



Munich Personal RePEc Archive

## **How Do Migrants' Choice of Remittance Channel? The Case of Bangladesh**

Kazi Abdul, Mannan and Gin Kok, Wei

UUMKL, Universiti Kebangsaan Malaysia

2009

Online at <https://mpra.ub.uni-muenchen.de/104212/>  
MPRA Paper No. 104212, posted 19 Nov 2020 03:19 UTC

---

# How Do Migrants' Choice of Remittance Channel? The Case of Bangladesh

**Kazi Abdul Mannan<sup>1</sup>**

UUMKL

**Gin Kok Wei**

Universiti Kebangsaan Malaysia

## ABSTRACT

In many developing and transition economies, remittances from labor migrants constitute a large share of households' disposable incomes. Economy-wide, remittances are often a major source of external finance that surpasses official development assistance and foreign direct investment. In this paper we study the choice of transfer channels by households. With a total sample size of close to 1,800 households, the survey was designed to be representative of households at the national level, for each major geographic region, and for each major type of locality. Explanatory variables include socioeconomic characteristics of the migrant and other household members, the pattern of migration and financial information. Our regression analysis has identified several important reasons why approximately two-third of the Bangladeshi migrants and their families in our sample do not use formal transfer channels. Key reasons not to use a formal transfer channel include an emphasis on low transfer cost, a migrant's irregular legal status in the host country, and short migration spells. Migrants who mostly use informal services are more likely to be in high-income countries, reside in the host country illegally, remain abroad for periods longer than one year, not have a bank account, and care primarily about the cost of the transfer. Some of these determinants suggest the presence of distortions that can potentially be reduced through appropriate policy measures. This study suggest that the main starting points for policy interventions are the cost of money transfers, the treatment of irregular migrants in host countries, and the linkage between remittances and financial sector development.

---

<sup>1</sup> **Corresponding Author:** Professor Kazi Abdul Mannan, School of Business Management, UUMKL, E-mail: [mannankazi@yahoo.com](mailto:mannankazi@yahoo.com)

---

## 1.1 INTRODUCTION

The literature makes a broad distinction between formal and informal channels. Formal channels constitute services offered by officially registered or exempted entities, such as banks, post offices and money transfer operators. Any other remittance services are defined as informal channels. These may be legal, such as physically carrying cash to the country of destination, or illegal, such as services offered by unregistered, unlicensed or unofficially-exempted entities. In addition to distinguishing between formal and informal channels, a further distinction can be made between the particular transfers channels used. Firstly, money can be sent formally using a bank transfer between a bank in the sending country and a bank in the receiving country. Bank transfers often require both the migrant and the recipient to have a bank account and can be initiated by using paper-based forms or cheques. Secondly, remittances can find their way via registered MTOs, which have a wide network of local branches where migrants can collect and send money. Most common are Western Union and Money Gram. Other formal channels include SMS, traveller's cheques, money and postal orders, preloaded gift cards, and credit and debit cards that allow money to be withdrawn at a bank branch abroad.

In many developing and transition economies, remittances from labor migrants constitute a large share of households' disposable incomes. Economy-wide, remittances are often a major source of external finance that surpasses official development assistance and foreign direct investment. Nevertheless, cross-country studies of the combined impact of migration and remittances on domestic GDP growth find ambiguous effects (Chami et al. 2008). Clearly, migration and remittances sustain consumption but do not automatically lead to higher investment and output growth (Mannan & Wei 2008). Therefore, national governments, international financial institutions and other donors are now searching for policies that will harness remittances for the sustainable economic development of migrants' home countries (Mannan & Wei 2007). The transfer channels used by migrants to send remittances home are one important area on which policy debates have focused. World-wide, a large proportion of remittances is transferred not through the banking system or established money transfer operators but through various informal channels. At the same time, there are several reasons why remittances sent through formal financial institutions are more likely than informal transfers to promote economic development (Mannan & Wei 2006).

Firstly, if recipients have remittances deposited into bank accounts or at least collect remittances from bank offices, this brings a growing number of individuals and households into regular contact with the formal financial sector (Spatafora 2005). A range of banking services can be offered to the formerly unbanked and the availability of loanable funds will increase economy-wide, promoting financial development. Secondly, greater use of formal transfer channels is likely to help reduce transfer fees. The provision of international payment services in developing countries with limited public infrastructure is bound to be subject to economies of scale and scope. Therefore, a larger number of formal remitters would reduce the cost per transaction, permitting fees to be reduced as competition among suppliers intensifies. Thirdly, several commercial banks in developing countries have been able to securitize either future flows of remittances or their fee

.....  
 income from such transactions, allowing the banks to attain investment grade ratings, reduce borrowing costs, and expand lending (OECD 2007). Such operations further promote financial sector development.

Finally, informal international transfer networks such as the Hawala system have at times been suspected of providing cover for money laundering or the financing of terrorism (Jost & Sandhu 2000). Whatever the factual basis of such suspicions, authorities are likely to respond in ways that will disrupt the transfer of remittances. By contrast, transfers through established money transfer operators are transparent and therefore not subject to wholesale charges of criminal involvement. In spite of the benefits derived from the use of formal transfer channels and a variety of government and donor policies encouraging their use, informal transfers are still prominent in many remittance-receiving countries. These include organized transfer services by third parties, such as the hawala system or other unregistered or unlicensed operators, as well as cash transported personally by migrants themselves, relatives, friends, etc. The persistence of informal transfers raises the questions of what drives the choice of transfer channel by migrants and their families and whether policy interventions can or should be designed to promote the use of formal transfers.

In this paper we study the choice of transfer channels by households in Bangladesh. Migration is a mass phenomenon in Bangladesh; up to one in three households receives remittances, mostly from a current household member working abroad. The government is encouraging the use of formal transfer channels; remittances are not taxed and the necessary paperwork for money transfers to individuals is manageable. We also conduct a multinomial logit analysis of the determinants of the choice of the predominant transfer channel for each remitter-recipient pair, focusing on three groups of explanatory variables: socioeconomic characteristics of the migrant and the recipient household, including education, gender, urban vs. rural, consumption level, migration networks at household location; characteristics of the migration process, such as the host country, legal residence status, and for how long the migrant stays abroad; and financial information, such as whether the household has a current bank account, whether remittances are sent regularly, and the primary motivation for choosing a particular channel. Based on the regression results, we discuss whether market failures or external effects have a large impact on household decisions and whether appropriate policy interventions can be designed.

## 2.1 LITERATURE REVIEW

Many studies point to the positive effects of remittances on the local economy of the recipient countries, at both a micro level (Adams & Cuecuecha 2009) and a macro level (Giuliano & Ruiz-Arranz 2009). With respect to financial markets, recent studies show that remittances can lead to a decline in labour supply and a shift in consumption demand towards non-tradables, which can induce the economic phenomenon known as the Dutch disease (Acosta et al. (2009). A large body of research documents the reasons for migrants to remit ((Mannan & Kozlov 2005; Rapoport & Docquier 2006; Carling 2008) and the determinants of the amounts remitted (Holst et al., 2008). Additionally, awareness of the choice that migrants' make when selecting a remittance channel has increased in recent years. This awareness has been partly triggered by the use of informal channels.

.....

These include savings brought home on return and transfers through unregistered intermediaries. Despite the potential advantages of informal remittance channels in terms of cost, speed, accessibility and anonymity (Kapur 2004; Mannan & Krueger 2004; Pieke et al. 2005), informal channels have increasingly been debated due to concerns about potential misuse for criminal ends, including money laundering, the financing of terrorism and smuggling.

Moreover, with regard to safety and security, informal channels are generally perceived to be more risky because they often rely on informal contracts and entail a higher risk of theft or loss. This is why many authorities try to channel remittances through the formal sector. Moreover, remittances channelled through the formal sector have more potential for promoting economic development by improving the earnings of the domestic financial sector and by increasing resources to finance economic activities. In addition, using formal institutions for remittances may bring individuals and households into contact with other formal financial services, such as savings, loans, mortgages and insurances, which may foster economy-wide financial development. The literature broadly agrees that a migrant's choice of remittance method is influenced by characteristics of the transaction, characteristics of the different payment options, characteristics of the migrant, and the economic and institutional environment in both the home and host country (Puri & Ritzema 1999; Meyers 2002; Mannan & Kozlov 2003; Amuedo-Dorantes & Pozo 2005; Pieke et al. 2005; De Haas & Plug 2006; De Luna Martínez et al. 2006; Freund & Spatafora 2008).

Although Barendse et al. (2006) and De Luna Martínez et al. (2006) argue that a widespread use of cash may negatively affect the use of formal bank channels, empirical evidence supporting this argument is lacking. In contrast, we are able to empirically assess whether migrants' remittance choices correlate with their experiences and attitudes regarding payment methods used for daily purchases and bills. For instance, are migrants who are less familiar with online banking and who mainly use cash for their regular shopping more likely to use cash-based remittance channels? There are several options available for transferring remittances.

Among the informal channels, there are several unregistered MTOs active in the market, especially for payments to countries characterised by low levels of financial development. They are often referred to as 'Hawala' or 'Hundi' operators. There is evidence of these systems transferring more than tens of billions of dollars globally (Kapur 2004). The services are typically based on low cost technologies, such as a fax or a telephone call, and offered in mobile phone shops, travel agencies and groceries. Migrants may also send remittances abroad by physically hand-carrying the money. This may be done by either the migrants themselves, for instance when visiting or returning to the recipient country, or by a third person, such as a friend, a family member or a trusted agent. Alternatively, migrants may send cash by regular mail. In addition, migrants' associations, churches, mosques and other religious organisations play a role in fundraising and remittance transfers (Pieke et al. 2005).

.....

Several studies show that the above mentioned remittance channels differ significantly in terms of cost, accessibility and speed. Whereas costs differ across countries and remittance corridors, remittance services offered by formal MTOs and banks are generally more expensive than informal remittances (De Luna Martínez et al. 2006). The total cost of official channels, comprising the fees and exchange rates paid by the sender as well as the fees paid by the receiver, range between 5% and 15% of the remittance value, while the costs of informal channels are estimated to range between 2%-5% (Mannan & Krueger 2002; Orozco 2003; Sander 2004; Freund & Spatafora 2008). Regarding the accessibility of remittance channels, it is argued that language, cultural and institutional barriers hinder the use of bank services (Sander 2004; Pieke et al. 2005). Banks often require clients to have a bank account, whereas MTOs only require official identification. What is more, recipients can find it difficult to access banks due to their limited coverage, especially in poor, remote or destroyed areas (Puri & Ritzema 1999).

In terms of speed, MTOs and informal channels also have an advantage over bank channels because banks do not always have direct links to every country and thus involve intermediate banks. As a result, bank transfers may take a couple of days, whereas money sent through an MTO may be collected by the recipient within a few minutes. In terms of anonymity, informal channels differ from services offered by banks and official MTOs due to the absence of formal transaction records. The majority of studies investigating how migrants remit are based on consumer surveys. These show that migrants' choice of remittance channel is influenced by characteristics of the different remittance options, characteristics of the transaction, characteristics of the migrants, and the economic and institutional environment in both the home and host country.

Firstly, migrants' choices for channelling remittances are influenced by the characteristics of different payment options. This is in line with the general findings of payments literature, which state that payment choices depend on the net benefits received from the different payment instruments' attributes. However, when it comes to remittances, the choice depends not only on the benefits offered to the payer but also on the preferences of and possibilities for the recipient. In terms of accessibility, several studies show that a number of factors affect the use of formal remittance channels: availability of and distance from services, language and cultural barriers, banking policies on minimum account balances, the degree of information transparency, financial literacy, and familiarity and trust (Sander 2004; De Luna Martínez et al 2006). Overall, low transfer cost is one of the key reasons for using informal instead of formal channels. On the other hand, formal transfers are often preferred because of their speed, convenience and security.

Secondly, transaction characteristics, such as the transfer amount and the remittance frequency, are important when deciding how to remit. Migrants who remit more often seem to prefer formal channels, particularly MTOs, over carrying cash (Orozco 2002; Freund & Spatafora 2008). Moreover, higher amounts are channelled more often through banks, whereas smaller transfers are more likely to be sent informally. The explanation for this can be found in the relatively large fee that banks and MTO often charge for remitting small amounts. Thirdly, characteristics of the migrant, such as knowledge of the host country's financial system and his/her financial possibilities, are important determinants. In general, male, higher educated, skilled and salaried

.....

migrants appear more likely to use bank and other formal channels instead of informal services. Moreover, the use of bank services increases with the presence of networks of friends and family in the host country (Amuedo-Dorantes & Pozo 2005). The length and nature of the migrant's stay also play an important role. There are several indications that legal and permanent migrants prefer formal over informal channels compared to undocumented and temporary migrants (De Haas & Plug 2006). This may reflect the fact that illegal and non-permanent immigrants have limited or no access to banking services or that legal and permanent immigrants have more confidence in or knowledge of the host country's financial system.

Fourthly, factors related to the institutional and economic environment in the host and home country affect remittance channel usage. Various institutional factors are shown to discourage migrants from using formal channels, such as limited trust and competition in the host country's banking and remittances sector, low levels of bank penetration in the home country, as well as limited supply of financial services for both sending and receiving remittances (De Luna Martínez et al. 2006). By contrast, the availability of native banks in the host country and policies introduced by governments or corporates to channel remittances, such as foreign currency accounts and special exchange or interest rates, favour the use of banking services (Russell 1986; Karafolas & Sariannidis 2009). In addition to institutional factors, evidence suggests that the use of formal channels decreases in line with the differences between official exchange rates and black market rates (Elbadawi & Rocha 1992; Kapur 2004). Moreover, domestic interest rates appear to have a positive effect on the use of official channels (Wahba 1991).

The existing literature examining why migrants choose one channel over another for sending money home highlights the importance of various personal, transactional, economical and institutional factors. However, the extent to which these choices correlate with regular daily payment patterns remains unclear. De Luna Martínez et al. (2006) argue that widespread use of cash may contribute to the use of informal systems as it maintains the anonymity of people sending and receiving the money. Similarly, Barendse et al. (2006) claim that a strong preference for cash negatively affects the use of bank channels. They also expect the share of informal channels to decrease when electronic payment systems become more prevalent. Although these conclusions hint at the link between remittance behaviour and regular payment behaviour, empirical evidence is lacking. Therefore, our paper contributes to existing literature by empirically examining whether migrants' remittance choices correlate with the payment instruments used for their daily purchases and bills, after controlling for relevant explanatory variables found in the existing literature.

Unfortunately, the existing literature provides only limited guidance regarding the choice of explanatory variables for our regression analysis. Most papers are case studies of particular transfer corridors that informally discuss a wide variety of determinants, including the role of the macroeconomic environment, political instability, or a weak banking system (Buencamino & Gorbunov 2002). Since our analysis is based on household data for a single country at a single point in time, however, we cannot consider such variables that affect all Bangladeshi households in the same way. Furthermore, the few existing quantitative studies have to contend with the lack of important information in most datasets such as cost estimates for each household for the use of

.....  
 different transfer channels. Instead, proxy variables such as rural vs. urban location are typically used to capture, for instance, the relative ease of physical access to banks.

Furthermore, in large descriptive studies of the US-Mexico and Canada-Vietnam remittance corridors, Hernandez-Coss (2005; 2005a) classifies determinants under the headings of personal incentives, customer service incentives, and economic incentives. Personal incentives include anonymity/secretcy, cultural familiarity and personal contacts. For instance, the anonymity or secretcy offered by informal services will matter to migrants who fear that formal channels may be connected with law enforcement or immigration authorities in the host country or transmit information to home country tax authorities. Customer service incentives include dispute resolution, accessibility, discrimination and reliability versatility/resilience. Economic incentives include speed, cost, secondary benefits and legal or regulatory environment.

Most other studies come up with less detailed lists of potential determinants. Based on a review of country experiences, Orozco (2003) asserts broadly that, among other factors, access to information, cultural practices, and educational and income status of the recipient and sender influence the choice of transfer method. In an econometric analysis, AmuedoDorantes and Pozo (2005) identify the migrant's legal status, sector of employment, family networks in the host country, and length of stay in the host country as important determinants. Not surprisingly, many studies find a strong role for household preferences regarding key attributes of alternative transfer channels such as cost, convenience, speed, security, trust and familiarity (Buencamino & Gorbunov 2002; Orozco 2002; El-Qorchi et al. 2003; Bazenguissa-Ganga 2005; Freund & Spatafora 2005; Higazi 2005; Pieke et al. 2005).

### **3.1 METHODOLOGY**

#### **3.1.1. Estimation Method**

The purpose of our econometric analysis is to explain the choice of transfer channel on the basis of migrant and household characteristics. Thus our dependent variable is categorical and standard regression techniques are not applicable. Furthermore, we are dealing with a nominal dependent variable because our categories follow no natural. As discussed in above, our potential explanatory variables are all case-specific, that is for each migrant-recipient pair the variables take the same value for all three possible choices. For instance, we know the migrant's level of education and can assess its impact on the choice of transfer channel. However, we do not know the cost that the particular migrant-recipient pair would incur using each of the three channels, which will often differ across households. Thus we have no alternative-specific data for each case, but only case specific data.

We investigated the determinants of the migrants' choice of remittance channel using an approach similar to Amuedo-Dorantes and Pozo (2005). Based on the data, we singled out five different remittance channels ( $c$ ), with  $t=1$  for bank transfers,  $t=2$  for MTO transfers,  $t=3$  for in-cash transfers via informal intermediaries,  $t=4$  for ATM withdrawals in the country of origin, and  $t=5$  when bringing cash oneself. Since the respondents were asked about all the channels used



.....  
 during the 12 months prior to the survey,  $t$  may take on different values for each individual migrant ( $m$ ). When deciding how to remit, the migrant ( $m$ ) can be assumed to derive a certain utility  $U_{mt}$  from each of the five channels  $t \{t=(1, \dots, 5)\}$ . This utility may depend on several factors,  $S_{mt}$ , such as personal, transactional and channel characteristics, as well as country-specific factors. Formally,

$$U_{mt} = \beta_t * S_{mt} + \varepsilon_m^U$$

where the error terms are assumed to be independent and  $\beta_t$  is a coefficient vector varying across channels. The migrant is assumed to use those channels that provide the highest utility. Hence, the probability that a migrant chooses channel ( $t$ ) is given by:

$$Prob(C_m=t) = (\beta_t, S_{mt}) / \sum_{k=1}^5 Exp(\beta_k, S_{mt}) \dots \dots \dots (i)$$

with  $C_m$  indexing the channel chosen. For ease of exposition, we report the results as odds ratios reflecting the likelihood of a migrant choosing a particular channel ( $t$ ) relative to the base channel, which in our case is a bank transfer. This results in the following odds ratios for the other four channels:

$$Prob_{mt} / Prob_{m, bank} = Exp(\beta_k, S_{mt}) \dots \dots \dots (ii)$$

A coefficient larger than 1 indicates that a migrant is more likely to select channel ( $t$ ) instead of a bank transfer. By contrast, a coefficient smaller than 1 indicates that a migrant is less likely to use channel ( $t$ ) instead of a bank transfer. Under the Independence of Irrelevant Alternatives assumption, the model boils down to a multinomial logit model. Therefore, we estimate the model using a discrete choice model (McFadden 1974).

For estimating Equation (i), we followed the existing literature and used a rich set of explanatory variables. First, the matrix  $S_{mt}$  contains the total amount remitted as Amuedo-Dorantes and Pozo (2005) correctly claim, the decision of how much to remit may also depend on the channel used. In addition, we added various personal characteristics, such as gender, age, education, marital status, having children, being a first or second-generation migrant, and whether a person lives in an urban area. We also included a set of dummy variables capturing the migrants' attachment to their home countries, such as the frequency of returning home and respondents' views about the strength of their home country ties. Since country differences may arise due to many factors, such as cultural and social traditions, we used country dummies that allowed us to control for all potential observed and unobserved country differences. In order to examine the effect of migrants' general payment behaviour, we extended the model by using the information collected by the payments diary on the migrants' share of cash payments, as well as dummy variables indicating whether migrants indicated a preference for paying in cash, whether they frequently use internet banking and whether they prefer paying fixed expenses electronically by using online transfers or direct debits instead of paper-based instruments. Finally, to capture the possible effect of channel related characteristics, we re-ran the model by including the migrant's self-reported reasons for choosing a particular channel, such as costs, convenience, speed and safety.

---

### 3.2. Data

In this study, we use information on transfer channel choice as well as migrant and household characteristics from the 2008 survey. With a total sample size of close to 1,800 households, the survey was designed to be representative of Bangladeshi households at the national level, for each major geographic region, and for each major type of locality. The migrant households to be interviewed were selected according to a systematic sampling scheme (Luecke et. al 2007). Compared with a stratified random sampling scheme, this quasi-random approach has the advantage of being paper to implement while generating results that are normally very similar to true random sampling. Due to resource restrictions and practical limitations, households were selected according to the sampling procedure and interviewed on the spot, without advance information about the interview request. Nevertheless, the overall response rate was very high, with fewer than one in ten selected households not agreeing to be interviewed. The questionnaire was designed with a view to avoiding sensitive questions as much as possible, for example by asking for qualitative information rather than exact data on income. This concern appears justified: When asked the inevitable question about the amount of remittances, only just over one half of those households that received remittances were willing to indicate an amount.

For the purpose of this study, we defined remittances as money sent and/or given to family or friends abroad. We made a distinction between two different types of channels: i) channels that allow the payer to transfer money from abroad while physically staying in the destination country, and channels where the payer hands over money to the beneficiary at the beneficiary's destination. We subdivided these two groups into method used. For transferring money from overseas we distinguished between remittance services offered by banks, services offered by MTOs, and in-cash transfers via informal intermediaries, such as sending cash by regular mail or handing it over to friends, family, or others travelling back home. Regarding on-site remittances, we distinguished between Bank withdrawals in Bangladesh, and physically taking the cash to the destination. The respondents were asked whether they had used any of the various channels, during the 12 months prior to the survey.

### 4.1 DATA ANALYSIS AND DISCUSSIONS

Our survey covers 1800 bilateral relationships between a migrant and a recipient household (Table 1.1). Migrants in our sample are either current or former household members. While some households receive remittances from other migrants, these are typically one-off payments linked to life-cycle events such as baptisms, weddings, or funerals. Whatever transfer channels are used on such occasions would be of little relevance for the lion's share of remittances that come from current or former household members. For each bilateral relationship we know the transfer channel that is predominantly used to send remittances. While the survey identifies approximately twelve transfer channels in some detail, we group them into three broad categories: formal services: bank transfer into a Bangladeshi bank account, money transfer operator (MTO), transfers through the Post office; informal services: hawala/hundi; personal transfers through migrants themselves, relatives, friends, or acquaintances.

---

According to our survey, formal services constitute the primary channel for just under one third of the migrant-recipient. In value terms, the share of remittances to Bangladesh going through formal services is even higher because those migrant-recipient who mainly use formal services report higher remittances. Imputed remittances over the 12 months before the survey are US\$ 1030 for households that mainly use formal services vs. US\$ 1288 for informal services and US\$ 1460 for personal transfers.

Our two remaining categories of transfer channels both relate to informal transfers that is the transmission of foreign exchange cash without official registration. In the case of informal services, a third party delivers the payment for a fee. Informal services are the primary transfer channel in one fifth of cases in our sample. Policies that seek to promote formal transfer services will presumably target primarily such informal services provided by third parties. Our third category is termed ‘personal delivery’ and accounts for the remaining third of cases in our sample. Either migrants themselves, or relatives, friends, close acquaintances etc. deliver cash to the recipient. Obviously, personal delivery only works for those migrants who travel home frequently or have access to a social network that spans their home region and destination country. At the same time, where personal delivery is feasible, it may be difficult to induce migrants and recipients to move to using formal services, given the low cost and convenience of personal delivery.

**Table 1.1: Socio-demographic characteristics of survey participants**

Descriptions	Formal remittances	Informal services	Personal transfers	Total
Total	560	970	270	1800
<b>Education level of migrant</b>				
No any formal education	155	203	98	456
Secondary	225	280	221	726
Higher-Secondary	185	130	37	352
Graduation	101	39	33	173
Post-graduation	84	8	1	93
<b>Socio-demographic characteristics</b>				
Male migrant	872	677	251	1626
Urban household	193	298	293	784
Average household expenditure	194	301	294	789
Migration prevalence	14.1	14.8	14.1	14.2
<b>Destination country</b>				
Middle East	245	274	137	656
Other Asian region	123	267	134	526
EU	67	188	87	342
USA-Canada	47	49	52	148
Australia and Pacific	23	31	29	83
Others				45
<b>Migration attributes</b>				
Former household member	33	98	52	183
Legal residence in destination	457	611	304	1372
Abroad for < 1 year	111	98	36	245
<b>Payment information</b>				
Household has bank account	967	470	235	1672
Remittances sent regularly	524	800	249	1573
Imputed remittances over previous 1 year (US\$)	1030	1288	1460	1288
<b>Primary motive in channel choice</b>				
Cost	21	61	43	125
Speed	164	304	101	569
Convenience	46	150	49	245
Security	177	293	97	567
Trust	97	148	49	294

Table 1.2 presents an overview of the general payment habits and remittance behaviour of the respondents who had made at least one remittance transfer during the 12 months prior to the survey. Almost 50% of respondents stated their preference for paying daily POS purchases in cash, assuming that all payment instruments would be accepted by the merchant. Preferences, however, vary greatly across the population groups. This is also reflected in the relatively high share of actual cash transactions recorded in the transaction diaries of the last two groups. With respect to the payment of fixed expenses, habits are fairly equal across the various groups, with two clear exceptions. Additionally, the general use of internet banking is relatively low among these two groups.

**Table 1.2: Key payment and remittance characteristics of remitters**

<b>Descriptions</b>	<b>Percentage</b>
<b>Payment habits</b>	
POS instrument	49
Cash	69
Pay fixed expenses electronically	43
Use internet banking often	24
<b>Average number of remittance channels used</b>	
Total remittance channels	1.49
<b>Remittance channel used from the destinations</b>	
Bank account	49
MTO	27
Cash other	67
<b>Remittance channel used in Bangladesh</b>	
Cash carry	73
Bank	36
<b>Amount remitted (per transaction) in USD\$</b>	
Less than 99	47
100-299	26
300-499	11
500-699	27
700 and above	13

Regarding remittance behaviour, Table 1.2 shows that on average, the respondents used 1.49 different channels for remitting money. Carrying cash oneself to the recipient's country is most frequently used. Likewise, a vast majority of respondents remit by withdrawing cash from a Bank when abroad. In third and fourth place are transfers made through a bank or an MTO; respondents also use other intermediaries more frequently to send cash. Overall, the descriptive statistics are in line with the findings of earlier studies on the remittance patterns of migrants living in different destinations. Moreover, the data hints at some parallels between remittance behaviour and general payment patterns: migrants that prefer cash and other paper-based instruments seem to prefer handing over cash instead of using a bank or an MTO. However, a more profound analysis is needed to formally assess the real drivers underlying the observed remittance behaviour.

To answer the paper's main question, we first ran several benchmark regressions that include the annual amount remitted, personal characteristics, the migrants' attachment to their home countries and country dummies. The results are presented in Table 1.3. Firstly, it becomes clear that the remittance amount is an important factor. The odds ratios are significantly smaller than 1 for informal channels, bringing money oneself or making a cash withdrawal abroad. This indicates that the probability of remitting through one of these channels significantly decreases as the amount of the transfer increases. This corresponds to earlier research which shows that bank transfers are used less often for small remittances because of relatively high fixed fees (Pieke et al. 2005). Secondly, personal characteristics are also influential as we find that education has a significant effect, especially when excluding all other insignificant variables from the model, such as gender, having children, age and generation. Overall, higher educated people are less inclined to send cash via informal intermediaries or to bring cash on visits. Instead, they are more likely to use a bank or an MTO transfer.

**Table 1.3: Regression on migrants' remittance channel choice**

Descriptions	Remittance channel				Remittance channel			
	MTO	Informal	Bank	Cash carry	MTO	Informal	Bank	Cash carry
Annual amount remitted	0.72 (0.08)	0.56 (0.06)	0.71 (0.06)	0.54 (0.06)	0.72 (0.08)	0.52 (0.06)	0.61 (0.06)	0.51 (0.05)
<b>Age</b>								
21-30	0.66 (0.63)	0.52 (0.51)	0.52 (0.32)	1.21 (1.11)				
31-40	1.20 (0.68)	1.15 (0.66)	1.51 (0.79)	1.12 (0.62)				
41-50	1.14 (0.79)	0.65 (0.35)	1.06 (0.54)	1.41 (0.70)				
51-60	1.70 (1.16)	1.03 (0.61)	2.12 (1.29)	1.29 (0.61)				
61 and above	1.10 (0.68)	1.15 (0.66)	1.51 (0.79)	1.12 (0.62)				
<b>Male</b>	0.71 (0.13)	0.53 (0.12)	0.87 (0.23)	0.76 (0.22)				
Spouse	1.05 (0.76)	1.39 (0.67)	0.80 (0.32)	0.73 (0.32)				
Children	0.76 (0.52)	1.08 (0.62)	0.52 (0.15)	1.15 (0.64)				
Second generation	0.82 (0.51)	1.24 (0.69)	0.69 (0.23)	1.13 (0.50)				
Resides in urban area	3.16 (1.04)	1.59 (1.13)	1.57 (0.62)	1.78 (0.61)	3.42 (1.22)	1.82 (1.16)	1.72 (0.65)	1.72 (0.61)
<b>Education</b>								
No any formal education	0.54 (0.23)	0.57 (0.22)	1.25 (0.64)	0.71 (0.41)	0.56 (0.20)	0.38 (0.39)	1.22 (0.71)	0.77 (0.29)
Secondary	0.55 (0.33)	0.61 (0.32)	1.15 (0.74)	0.61 (0.31)	0.57 (0.30)	0.48 (0.29)	1.11 (0.61)	0.67 (0.39)
Higher-Secondary	1.12 (0.65)	0.17 (0.16)	1.15 (0.74)	0.67 (0.31)	0.87 (0.62)	0.13 (0.12)	0.67 (0.26)	0.55 (0.16)
Graduation	0.77 (0.62)	0.13 (0.16)	0.89 (0.55)	0.56 (0.35)	0.79 (0.50)	0.16 (0.11)	0.67 (0.32)	0.61 (0.24)
Post-graduation	0.77 (0.37)	0.12 (0.10)	0.25 (0.15)	0.16 (0.11)	0.26 (0.22)	0.07 (0.06)	0.24 (0.12)	0.19 (0.12)
<b>Family ties</b>								
Not at all	4.14 (4.22)	1.13 (1.12)	1.63 (0.82)	2.79 (1.29)	2.12 (1.75)			
Some	1.23 (1.22)	0.87 (0.62)	0.17 (0.16)	0.71 (0.41)	0.57 (0.30)			
Strong	1.13 (1.12)	0.79 (0.50)	0.13 (0.16)	0.61 (0.31)	0.87 (0.62)			
Very strong	1.13 (1.12)	0.26 (0.22)	0.12 (0.10)	0.67 (0.31)	0.79 (0.50)			
Visiting more than once a year	3.44 (0.90)	1.59 (1.13)	1.57 (0.62)	1.78 (0.61)	1.11 (0.67)			
<b>Country heterogeneity</b>								
Middle East	4.14 (4.22)	1.13 (1.12)	1.63 (0.82)	2.79 (1.29)	2.12 (1.75)	1.83 (1.16)	1.23 (1.11)	2.79 (1.99)
Other Asian region	0.12 (0.42)	2.14 (1.12)	1.63 (0.62)	0.19 (0.20)	1.52 (0.65)	0.88 (0.26)	0.33 (0.11)	0.99 (0.19)
EU	1.12 (0.32)	1.13 (1.12)	0.62 (0.72)	1.22 (0.11)	0.32 (0.66)	0.99 (0.66)	0.43 (0.21)	0.77 (0.29)
USA-Canada	0.14 (0.62)	1.13 (1.12)	2.03 (0.12)	0.69 (0.29)	1.32 (0.66)	0.66 (0.26)	0.43 (0.31)	0.62 (0.88)
Australia and Pacific	1.14 (0.12)	1.13 (1.12)	0.63 (0.62)	3.44 (0.90)	1.11 (0.67)	0.73 (0.19)	0.44 (0.11)	0.71 (0.66)
Log-likelihood				-502.3				-542.7

---

In addition, the results indicate a strong effect of a person's living environment. In general, people living in urban areas are more likely to use MTO services or one of the other non-bank remittance options. This most probably reflects the fact that most MTO agents and informal intermediaries are located in the more urbanised regions. Conversely, the availability of bank branches is more equally spread over the country. We find no significant effect regarding home country ties. It seems that people visiting their country of origin regularly do not remit differently than those going home less often. Finally, having accounted for all the factors mentioned above, we find that country differences have a significant effect. *Ceteris paribus*, individuals from Morocco prefer to bring cash in person, to use an MTO or to withdraw cash abroad rather than use a bank transfer. In order to flesh out the role of these factors, detailed data would be needed on all the countries represented in our sample. Unfortunately, we have not been able to examine this issue in more detail due to data unavailability.

We extended the benchmark model by accounting for the migrants' general payment habits. We took as our basis the variables that were significant in the benchmark regression that is remittance amount, urbanisation degree, education and country dummies, and supplemented this with the migrants' general preferences for cash, and its usage, as well as with two dummies indicating whether they frequently use internet banking and whether they pay their fixed expenses electronically by means of online transfers or direct debits. The results are presented in Table 1.4.

**Table 1.4: The role of daily payment habits**

Descriptions	Remittance channel				Remittance channel			
	MTO	Informal	Bank	Cash carry	MTO	Informal	Bank	Cash carry
Annual amount remitted	0.79 (0.08)	0.71 (0.06)	0.71 (0.07)	0.52 (0.07)	0.79 (0.11)	0.71 (0.08)	0.76 (0.06)	0.72 (0.07)
Resides in urban area	3.46 (2.05)	1.82 (1.15)	1.62 (0.71)	1.89 (0.69)	3.33 (1.13)	1.26 (1.21)	1.65 (0.63)	1.78 (0.67)
<b>Education</b>								
No any formal education	0.81 (0.62)	0.62 (0.89)	0.89 (0.77)	0.76 (0.99)	0.67 (0.77)	0.78 (0.71)	0.94 (0.75)	0.76 (0.69)
Secondary	0.71 (0.31)	0.55 (0.22)	0.71 (0.39)	0.65 (0.31)	0.71 (0.38)	0.54 (0.24)	1.03 (0.63)	0.79 (0.52)
Higher-Secondary	1.02 (0.71)	0.18 (0.14)	0.55 (0.22)	0.51 (0.29)	1.01 (0.79)	0.19 (0.12)	0.59 (0.21)	0.79 (0.24)
Graduation	0.76 (0.51)	0.23 (0.12)	0.58 (0.24)	0.69 (0.35)	0.71 (0.35)	0.15 (0.11)	0.38 (0.23)	0.82 (0.77)
Post-graduation	0.28 (0.24)	0.11 (0.07)	0.12 (0.07)	0.15 (0.11)	0.37 (0.36)	0.07 (0.07)	0.19 (0.15)	0.16 (0.12)
<b>Country heterogeneity</b>								
Middle East	2.19 (1.82)	1.03 (1.12)	1.41 (1.13)	2.85 (1.13)	2.33 (1.04)	1.14 (1.22)	2.08 (1.51)	4.61 (2.30)
Other Asian region	1.66 (1.32)	1.54 (0.82)	1.41 (0.79)	0.78 (0.55)	1.27 (1.30)	1.48 (0.86)	1.04 (0.61)	0.82 (0.51)
EU	0.51 (0.26)	0.12 (0.11)	0.78 (0.29)	0.05 (0.02)	0.36 (0.24)	0.11 (0.10)	0.71 (0.31)	0.07 (0.03)
USA-Canada	0.12 (0.07)	0.33 (0.15)	0.99 (0.44)	0.18 (0.13)	0.13 (0.11)	0.66 (0.51)	1.03 (0.71)	0.51 (0.21)
Australia and Pacific	0.92 (0.78)	0.78 (0.62)	0.77 (0.33)	0.81 (0.62)	0.62 (0.89)	0.89 (0.77)	0.79 (0.11)	0.71 (0.08)
Others	0.81 (0.79)	0.89 (0.72)	0.71 (0.29)	0.71 (0.31)	0.55 (0.22)	0.71 (0.39)	3.33 (1.13)	1.26 (1.21)
<b>Payment behaviour</b>								
Cash is preferred	0.78 (0.39)	0.73 (0.24)	0.28 (0.16)	1.26 (0.52)	0.92 (0.78)	0.78 (0.62)	0.77 (0.33)	0.81 (0.62)
Internet banking	0.72 (0.24)	0.33 (0.18)	1.11 (0.31)	0.69 (0.19)	0.81 (0.79)	0.89 (0.72)	0.71 (0.29)	0.71 (0.31)
Fraction cash payments					0.51 (0.26)	0.12 (0.11)	0.78 (0.29)	0.05 (0.02)
Pay fixed expenses electronically					0.12 (0.07)	0.33 (0.15)	0.99 (0.44)	0.18 (0.13)
Log-likelihood				-525.5				-430.1

Firstly, our findings confirm the marked effect of the remittance amount, the migrants' education level and their living environment. In addition, the country dummies indicate a strong and significant role of unobserved country-specific characteristics. Turning to the payment variables, we find a few indications that remittance channel choices are somehow related to a person's general payment behaviour. People who have a strong preference for cash and pay a large share of their purchases in cash seem more likely to carry cash on visits or to use MTO services instead of bank transfers. However, the effects are not significantly different from zero. The results also show that people with a strong cash preference are less inclined to hand over cash after withdrawing. Instead, they would rather send it by bank transfer. Although this effect is significant at the 5%, it is not immediately clear what drives this behaviour.



.....

Turning to remote payment habits, the results are more intuitive. Those who frequently use internet banking seem more likely to use bank services for remittances as well. The results show that heavy internet banking users are significantly less likely to remit through informal channels. Similarly, but not significantly, the results suggest that they are less likely to carry cash themselves or to go to an MTO. By the same token, migrants who mainly pay fixed expenses electronically tend to bring cash on visits less often. Again, the results are not significant. To summarise, the results suggest some degree of correlation between migrants' remittance behaviour and their general payment habits. The effects, however, are rather weak and relatively small compared to the other factors, such as the remittance amount, personal characteristics and country dummies.

Since the literature highlights the important role of channel-specific factors, such as speed, cost and safety, we finally assessed the importance of the migrant's self-reported reasons for choosing a specific payment channel. This question was only asked for remittances sent from different destinations, which restricts our analysis to the following remittance channels: services offered by banks, services offered by MTOs, and in-cash transfers via informal intermediaries. The results are presented in Table 1.5.

**Table 1.5: The role of self-reported reasons in remittance channel choices**

Descriptions	Remittance channel	
	MTO	Informal
Annual amount remitted	0.65 (0.11)	0.51 (0.08)
Resides in urban area	6.55 (4.51)	1.47 (0.85)
<b>Education</b>		
No any formal education	0.79 (0.67)	0.87 (0.66)
Secondary	0.22 (0.22)	0.12 (0.10)
Higher-Secondary	0.51 (0.34)	0.01 (0.01)
Graduation	0.15 (0.13)	0.01 (0.01)
Post-graduation	0.88 (0.67)	0.79 (0.61)
<b>Country heterogeneity</b>		
Middle East	1.27 (1.44)	2.17 (1.32)
Other Asian region	3.45 (2.51)	6.22 (5.13)
EU	0.55 (0.50)	0.28 (0.32)
USA-Canada	0.12 (0.15)	1.81 (1.56)
Australia and Pacific	0.87 (0.61)	0.77 (0.66)
<b>Payment behaviour</b>		
Cash is preferred	0.72 (0.51)	0.70 (0.38)
Internet banking	1.26 (1.18)	0.23 (0.32)
Fraction cash payments	1.17 (0.74)	0.56 (0.31)
Pay fixed expenses electronically	1.46 (0.81)	1.40 (0.87)
<b>Reason for choosing a payment channel</b>		
Low costs	0.25 (0.33)	12.21 (16.61)
Speedy	0.34 (0.14)	0.17 (0.12)
Only possibility	0.50 (0.39)	0.07 (0.07)
Safety	1.11 (0.72)	1.12 (1.50)
Know exactly the costs	0.15 (0.11)	0.05 (0.08)
Ease of sender	0.17 (0.10)	0.11 (0.12)
Favourable exchange rate	1.71 (1.05)	1.16 (1.34)
Receiver has no bank account	13.51 (18.22)	13.28 (16.82)
Ease of receiver	0.87 (0.71)	0.72 (0.39)
Log-likelihood		-113.3

.....

On the whole, our findings confirm the importance of remittance size, education, living area and country heterogeneity. We do not find a strong correlation with regular payment habits. However, we do find a strong and significant effect of remittance channel attributes. At this stage, we would like to remind the reader that an odds ratio larger than 1 implies the variable has a positive effect on the likelihood of a migrant preferring a particular channel over a bank transfer, while a ratio below 1 indicates the variable has a discouraging effect on the use of the particular option. Firstly, the significant and high odds ratio for 'low costs' clearly shows that it is mainly costs that drive migrants towards informal cash transfers instead of bank transfers. In addition, informal channels are often used when the recipient has no bank account. This also holds for MTO transfers. On the other hand, migrants would rather use a bank transfer instead of a service offered by an MTO or informal services for reasons of convenience and speed. In addition, transparency of costs is a significant reason for migrants using a bank transfer instead of informal intermediaries. Finally, the low odds ratio for 'only possibility' suggests that informal channels are as opposed to bank transfers seldom used because they are the only option available.

Our multinomial regression model explains the choice of transfer channel through the independent variables described in above. Our first specification (i) uses all explanatory variables introduced in above except the primary motive for choosing the transfer channel; our second specification (ii) adds the dummy variables that describe the primary motive in Table 1.6. We report relative risk ratios along with the significance levels of the associated coefficients. We consider the impact of the 'primary motive' variables separately to account for a possible ambiguity in the phrasing of the corresponding survey question. We take the response to indicate the primary motive that has guided the decision on the transfer channel. However, from the phrasing of the question we cannot exclude the possibility that some respondents in fact indicated what they saw as the main advantage of the chosen channel.

A comparison of specifications (i) and (ii) shows that adding the primary motive variables adds considerably to the explanatory power of the model, with the Pseudo  $R^2$  going from 0.152 to 0.216. Relative risk ratios for informal services and the 'primary motive' dummies such as speed, convenience, etc. are all significantly below 1. To interpret these relative risk ratios, recall that the default for the 'primary motive' dummy variables is cost. For instance, a unit increase in the 'speed' dummy variable implies that speed, rather than cost, is now the primary motive. Given the relative risk ratio of 0.005, the likelihood that informal services are chosen, relative to the likelihood that formal services are chosen, is now only 0.5 percent of its former level when cost was the primary motive.

**Table 1.6: Multinomial logit regression results**

Descriptions	Formal services	
	(i)	(ii)
Informal services		
Education level of migrant		
No any formal education	0.89	0.77
Secondary	0.33	0.23
Higher-Secondary	0.32	0.22
Graduation	0.35	0.17
Post-graduation	0.98	0.87
Socio-demographic characteristics		
Male migrant	0.49	0.33
Urban household	0.82	0.81
Average household expenditure	0.88	0.85
Migration prevalence	1.26	1.17
Destination country		
Middle East	1.76	1.75
Other Asian region	1.10	0.82
EU	1.98	1.76
USA-Canada	1.25	1.34
Australia and Pacific	1.22	1.03
Others	1.44	1.67
Migration attributes		
Former household member	1.08	1.28
Legal residence in destination	0.16	0.21
Abroad for < 1 year	0.73	0.51
Payment information		
Household has bank account	0.27	0.27
Remittances sent regularly	1.18	1.31
Imputed remittances over previous 1 year (US\$)	1.00	1.00
Primary motive in channel choice		
Cost		0.005
Speed		0.10
Convenience		0.02
Security		0.19
Trust		0.21
Pseudo R <sup>2</sup>	0.152	0.216

Less formally speaking, in choosing between informal services and formal services, migrants and their families are more likely to opt for informal services if they are primarily concerned about cost, rather than speed, convenience, security or trust/ familiarity. Similarly, in choosing between personal transfers and formal services, they are more likely to opt for personal transfers if they are primarily concerned about cost, rather than speed, convenience or security below 0.2. If they are primarily concerned about trust/ familiarity rather than cost, this does not affect the relative probabilities of choosing personal transfers vs. formal services. Overall then, of the possible primary motives for choosing the transfer channel, only concern about the cost of transfers will draw migrants and their families away from formal services towards either informal services or personal transfers. A preference for speed, convenience, and security will all draw migrants and their families towards using formal services. If they are primarily concerned about trust/ familiarity, this will draw them away from informal towards formal services, but will not affect their decision as between personal transfers and formal services.

.....

A comparison of Specifications (i) and (ii) shows that the relative risk ratios for the remaining explanatory variables are fairly robust to the inclusion of the ‘primary motive’ variables. Although some magnitudes and significance levels change, the broad picture does not. Turning to the role of education first, if the migrant has at least completed secondary school, informal services and personal transfers are less likely to be used. Apparently the least educated migrants are reluctant to use formal financial institutions, which appears plausible. At the same time, this effect is limited to migrants who have not completed secondary school; among those who have at least completed secondary school, there is no effect of a higher education level on transfer channel choice. Regarding other socioeconomic characteristics of the migrant and the household, only a few relative risk ratios reflect statistically significant coefficients. In particular, male migrants are only half as likely as female migrants to use informal services relative to formal services, with no such effect for personal transfers relative to formal services.

It is difficult to see how gender as such could have such a large impact on transfer channel choice. As gender is correlated with other explanatory variables, particularly the pattern of migration, there may be collinearity among explanatory variables which causes the seeming gender effect. Specifically, informal services are widely used in the EU where the share among Bangladeshi migrants is higher. In part, this probably reflects the illegal residence status of many Bangladeshi migrants in the EU. Furthermore, the cost of formal transfer services tends to be higher in the EU than in the other region where competition among money transfer operators serving Bangladeshi migrants has intensified in recent years and fees have been cut.

Those who are abroad for less than one year, are less likely than those who are abroad for longer periods to use informal services, relative to formal services. At the same time, they are more likely to use personal transfers, relative to formal services, presumably because many will be able to carry remittances back home themselves. Thus the explanatory variables that are related to the migration pattern show plausible and expected effects that coincide in large measure with the gender-based travel and work patterns. This may explain the large gender effect on the use of informal vs. formal services. Among the finance-related explanatory variables, households with a bank account are much less likely to use informal relative to formal channels. This variable raises a possible simultaneity problem because households may open a bank account precisely to use formal transfer services. However, we have not been able to find good instrumental variables that would enable us to deal with this issue formally. Those who send money regularly are two thirds less likely to use personal transfers.

---

## 5.1. CONCLUSION

This paper examines existing literature by empirically examining the determinants of migrants' choice of remittance channel and, in particular, by creating a link to their regular daily payment behaviour. In general, after correcting for remittance amounts, personal characteristics and country heterogeneity, we find a few indications that suggest the choice of remittance channel is somehow related to a person's general payment behaviour. In particular, the results show that heavy internet banking users are significantly less likely to remit through informal channels. The effects of general payment habits, however, are relatively weak and economically small. Instead, we find the role of the remittance amount, personal characteristics and costs, convenience and availability of remittance options to be stronger and more significant. First, we show that higher educated migrants are less likely to use informal transfers or to bring cash themselves to the recipient. Second, we find that bank transfers are generally preferred for larger amounts due to the level of remittance fees, whereas other channels are preferred for small remittances. In fact, we demonstrate that the use of informal channels is strongly driven by cost considerations. Finally, our results suggest that the availability of appropriate remittance options is important. People living in urbanised areas are more likely to go to an MTO or use informal channels than people living in rural environments, where bank services are often used simply because no other options are available. Additionally, informal channels are often used because the recipient does not have a bank account.

Informal remittance channels may have a significant advantage in terms of cost, but they are potentially more risky because they often rely on informal contracts and they do not guarantee the arrival of the cash. Moreover, informal remittances may have a weaker potential for promoting economic development in the recipient countries. Therefore, and not least because of their potential for criminal misuse, it would be worthwhile to attract remittances from the informal to the formal sector. Higher educated people are generally less inclined to send cash via informal intermediaries or take cash on visits. These results may indicate a higher awareness of the potential risks of informal channels and may suggest a potential role for financial education. For example, the use of informal channels could be discouraged by informing the public more effectively of the potential risks involved. The conclusion that the use of informal channels is strongly driven by cost considerations suggests that demand for formal services would be encouraged by reducing fees, especially those for small transactions. Finally, the important role of the availability of appropriate remittance options raises several interesting points. It suggests that the demand for formal services would increase if formal need for having a bank account.

---

## REFERENCES

- Acosta, P.A., Lartey, E. K., & Mandelman, F.S. (2009). Remittances and the Dutch disease. *Journal of International Economics*, 79(1), 102–116.
- Adams, R. H., & Cuecuecha, A. (2009). Remittances, Household Expenditure and Investment in Guatemala. *World Development*, 38(11), 1626–1641.
- Amuedo-Dorantes, C., & Pozo, S. (2005). On the use of differing money transmission methods by Mexican immigrants. *International Migration Review*, 39(3), 554-576.
- Barendse, J., Hiddink, C., Janszen, A., & Stavast, A. (2006). The remittance corridor of the Netherlands – Morocco, review of obstacles and recommendations on how to increase use of the bank channel, *Bilateral Remittance Corridor Analysis*. Rotterdam.
- Bazenguissa-Ganga, R. (2005). Democratic Republic of Congo (Congo-DRC) and Republic of Congo (Congo) Country Study: A part of the report on Informal Remittance Systems in Africa, Caribbean and Pacific (ACP) C. o. M. P. a. S. (COMPAS), University of Oxford
- Buencamino, L., & Gorbunov, S. (2002). Informal Money Transfer Systems: Opportunities and Challenges for Development Finance. Discussion paper of the United Nations Department of Economic and Social Affairs 26.
- Carling, J. (2008). The determinants of migrant remittances. *Oxford Review of Economic Policy*, 24, 581–598.
- Chami, R., Barajas, A., Cosimano, T., Fullenkamp, C., Gapen, M., & Montiel, P. (2008). Macroeconomic Consequences of Remittances. *International Monetary Fund Occasional Paper* 259.
- De Haas, H., & Plug, R. (2006). Cherishing the goose with the golden eggs: trends in migrant remittances from Europe to Morocco 1970-2004. *International Migration Review*, 40(3), 603-634.
- De Luna Martínez, J., Endo, I., & Barberis, C. (2006). The Germany-Serbia remittance corridor, challenges of establishing a formal money transfer system. *World Bank Working Paper* 80, The World Bank.
- Elbadawi, I. A., & Rocha, R. (1992). Determinants of expatriate workers' remittances in North Africa and Europe. Working Paper WPS 1038, Country Economics Department, The World Bank.
- El-Qorchi, M., Maimbo, S. M., & Wilson, J. F. (2003). Informal Funds Transfer Systems: An Analysis of the Informal Hawala System. T. I. M. F. a. T. W. Bank. Washington, D.C.
- Freund, C., & Spatafora, N. (2008). Remittances, transaction costs, and informality. *Journal of Development Economics*, 86, 356-366.
- Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics* 90(1), 144–152.
- Hernández-Coss, R. (2005). The U.S.-Mexico Remittance Corridor: Lessons on Shifting from Informal to Formal Transfer Systems. *World Bank Working Paper* 47.
- Hernández-Coss, R. (2005a). The Canada-Vietnam Remittance Corridor: Lessons on Shifting from Informal to Formal Transfer Systems. *World Bank Working Paper* 48.

- .....
- Higazi, A. (2005). Ghana Country Study: A part of the report on Informal Remittance Systems in Africa, Caribbean and Pacific (ACP) C. o. M. P. a. S. (COMPAS), University of Oxford.
- Holst, E., Schäfer, E., & Schrooten, M. (2008). Gender, migration, remittances: evidence from Germany. DIW Discussion Paper 800, DIW Berlin.
- Kapur, D. (2004). Remittances: the new development mantra? G-24 Discussion Paper Series 29, United Nations.
- Karafolas, S., & Sariannidis, N. (2009). The banking network as a transmission channel of migrant remittances: the case of Greek and Italian banks in Albania. *Transition Studies Review*, 15(4), 674-684.
- Mannan, K. A., & Wei, G. K. (2008). Why Remit? The Case of Bangladesh. *Asian Migration and Diaspora Studies*, 14(2), 55-75.
- Mannan, K. A., & Wei, G. K. (2007). Who Remits? The Case of Bangladesh. *Asian Migration and Diaspora Studies*, 13(2), 43-60.
- Mannan, K. A., & Wei, G. K. (2006). International Remittances, Household Spending, and Investment: A Case Study Of Bangladesh. *Asian Migration and Diaspora Studies*, 12(2), 36-54.
- Mannan, K. A., & Kozlov, V. V. (2005). The Impact of Remittances on Labour Force in Bangladesh: An Empirical Analysis of Labour Participation and Employment. *Russian Management Journal*, 16(2), 51-74.
- Mannan, K. A., & Krueger, A. O. (2004). The Impact of Remittances on Household: An Empirical Study on the Bangladeshi Diaspora in United Kingdom. *Russian Journal of Economic and Social Science*, 12(2), 48-74.
- Mannan, K. A., & Kozlov, V. V. (2003). Bangladeshi Migrants in Italy: An Analysis of Survival Strategies and Job Segmentations. *Russian Management Journal*, 14(2), 37-57.
- Mannan, K. A., & Krueger, A. O. (2002). Why do Italy? A Comparative Analysis of Bangladeshi Migrants into Five European Countries. *Russian Journal of Economic and Social Science*, 10(2), 30-48.
- McFadden, D. L. (1974). Conditional logit analysis of qualitative choice behavior. In: P. Zarembka (Ed.), *Frontiers in Econometrics*, 105-142, New York: Academic Press.
- Meyers, D.W. (2002). Migrant remittances to Latin America: reviewing the literature. In: R.O. De la Garza and B.L. Lowell (Eds.), *Sending Money Home*, 53-81, Oxford: Rowman & Littlefield Publishers Inc.
- Luecke, M., Mahmoud, T. O., & Pinger, P. (2007). Patterns and Trends of Migration and Remittances in Moldova. Chisinau, International Organization for Migration.
- OECD (2007). *Policy Coherence for Development*. Paris.
- Orozco, M. (2002). Worker remittances: the human face of globalization. Working Paper commissioned by the Multilateral Investment Fund of the Inter-American Development Bank.
- Orozco, M. (2003). Worker remittances: an international comparison. Working Paper commissioned by the Inter-American Development Bank.



- .....
- Pieke F. N., Hear, V. N., & Lindley. A. (2005). Informal remittance systems in Africa, Caribbean and Pacific (APC) countries. Synthesis Study, ESRC Centre on Migration, Policy and Society, Oxford.
- Puri, S., & Ritzema, T. (1999). Migrant worker remittances, micro-finance and the informal economy: prospects and issues. Social Finance Working Paper 21, International Labour Office.
- Rapoport, H., & Docquier, F. (2006). The Economics of migrants' remittances. In: S. Kolm and J.M. Ythier (Eds.), Handbook on the economics of giving, altruism and reciprocity, 1, Amsterdam: Elsevier.
- Russell, S. S. (1986). Remittances from international migration: a review in perspective. World Development, 14(6), 677-696.
- Sander, C. (2004). Capturing a market share? Migrant remittance transfers & commercialisation of microfinance in Africa. Small Enterprise Development, 15(1), 20-34.
- Spatafora, N. (2005). Two Current Issues Facing Developing Countries. Chapter II in: World Economic Outlook, April. Washington, D.C., IMF.
- Wahba, S. (1991). What determines workers' remittances? Finance and Development, 28(4), 41-44.