative Component

The qualitative component of the research used data elicited from semi-structured interviews in order to gain a deeper understanding of the context specific experience of respondents' remittance sending behaviour.

Interviews were guided with a set of questions, both closed and open-ended questions, relating to different aspects of remittance sending (see Appendix 3). The semi-structured procedure, revised after four initial pilot interviews, allowed the respondents to have more flexibility in formulating his/her reply (Nichols 1991:13) whilst steering the interview more fluently and deepening investigation into relevant issues that emerged. By carrying out semi-structured interviews, the overall structure of the interviews differed from one to the next depending on the issues that we wished to emphasise (Nichols 1991:13). As Bryman (2006) points out, flexibility in the interview is important in varying the order of questions, following up leads and clearing up inconsistencies in answers.

A 'stratified purposive' approach to sampling was used in order to gain a good overview of migrants' remittance sending behaviour. This means that the selection criterion was based on the pre identified characteristics of respondents such as working in the informal/formal sector and gender. These categories were guided by previous literature highlighted in the research context and analytical framework. The selection was also purposive since the research problem predetermined our sample population in that respondents were internal migrants, both male and female, who are currently or have previously remitted money.

The rationale behind choosing such a sampling method is to establish a good correspondence between our area of inquiry, research questions and sampling, and to insure that we accounted for different sub groups among migrants. There was an informed conjecture, evidenced in previous research that there may be some gender differences in the migrating experience and remittance sending behaviour. Moreover, the four initial pilot interviews raised some evidence that men and women seemed to differ in their consumption patterns and knowledge of remittance expenditures which may affect their remittance sending behaviour.

We decided to conduct a modest 24 interviews with an equal distribution of men and women in the sample. Among the 12 women and 12 men in the sample, half were working in the formal sector, often in nearby factories, while the other half are working in the informal sector working in Kim Chung Commune. To capture the spread of migrants' experience at

different life stages we also ensured the sample of respondents included both single and married migrants.

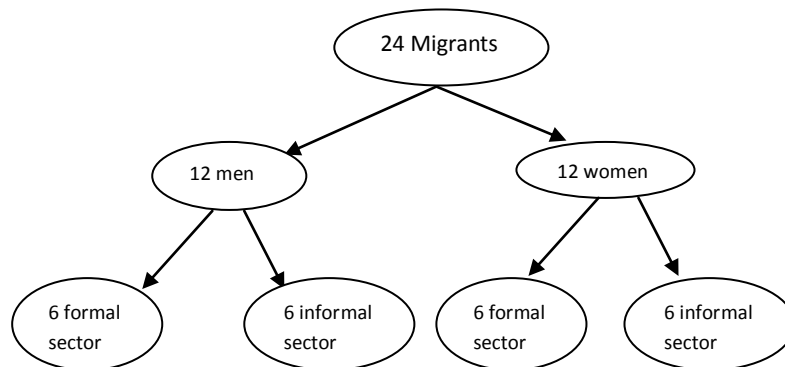


Figure 2: Sampling Structure for Qualitative Data Collection

Since sample representativeness is not an achievable objective in qualitative research (Bryman 2006:333), our sample size was chosen arbitrarily and data collection concluded according to our own impression of data saturation. Data collection was geographically restricted to the Dong Anh district in the greater Hanoi region which is nearby the Quang Minh industrial park. Since it was necessary to obtain government permission to conduct interviews, we relied on one of Action Aid Vietnam’s (AAV) partner organisations, C&D (Centre for Human Resource Development and Co-operation), to facilitate our access to our target population. In this respect, we can affirm that our sampling method is non-probabilistic since our sample is determined by virtue of its accessibility (Bryman 2006:100) reflecting an element of convenience sampling.

Once data was collected, the recorded interviews were transcribed and coded using an alphanumerical system in the following form: MF10. The first letter represents the sex of the respondent (M or F), the second letter indicates whether the respondent is a formal or informal sector worker (F or I), and the end number chronologically identifies the respondent. A thematic analysis of the transcribed interviews was completed using codes and categories to identify key themes and patterns. Rather than specific indicators being tested, themes evolved more organically. In Part A, qualitative findings which further explained interpretations of significant quantitative findings were integrated into an analysis of determinants which affect proportion of remittance sent. In Part B, the thematic analysis of qualitative data was used to explore the nature of any gender differences in remitting

behaviour. Quantitative findings were then incorporated to into an integrated analysis of gender differences from statistical data.

Limitations of the qualitative component:

Conducting a successful qualitative interview requires a lot of skill as denoted by Kvale (Kvale 1996 in Bryman 2006:325). This quality of interviews may have been compromised due to our limited experience conducting qualitative interviews and reliance on an interpreter for translation. Our interpreter needed to possess qualities of a good interviewer as the ones suggested by Kvale (Kvale 1996 in Bryman 2006:325) in addition to effectively articulating both questions and answers. Moreover we are aware that direct translation is often inappropriate and not possible when using semi-structured interviews (i.e. not interrupting respondents train of thought) meaning that we also relied heavily upon the interpreters own interpretation of the dialogue.

Moreover, eliciting ‘honest’ responses stands to be a challenge when there are inherent power dynamics between ‘the researcher’ and ‘the researched’ which may affect responses as well as self-serving bias which may prompt the respondent to self censor responses. This was managed by actively listening to respondents, reflecting back their opinions and probing into certain areas of inquiry or apparent inconsistencies.

1.4.3 Ethical Considerations

Ethical considerations have been widely discussed in methodology literature as a critical aspect of the research process. Scheyvens and Leslie (2000) highlight that field research ‘can give rise to a plethora of ethical dilemmas relating to power gradients between the researcher and the researched’ (Scheyvens & Leslie 2000:1). At best, we acknowledge and managed ethical concerns which the process of data collection raised. Firstly, valid and effective knowledge generation in a cross-cultural setting stands to be a challenge when remittance sending has been described by our interpreter as an accepted and ingrained cultural norm. Secondly, the potential for empowerment of the target group is limited as we are not in the position to assure direct benefits to the respondents as an output of our research. Finally, there is some concern that appropriate financial compensation (as suggested by our host organisation) would mean respondents felt coerced to participate in the research. Whilst we

could not eliminate these issues, we were conscious to attenuate them by not inflating compensation (risking coercion), explaining limitations of the benefits of participation in the interview, and gaining oral consent from respondents prior to participation.

2. Findings and Analysis

This section presents the findings for each stage of the research problem: The determinants of remittances and the gender differences in remittance sending behaviour. It uses the iterative mixed methods outlined in the research framework as well as concepts in the analytical framework to interpret these findings

2.1 Part A: Determinants of Remittances

Part A highlights the key findings from quantitative data analysis on determinants of remittances. Where possible, it uses findings from qualitative data analysis to support and further explain the results in order to provide a deeper understanding of some of the trends.

In order to identify the relevant factors, we conducted a regression analysis using the ordinary least square (OLS) estimation method. The dependent variable, the proportion of income remitted by the migrant, was constructed using the total amount of money remitted annually by the migrant and their average monthly income approximated to one year.

The first equation in table 1 contains only the individual and geographical characteristics of the migrant. Equation (2) has the same variables as equation (1) and incorporates a wide range of variables essentially relating to the migratory experience of the migrant.

Table 1: OLS Gender Pooled Regression Results

VARIABLES	(1)		(2)	
	Coefficient	S.E.	Coefficient	S.E.
Age – squared	1.61e-05*	(0.0743)	1.49e-05*	(0.0647)
Female	0.00160	(0.831)	-0.00602	(0.394)
North	-0.0401***	(6.32e-07)	-0.0338***	(4.63e-05)
Rural	0.0324***	(0.000937)	0.0200**	(0.0164)
Kinh	-0.00460	(0.864)	-0.0240	(0.338)
Married	-0.0209**	(0.0163)	-0.0164*	(0.0651)
Primary	-0.0293	(0.417)	0.0332	(0.369)
Low Secondary	0.0103	(0.556)	0.0660*	(0.0701)
High Secondary	0.0428***	(0.000515)	0.0594	(0.106)
Post-secondary	0.0230*	(0.0528)	0.0742*	(0.0535)
Work Contract			-0.0409***	(0.000945)
Work Benefits			0.0230**	(0.0386)
Permanent			-0.00370	(0.693)
Temporary			0.0139	(0.216)
Duration of Migration			0.00331	(0.159)
Visits			0.00494***	(4.98e-07)
Farming			0.0932***	(5.13e-10)
Business			0.107*	(0.0630)
Education			0.0904***	0
Health			0.00447	(0.510)
Weddings/Funerals			0.0125	(0.134)
Renovations			0.0830***	(0.000653)
Valuable Expenditures			0.0951***	(3.45e-05)
Daily Expenditures			0.0385***	(1.48e-07)
Paying Debt			0.102***	(8.21e-05)

Saving/Lending			0.112***	(2.08e-08)
Income Quintile 2			-0.0240*	(0.0785)
Income Quintile 3			-0.0484***	(0.000259)
Income Quintile 4			-0.0292**	(0.0266)
Income quintile 5 (richest)			-0.0729***	(6.81e-08)
KT2			-0.0171	(0.253)
KT3			0.0321***	(0.00762)
KT4			0.0369***	(0.00674)
Loan			-0.00413	(0.680)
Difficulties			-0.0135*	(0.0552)
Child at destination			-0.0493***	(0.000798)
Health Insurance			0.0304***	(0.00348)
Constant	0.135***	(4.69e-06)	0.0859*	(0.0824)
Observations	1871		1800	
R-squared	0.037		0.296	
F test	0		0	

Note: Robust p-values in parentheses ***p<0.01, **p<0.05,*p<0.1,

2.1.1 Empirical Results

The R^2 value (0.037) of equation (1) seems to indicate that individual characteristics of the migrant do not explain much of the variance of the dependent variable. On the other hand, equation (2) includes an additional set of variables relating to the experience of the migrant at destination which inflate the R^2 value (0.296). Although, the R^2 of the latter model is still relatively small, it is still significantly higher than the value generated in equation (1) which demonstrates the explanatory power of the added variables. It appears that many of the variables in this model turn out to be significant. Given the importance of context in understanding remitting behaviour, there was no formal ranking attributed to the statistically

significant variables because the extent to which each variable shapes behaviour of individuals may differ too greatly.

Results of the regression in table 1 illustrate that most of individual characteristics of the migrant such as gender and ethnicity do not affect remitting behaviour. However, the age of the migrant appears to positively affect the proportion of income the migrants remit. In other words, the older the migrant is, the larger the share of income the migrant will remit back to the household of origin.

The education level of migrants' also appears to have a positive impact on remittance behaviour. Indeed, migrants who have lower-secondary and post-secondary education remit respectively 6.6% and 7.4% more than illiterate migrants on average. These results corroborate the theory raised by Lucas and Stark (1985) that remittances can be viewed as a repayment for the family's investment in the migrant's education reflecting an exchange motivation.

The presence of children at the destination appears to have a clear negative effect on the share of income that is remitted by the migrant. This finding seems reasonable considering that migrants need to bear supplementary expenses associated with children in the household at destination. This incidentally limits the amount of money available for remittance sending as a greater proportion of the migrant's income is rather channelled to their own household expenditures.

Similarly, the negative coefficient associated with marital status indicates that married migrants remit a lesser proportion of their income on average. This result seems coherent under the assumption that the migrant's family is at destination as it illustrates that migrants may have to use a higher proportion of their income in order to sustain their own family unit and bear the economic cost associated to their household at destination.

In parallel, the qualitative data shows that the impact of having a family and parental responsibilities stood out as an important factor which contributed to fluctuations in remittance sending for respondents in their transition between being single to being married with children. There was also a difference between respondents who were single and those with parental responsibilities. Generally, respondents reported that they remitted less and felt less responsibility to remit to their household of origin when they had children at destination

(e.g. FF7, FF20). Other single migrants commented that they would envisage remitting less once they did have a family of their own at destination (e.g. MF4). Respondents attributed this behaviour to increased cost of family expenses and insurance for unexpected expenditures at destination such as health care for their families.

Pregnancy also seemed to affect remittance sending behaviours since respondents reported to remit less when saving for a baby and increased expenditures at destination due to food supplements for pregnant women (e.g. MF5, MF4, FF24).

In short, the qualitative data indicates that the tendency to remit may be higher if migrants are single, rather than when migrants have their own families as evidenced by a decrease in amount of remittances migrants sent after having children at destination.

Labour Conditions

The quantitative findings indicate that migrants who do have a work contract at destination tend to remit a lower proportion of their income than those who do not have a work contract. This result may appear counter-intuitive given that formal workers are more likely to earn a stable income than informal workers. Informal workers usually face irregular income flows, which would lead them to save a higher percentage of their income to overcome unpredictable shocks and smooth their consumption over time. On the other hand, the lack of stable income might prompt migrants to remit more, expecting the household of origin to provide assistance when enduring hardships at destination. The latter explanation raises the possibility that migrants might remit for co-insurance motives as it is argued by Orozco et al (2006).

Meanwhile, results from the qualitative data suggest the majority of respondents working in the informal sector identified unstable wages and fluctuations in income as factors which affect amount of remittances sent. Many respondents noted that they mitigated this affect by lending or loaning money from their colleagues, managers or friends at destination in order to continue to remit (e.g. MI11, MI17) Respondents also noted changes in the labour market such as employment opportunities (e.g. FI14, MI10), customers' ability to spend in the service sector (e.g. FI13) and the affects of the Global Financial Crisis (in the formal sector, e.g. MF20) also affected amount of remittances due to income fluctuations.

Even though there are fluctuations in income, particularly in the informal sector, it appeared migrants often find other sources of income (such as informal loans from destination community) in order to remit. This may explain those without contracts do not necessarily remit less as a proportion of their income.

Quantitative analysis also revealed that migrants who were obtaining work benefits¹ tended to remit a larger proportion of their income on average than migrants who did not obtain benefits. This finding appears to correspond well with the findings from the qualitative data.

It was reported by many formal sector respondents that fluctuations in remittance sending was due to their ability to work overtime in factories and upon receipt of bonuses (e.g. MF6). Respondents reported a variety of reasons for working overtime such as wanting to remit more, have a better quality of life and company pressure. Moreover, some respondents noted a decrease in expenditures at destination due to meal provision from companies which increased their ability to remit (e.g. FF3, MF6)

In this respect, work benefits may contribute in alleviating the budget constraint of migrants by increasing the amount of disposable income, either by direct income transfers (bonuses or overtime) or by a reduced cost of living (such as company meal provision or accommodation).

Income and Expenditures of Recipients

We also find a negative relationship between the income quintile and the proportion of income. By looking the values estimated for each income quintile, a downward trend can easily be drawn in the share of income remitted on average for each quintile. For instance, the richest quintile remits approximately 7% less of their income than the poorest quintile on average.

Although the theoretical framework highlighted that signs of altruistic behaviour can be identified if remittances covary with the sender's income (Orozco et al., 2006). In this model, we are reluctant to draw similar inferences since a positive relationship between income and the amounts of remittance could still occur when there is a negative relationship between

¹ Work benefits can represent transport, food, accommodation, more income from working overtime, money bonuses (GSO, 2004)

income and the proportion of income is remitted if the increase in remittances is not proportional to the increase in income.

The use of remittances at the household of origin is arguably a factor that influences the migrant's motivation to remit. Estimations seem to suggest that migrants remit a higher proportion of their income on average when the household of origin is using remittances for saving and lending. This finding may provide support for the co-insurance motive as the money saved from the remittances may act as way to overcome shocks for both the recipient household and the migrant.

Other uses of the remittances from the recipients for farming, businesses, siblings' education, renovations, paying debts and buying valuable goods seem to stimulate migrants to remit a higher proportion of their income in comparable magnitude.

Meanwhile qualitative findings questions the extent to which the use of remittances by recipient household affects migrants' remitting behaviour given some respondents claimed not knowing nor caring about how remittances were spent by the recipients.

Migration Patterns

Quantitative analysis indicated that the registration status of migrants yields interesting results as temporary migrants appear to remit a higher proportion of their income on average than permanent migrants. This may constitute a strong argument for the co-insurance motive for remitting since temporary migrants are be more likely to be confronted with uncertainties in terms of employment opportunities, working conditions and income which prompts migrants to maintain strong family ties with their household of origin (Niimi & Reilly 2008)

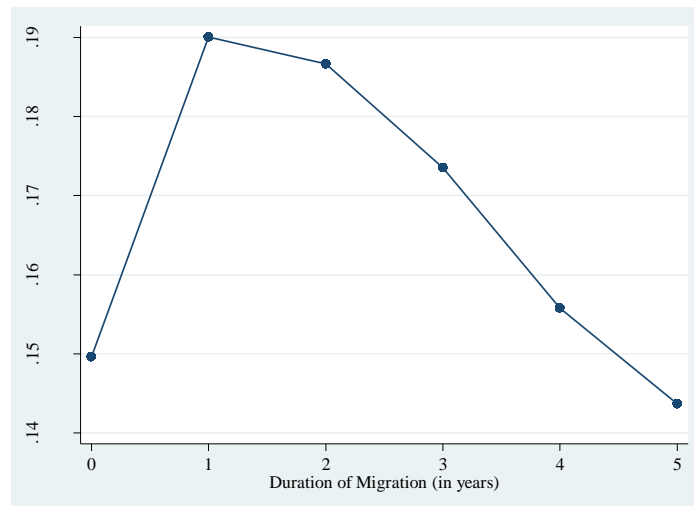
Alternatively, the qualitative data suggests that the majority of the respondents were unaware of their registration status, while their knowledge of registration seemed to be limited to the potential sanctions from the local authorities, rather than having access to public services such as healthcare and education for their children. The apparent general unawareness of migrants towards the registration process raises an issue regarding the validity or accuracy of quantitative data on registration.

Moreover, results from the quantitative model illustrate that future migration plans, corresponding to whether the migrant intends to stay temporarily or permanently at

destination, does not affect remitting behaviour as opposed to other studies (Merkle & Zimmermann, 1992; Brown, 1997; Cai, 2003; in Carling, 2008:589)

There is a positive relationship between a migrant's number of visits back to his or her community of origin and the proportion of their income they remit. The number of visits may express the strength of the relationship between migrants and their household of origin as evidenced in Carling (2008). Incidentally, this finding may support the hypothesis that migrants remit for altruistic motives as the stronger are the relations between the migrant and those left behind, the more he or she remits. However, it can also be easily argued that the observed behaviour is explained by a migrant's desire to maintain strong relations with the household origin in order to gain favourable treatment in the future such as inheritance or bequests as an exchange motive.

Given the context sensitive nature of this distinction is difficult to distil accurate interpretations from the quantitative variable, number of visits, in this instance. Moreover, it appears that the duration of migration does not affect remitting behaviour, which invalidates the remittance decay hypothesis (which suggests that migrants remit less over time as family ties weaken over time. It is surprising to find this result, when looking at the bivariate analysis of the duration of migration over the proportion of income remitted by the migrant (see figure 2 below). The sharp increase after the first year may suggest that migrants initially remit a higher proportion of their income the first year to repay migration costs to their household of origin.



Source: Authors calculations from the 2004 Vietnam Migration Survey

Figure 2: Average Proportion of Income Remitted per Year at Destination

It was also estimated that migrants who experienced difficulties² at destination negatively affected the proportion of income they remitted to their household of origin. Data collected from the interviews indicates that some respondents did not remit any money when they were unemployed at destination community, stating it was difficult to find work (e.g. MF20), which corroborates well the quantitative results mentioned above.

Meanwhile, other respondents in qualitative interviews noted ongoing hardships at destination such as the inflated cost of living, time poverty, living conditions, social isolation, discrimination due to migrant status, security, working conditions, vulnerability to health risks and stressful environment. Interestingly, given these identified hardships, all respondents continued to work in the destination community and continue to remit. However many respondents described feeling more ‘comfortable’ in their home province and were eager to return to their home province (e.g.FF24).

The negative impact of difficulties related with migration highlighted in both the quantitative and qualitative data suggests that perhaps facilitating the access to certain services or

² Examples of difficulties: no administrative permission, could not find land permission, dwelling problems, electricity problems, water problems, could not find a job, could not be covered by health services, could not be covered by social protection services, could not find school for children, could not adapt to the new place, no income sources, others (GSO, 2004)

improving the living conditions of migrants at destination could arguably impact positively the flow of remittances.

Health Expenditures at Destination

Quantitative results also illustrate that migrants who have health insurance positively affects the proportion of income that they remit. Evidence from qualitative data suggests that health care costs combined with lower income from decreased working hours (as a result of illness) also reduced migrants' ability to remit.

Further, it was raised by many respondents that they had increased expenditures on healthcare due to working conditions in factories which increased their susceptibility to illness and few respondents had health insurance (e.g. MI8, MF20). However, there was some indication that migrants continued to remit when they were sick by obtaining informal loans from colleagues and neighbours at destination in order to continue to remit (e.g. MI11)

Impact of Other Expenditures at Destination

Although there was no quantitative data on migrant expenditures at destination, it was evident from the qualitative data that this was a key finding which affected respondents' remittance sending behaviour.

It was reported by both men and women that their personal spending on weddings was an important factor which affected fluctuations in individual remittance sending. Some respondents reported that they had many more friends' weddings to attend since migration (e.g. MF20, FF19). It was also reported that in traditionally popular wedding months, respondents would remit less (e.g. FF2, FF7, MI8). Many migrants reported that this expenditure was important to sustain their own social relationships in both destination community and community of origin.

Respondents in the informal service sector (such as food shops, hairdressers) noted that their remittances were compromised due to investments in their small business at destination (e.g. MI21, F112). In summary, the majority of respondents expressed the fact that the high cost of living in Hanoi inhibited them from remitting more money.

In summary, the results from the regression suggest that migrants remit due to various motivations such as exchange, altruism and mutual beneficiary arrangements. It also highlights that these motivations are not mutually exclusive. However, the extent to which motivation prevails highly depends on contextual factors at the individual level. The coefficients generated for whether migrants earn work benefits and recipients' expenditures of remittances on consumption goods and debt payments, indicate that migrants may remit for altruistic motives.

Moreover, it can also be argued that migrants remit for co-insurance (classified as mutual beneficiary arrangements) when looking at the coefficients for variables on whether migrants have a work contract or if migrants experienced difficulties at destination. The values calculated on recipients' expenditure of remittances on farming as well as saving and lending further supports this motive. Finally, the coefficients computed for the migrant's level of education and registration status at destination provides support that migrants also remit for exchange motives. Similarly, the results of recipients' investment on home renovations and businesses further support exchange motives as these types of expenditures at the household of origin imply asset accumulation which could benefit the migrant upon return.

2.2 Part B: Gender Difference in Remittance Sending Behaviour

This section highlights the key findings from thematic analysis of the qualitative data on the extent to which there are gender differences in remittance sending behaviours. The model of motivations outlined in the analytical framework has helped guide the thematic analysis of data. Using the findings from the pooled regression for the factors affecting remittances, the same quantitative model is analysed separately for men and women in order to investigate whether there are any gender differences in remitting behaviour and whether they corroborate with the gender sensitive analysis of the qualitative data.

2.2.1 Differences in Amount of Remittances between Genders

The qualitative data analysis suggests that women should remit more than men since male respondents, more frequently than female respondents, stated they prioritised their own

consumption habits such as spending on entertainment, social activities and spending to maintain social relationships such as weddings over remittances sending. This was particularly evident in single male respondents. Contrastingly, more female respondents raised the issue of feeling socially isolated and suffering from time poverty.

Moreover, female respondents reported sacrificing personal expenditures such as food, fruit, electricity, water, clothes, weddings and other needs in order to continue remitting if there were fluctuations in their income. This was particularly evident in those respondents who worked in the informal sector. Sacrificing expenditures was not raised by the male population in the sample although some male informal sector workers did report to gain informal loans from work colleagues and managers from the destination community in order to continue to remit if there were fluctuations in income which affected amount which could be remitted. As a result, the qualitative data suggests that there may be gender differences in proportion of income remitted such that men tend to remit less than women.

However, the descriptive statistics in table 2 show that although women earn only 70% of the average male income, women remit a relatively similar proportion of their salaries than their male counterparts (17.1% against 16.5%). This suggests that women would have less disposable income since both men and women migrants are confronted to similar costs of living at destination.

	Pooled	Male	Female
Average proportion of income remitted (in %)	0.1686	0.1650	0.1711
Average monthly income (in Vietnamese dong)	1 071 600	1 287 691	914 944

Source: Authors calculation, 2004 Vietnam Migration Survey

Table 2: Proportion of Income Remitted and Monthly Income

Women would therefore sacrifice their quality of life than men in order to remit. Although there are no gender differences in the *proportion of income* migrants remit, there are arguably differences in their remitting behaviour that need to be highlighted by both qualitative and quantitative research approaches as evidenced below.

2.2.2 Differences in Sending Motivations between Genders

It was evident from the qualitative data that there were some gender differences in the extent to which different motivations could account for sending behaviour. In this section, the findings from the qualitative data are positioned in relation with the quantitative findings disaggregated by gender as shown in table 3 below. Similarly to the estimated regression model with the pooled sample, the dependent variable is the proportion of income that migrants remit to their household of origin.

Table 3: OLS Gender Disaggregated Results

VARIABLES	Male		Female	
	Coefficient	S.E.	Coefficient	S.E.
Age – squared	2.56e-05**	(0.0169)	1.11e-05	(0.362)
North	-0.0164	(0.176)	-0.0494***	(8.16e-06)
Rural	0.0322***	(0.00790)	0.0158	(0.177)
Kinh	-0.0147	(0.654)	-0.0350	(0.327)
Married	-0.0328**	(0.0144)	-0.00727	(0.525)
Primary	0.0237	(0.674)	0.0600	(0.267)
Low Secondary	0.0484	(0.379)	0.0880	(0.102)
High Secondary	0.0519	(0.351)	0.0763	(0.161)
Post-secondary	0.0779	(0.187)	0.0791	(0.154)
Work Contract	-0.0404**	(0.0226)	-0.0364**	(0.0227)
Work Benefits	0.0165	(0.261)	0.0280*	(0.0733)
Permanent	-0.0264**	(0.0303)	0.00783	(0.530)
Temporary	-0.00436	(0.798)	0.0196	(0.177)
Duration of Migration	0.00793**	(0.0218)	-0.000150	(0.962)
Visits	0.00514***	(0.000172)	0.00486***	(0.000283)
Farming	0.0715***	(0.000545)	0.0989***	(9.66e-07)

Business	0.120*	(0.0682)	0.0601	(0.560)
Education	0.103***	(3.74e-09)	0.0801***	(1.67e-07)
Health	-0.00117	(0.909)	0.00965	(0.271)
Weddings/Funerals	0.00652	(0.610)	0.0210*	(0.0616)
Renovations	0.0988***	(0.00339)	0.0645**	(0.0298)
Valuable Expenditures	0.0883**	(0.0461)	0.0902***	(0.000145)
Daily Expenditures	0.0323***	(0.00220)	0.0418***	(1.85e-05)
Paying Debt	0.0838*	(0.0554)	0.103***	(0.000317)
Saving/Lending	0.101***	(0.000656)	0.138***	(3.03e-07)
Income Quintile 2	-0.0167	(0.565)	-0.0308**	(0.0371)
Income Quintile 3	-0.0189	(0.457)	-0.0655***	(1.99e-05)
Income Quintile 4	-0.0125	(0.622)	-0.0440***	(0.00348)
Income quintile 5 (richest)	-0.0677***	(0.00513)	-0.0658***	(0.000206)
KT2	-0.0225	(0.342)	-0.0201	(0.235)
KT3	0.0265*	(0.0894)	0.0283**	(0.0456)
KT4	0.0245	(0.161)	0.0363**	(0.0152)
Loan	0.00241	(0.869)	-0.0115	(0.386)
Difficulties	-0.0258**	(0.0138)	-0.00877	(0.326)
Child at destination	-0.0483***	(0.00832)	-0.0509**	(0.0159)
Health Insurance	0.0103	(0.525)	0.0356***	(0.00504)
Constant	0.0834	(0.219)	0.0827	(0.227)
Observations	785		1086	
R-squared	0.305		0.311	
F test	0		0	

Note: Robust p-values in parentheses ***p<0.01, **p<0.05,*p<0.1,

2.2.2.1 Altruism

There was some indication that female respondents demonstrated deeper altruistic motivation in the sample than men as evidenced by consideration of opportunity costs and unconditional income transfers.

Gender Differences

Unconditional Income Transfer

Many female respondents indicated that they were not interested or did not know how recipients spent their remittances at household of origin. Moreover, many indicated they did not desire more knowledge or decision making power in this income transfer:

I don't know exactly [how the remittances are spent]. I would not like to know exactly how it's being used... it is very difficult because for some decisions, it may be good for me but not good for other members of the family so they can't just take my decision (FF7)

This trend was not prevalent amongst male respondents in their account of decision making within the family unit. Men appeared to have greater knowledge and interest about how remittances are spent a household of origin. Remitting with little or no knowledge of its purpose arguably indicates a motive of altruism rather than exchange motives or mutual beneficiary arrangements since migrants have little knowledge of prior or future purchases for their self interest or increased bargaining power within the household of origin.

Opportunity Cost

Some female migrants raised the issue of opportunity costs of renouncing a proportion of their income for remittances. This was not the case for male respondents. For example FF3 raised the point that she was not saving for her own education and was rather remitting money to her household of origin because she wanted to help her family. This may support motivation due to altruism given the migrant has prioritised remittances over their own needs.

Gender Neutral Findings

Motivation due to altruism was also evident in respondent's sentiments of wanting to help, information about specific expenditures at household of origin, securing social relationships and economic situation of recipient household. There were no striking gender differences from qualitative data in the factors outlined below.

Wanting to Help

The sentiment of wanting to help family at community of origin was a popular response as to why migrants remitted money (11 males, 9 females). For example, many respondents raised emotive feelings of wanting to make the family feel more 'happy':

I remit because I want to do it. It's not about what my family says or thinks. I feel happy because I can help my parents to live better and they can be happier (FF2)

10 other migrants (both male and female) expressed sentiments that they wanted their households of origin to have a better quality of life rather than suffer from hardship and their remittance meant their families felt less stressed.

Remittance Expenditures: Living Expenses, Health, Debts, Weddings/Funerals and Siblings' Education

The majority of participants reported that their remittances were being used at household of origin for living expenses such as expenditures on food, electricity, gas, clothes living expenses for nieces/nephews and younger siblings (e.g. FI16, MI8)

Some migrants justified sending remittances for specific purposes such as paying off debts of parents, parents in law (e.g. FF19) and siblings. For example MI15 noted his remittances were used to pay off siblings' college fees and highlighted the incentive for supporting his sibling's education:

I want to give a chance for my siblings to study in the college so they will have a job and won't have to work like me as an informal worker (MI15)

FI13, F118 and MF23 reported to remit more frequently if their parents were ill and remittances were used for healthcare in the household of origin. There was also evidence that migrants remitted with knowledge that remittances were used for culturally significant rituals like weddings and funerals (e.g. MI21). Knowledge of remittance expenditures which support the physical, economic and cultural needs of the household of origin stand to support altruistic motivations for remittance sending

Economic Situation at Household of Origin

It was evident that the economic situation of the household of origin affected the amount of remittances sent by individuals. This was reported by both males and females particularly when respondents had older parents who were at risk of becoming ill and felt that their household of origin was poor or at risk of income shocks. Although some migrants did not feel their contribution was significant, others felt their contribution was significant given their household of origin's economic situation (e.g. MI15, MI11). Evidence of this trend indicates an altruistic motivation as migrants are acutely aware of household of origin's economic needs. Indeed, Orozco et al. (2006) and Hagen-Zanker & Siegel (2007) indicate altruistic behaviour is present when remittances covary with the income needs of the household of origin.

Securing Social Relationships

Respondents also highlighted the importance of remittances to ensure stable family relations and social capital.

Now that I remit, my parents view me as an adult and the relationship with my the older members of my family is better... and I want a close relationship with his parents...money can't buy love but through remittances my parents can understand better my "work" ...and that I don't only spend on myself (FF3)

Further, many migrants, both male and female, suggested that although their remittances were not a large part of the family income and if they did not remit, it would not negatively impact the household economy. This may suggest that remittances have a social value for the sender in terms of sustaining social relationships.

Visits to Household of Origin

The majority of the respondents in the sample reported that they remitted money to their household of origin when they visited. Respondents who lived close to their community of origin were able to travel back to their home province on average, monthly and reported that they would take money back on that occasion. Some migrants noted they only returned home when they had money to remit.

I go home about every 15-20 days depending if I have saved money to take back. I always take money back (MI9)

When I give money back directly I feel happier (FI12)

This may support the inquiry of frequency of visits to establish motivation due to altruism as it appeared to increase social ties and feelings of pride with household of origin.

Integrated Analysis

The qualitative data analysis suggests that there may be gender differences in motivations for altruism. Altruism appears to be a stronger motivation for sending remittances for women than for men. Moreover, qualitative data analysis suggests that variables such as frequency of visits, remittance expenditures on living expenses, debts, wedding/funerals and health may capture motivation due to altruism.

In the quantitative model, both men and women seem to demonstrate signs of altruistic motives to remit. This is captured by the variables relating to expenditures made by the recipients and the number of visits made by the migrant back to his/her community of origin.

Moreover, the quantitative model also indicates that women remit a larger proportion of their income than men when the recipient household spend their remittances on consumption goods, weddings and funerals. Since consumption goods benefit only the recipients at the detriment of the sender, this would suggest that women may remit with more altruistic motives than men. In contrast, if the recipients spend remittances on durable goods and assets, the migrant may expect to benefit from these commodities upon his or her return at the household of origin.

The quantitative findings seem to parallel the qualitative findings in the case of altruism as both approaches seem to draw similar conclusions as to women remitting more for altruistic motives than men. However, the qualitative findings provide a more nuanced understanding of how altruistic behaviour is more prevalent for women.

2.2.2.2 Exchange

There was some indication that male respondents demonstrated behaviour indicating a deeper exchange motivation in the sample than women as evidenced by their consideration of their remittances as savings for self interest and knowledge of remittance expenditures at household of origin on renovations and repayments for previous expenses such as education.

Gender Differences

Savings Patterns

The data suggested that men, particularly single men, conceptualised remittances as a form of personal saving. Some male respondents hoped that the money they remitted would be used for their own purposes such as contribution to a house for when they returned to their community of origin or for other personal expenses such as motorbikes, furniture and their weddings ‘my parents save for me’ (e.g. MF1). Respondent’s explanation of remitting savings purely for self interest was not as prevalent in data from female respondents.

Remittance Expenditures: Renovations

Several male migrants noted their remittances would be an investment into their household of origin in the hope that they would return to their household (e.g. MF23). Expenditures on household repairs and furniture were understood as a personal investment for their return to the household of origin. Interestingly, none of the respondents explicitly raised the issue of bequests or inheritance, but many did highlight their intention to return to their community of origin.

Repayments

Some migrants, mostly male, noted that their motivations for remittances were prompted by the fact that their parents spent money when they lived in the household of origin (such as food or education) and it was important to contribute back to the family. For example, MF20 noted that his father assisted him economically when he was looking for a job and now he can earn more indicating the notion of repayment for prior services.

Gender Neutral Findings

There was also some indication that exchange motivations were common across both male and female respondents from indicators such as intention to return to community of origin, exchange for caring responsibilities and remittance expenditures on education of children.

Exchange for Caring Responsibilities

Respondents who had children currently or previously living at household of origin attributed transfer of caring responsibility of their children to their parents and/or spouses (in community of origin) as an important rationale for remitting. This supports the self interest, or exchange motivation. Migrants indicated the money was used to support child care costs such as food and daily living expenses (e.g. FI16, FI12, FF19, MI21).

Intention to Return

In the sample of respondents it appeared that the majority of migrants were planning on returning back to their community of origin which may highlight the motivation of remitting with a self interested motivation. This observation was made from direct comments regarding migrants' lack of social networks at destination community, lack of time for leisure and disintegration into destination community. It was also evident from direct statements regarding plans to return to community of origin. Moreover, the majority of respondents did not appear to know or care as to their migration status which may provide evidence they were not concerned with establishing permanency in destination. Further, some respondents explicitly stated that they did not save at destination community since they were not planning to stay at destination permanently (e.g. MI15, MF23)

Investment in Education

Many respondents who had children reported that their remittances were used for their children's education including vocational training. Interestingly, there was more of an emphasis on remittances being used for vocational education, secondary and tertiary education of male children from the respondents (e.g. MI11, FI12). There was also an implied indication that investment in children's education would mean that the parents' needs would be supported for in the future. For example, MI11 reported that remittances used for expenditure on his children's education were important given he that expected his children to support him when he retires. This corroborates with the motivation for exchange since there has been an intergenerational investment into children's education which may provide financial support in future retirement.

Integrated Analysis

Qualitative data analysis suggests there may be gender differences in motivations for exchange. Exchange may be a stronger motivator for sending remittances for men than for women. Moreover, the qualitative data analysis provides those variables such as the education level of migrants, remittance expenditures on renovation and children's education, migrants' registration and intention to return and children at destination (which may indicate remittances in exchange for childcare responsibilities) may capture motivations for exchange.

When looking at the quantitative results, the computed coefficient in the regression shows that male migrants who have the intention to stay permanently at destination remit a lesser proportion of their income on average. In the case where remittances could be considered as an investment, a migrant having the intention of staying permanently at destination would have less incentive to remit than migrant who plan to return in the near future.

It is also evidenced in the estimated model that men remit a higher proportion of their income than women when the recipient household invests the migrant's remittances for renovations, in a business or in the education of another member of the household. A migrant could expect future benefits from these types of investments in the household of origin if he or she plans to return to his or her community of origin. It appears that similar conclusions can be drawn

from the qualitative findings suggesting that men have a higher prevalence than women to remit for exchange purposes.

2.2.2.3 Mutual Beneficiary Arrangements

Gender Neutral Findings

Respondents did indicate motivations due to mutual beneficiary arrangements such as co-insurance, compensation for diversification of labour and enlightened self interest. There was no distinct gender differences in data collected from respondents in this category from qualitative data analysis.

Enlightened self-interest

There was evidence that migrants saw the benefit in assisting their household of origin with supplementary income whilst also considering remittances as personal savings. It was common amongst both sexes that remittances often were viewed as a redistribution of family income between family members such that if the money was not being used by the respondents at the present time then it should be given to those who could use it in the community of origin (e.g. MF6, FF7). For example MF20 felt that he hoped that his parents at community of origin could save for him in the future but they could use the remittances for living expenses in the mean time. This could support the insurance model theory in which migrants are deterred from saving resources in their destination location and are more inclined to send saved money to household of origin.

Compensation for Diversification of Labour

Many migrants noted that they sent remittances as a form of compensation for not working on the household of origin's farm (MI9). Other female migrants also reported to remit money for workers for harvest season since there was an absence of labour in the family household due to their own out migration (e.g. FI14). Moreover many migrants noted that if they did not migrate they would be working on the farm and contributing in labour (MF4, MF5, MF6,

MI9). This finding suggests that through diversification of labour within the family unit negative income shocks such as crop failure or economic downturn are uncorrelated so as to support a motivation for co-insurance.

Repayment for Loan used for migration costs

Some migrants, both male and females, explained their motivation for remitting in order to pay back loan used for expenses incurred during the process of migration. For example FI14 remitted money to her parents in law in order to pay back to loan she borrowed in order to set up a shop in Hanoi. After this loan was paid back, she continued to remit. This can be understood as a mutual beneficiary arrangement in that the respondent is paying back a loan in order to continue to remit back to the household of origin.

Expenditures: Farming Activities

Some migrants (both male and female) noted their remittances were used specifically for farm needs (e.g. FF3), which may support the notion of co-insurance if the respondent was to return to their household of origin because of income shocks such as suspended job opportunities.

Integrated Analysis

There are no striking gender differences in motivations for mutual beneficiary arrangements from the qualitative analysis. Meanwhile, table 3 demonstrates that both men and women show signs of co-insurance motives in their remitting behaviour. This is highlighted by whether migrants have a work contract. The coefficient for this variable show that, with similar reasoning than the pooled regression in table 1, that migrant with a work contract remit less on average than migrants without a work contract, implying that migrants remit more when confronted to uncertain income flows in order to have assistance when experiencing hardships.

However, women do illustrate a higher prevalence to remit for co-insurance motives since they remit higher proportions of their income on average than men when the recipient

household uses the money for farming activities and for saving. These types of expenditures would indicate the recipients and the sender's willingness to mitigate risk.

2.2.2.4 Perceived Family Obligation

It was evident there was a cross-cutting issue of perceived family obligation which, upon reflection of qualitative data, could highlight motivations due to altruism, exchange and mutual beneficiary arrangements. Moreover, there were some differences in the way in which male and female respondents explained their perceived family obligations in terms of remitting.

Many respondents indicated throughout the interviews they felt it was an obligation of the migrant to remit back to their family of origin (e.g. MI15, FI12). This sentiment was particularly prevalent from those respondents who were remitting back to their parents or parents in law. For example, FF3 noted that her parents worked so hard to support her when she was younger and wants to help them have an easier life. Similarly FF18 noted it is her duty as her parents raised her. In some sense the respondents combined motivations of altruism (expressing a duty in maintaining the wellbeing of family members) and exchange (expressing a payment for upbringing in household of origin) in their perception of family obligation to remit.

Interestingly many respondents indicated that they did not feel explicit pressure to remit but did state there was a responsibility to remit since migration. This was particularly prevalent amongst the male sample of respondents. Seven male migrants also emphasised a patriarchal responsibility within the family unit highlighting their expectations to remit since they were sons and/or husbands. For example MI21 noted even though his wife at destination earned enough money for living expenses he still felt there was an expectation as a son to remit back to his family. This may suggest 'the family' serves as a cultural institution in which there is a patriarchal responsibility to remit.

Correspondingly, all of the married female respondents remitted to their husband's family rather than their own birth family. Moreover, remittances were conceptualised by respondents as a proportion of combined income of migrant husband and wife. This trend was explained through an assumption from one respondent that 'married women must remit to the husband's

family' (FF14). This may suggest a traditional cultural norm whereby women remit to her husband's family after marriage.

Moreover, all married female respondents commented on the responsibility of being a daughter in law as a reason for remitting to their husband's family:

I remit to my parents [in law] since I am the eldest sister and must take care of my parents-in-law in the future. I will live with them in the future (FF22)

Because we [me and my husband] are the children, so it is the responsibility of the children. Now my parents in law build a house for me and my husband and I want to contribute to the house (FF19)

Moreover one married female migrants expressed feelings of guilt, 'I feel very ashamed' (FI14) as she did not feel they remitted enough to their family in law.

This is another prime example of perceived obligation being a cross cutting theme in which the respondent raises the cultural and familial responsibility of a daughter in law (altruism motive) as well as the economic returns of remittances (exchange motive).

Men and women experience perceived family obligation differently, such that married women remit to husband's family. Moreover, perceived family obligation appears to run as a cross cutting theme between motives of altruism and exchange.

There was no quantitative data that could be used to capture perceived family obligation. The intangibility and elusiveness of the concept of perceived obligation raises the necessity to pay particular attention to the qualitative data. Although we have highlighted perceived obligation in a separate category, it was evident from the qualitative interviews that perceived obligation was a concept embedded in all the other themes previously mentioned.

3. Discussion and Conclusion

The findings from this study are evidently as complex as the nature of behavioural analysis. However, there are clear findings which have evolved from the analysis. This section summarises those key findings and critically reflects on the research inferences which have arisen from the findings using a mixed methods approach. It extends the analytical framework in light of emerging findings. Finally, it discusses the implications at the policy level and suggests further research.

3.1 Key Findings

Part A highlighted a variety of key determinants for both men and women which were understood to affect the proportion of income migrants remit to their household of origin. From the results of the pooled regression and qualitative data analysis, it was evident that certain variables affected migrants' capacity to remit. Migrants who were provided with work benefits remitted more as a proportion of their income while increased cost of family expenses at destination had opposite effect. This may suggest that greater disposable income affects remitting behaviour. Qualitative data analysis also supported this finding as personal expenditures at destination affected remittance sending. In addition, health expenditures at destination were also found to impact migrants' capacity to remit.

The quantitative model provided in Part A encompassed a set of variables that served as proxies for motivations outlined in the analytical framework. In this instance, the estimated model was not gender disaggregated. Altruistic motivations were highlighted by the variables relating to recipients expenditure of remittances on consumption goods and debt payments. These variables may indicate that there were signs of altruistic behaviour given that remittance expenditures were for non-accumulative purposes.

In a similar vein, variables which reflected the motivation of exchange were also highlighted in the model. The level of education of the migrant may be indicative of repayments for prior services rendered. It was also evident that recipients expenditure of remittances on home renovations and business support exchange motives as investments at household of origin can benefit the migrant upon return.

Finally, it was apparent from the quantitative data analysis that mutual beneficiary arrangements, such as co-insurance, were embodied by the variables relating to migrants having a work contract, difficulties experienced at destination and the registration status of migrants. The use of remittances by the recipients on farming activities, lending and saving can be argued to drive co-insurance behaviours. These expenditures can be interpreted as a means to mitigate uncertainty from exogenous shocks such as crop failures.

Although in most instances, qualitative data analysis supported the above finding, we found that models of motivation were not sufficient in explaining remitting behaviour as it overlooks barriers to remitting due to endowment and circumstantial factors. Instead we must

acknowledge that there are factors which reflect both capacity and motivations that shape migrants' remittance sending behaviours. Part B, extends this analysis to explore gender differences with regard to remittance sending.

Qualitative data analysis suggested that there may be difference in remittance sending considering female respondents appeared to prioritise sending remittances at the expense of their own quality of life at destination such as decreased consumption. This finding corresponded with quantitative findings that female migrants remitted a similar proportion of income to male migrants despite have lower labour market earnings, assuming that both genders face similar costs of living at destination.

Whilst men and women appeared to remit similar proportions of their income, there was evidence that gender differences existed in terms of motivations of remittances. These gender differences were initially found in the qualitative data analysis using the analytical framework and subsequently reflected upon using the gender disaggregated regressions.

Specifically, it was evidenced that there may be gender differences in the extent to which migrants remitted for altruistic and exchange motivations. Qualitative data analysis highlighted women may have a higher tendency to remit under this motivation due evidence of unconditional income transfers and consideration of opportunity costs. This was affirmed in the quantitative data analysis through evidence that female migrants remit higher proportions of their income than men when remittances were used for non accumulative purposes at household of origin.

Conversely, male respondents indicated a stronger tendency to remit due to exchange motivations. The qualitative analysis provides support that men remitted for their own personal savings, while others considered remittances as an investment into their household of origin. Men also expressed that remittances were used to repay their relatives for past services rendered, such as for food and education. In conjunction, the quantitative analysis suggested that remit on average a higher proportion of their income if the recipient household invested the remittances on assets.

Interestingly, whilst the qualitative data analysis did not highlight any particular gender differences with regard to mutual beneficiary arrangements, the gender disaggregated regression model did evidence that women may have a higher propensity to remit for co-

insurance motives signified by remittance money being used at household of origin for farming activities and savings. Given many female respondents in the qualitative data sample were often unaware of how their remittance was used at household of origin this may question how reliable quantitative data on expenditures of remittances from migrants' perspective may be to draw substantive inferences using a mixed methods approach.

Conclusively, it is evident that determinants of remittances can be differentiated between those of capacity and those of desire. Individual capacity has been captured by variables outlined in Part A. Alternatively, capacity has not been found to affect the proportion of remitted income as it was similar for both men and women. Although the distinction between capacity and desire has been made in previous research (Carling 2008), this research has found some gender differences exist in motivations (or desire), evidenced in Part B.

3.2 Emerging Findings

It is difficult to determine which of the three categories of motivations; altruism, exchange and mutual beneficiary arrangements were the most important in determining remittances. However, that the cross-cutting motivation of 'perceived family obligation' was also important in contributing to some of the gender differences in remittance sending behaviour. Although 'perceived obligation' has been mentioned briefly mentioned in more recent literature with little empirical evidence (De Bruyn & Wets 2006:9; Carling 2008), it seems appears that this model of motivation may have been overlooked in the substantive literature on remitting behaviour.

Perceived family obligation was found to be an emerging theme which extended the analytical framework as it was arguably a cross cutting theme which encompasses migration context and nature of families. It was evident from the analysis of qualitative data that many migrants who flagged motivations for sending remittances due to altruism, exchange and mutually beneficial arrangements also indicated a perceived family obligation. This was evidenced by respondents' indication that migrants continued to see 'the family' acting as one economic unit and reiterating obligations to help other family members.

Conceptualising the family environment as a market place in which economic agents, or family members, who interact strategically between each other is, as Stark (1995) argues, analysing these interactions with a rational economic perspective. In contrast the concept of 'perceived family obligation' is more complex and the analytical framework falls short of understanding reasons for gender differences within the cultural institution of the family. For example, the finding that married women remit to their husband's families due to perceived family obligation may highlight motivations due to exchange (due to the possibility for bequest or future benefits from husband's family given a daughter in law is likely to inherit or move back to husband's household of origin) as well as altruism if the daughter in law wants to help her new 'family'.

Further inquiry as to why 'perceived family obligations,' 'altruism' and exchange' determine remitting sending differently between genders may be an area for further research using contextual, familial and societal relations discourse for a more nuanced analysis which reflects on gender differences within cultural institutions such as the family.

3.3 Critical Reflection on Inferences

It is also important to reflect on the above findings in light of the transferability and quality of inferences (Teddlie & Tashakkori 2009:287). Critique of our own analysis and findings is to provide academic honesty in drawing conclusions. The aforementioned limitations from gaps in quantitative and qualitative data remain to be an issue particularly when self serving bias around perceived family obligations may have had an impact on emerging findings. Further, there continues to be debate in literature as well as in this research as to the fluid nature of variables which are used as proxies for certain motivations. Interpretations of regression models in light of the analytical framework have been derived from previous literature combined with supporting evidence from qualitative data analysis.

The regression models provided key findings regarding determinants and gender differences in motivations using data on remittance expenditures at destination. The validity of such data is questionable given that there was no direct data from the household of origin. However, in framing the research questions and analytical framework, the determinants and individual

motivations remained (i.e. the sender's perspective) to be a focus rather than studying the effects of remittances at community of origin.

The findings appear to indicate that family situation (such as having children) may provide more critical information regarding capacity to remit. Upon reflection, purposive sampling using family status may have provided a more discerning analysis. However, given qualitative data analysis was derived from a relatively small sample, there is little reason to suggest findings regarding family status from both quantitative and qualitative data analysis is invalid.

Finally, the issue of transferability relates to the degree to which conclusions may be applied to other contexts or samples (Teddlie & Tashakkori 2009:287). Given the mixed methods approach, evidence suggests that findings can be applied to a wider population than simply the qualitative sample in this study. In saying that, it is clear that the analytical framework for motivations which has been employed in a variety of international and national remittance sending settings is highly subject to context. This was highlighted in the emerging findings evidenced above. For this reason, we maintain that findings are externally valid and generalisable to internal migrants in Vietnam.

3.4 Policy Implications and Further Research

The findings of this research raise policy implications as well as stimulate the need for further research in specific areas. Understanding why some migrants may remit more than others, has important implications for source economies, rural household and migrated related policies. Findings regarding determinants of remittances may prompt policy development. For example, it was evident that migrants' difficulties at destination, expenditure on health and cost of living appeared to affect remittance sending. At a policy level, this could raise policy makers' awareness of the effect of price fluctuations on remittances flows. Moreover, it could suggest the indirect effects of social programs such as health insurance on facilitating remittance flows.

Behavioural analysis of remittance sending suggests that gender differences in motivations should not be underestimated. If we understand remittances to be a financial manifestation of

social ties (UNDP: 2006), gender differences in motivations for sending remittances could encourage further gender analysis of changing social structures in Vietnam.

Finally, knowledge about the determinants of remittances remains to be a complex phenomenon which deserves more refined attention:

Much of the existing research on determinants has been done by economists, with limited interest or qualification for dealing with demographics and other non-econometric determinants. At the same time, migration researchers have rarely taken up the challenge of quantifying explanations of remittance patterns.

(Carling 2008:596)

Whilst this research has attempted to provide more holistic perspective on the topic using a mixed methods approach, there remains to be research gaps regarding impacts of remittances at the household level which could further substantiate the importance of remittances for development.

References

Agarwal, R., & Horowitz, A. (2002) Are international remittances altruism or insurance? Evidence from Guyana using multiple-migrant households. *World Development*, 30:11, 2033-2044.

Amuedo-Dorantes, C. & Pozo, S. (2006) Remittances as insurance: evidence from Mexican immigrants. *Journal of Population Economics*, 19:2, 227-254.

Becker, G. (1974) A Theory of Social Interactions. *Journal of Political Economy*, 82, 1063-91.

Bélanger, D. & Pendakis, K. (2010) Vietnamese Daughters in Transition: Factory Workers and Family Relations. *The Asia-Pacific Journal*, 5-2-10, February 2010
http://japanfocus.org/-Dani_le-B_langer/3295, retrieved on 2010-05-10.

Black, R. (2003) Soaring Remittances Raise New Issues. *Migration Policy Institute: Migration Information Source*, Washington
<http://www.migrationinformation.org/feature/display.cfm?ID=127>, retrieved on 2010-05-10.

Blue, S. (2004) State Policy, Economic Crisis, Gender, and Family Ties: Determinants of Family Remittances to Cuba. *Economic Geography*, 80:1, 63-82.

- Bryman, A. (2006) *Social Research Methods*. Oxford: Oxford University Press.
- Carling, J. (2008) The Determinants of Migrant Remittances. *Oxford Review of Economic Policy*, 24:3, 581-598.
- Chant, S. (1998) Households, Gender and Rural-Urban Migration: Reflections on Linkages and Considerations for Policy, *Environment and Urbanisation*, 10:1, 5-21.
- Chimhowu, A., Piessse, J. & Pinder, C (2003) Assessing the socioeconomic impact of migrant workers' remittances on poverty reduction. Conference proceedings of the EDIAS Conference, Manchester, November 21-14.
- Cox, D. (1987) Motives for Private Transfers. *Journal of Political Economy*, 95:3, 508–46.
- Creswell (2003) *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. London: Sage Publications.
- De Bruyn, T., & Wets, J. (2006) Remittances in the Great Lakes. *IOM Migration Research Series*, 25, Geneva: IOM.
- De La Cruz, B. (1995) The socioeconomic dimensions of remittances: case studies of five Mexican families. *The Berkeley McNair Journal*, 3, 1-10.
- Deshingkar, P. (2008). Internal Migration in *World Migration 2008*, IOM: Geneva.
- El-Sakka, M. & McNabb, R. (1999) The Macroeconomic Determinants of Emigrant Remittances. *World Development*, 27:8, 1493-1502
- General Statistics Office (2004) *2004 Migration Survey Questionnaire*, Vietnam: GSO.
- Gregersen, P. (2007) LUMID MIDA20 HT07 Lecture Notes, unpublished.
- Griffin, K. (1976) On the Emigration of the Peasantry. *World Development*, 4:5, 353-361.
- Grigorian, D. & Melkonyan, T. (2008) Microeconomic Implications of Remittances in an Overlapping Generations Model with Altruism and Self Interest, *IMF Working Paper Series*, 8:19, Middle East and Central Asia Department: IMF.
- Gubert, F. (2002) Do migrants insure those who stay behind? Evidence from the Kayes area (Western Mali). *Oxford Development Studies*, 30:3, 267-287.
- Hagen-Zanker, J. & Siegel, M. (2007). The Determinants of Remittances: A review of the literature, *Maastricht School of Governance Working Paper Series*, June 2007
<http://www.governance.unimaas.nl/home/publications/2007WP003.pdf>, retrieved on 2010-05-10.

- Hoddinott, J. (1994) A Model of Migration and Remittances Applied to Western Kenya. *Oxford Economic Papers*, 46:3, 459-476.
- Lillard, L. & Willis, R. (1997) Motives for Intergenerational Transfers: Evidence From Malaysia. *Demography*, 34, 115–34.
- Long, D., Le, N., Truitt, A., Mai, L. & Dang, A. (2000) Changing Gender Relations in Vietnam's Post Doi Moi Era, Policy Research Report on Gender and Development, *Working Paper Series*, 14, Development Research Group, Washington D.C.: World Bank.
- Lucas, R., & Stark, O. (1985) Motivations to Remit: Evidence to Remit: Evidence from Botswana. *Journal of Political Economy* , 93, 901-18.
- Markova, E. & Reilly, B. (2007) Bulgarian Migrant Remittances and Legal Status: Some Micro-level Evidence from Madrid. *South-Eastern Journal of Economics*, 5:1, 55-69 .
- Nichols, P. (1991) *Social Survey Methods: A Field Guide for Development Workers*. Development Guidelines No. 5. Oxford: Oxfam.
- Niimi, Y., Pham, T., & Reilly, B. (2008) Determinants of Remittances: Recent Evidence Using Data on Internal Migrants in Vietnam. *World Bank Policy Research Working Paper*, No. 4586, World Bank.
- Niimi, Y., & Reilly, B. (2008) Gender Differences in Remittance Behavior: Evidence from Viet Nam. *Asian Development Bank Economics Working Paper Series*, No. 135, Manila: ADB.
- Niimi, Y., & Özden, Ç. (2006) Migration and Remittances: Causes and Linkages. *World Bank Policy Research Working Paper*, No. 4087, World Bank.
- Nguyen, A. (2005) *Internal Migration: Opportunity and Challenges for the Renovations and Development of Vietnam*. Hanoi: Social Development Programme Vietnam, Asia Pacific Economic Centre.
- O'Dowd, M. (2008) LUMID MIDA20 2008-11-05 Lecture notes, Research Design: Theoretical Considerations, unpublished.
- Orozco, M., Lowell, L., & Schneider, J. (2006) Gender-Specific Determinants of Remittances: Differences in Structure and Motivation. *Gender and Development Group, PREM*. Washington : World Bank Group .
- Osaki, K. (2001) Migration, remittances and gender in the context of development: The case of Thailand. Ph.D. dissertation, Fordham University .
- Osaki-Tomita, K. (2008) *Remittances: Implications for Development* in Situation Report on International Migration in East and South-East Asia, 155-161. Bangkok: IOM, Regional Office for Southeast Asia .

- Osili, U. (2007) Remittances and savings from international migration: Theory and evidence using a matched sample. *Journal of Development Economics*, 83, 446-456.
- Packard, L (2006) Gender Dimensions of Vietnam's Comprehensive Macroeconomic & Structural Reform Policies, *Occasional Paper Series*, 14, Geneva: UNRISD.
- Pfau, W. (2008) Groups Excluded from the Representative Household Survey: An analysis Based on Remittances Sent and Recieved in Vietnam, *MPRA Paper*, 19040, University Library, Germany.
- Pfau, W., & Long, G. (2008) Gender and Remittance Flows in Viet Nam during Economic Transformation. *Asia-Pacific Population Journal*, 13-32.
- Poirne, B. (1997). A theory of remittances as an implicit family loan arrangement. *World Development*, 25:4, 589-611.
- Punch, K. (2006) *Introduction to Social Research: Qualitative and quantitative approaches*, 2nd Ed., London: Sage.
- Ratha, D. (2007) *Leveraging Remittances for Development*, Washington D.C: Migration Policy Institute.
- Regmi, G. & Tisdell, C. (2002) Remitting Behavior of Nepalese Rural-to-Urban Migrants: Implications for Theory and Policy. *Journal of Development Studies*, 38:3, 76-94.
- Rempel, H., & Lobdell, R. (1977) The Role of Urban-to-Rural Remittances in Rural Development . *Journal of Development Studies* , 234-341.
- Schiopu, I. & Siegfried, N. (2006) Determinants of Workers' Remittances: Evidence from the European Neighbouring Region. *European Central Bank Working Paper Series*, No. 688.
- Scheyvens, R. & Leslie, H. (2000) Gender Ethics and Empowerment: Dilemmas of Development Fieldwork. *Women's Studies International Forum*, 23:1, 119-130.
- Sørensen, N. (2005) Migrant remittances, development and gender. Danish Institute for International Studies (DIIS) http://www.diis.dk/graphics/Publications/Briefs2005/nns_migrant_remittances.pdf, retrieved on 2010-05-10.
- Stark, O. (1995) *Altruism and beyond: An economic analysis of transfers and exchanges within families and groups*. Cambridge: Cambridge University Press.
- Stock, J. & Watson, M. (2003) *Introduction to Econometrics*. Boston: Pearson Education.
- Tien, H. & Ngoc, H. (2001) *Female Labour Migration: Rural-Urban*. Hanoi: Women's Publishing House.
- UNDP (2006) Gender and Remittances: Building Gender Responsive Local Development. *PAC Proposal on Gender and Remittances* , UN-INSTRAW

http://www.undp.org/partners/business/resources/gender_and_remittances.pdf, retrieved on 2010-05-10.

UNFPA (2010) Internal Migration: Opportunities and Challenges for Socio-Economic Development in Viet Nam. Working Paper, unpublished.

Vanwey, K. (2004) Altruistic and Contractual Remittances Between Male and Female Migrants and Households in Rural Thailand, *Demography*, 41:4, 739-756.

World Bank, 2006. *Global Economic Prospects: Economics Implications of Remittances and Migration*. Washington, DC: The World Bank.

Appendix 1 – Descriptive Variables

Appendix 2 – OLS Estimator

Our linear regression model adopts the following form:

$$(1) \quad Y_p = \alpha + \beta_1 X_{1p} + \beta_2 X_{2p} + \varepsilon_p$$

Which can also be expressed in the matrix form

$$(2) \quad Y_{Nx1} = X'_{NxK} \beta_{Kx1} + \varepsilon_{Nx1}$$

Where Y_{Nx1} is the $N \times 1$ dimensional vector of N observations on the dependent variable, the proportion of income migrants' remit to their household of origin. X'_{NxK} is the $N \times K$ matrix of N observations on the K regressors and includes the constant for the intercept. β_{Kx1} is the $K \times 1$ vector of the regression coefficients. Finally, ε_{Nx1} is the vector for the error terms of the N observations.

Equation (1) can also be rearranged in the following form:

$$(3) \quad \varepsilon_p = Y_p - \alpha - \beta_1 X_{1p} - \beta_2 X_{2p}$$

The OLS estimator is obtain by minimizing the sum of squared prediction mistakes (ε_t) as expressed in equation (4), with respect to the j^{th} regression coefficient (β_j) and setting the derivative to zero:

(4)

$$\sum_{i=1}^N \varepsilon_{ip}^2 = \sum_{i=1}^N (Y_p - \hat{\alpha} - \hat{\beta}_1 X_{1p} - \hat{\beta}_2 X_{2p})^2$$

(5)

$$\frac{\partial}{\partial \beta_j} \sum_{i=1}^N (Y_i - \hat{\alpha} - \hat{\beta}_1 X_{1i} - \hat{\beta}_2 X_{2i})^2$$

(6)

$$= -2 \sum_{i=1}^N X_{ji} (Y_i - \hat{\alpha} - \hat{\beta}_1 X_{1i} - \hat{\beta}_2 X_{2i}) = 0$$

Which can also be expressed in the following matrix form:

$$(7) \quad -2X'(Y - X\hat{\beta}) = 0_{Kx1}$$

Where $\hat{\beta}$ is a vector consisting of α , $\hat{\beta}_1$ and $\hat{\beta}_2$ and X is a matrix that include all the regressor in our model. Equation (5) can be solved for $\hat{\beta}$

$$(8) \quad X'(Y - X\hat{\beta}) = 0_{K \times 1}$$

$$(9) \quad X'Y - X'X\hat{\beta} = 0_{K \times 1}$$

$$(10) \quad X'Y = X'X\hat{\beta}$$

(11)

$$\frac{X'Y}{X'X} = \hat{\beta}$$

$$(12) \quad (XX')^{-1}X'Y = \hat{\beta}$$

Where $(XX')^{-1}$ the inverse matrix of XX'

Appendix 3 – Qualitative Interview Guide

Participant Information and Consent³

PART A: Background Information

- A1. Age A1_____
- A2. Sex A2_____
- A3. Number of years in Hanoi A3_____
- A4. Number of years working in Hanoi A4_____
- A5. Current sector of work Informal/Formal
- A6. Current Job A6_____
- A7. Highest Education Level attained A7_____
- A8. Current Household Structure A8. *Insert Genogram*
- A9. Type of housing A9._____
- A10. Knowledge of Registration Status A10._____
- A11. Community of origin A11._____
- A10. Household Structure at Community of origin A.10 *Insert Genogram*
- Place a * for number of persons earning income and how/where they earn income.*
- A11. Family's main source of income A11_____
- A12. Other family members migrated?

Relationship to Family Member	Current Income	Remittances to household of origin?	Place of work	Type of Work

- A14. Respondent's current income? Stable? A14. _____

PART B: Thematic Guide

B1. Generally, how do you spend/save your income?

B2. Amount of Remittance Sending

- a. How much do you remit?
- b. What is the main motivation for remitting?

³ Information provided to respondent regarding research topic, purpose of research, introduction of researchers and interpreter, purpose of interview, how information is going to be recorded and used (including coding respondents information for confidentiality) and expected compensation (small fee for respondents time). Highlight to the participants that researchers will not be able to provide any direct benefits from participation in interview other than small compensation fee for their time. Finally, highlight to the respondent there are no 'right/wrong' answers and researchers are interested in honest opinions of respondents' lived experiences. Moreover, if there are any questions respondents are not comfortable answering or any reason the respondent would like to stop the interview, we ask respondents indicate this and interview will be happily modified or stopped.

Opportunity provided for respondent to ask any questions. Opportunity provided for oral consent to participation in interview and recording of information before beginning the interview.

- c. Why not more or less?
- d. Any fluctuations in amount of remittances and why?

B3. Frequency of Remittance Sending

- a. How often do you remit
- b. What is the main motivations for remitting that frequently
- c. Why not more or less?
- d. Remittance Channels?
- e. Any fluctuations in frequency of sending and why?

B4. In Kind Remittances:

- a. What other gifts/assets do you send back to your home province?

B5. Future remittance, sending patterns and expectations

- a. In the future, would you like to change your remittance sending patterns (more or less?)
- b. Why?
- c. How much do you expect to remit and are there any barriers to the expectation and reality?

B6. Knowledge of Remittances

- a. Who (inc. generation) and what are your remittances being spent on?
- b. Who decides how much you remit?
- c. Ideally, what would you like remittances to be used for (if different from above)
- d. What do you know about your contribution to family income?

B6. Context of Remitting

- a. Why did you migrate?
- b. How does remittance sending (and/or migration) affect your quality of life in Hanoi?
- c. Generally, what influences your decisions about your spending and remitting?
- d. What do you think about sending remittances, ie. your contribution?
- e. Anything else you would like to add?

Thank respondent for their time and allow time for any further questions/comments from respondent.