THE EFFECT OF REMITTANCES ON SOCIO-ECONOMIC CONDITION AND DECISION MAKING PROCESS OF RURAL FAMILIES

(A Case Study of Peshawar)

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Abstract

The objective of the study is to analyze the effect of remittances on socio-economic conditions of rural families in Peshawar, and how remittances change the decision-making process of families. This study examines the effects of remittances on local population in three towns of Peshawar, i.e. Hayatabad, Faqir-Abad and Gulberg-area. The study is basically conducted to see how remittances bring changes in the life of the recipients. The research is quantitative, data was collected through questionnaires. For the research, a sample of 300 respondents was selected from three towns in Peshawar District. The results of the research were interpreted through statistical tools, regression model. The Ordinary least square method (OLS) was used to find out the effect of remittances on health sector and investment made by respondents in the form of purchased property and investment made in establishing their own businesses. Along with that, the simple Logit Model was also used. The result is generalized on linear model with link logit and binomial response. Findings stated that the literacy level of the emigrant’s household positively impacted on children’s probability to move to private education. The results reveals that the recipient invest 4% of their income on investment as a form of business and purchasing property while educated people appears not to be interested in investing money in businesses as they want to continue their jobs. Respondent are not using a large portion of their remittances for health perhaps mostly people are entitled to free services from the government. Remittances changed their standard of living and socio economic affairs of the remittances receiving respondents. According to my demographic information about respondents life, the remittances mostly brings changes in the physical part of people life such as Private Education, Personal transport, new houses, investment in buying properties, more electric appliances, bank balance etc., but culturally people are still conservative and believe in cultural values that have been practices by local population for centuries.

Following are some main recommendations that this research has identified,

• Foreign remittances are improving the socio-economic conditions and decision making of rural families, however, their consumption behavior is not inclined towards investment, they rather prefer to enjoy luxurious household’s equipment. Therefore, it is recommended that these families should utilize their resources in more efficient way, and should go for short and long term investment avenues.

• Government must design policies in order to educate these families and create awareness among them that will enable them to look for sustainable domestic income, which would help the families in the long run.

• These families follow the norms and traditions, and they prefer sending their children abroad for earning purposes, which in turn is comparatively less profitable idea as compared to sending these children for higher education purpose.
Acknowledgements

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Obaidullah
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1 Introduction

It is becoming generally common for people to emigrate in order to find work. To help and support their families at home, these emigrants send a part of their salary back. "Moreover, referring to the background of the topic, it is comprehended that human migration, when on a large scale, brings about a number of socio-economic changes both in the population losing and receiving areas. A study of these changes can prove helpful in analysis and understanding of the process of social and economic transformation and furnish guideline as well as for policies in the relevant fields. International migration of workers from Pakistan, especially to the oil rich but labour scarce Middle Eastern countries in recent years, has had a profound socio-economic impact on the people as well as the country. Tracing back the history of labour emigration, it is clear that this phenomenon started immediately after independence in 1947. The flow to foreign countries continued at a steady pace until the 1970’s when it suddenly gained momentum due to the construction boom that started in Middle Eastern countries in the wake of the phenomenal rise in the price of oil.

Thousands of miles of roads hundreds of schools, hospitals, hotels, civic amnesty centres and score of factories and mills began to be constructed. This gigantic amount of construction activity was made possible only due to the efforts of the foreign labour force. Pakistan became one of the leading manpower exporters to the Middle East market due to several reasons, some of which are, the contiguity of the Gulf States to Pakistan and hence their easy accessibility both by sea and overland through Iran, the existence of cordial and brotherly relations between Pakistan and the Gulf States; the availability of a surplus labour force in the home market, and lastly but by no means the least, the fact that the construction market of the oil rich Middle East offered staggeringly high wages to the skilled and unskilled labour force of Pakistan in comparison to what they managed to earn from the home market.

According to the world bank report(2012) which estimated that Pakistan comes among the top 10 recipients countries in the world followed by India with $70billion, then china comes with ($66 billion), Mexico ($24 billion), Philippines ($24 billion), Nigeria ($21 billion), and Egypt is placed at number Six receiving $18billion followed by Pakistan with having $14 billion.

No census has ever been conducted of the Pakistanis living in the Middle East. However, various estimates on the subject suggest that their number would be between 1.5 – 2.0 million in periods of peak emigration (Government of Pakistan, 2004). Although return flow has started on a noticeable scale, yet the present number of Pakistanis there must be well over one million which is by all standards a large number. Information on the exact number of people of Khyber Pukhtunkhuwa (KPK) origin working in the Middle East is not available. But it is believed to be in high thousands. In (KPK) the rate of unemployment and under employment is high in areas where agriculture is based on rainfall, which is scanty and uncertain. The people of these areas therefore remain relatively poor. Thus, young people from these regions have had a strong motivation to move out in search of jobs both within the country and abroad to improve their living standards. After the 1970’s the ability of the Middle Eastern Market to absorb labour at a very high rate encouraged emigration from the country in general and from the rural areas in particular. Over a million Pakistani workers ranging from unskilled labourers to highly qualified professional are presently working in the gulf countries. Pakistani labour is earning high wages in these countries. Therefore, there is a high outflow of Pakistani workers to the Middle East countries.

Various researches suggest that families who receive remittances have changed decision making capacity as compared to the families who do not receive remittance. The remittances from
abroad have strengthened the desire of the these people to improve their nutritional level, purchase new clothes, focus on education, acquire a piece of land, and construct a house and generally improve their economic and social status. Remittances improve the socio-economic status of families due to increase in the purchasing power. The research is focused on two hypotheses, which will be tested through linear regression model.

The justification to conduct the study is based on the uniqueness of the topic. As it will analyze the effect of remittances on socio-economic conditions of these families in Peshawar, and how remittances change the decision-making capacity of families. There is a need to study the positive impact of remittances on these families in perspective of Pakistan. Less work is done with respect to the country Pakistan. Hence, it provides an opportunity to conduct the research. It will add value to the society by analyzing the effect of remittances, how it has changed the decision making capacity and provide valuable information/statistics to the society, Government and the institutions concerning Peshawar.

According to a research, “Globally, these remittances are predominantly used for household consumption, rather than investment and saving (Steimann, 2005). Typically, this consumption is to satisfy the basic subsistence needs of the household, such as food, clothing, medicines, education and housing.

Research in Pakistan shows that remittances are predominantly used to meet daily expenses such as food, clothing and health care; however, funds are also spent on building or improving housing, buying land, cattle or durable consumer goods, the repayment of loans for migration and to fund pilgrimages to Mecca”. People who are young spent more money, as compared to aged people, who save for retirement age. Large families have more spending, as compared to small families. There exists a difference between the consumption patterns, depending on the family size (Steimann, 2005).

1.1 Objectives of the study
The purpose of the study is to analyse the effect of remittances on socio-economic conditions of urban families in Peshawar, and how remittances change the decision-making process of families. This study examines the effects of remittances on local population in three towns of Peshawar that are Hayatabad, Faqir Abad and Gulberg area. The study is about the effect of the money which is received by the respondent and the effect of that money on the situation back home, what choices do the families make when they get that money and their effect on their daily life. For most of the respondents remittances are only source for survival and enhance their living standard but for some recipients, remittances are the primary source of income. The major objectives of the study can therefore be concluded to two questions:

1. What is the effect of remittances on socio-economic conditions of urban families in Peshawar?
2. How remittances change the decision-making process of families in Peshawar?

The hypotheses made for this study are:

1. There is a significant positive effect of remittance on living standard of urban families.
2. There is a significant positive effect of remittances on decision making process (education and investment).
1.2 Structure of the thesis

The literature review (Chapter 2) entails very clear and critical review of the literature that is applicable and quite close to the related subject, in addition, it also offers the discussion, explanation and crucial thinking for providing the involvement in the similar area. Then the theoretical framework is described (Chapter 3), research framework with full justification and theoretical foundation. In addition, this chapter proposes research model with the help of a diagram to comprehend the foundation of the study to its readers. After that the findings and results will be presented (Chapter 4). Then the results and findings will be analysed and discussed (Chapter 5). Lastly some conclusions and recommendations will be made (Chapter 6).

2 Related research

2.1 Definition of remittances

Different writers and researchers propose different definitions for the word remittances. Russel defines remittances “the portion of remittances workers” salary earned from the country is sent to the origin country. Russel’s definition is too narrow because it covers only the remittances of money. Some studies broaden this definition of remittances and include goods and money directed by migrants to their origin state or country. For example, Adams considers remittances “as money and goods that are transmitted to households back home by people working away from their origin communities”. Adams’ definition is also not broad enough to cover remittances in terms of ideas, skills, knowledge, values, and culture transmitted, along with the money and goods by the migrants. So, “remittances” are defined as the transmission of money, goods, ideas, skills, knowledge, and cultural values by migrants from place to destination to place of origin. This study analyses only money remittances remitted by Pakistani workers in the Middle East to a community in Pakistan.

According to the Tribune Express (2012) “Remittances grow 14% in first five months of fiscal 2013 in Pakistan. Different developed countries are shown from where the overseas Pakistani remitted money an amount of $5.982 billion in the first five months of the current fiscal year 2012-13, as it is growing more so it is clearly showing a growth of 14.16% or $742.05 million when compared with $5.240 billion influx during the corresponding period of the previous fiscal year. According to the data released by the State Bank of Pakistan, the inflow of remittances from Saudi Arabia, the United Arab Emirates, US, UK, Gulf Cooperation Council countries (including Bahrain, Kuwait, Qatar and Oman), and EU countries amounted to $1.610 billion, $1.241 billion, $0.994 billion, $0.846 billion, $0.677 billion and $0.161 billion respectively. From rest of the world Pakistani remitted money an amount of $1.132 Billion. In the corresponding period of last year, inflows from these countries were $1.364 billion, $1.167 billion, $0.975 billion, $0.594 billion, $0.6 billion and $0.16 billion respectively. Remittances received from Japan, Switzerland, Australia, Norway and Canada other countries during the first five months of current fiscal year amounted to $0.455 billion compared to $0.379 billion in the first five months of the previous year”.

The major part of the immigration in 2010 was done to developed countries of the world (Table 1). A very high number of people migrated to United States which 42.8 million in the year 2010. It goes like that and highly immigration is made to other developed countries of the world like oil rich country Saudi Arab up to 7.3 million. The above list also shows the highly remittances receiving countries of the world. India exceed with $4.131 million $. Most of the Asian countries are high in remittances receiving countries like China, Pakistan is at number 7 in 2010 with receiving remittances amount of $9,683 million, then Bangladesh and India as well.
Table 1. List of top immigration countries and remittances receiving countries in 2010

<table>
<thead>
<tr>
<th>Immigration Countries</th>
<th>Number of immigrants in million</th>
<th>Remittances receiving countries</th>
<th>Remittances in US$ in millions 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 United States</td>
<td>42.8</td>
<td>India</td>
<td>53,131</td>
</tr>
<tr>
<td>2 Russian Federation</td>
<td>12.3</td>
<td>China</td>
<td>51,300</td>
</tr>
<tr>
<td>3 Germany</td>
<td>10.8</td>
<td>Mexico</td>
<td>21,997</td>
</tr>
<tr>
<td>4 Saudi Arabia</td>
<td>7.3</td>
<td>Philippines</td>
<td>21,373</td>
</tr>
<tr>
<td>5 Canada</td>
<td>7.2</td>
<td>Bangladesh</td>
<td>10,804</td>
</tr>
<tr>
<td>6 United Kingdom</td>
<td>7.0</td>
<td>Nigeria</td>
<td>10,045</td>
</tr>
<tr>
<td>7 Spain</td>
<td>6.9</td>
<td>Pakistan</td>
<td>9,683</td>
</tr>
<tr>
<td>8 France</td>
<td>6.7</td>
<td>Lebanon</td>
<td>8,409</td>
</tr>
<tr>
<td>9 Australia</td>
<td>5.5</td>
<td>Vietnam</td>
<td>8,000</td>
</tr>
<tr>
<td>10 India</td>
<td>5.4</td>
<td>Egypt, Arab Rep</td>
<td>7,725</td>
</tr>
<tr>
<td>11 Ukraine</td>
<td>5.3</td>
<td>Indonesia</td>
<td>7,250</td>
</tr>
<tr>
<td>12 Italy</td>
<td>4.5</td>
<td>Morocco</td>
<td>6,452</td>
</tr>
<tr>
<td>13 Pakistan</td>
<td>4.2</td>
<td>Ukraine</td>
<td>5,595</td>
</tr>
<tr>
<td>14 United Arab Emirate</td>
<td>3.3</td>
<td>Russian Federation</td>
<td>5,477</td>
</tr>
<tr>
<td>15 Kazakhstan</td>
<td>3.1</td>
<td>Serbia</td>
<td>4,896</td>
</tr>
</tbody>
</table>

2.2 Effects of remittances on rural and urban families

Jansen (1995) reported that after some general remarks on the role of agriculture in the post-war development of rural areas in Europe and in the European Union in particular, an account is given to developments in two peripheral rural areas in Northern Portugal and in Sicily with different problems and perspective. In Portugal many of the one in nine people, who emigrate abroad invest remittances in land and houses and intend to return home and develop farms. In Sicily a larger proportion of emigrants do not intend to return home and those remaining depend on subsidies and handouts and make no attempt to develop their local resources. The future for both types of area in the light of current EU policies for diversification and sustainable rural development and the lessons that can be drawn for such areas in Europe generally are discussed.

Soto & Brown (2012) studied how to assess the impacts of emigrants on remittances using Propensity Score Matching, a case study of Tonga. They have estimated that the effect of remittances on poverty officially in the kingdom of Tonga which is a sovereign states and an archipelago comprising of 176 islands scattered over 7000,000 square kilometres of the southern Pacific Ocean. In this case the people of Tonga are mostly dependent on migrant’s remittances. They have conducted a household survey data, to find out the rate of poverty without using and having remittances. They basically want to see the effect of the domestic income and neglect the remittances in Propensity Score Matching. They compared the result of the Propensity Score Matching with poverty rates and remittances to measure their impact over poverty. The Propensity Score Matching has an important finding which is related to the reduction in the incidence of poverty by 31% in this case and poverty reduced by 49%.
Robson (1994) studied that the paper described the economic and social institution of community development in Cape Verde. The Islands now import about 70% of their food, and the response of Cape Verdeans to famine and lack of work has been to leave rural areas for urban ones; and to emigrate overseas. The result of this is that remittances form an important source of income for Cape Verde. Ponta d’Auga is one of a number of spontaneous settlements that has developed around the capital, Praia, with the influx of rural migrants. The Ponta d’Auga initiative has a number of aims, and is described in some detail. The first was to help and develop the organizations created by the people living in the neighbourhood, so that they can plan and take responsibility for the future development area. The other is to enhance the neighbourhood, offering better school opportunities, social and health facilities and water supply. The third objective is to head economic initiatives in Ponta d’Auga, offering support and loans to the ones who effort to earn job for themselves of Ponta d’Auga considers the needs of women by minimizing the costs and physical burdens for their household chores, augmenting the opportunities of earning an income, and including them on planning. The actual projects that are described include the sports and cultural centre, the primary school, credit scheme, and a sausage making enterprise. The project has encouraged people to work together and seek for lobby for development beyond the genuine ambit of the project.

Cynthia Buckley & Erin Tourth Hofmann (2012) both have analyzed the importance of many remittances-receiving countries. Using three cross-sectional national surveys which were conducted in (1999, 2003, and 2007). They have made a comparison of those household who receive remittances and those who not receiving remittances in Tajikistan, where mostly people are dependent on Remittances. They have emphasized on the household perception and explored a financial security, and rising remittances reliance, they are of the view that the household who received remittances are not all the more financially stable or you can say wealthier by the formative settings inside getting nations. Nishat and Bilgrami (1993) in the study entitled “The determinants of workers’ remittances in Pakistan” attempted to find the factors which cause one to migrate and in effect remittances occurred. They argued that behaviour of Pakistani migrant towards remitting was related to other socio-economic variables such as age, career, status, skill, and education, intention towards his future plan, his accumulation of property, his stay abroad and his background in Pakistan.

Macpherson (1992) studied that paper examines remittance lows between New Zealand and Western Samoa. First, the specific factors are addressed that many influence migrant farmer’s ability to sustain. Historically high remittance flows. Secondly, the factors are considered that may dispose Western Samoan migrants in New Zealand to continue to remit. Economic circumstances have a marked impact on both present and future demands for migrant labour, on migrant’s incomes, and on their capacity to remit. In view of changing economic policies of the New Zealand government in the mid-1980s, consideration is given to how Samoans were affected, and what effects this might have had on their discretionary income levels and indirectly on their capacity to remit. A brief case study is given of the political economy of a particular Samoan family, which could, with modifications, be used to model the reifications for new migrants to join the work force and significant reductions of income for those who remain in it. Remittances income has, for several decades, made a significant contribution to the reduction of trade deficits in Western Samoa. It has also provided significant parts of the costs of community facilities, individual assets such as homes and vehicles, everyday items such as clothes and food. If remittances are no longer available to meet these costs, the people may look increasingly to the government to meet them.
Georges (1991) reported the reasons and results of US-bound movement of Los Pinos, a town in the northern Dominican Republic. It gives new data on the relocation handle as a rule, the dissemination of its expenses and profits generally, and the suggestions for the advancement of rustic Dominican groups subject to US-bound movement. The specific nature of Los Pinos' relocation to the USA has yielded blurred results. Most transients abandon gainful assets that could be utilized by others, or alluring occupations non-vagrants can fill. Their generous remittances and repatriated funds have made some new livelihood open doors in the administration and business divisions of the neighbourhood economy. While the greater part of these business opportunities are not satisfy time, they regardless speak to imperative pay supplements for family units.

Together, these components have brought about expanded fairness in salary appropriation. One the hand, vagrants’ interests in area and steers have exacerbated existing disparities in area dispersion. Huge landholders have reacted to state and business motivating forces to raise steers. Therefore, the prevalent area utilization design has moved from subsistence and business farming to pasture for dairy cattle climbing. Solid interest for area has brought about forcefully expanded area qualities, making it unthinkable for poorer family units to grow sub-subsistence possessions.

Humayun khan and Muhammad Israr (2011) contemplated that the effect of remittances on the financial states of rustic groups of area poonch of Azad Jammu and Kashmir (AJK). They have selected respondents randomly as a sample households. Their studies are based upon how much change did the respondent feel after and before remittances. The main findings of the study revealed that the basic source of income in the area was remittances. It is obvious that before emigration the incomes of the people were very low, when they get the remittances so their standard of life has changed, and the level of the savings of people

Saith (1991) studied that political crisis in the Gulf has had devastating effects on the large Asian community of migrant worker who inhabited Kuwait and Iraq. Mascarenhas (1990) reported that this paper concentrates on a wedded Catholic Goan upper state ladies of labourer starting points and analyzes, inside a diachronic point of view, changes in their part because of the spouses relocation for urban, talented manual and non-manual occupations somewhere else in India and abroad. The material is drawn principally from the study (1979-82) of Amora, a town with an accepted populace of 2800 dispersed into 687 family units, arranged in Nadrez taluka, Goa, India. Men of this group have been relocating into non-conventional, talented or professional job, the requirements for which are formal training and dialect preparing. This development was joined by the withdrawal of ladies from horticultural work. Relocation and thusly the long times of nonattendance of fathers and spouses have brought about the advancement of a level of offer dependence among ladies. Wives are true family's heads, in charge of family unit’s administration with control over remittances and in addition supervision of house building and homesteads. Family units are generally atomic, keeping in mind ladies seldom inherit land they do inherit experience the parental house.

Munir K. (2010) titled his research as, “Socio-Economic impact of overseas workers’ remittances on their recipient households in district Swabi-Pakistan. The study was basically conducted in village Swabi district of Khyber Pukhtunkhuwa with a sample comprising of 360 households. He emerges different conclusion from his study in different context like determinants of emigration and then the foreign earnings, and then he emphasized their studies on the mode of utilization and socio-economic impact on recipients in Pakistan.
Factor which he reveals are “Pull” and ‘Push’ factors which propelled the emigration process but in his case the “Pull” factors are more dominant. In his study respondent who is immigrated to different places of the world are more literate as compare to those who stay at home country. The level of education are found more of those household who receives remittances as compare to those are not immigrated.

2.3 Summary of the findings concerning remittances

From literature review it was discovered that remittance can impact consumption pattern. According to the literature of remittance augment welfare of the recipients, it decreases the poverty. By the help of remittance, recipients even out their deficits in consumption and make Investments and spend on education and building human capital. Furthermore, if remittances are received by young recipients, they are treated differently and if they are received by old retired people, they have different impact. If young people receive remittances, they will use them to make assets and property and retired will make expenditures on health and other requirements.

Studies reveal that remittances enhance the social-economic status of families, adapting better school opportunities, social, health and water supply facilities. The level of education are found to be high of those household who receives remittances as compared to those are not immigrated. It is obvious that before emigration the incomes of the people were very low, when they get the remittances so their standard of life changes, and the level of the savings of people increases manyfold, their expenditure on basic needs increases, even luxury items increases significantly. Hence, it can be concluded that remittances have impact on the socio-economic status of the families.

The study will contribute valuable information to the society, government and institutions concerning Peshawar. The research will analyze the effect of remittances on socio-economic conditions of urban families in Peshawar, and how remittances change the decision-making capability of families. Previous studies are not focused on Pakistan, as less research is done in perspective of particular city; no research is present on the entire socio-economic status change, decision making process of Peshawar families due to remittances. Hence, research will analyze the data of remittances and socio-economic status through statistical tools and techniques.

2.4 Life cycle hypothesis

Modigliani and his friend presented life cycle hypothesis to show how individuals behave toward saving and consumption at different ages in a life span in early 1950’s. They presented this hypothesis focused around the perception that individuals settle on utilization choices focused around the wealth and income available to them and their age in life cycle. Modigliani and Brumberg (his student) observed that individuals make assets in early stage of their working life and consume these assets during retirement or old age. They provided this theory for consumption pattern of individuals. Although having many challenges regarding its predictions, this theory has been recently acknowledged in economic thinking. They made a hypothesis to check consumption pattern. Suppose that an individual expects that he will live for T years and holds wealth W. His annual income is expected to be Y till his retirement R years from now. In these way total resources of a consumer being earned till retirement will be RY. Now a consumer can distribute his resources over remaining T years of his life and his consumption will be

\[ C = W + \frac{RY}{T} \]
If it is assumed that all individuals behave the same, this theory can also predict consumption and aggregate saving of an economy or country. It predicts that aggregate saving of a country depends on growth rate of GNP, not its level and stock of any economy depends on length of retirement span. Consumption of the whole economy will be

\[ C = aW + bY \]

Where \( a \) is the marginal propensity to consume for wealth and \( b \) is the marginal to consume for income.

Modigliani’s life cycle equation shows the income of a person falls to zero, then consumption of a person will be from wealth and equal to \( W \). This is not fixed value and depends on wealth. According to given consumption function, the average propensity to consume is

\[ \frac{C}{Y} = aW/Y + b \]

Though being acknowledged by economists, the evidence does not support this theory all the time, it has been observed that elders do not consume money quickly after being retired. They do save for health expenditures and for their children. As wealth does not change from person to person or from year to year, it is observed that high income leads to low average propensity to consume while looking at data across persons for short time periods.

In order to look at results of life cycle hypothesis on saving and consumption, we assume the population and income in a country are constant over given time period. In this situation, there will be no effect on net income of economy as savings by working people will be offset by consumption by retired people. However if population increases over time, then there will be increase in savings and income as there will be more working young people who will save and there will be less retirement consumption as they will save for their children. So overall there will be an increase in savings. If there is increase in productivity of working people, they will have higher incomes. The working people will save higher as they want to get higher assets for age of retirement. They will save more than being consumed by retired old people. So on the whole, savings of the economy will increase.

### 2.5 Impact of remittances on life cycle consumption theory

Remittances can impact consumption pattern. It has been observed that remittances increase welfare of the recipients and decrease poverty. With the help of remittances, recipients can even out their consumption deficits and make investments and spend on education and building human capital. Remittances and life cycle theory are related. Remittances impact life cycle hypothesis in the form of consumption and saving. However if remittances are received as a monthly or annual income, they impact differently and if they are received unexpectedly in the form of lottery or gift from migrants, they impact differently.

Similarly if remittances are received by young recipients, they are treated differently and if they are received by old retired people, they have different impact. If young people receive remittances, they will use them to make assets and property and retired will make expenditures on health and other requirements. Impact of remittances depends on type of goods being received, age of recipients, financial position of recipients, and wealth of recipients, population growth rate in the economy, productivity and wage rates in recipient country and continuity of remittances.
Davies (2009) has studied effect of remittances on family utilization in Malawi. It has been discovered that mental bookkeeping frameworks are in operations and settlement pay has lower peripheral affinity to expend than other salary shares and remittances are utilized to store instruction by beneficiaries. Jonathan (2002) has analyzed the household consumption and saving behaviour. It has been found that young consumers behave as buffer stock agents and save in their working life and when they reach at age of 40, they start accumulating liquid assets for retirement. Old people save actively for retirement.

According to life cycle hypothesis and theory, when remittances are received by young recipients, they are treated differently and if they are received by old retired people, they have different impact. The remittances impact the recipient’s consumption, deficits and make investments and spend on education and building human capital. This applies to our research findings that smaller fraction of the remittances in young people is used for health about 3% of the income as compared to 0% for remittances which is quite strange but it is clear that when we have higher education so people spend more on health. When young people receive remittances, they will use them to make assets and property and retired will make expenditures on health and other requirements. Moreover, research shows that more than 40% of the remittances income by the respondent is spent on investment as a form of business and purchasing property. The 190 families, majority (53%) had invested between 1.6-2 million. Another 26 and 10 percent of the sampled families invested between 11-15 and 0.1-0.5 million respectively, it is made in different project in Peshawar mostly. It is seen that when the respondent have higher source of remittances they spend a lot which is very simple. Additionally, if domestic income is significant and the more respondents earn, the more they will spend on education, food, cars, property purchasing and other allied luxuries. Hence, it is concluded that life cycle hypothesis and theory holds to be true in the research.

3 Theoretical framework

This chapter aims to discuss the research methodology employed for the study. The under reference study was designed to analyze the effects of remittances on socio-economic conditions and decision making process of urban families. In Peshawar, keeping in view objectives of the study following pattern of research methodology was adopted. Kothari (2004) defines that the examination is a unique commitment to the current load of information making for its improvement. The methodology concerning generalizations and plans of a hypothesis is likewise an exploration. As indicated by Greenfield (1996) exploration is a workmanship helped by aptitudes of request, trial configuration, information accumulation, estimation and investigation, by understanding, and by presentation.

3.1 Data collection and questionnaire

The field survey was conducted, relevant information collected from the sample respondents through face to face interview. A simple but comprehensive questionnaire was designed for this purpose. Questions were asked in Pushto language. In order to collect reliable data, so they were mentally prepared to give reliable information. Data were collected with respect to number of emigrants working abroad, country of work, monthly income, and household number in Pakistan. household main source of income in pre-immigration period, occupation of migrants lands holding, housing conditions, consumption of durables, utilization of remittances, children education etc. The data was collected and tabulated through tally sheets. After tabulation, percentage and averages were calculated and the results were interpreted for drawing conclusions and formulating relevant recommendations and suggestions for the study area.
There were 300 migrants in the project area which included 170 migrants from Hayatabad, 80 migrants from Faqir Abad and 50 migrants from Gulberg area. Hence out of 300 respondents 170 were interviewed in Hayatabad, 80 were interviewed from Faqir Abad and the remaining 50 respondents were interviewed from Gulberg Area. The sampling technique is as per convenience (non-probability), because the respondent’s entire information is not available. The total population is 1.5-2 million, sample is calculated through thumb rule approach/method, 0.15% of the population, i.e. 300. Sample size in each area is taken as per convenience. After conducting interview data was collected from those respondents whose members are living abroad and sending money in the form of remittances. The frequency distribution of sample households in the study area is given below (Table 2).

**Table 2. Distribution of respondents**

<table>
<thead>
<tr>
<th>Town</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hayatabad</td>
<td>170</td>
<td>57</td>
</tr>
<tr>
<td>Faqir-Abad</td>
<td>80</td>
<td>26</td>
</tr>
<tr>
<td>Gulberg area</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**3.2 Statistical methods**

The model used for this study is Ordinary Least Square model estimation. This method of ordinary least squares is attributed to Carl Friedrich Gauss (1828), a German mathematician; He stated that under certain assumption the method of least squares has some very attractive statistical properties that have made it one of the most powerful and popular methods of regression analysis.

As Hutcheson briefly explains the Ordinary Least-square (OLS) regression is a generalized linear modelling technique that may be used to model a single response variable which has been recorded on at least an interval scale. The technique may be applied to single or multiple explanatory variable and also categorical explanatory variables that have been appropriately coded (Hutcheson, 2011).

**3.2.1 Logit model**

Logit analysis is from multiple points of view the common supplement of ordinary linear regression at whatever point the relapse and is not a ceaseless variable yet a state which could possibly hold, or a category in a given arrangement. At the point when such discrete variables happen among the autonomous variables of a regression comparison, they are managed by the presentation of one or a few (0, 1) same variables; yet when the word variable has a place with this sort, the regression model breaks down. Logit analysis or logistic regression (Which is two names for the same strategy) gives a prepared option (Kramer, 2003).

Logit model is based upon logistic distribution. The model which can be used in logistic distribution is best when (0<y<1), it works best when y is in that range so we can have data and essentially we have a probabilities so this is the fit model to use. For example voting percentage, it is best for estimating the probabilities. The range of this variable is -∞ to ∞. So this is the transformation, we often used like for example Personal transport.

Personal transport = [0, 1] PT= 1 those people having personal car
PT=0 those people who does not have personal car
While trying to use this balance the support for our probability distribution it cannot go out of zero and 1, that’s a problem, because our errors are normal here we will have to take the log of.

Now that variable goes to \(-\infty\) to infinity and it can feasibly be normally distributed because when the Personal transport was zero. We get log of 0 which \(-\infty\) and the personal transport rate is 1 we get infinity while the log of \(\infty\) is \(\infty\), so we take zero, one variable and move in to another space \(-\infty\) to \(\infty\) and now regular normal distribution work fine. So its supply a transformation that deals with a variable that bounded on both side by 0 and 1. The good thing about this model is if we solved it which we get, once we estimate this model. We can run this regression and we are going to estimate this probability in this way.

So this is what different from linear probability model. While it’s better because LPM we could easily do this probability estimate that is outside 0 and 1 range. We can get possibly outside 0, range and 1, range in this model. So we really assuming that the underline distribution is logistic instead of Normal and the logistic distribution which gives us the nice properties that the right way estimation model is with this, so when we have kind of assumption about our error about logistic distribution. Then the right way to estimate is with this kind of model that is so estimation if \(0<y<1\), if one y is between 0 and 1 we can just use OLS. If binary i.e. that we saw y= 0 or 1. This called binomial logit model or multinomial logit model which has more than two values. We have to use Maximum Likelihood estimation in our data dependent variable is 0 and 1 and we are trying to try measure a probability, so we look at the probability of buying a car, so we have 0 and 1 structure which I can estimate the probability conditional on some access. We did not get the unconditional pretty easy. We take here the total number of observation of the household there how bought a car =1 and those who don’t =0. But here we have a condition that on remittances and domestic income as how this probability of purchase varies individual characteristic varies.

Model we can’t just stop with a simple average, for this we want a model, which is called model probability is the function of same axis. Hence the probability model is

\[
\ln \left( \frac{P(Y=1)}{1-P(Y=1)} \right) = \alpha + \beta_1 x
\]

**Binary logistic regression** estimates the probability that a characteristic is present (e.g. estimate probability of "success") given the values of explanatory variables, in this case a single categorical variable; \(\pi = Pr (Y = 1|X = x)\). Suppose a physician is interested in estimating the proportion of diabetic persons in a population. Naturally she knows that all sections of the population do not have equal probability of ‘success’, i.e. being diabetic. Older population, population with hypertension, individuals with diabetes incidence in family are more likely to have diabetes. Consider the predictor variable \(X\) to be any of the risk factor that might contribute to the disease. Probability of success will depend on levels of the risk factor.

Variables:

- Let \(Y\) be a binary response variable

\[Y_i = 1 \text{ if the trait is present in observation (person, unit, etc...)} \]
\[Y_i = 0 \text{ if the trait is NOT present in observation}\]
• $X = (X_1, X_2, \ldots, X_i)$ be a set of explanatory variables which can be discrete, continuous, or a combination. $x_i$ is the observed value of the explanatory variables for observation $i$. In this section of the notes, we focus on a single variable $X$.

\[
\text{Logit } (\pi_i) = \log(\pi_i / (1-\pi_i)) = \beta_0 + \beta_1 x_i = \beta_0 + \beta_1 x_{i1} + \ldots + \beta_k x_{ik}
\]

### 3.3 Model

To accomplish the objectives of analysing the impact of remittances on socio economic life and decision making of the emigrant’s household family the following equation was used.

\[
\ln P = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_k x_k + u
\]

Where  
- $P$ is the studied variable
- $\beta_0$ is the constant term
- $\beta_1, \ldots, \beta_k$ are the regression coefficients
- $x_1, \ldots, x_k$ are the $x$-variable values (independent variables)
- $u$ is the disturbance term

The equation was used for six different situations, to find out the impact remittances have on the family’s socio-economic situation. The studied variables were health expenditure, purchased property and business investment, personal car, nuclear joint family, number of children and spending.

#### 3.3.1 Health

Since health is a dynamic process and not just a static state therefore, an operational definition has been devised by a WHO study group which helps not only to identify a disease but also to measure how many people are suffering from disease and to distinguish the healthy from the diseased ones. Keeping in consideration the fundamental health issues of not only Peshawar but the entire country, a social action programme-1 was conceived in 1992-98 that upon completion was followed by a social action plan phase-2 and one of the top five priority areas was primary and preventive healthcare. The local Government have been trying to achieve the goals of primary health care by improving the infrastructure and allotment of additional funds nonetheless the results of these

#### 3.3.2 Housing

A major social and economic issue that is being faced particularly by the residents in suburbs of Peshawar is housing. In fact two debilitating diseases i.e. diarrhoea and acute respiratory tract infections have been attributed primarily to the poor housing conditions and this in turn have harmful impact not only on the health status of the city but also a burden on the economy of the country. In well planned residential areas such as Hayatabad, the houses are built according to the standards set by the local Municipality that encompasses many factors some of which are worth mentioning here. The foundations are kept substantial with the walls made up of bricks and kitchen at a considerate distance from the other rooms. Therefore the household size must
be in accordance with the standards given in Municipal Act. The problem lies in the Refugee settlements and suburban slums where no Governing authority practically exists and this give rise to illegal construction with small household size and relatively large families dwelling and eventually the health condition deteriorates which is usually noticed by the authorities once it has spiralled out of control.

3.3.3 Remittances
In the past few decades, there's been an enormous influx of liquid assets peculiarly remittances to the families who are living in Peshawar from their loved ones abroad. This has significantly improved the quality of life of many people. The living standards have improved as well as the purchasing power have gone up. Not only on individual level but also on a larger scale, the flow of money from developed countries to a developing country like Pakistan have improved the economy of the country in terms of taxes as well as the nurturing of the banking system.

3.3.4 Domestic income
Peshawar is a diverse city and is the gateway to seven tribal regions. Being a business hub, majority of the people are associated with businesses and this is their main source of income however the city also is a regional centre for education therefore, a good sum of people are also affiliated with this faculty. Furthermore, with soft loans and other facilities offered by the government there's been a noticeable shift of attention from other walks of life towards the industrial sector as well.

3.3.5 Education
Since the early 90s, the mainstay of focus of the local people in Peshawar have been on education and this is evident from the fact this city possess many renowned institutes such as Islamia College that was established back in 1913 and Edward College that was established even before that, i.e. in 1990. This city has produced numerous doctors, engineers as well as scholars. The city has many well-known public institutes and in the recent years, the private educational institutes have also flourished and are contributing in the prosperity of the country. On the flip side, the primary educational institutes notably in the public sector have badly been affected by the unavailability of the sufficient funds as well as bad governance. Therefore, people tend to send their children to the private institutes. Since more than 50% of people live below the poverty line, that's the reason they cannot afford the expensive education and this has drastically reduced the literacy rate.

3.3.6 Investment
Almost two decades ago, Peshawar city that had been recovering from the repercussions of Afghan War was thrown back into the abyss of War on Terror that severely paralyzed the already crippled economy of the city and this inevitably caused not only the local but also the foreign investors to seek other secure places for their investment. This spiked up the inflation as well as unemployment which in turn lead to increase in the crime rate and further deterioration of law and order situation that compelled the Government to take necessary steps to alleviate the sufferings of the community and bring back the investment in order to pump up the economy. A number of efforts have been made by the government such as easing the tax rates and security provision however the efforts have not yet come to fruition.

3.3.7 Transportation
In the recent years, the traffic condition has gotten worse and there's been a deterioration in the public transport facilities not only in terms of the convenience but also the delay in reaching the destination. Moreover, the prices of the cars have declined which acted as a catalyst and allowed the people to purchase new cars so there's been a steady transition and people are now inclined
more towards driving their own car instead of availing public transportation. Even though, this attitude has aggravated the already exacerbated traffic condition however more and more people use personal cars for not only intra-city but also intercity journeys.

3.3.8 Joint family system
Vast majority of people are obedient to the norms and traditions and one of them being living in a joint family system. This is a very old but unique system that's been followed in this part of the world for centuries. The family lives in the same house and interestingly, the decision making power lies in the hand of Head of the Family. with the passage of time particularly in the urban city, the trend have changed now and people who can afford their own place are now moving out after marriage and prefer to live alone nonetheless, in the remote parts the joint family system still prevails.

3.3.9 Family size
On average, the family size in Peshawar is 6-8 and the current population of the city is higher than at any times in the past. There are many factors that are responsible for this high momentum, the lack of education being the fundamental followed by the unawareness about family planning. Other factors included but not limited to be; social, biological, physical and cultural such as place of women in soviet, customs and beliefs, widow remarriage, urbanisation and industrialisation. Moreover, children are potential earners and are considered as source of income. In addition to that, there's this natural urge of being parents and seeking pleasure from bearing many children. This propensity has an inverse relation with the economic growth and a burden on the resources of the country.

3.3.10 Spending
Being an underdeveloped city, the residents of Peshawar have had difficulties in coping up with the economic instability that have adversely affected the income capacity of people however still with such a stagnant economy, there are people who are living a luxurious life particularly those who earn above 100,000 PKR. These people make up the upper-class and can afford most of the items ranging from phone to car to house which cannot be afforded by an ordinary citizen.

4 Data
All the data concerning the respondents’ background related to driving, car purchasing, awareness, experience, attitudes, and willingness to have and pay for the systems are presented below by gender and age group. For identifying acceptance, early adopters and unawareness of the systems results from the regression analysis will be presented.

Peshawar is a district and capital city of Khyber Pukhtunkhuwa Province. This study examines the effects of remittances on local population in three towns of Peshawar that are; Hayatabad, Faqir Abad and Gulberg area. The main reason behind the selection of these three towns was easy access to that area and it is feasible for collecting data, and large number of emigrations was reported from these specific towns of Peshawar Khyber Pukhtunkhuwa (Government of Pakistan, 2004).

4.1 Demographic information
This section provides demographic information about sampled families’ types, number of emigrants, time, and location of emigration and occupation of emigrants. The total no of respondents are 300 in which 180 belong to a nuclear type of family and 120 respondents live in joint family system (Figure 1). Majorities (60%) of the sampled families are nuclear and 40% are living in Joint family system. The higher percentage of nuclear families is due to the fact that
after migration, immigrants families are quite self-sustained and can easily afford independent life. 

![Types of sampled families](image)

*Figure 1. The respondent's family types*

The strength of total number of families are 300, out of which 270 respondents lying between 1-3 and 20 respondents lying between 4-6 and 10 respondents lying between 10-12 per sampled household (*Figure 2*). So we have more than ninety percent (90%) of the sampled household had 1 to 3 emigrants working in various countries. The remaining 7 percent had 4 to 6 persons and had 11 persons working outside the country. 

![No of emigrants Per Sampled household](image)

*Figure 2. Number of emigrants per household*

There is no respondent migrated to USA in the selected sample of the immigrants, about 10 respondents migrated to Qatar and about 220 respondents are migrated to U.A.E a very high ratio of the sample of immigrants (*Figure 3*). Bahrain 30, Kuwait 20 and Saudi Arabia 20 respondents. More than two third (73%) of the emigrants were reported working in United Arab Emirates (UAE) followed by 10, 7 and 7 percent in Bahrain, Kuwait and Saudi Arabia respectively. The lowest percentage (3%) each was reported in Qatar.
The immigration was started in 1970 and continued till the collection of the data for present study (Figure 4). In the year 1970 about 120 respondents moved to different developed countries of the world. The same ratio we have found in the year 1980 almost 130 respondents and in 1990’s there is slightly low rate of immigration to other parts of the world with only 50 respondents from the sampled area. Migration to other countries was almost equal during 1970s (40%) and 1980 (43%), however due to Iraqi invasion of Kuwait and economic crisis in UAE, more than one hundred percent decrease (17%) was reported during 1990s. Low migration is also reported due to the fact that emigration have improved their living standard of the people and this enabled the youth to establish themselves in their own country instead of going abroad.

The high ratio among all the occupation is of private Servants after then one after another people are engaged in different fields of life like working as labour, Govt. Sector engaged in their own businesses and other field of life (Figure 5). Here we have the highest percentage of emigrants that are working as privates servant 30% followed by labour 23% electrician 3% Govt. servants 3% gardeners and drivers both are 20% beside this 7% have there most of the migrants are having low income jobs as before migration most of them were semi-skilled and low educated.
Majority of them lived from hand to mouth. They had their best to get a visa of any developed country for better improvement of their life standard through high remittances.

4.2 Effects of remittances
This section of the chapter examines the effects of remittances on family income, expenditure, composition land holdings, vehicles possession, bank balance, housing, and possession of electric devices, children education and investment in various sectors.

4.2.1 Income of the emigrants
Up to 160 no of families had annual income between 10,000 and to 50,000 PKR (Figure 6). 120 respondents had below 10,000 PKR and 20 respondents had above 50,000 and below 1 million PKR per year. Before emigration, majority (53%) of sampled population had between 10,000 and 50,000. Another 40 percent had even less than 10,000 rupees. Only few (7%) had income between 50 to 100 thousand rupees.

Here we will discuss the middle class and elite class families who can earn more than 1 million PKR. Here 130 respondent’s lies between 1-5 Million PKR. Another big ratio of 100 respondent’s lies between 5.10 Million, and the rest are fewer respondents earning more than 1 million per year. The emigration had significantly increased the annual income of sampled
families (Figure 7). Here 43% percent of the respondents reported their income between 1 to 5 million. Another 33% had found surfing between 5 to 10 million. There were also some 14% who had income between 10-20 millions. 7% had income between 20 to 25 Million and 3% had income above 25 million.

![After Emigration](image)

**Figure 7. Annual income after emigration**

### 4.2.2 Monthly expenditure

Half of the overseas worker families had monthly expenditure lying between 11 to 20 thousand (Figure 8). Out of the remaining (50) percent, (10) percent had expenditure between 21-25 thousand, 10 percent spent 26-30 thousand per month and 7 percent incurred a monthly expenditure of 30 thousand and above. The remaining 20 percent spent between 6 to 10 thousand rupees per month while only 3 percent spent less than 5 thousand rupees per month. So it is clear that the respondent had different ranges of expenses which they used according to their source of income and after receiving remittances.

![Monthly expenditure of sampled household](image)

**Figure 8. Monthly expenditure of the households**

The effect of emigration on family’s bank balances (Figure 9). It indicates that before emigration, 90 percent of the families had no bank balance. The remaining 10 percent had between 1-10 million rupees in bank. After emigration almost half of the 43 sampled families were having bank balances between 1-10 million, followed by 17% who had between 11 to 20 million rupees while 10 families had more than 60 million rupees. There were still a number of families who had no bank balance because they want to keep their money in cash and in the form of gold.
Figure 9. Bank balance of the households

4.2.3 Housing

47% families of emigrants had construction ongoing houses; only 10% had constructed their houses, while the rest had under construction houses before emigration (Figure 10). After emigration 80% of sampled families of emigrants built constructed houses followed by 17 percent who’s houses are construction ongoing and only 3 percent had under construction houses the study future revealed that before immigration, immigrant families were living in sub-standard houses however, during immigration, they accorded high priority to housing and used major portion of remittances for the construction and renovation of housing.

Figure 10. Housing situation before and after emigration

4.2.4 Schooling of children

Percentage is more than one hundred percent, as respondents gave more than one answer. There is huge effect on the standard of schooling rate after receiving remittances from government schools to Private Schools (Figure 11), (80%) of the sampled families had students in Private schools. The number still enrolled in government schools are only 26 percent. Very few families had students in technical colleges (7%) and madrasa’s (3%). Education at college level is still obtained from government colleges (30%) compared to private colleges (17). This study indicates that high concentration of families was towards private and high standard education.
As private schools and colleges have started in late seventies all of the migrants education was from government schools and colleges.

![Schooling children by sampled household](image)

*Figure 11. Schooling of children in the households*

### 4.2.5 Investments of emigrants

One of the basic objectives of this study was based on the idea of investment of family’s income in community development. It has been observed that 67% of families in sampled area had no idea about investment in community development (*Figure 12*). Whereas only 33 percent of the sampled households had some idea about investment in community development. Majority of sampled respondents preferred keeping their money in the banks as almost all had fewer number of male members at homes to manage their remittances.

![Investment of Migrants](image)

*Figure 12. Investments of emigrants*

From the 190 families, majority (53%) had invested between 16-20 million (*Figure 13*). Another 26 and 10 percent of the sampled families invested between 11-15 and 1-5 million respectively. Investment is mostly made in different project in Peshawar in some cases.
4.3 Effects on decision making

This section examines the consequent effects of remittances and male migration on decision-making about various family affairs. It examines whether the migration and remittances has changed the decision-making process or not.

Peshawar is male dominant society, 77 percent cases decision regarding children education has been made by Husbands (Figure 14). Some 17% families let their wives to decide about children education. In this case almost all the wives or families were highly educated.

Emigrants had a dominant (77%) role in decision-making regarding investment of remittances income followed by parents (17%) of migrants in joint families and the person to be involved in business (10%) respectively (Figure 15).
4.4 Regression models

4.4.1 OLS-models

The model used for this study is Ordinary Least Square model estimation. This regression is a generalized linear modeling technique that may be used to model a single response variable which has been recorded on at least an interval scale. This technique was used for two models, where health is the dependent variable in the first model and purchased property and business (investment) was the dependent variable in the second model. The independent variables for both models are domestic income, remittances, family size and education. The equations for the models can be seen below.

**Model 1:** \[ \ln H = \alpha + \beta_1 \ln Y + \beta_2 \ln R + \beta_3 F + \beta_4 \ln Edu + u \]

**Model 2:** \[ \ln Inv = \alpha + \beta_1 \ln Y + \beta_2 \ln R + \beta_3 F + \beta_4 \ln Edu + u \]

In the models above H represents health expenditure, Inv represents investment in property and business, Y represents domestic income, R represents remittances, Edu represents education expenditures, F represents family size. All the variables are used in their logged form as represent by log in the above equation.
Table 3. Regression results from the OLS

<table>
<thead>
<tr>
<th>Model</th>
<th>Dependent variable</th>
<th>1 Health expenditure</th>
<th>2 Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>4213.37 (10720.5)</td>
<td>-32046.8 (61649.6)</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.69459</td>
<td>0.60358</td>
</tr>
<tr>
<td></td>
<td>Household size</td>
<td>0.704 (811.093)</td>
<td>-0.04 (4708.86)</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.64798</td>
<td>0.24688</td>
</tr>
<tr>
<td></td>
<td>Remittances</td>
<td>0.385 (0.0060457)</td>
<td>0.4299 (0.0347)</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.64798</td>
<td>0.24688</td>
</tr>
<tr>
<td></td>
<td>Domestic income</td>
<td>0.0302 (0.00592953)</td>
<td>0.2326 (0.03408)</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.0001***</td>
<td>0.00001***</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>0.587 (1041.22)</td>
<td>0.1255 (5990.01)</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.00583***</td>
<td>0.03691**</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td>0.239649</td>
<td>0.685396</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td></td>
<td>0.229339</td>
<td>0.681101</td>
</tr>
<tr>
<td>F-statistics</td>
<td></td>
<td>4, 295341</td>
<td>4, 293974</td>
</tr>
<tr>
<td>N=300</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard error in parenthesis
*** level of significance at 1%
** level of significance at 5%
* level of significance at 10%

Table 3 reports coefficients for our specified regression models. We can see that remittances for households have a strong and significant impact on both health expenditures and investment in property and business.

In model 1, we can see that an increase of 1% in remittances increases health expenditures by 0.38% whereas model 2 indicates that an increase of 1% in remittances would increase investment in property and business by 0.42%. This result is intuitive as one would expect households to spend higher on health care as their total income level rises. Similarly, households with higher remittances are also associated to speculate by investing in property along with other businesses in order to increase their wealth. The underlying reason is that property in Pakistan is seen as a safe and profitable investment and property prices have sharply increased over the previous decade. However, it is important to mention that the dynamics of house price inflation is different than in developed countries as Pakistani banks have a limited role in such investments.

Table 3 shows that an increase in domestic level has a strong impact on investment in property and business whereas the impact on health expenditure is smaller but highly significant. An increase of 1% in the domestic income increases health expenditure by 0.03% while increases the investment in property and business by 0.2%. The impact of domestic income on health and investment is smaller than the impact of remittances on these variables. One plausible explanation is that people are more careful in spending their money earned domestically as compared to remittances.

Family size has no impact a positive impact on health expenditures but a negative impact on investment in property and business. However, the results in both cases are statistically insignificant so I will refrain from making any conclusions.
Finally, in Table 3 we can see that increase in expenditures on education has a strong impact on health expenditures but a minor effect on investment. An increase of 1% on education expenditures would increase health expenditures by 0.5% and investment by only 0.1%. This implies that those households which spend more money on education also spend more money on their health care. The effect of education expenditures on investment in property business is smaller but significant.

From our results, we can conclude that the impact of education expenditures on health care is the strongest as shown in model 1, while our findings for model 2 suggest that the impact of remittances on investment is stronger than other variables in the same model.

4.4.2 Logit model

A logit model is based upon logistic distribution. Logit analysis is in many ways the natural complement of ordinary linear regression whenever the dependent values is not a continuous variable, but a state which may or may not hold, or a category in a given classification. Since logit model establishes an association and gives relation between dependent and independent variables, therefore I have used the same model here based on the fact that the variables that have been taken in account in this study include both dependent as well as independent variables hence linear regression model. This model is comparatively easier to compute and is somewhat more intuitive. More importantly, it provides a quantified value for the strength of association.

Model 1: 

\[
\log \left( \frac{P(PC=1)}{1-P(PC=1)} \right) = \beta_0 + \beta_1 \text{(log HH)} + \beta_2 \text{(log RMT)} + \beta_3 \text{(log DI)} + \beta_4 \text{(log EDU)} + \eta
\]

Where: 
PC=1 if the household has a personal car
PC=0 if the household does not have a personal car

Model 2: 

\[
\log \left( \frac{P(FT=1)}{1-P(FT=1)} \right) = \beta_0 + \beta_1 \text{(log HH)} + \beta_2 \text{(log RMT)} + \beta_3 \text{(log DI)} + \beta_4 \text{(log EDU)} + \eta
\]

Where: 
FT=1 if the household has a nuclear family
FT=0 if the household has a joint family

Model 3: 

\[
\log \left( \frac{P(NoC=1)}{1-P(NoC=1)} \right) = \beta_0 + \beta_1 \text{(log HH)} + \beta_2 \text{(log RMT)} + \beta_3 \text{(log DI)} + \beta_4 \text{(log EDU)} + \eta
\]

Where: 
NoC=1 if the household has more than 3 children
NoC=0 if the household has less than 3 children

Model 4: 

\[
\log \left( \frac{P(MS=1)}{1-P(MS=1)} \right) = \beta_0 + \beta_1 \text{(log HH)} + \beta_2 \text{(log RMT)} + \beta_3 \text{(log DI)} + \beta_4 \text{(log EDU)} + \eta
\]

Where: 
MS=1 if the household’s monthly spending is above Rs. 0.1 Million
MS=0 if their spending is below Rs. 0.1 Million
Independent variables in the model:

- EDU = education
- RMT = remittances
- DI = domestic income
- HH = household size

The regression in (table 4) result shows that the dependent variable personal car is affected by education; here we can see that education increase the probability of having a personal car at 1% level of significance. The results also indicate that personal car is affected by domestic income; here we can see that domestic income is highly significant at 1% level of significance. This implies that an increase in domestic income increases the probability of keeping a personal car. The results are intuitive as an increase in total income (either through domestic sources or remittances) increases the likelihood having a personal car.

Furthermore the regression in (table 4) result shows that education and domestic income are highly significant for explaining personal car whereas remittances and household size are insignificant. This can be explained by the fact that educated people tend to keep a personal car in order to improve their life style. This finding is also consistent with the fact that people with more education have a higher income. Similarly, an increase in domestic income increases the probability of a personal car as expected.

Moreover, personal remittances also increase the probability of a personal car whereas an increase in the size of household would make it less likely to have a personal car, however, both these results are statistically insignificant.

The regression results for model 2 shows that remittance decreases the probability of living in nuclear joint families at 10% level of significance. A plausible explanation for this result is that when respondents received more of the remittances, they want to live separately or in a single household. On the other hand, all other independent variables in model increase the probability of a joint family. Domestic income is significant at 10% level of significance. Domestic income increases the probability of a joint family. A possible explanation might be due to the fact that people living in Pakistan, with domestic sources of income, tend to support each other and the social bond between the families is much stronger than in the case of income from remittances, where households want to isolate themselves from the dependent families. Moreover, the increase in size of household also increases the probability of a joint family. Finally, my finding for the effect of education on joint family is positive but insignificant so I will refrain from making any conclusion in this regard.

The (Table 4) shows dependent variable No. of children in a family, is affected by domestic income, here we can see that domestic income increases the probability of having more No. of children at 1% level of significance. When the household have higher income, they usually have this urge of rearing more children. Here the parameter for the education is significant at 5% level of significance. The above regression result shows that the dependent variable No. of children in a family is affected by household size. Here we can see that household size is strongly significant at 1% level of significance. The table shows that the household size increases the probability of having greater No. of children.

Furthermore, the (Table 4) model 3 show that increase in remittances makes it less likely to increase no. of children. This can be explained in relation with our earlier findings where we
found inverse relationship between Remittances and Joint Family system. The more the remittances, the higher is the probability that the family will split and prefer living independently, hence the No. of children will be less in each portion of the family.

In (Table 4) model 4 we can see that remittances increase the probability of spending Rs 0.1 million at 1% level of significance. When respondents received more of the remittances they spend more. Here the parameter for the education is significant at 10% level of significance. Education shows positive results, which means that the respondent want to spend much of their income on education as compared to on their businesses. Here the parameter for the household size is insignificant.

Furthermore, we have domestic income is significant at 5% level of significance and here we have an interesting point is that those people who receive remittances have spending (above 0.1 million/month) twice as much as compared to the ones who rely only on domestic income.
Table 4. Regression results from the logit models

<table>
<thead>
<tr>
<th>Model</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td>Personal car</td>
<td>Family type</td>
<td>Number of children</td>
<td>Monthly spending</td>
</tr>
<tr>
<td>Independent variables</td>
<td>Estimated coeff</td>
<td>p-value</td>
<td>Estimated coeff</td>
<td>p-value</td>
</tr>
<tr>
<td>Constant</td>
<td>0.83</td>
<td>0.0223**</td>
<td>-2.52</td>
<td>0.00783**</td>
</tr>
<tr>
<td>Household size</td>
<td>-1.13</td>
<td>1.003311</td>
<td>0.32</td>
<td>0.00001**</td>
</tr>
<tr>
<td>Remittances</td>
<td>2.83</td>
<td>0.94644</td>
<td>-1.63</td>
<td>0.05034*</td>
</tr>
<tr>
<td>Domestic income</td>
<td>(0.21)</td>
<td>0.00001***</td>
<td>1.52</td>
<td>0.06323*</td>
</tr>
<tr>
<td>Education</td>
<td>0.29</td>
<td>0.00001***</td>
<td>2.47</td>
<td>0.91490</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.01598</td>
<td>0.1559</td>
<td>0.42392</td>
<td>0.05858</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.00805</td>
<td>0.13187</td>
<td>0.3909</td>
<td>0.03462</td>
</tr>
<tr>
<td>F-statistics</td>
<td>5.5783</td>
<td>3.487903</td>
<td>7.903728</td>
<td>4.738929</td>
</tr>
<tr>
<td>N=300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard error in parenthesis
***level of significance at 1%
** level of significance at 5%
*level of significance at 10%
5 Discussion

5.1 Recommendations
Following are some main recommendations that this research has identified,

• Foreign remittances are improving the socio-economic conditions and decision making of rural families, however, their consumption behaviour is not tilted towards investment, they rather prefer to enjoy luxurious household’s equipment. Therefore, it is recommended that rural families should utilize their scarce resource in more efficient way, and should go for long and short term investment avenues.

• Government should design some policies in order to educate these rural families to look for sustainable domestic income, which would help the families for a longer period of time.

• Rural families follow the trend, and they prefer to send their children abroad for earning purposes, which in turn is comparatively less preferable idea if they send these children for higher education purpose.

• People from rural families are less exposed to the more beneficial employment opportunities or countries that are more attractive that’s why policy makers should design some policies to educate them.

5.2 Challenges and limitations of the study
The current survey research has the following limitations. In this study I personally analyzed the role of remittances and its impact on socio-economic life and decision making of the people of selected towns in Peshawar Khyber Pukhtunkhuwa. I went myself to Pakistan and conducted questionnaires from people of Peshawar in the month of October 2012 and conducted the survey to get know how much change do they experienced after and before getting remittances from abroad on their Socio-economic life. The study of the research survey indicates that a Town-wise data collection should be made.

Therefore, due to the limited period of time, I was not able to conduct more than 300 respondents. That is why the study was limited to Peshawar district and the capital of city of Khyber Pukhtunkhuwa. I restricted to specific towns because the law and order situation was not good at that time so, I tried my best to go door to door for an interviews and ask them question which is mentioned in my questionnaire. I had started from my own town, Hayatabad first and started conducting questionnaires from the household who has someone from their home abroad. There is a large ratio of migrated people from the selected towns in the study. The study provides quantitative data which is limited to the given respondents living abroad. The respondents provide information in which the accuracy might be lacking and it may not be authentic and 100% accurate.

The interviews conducted from 300 respondents give full information regarding Questionnaires. In some cases I used estimated information wherever, I could not able to reach the respondents who send money to their family. The information was collected from their relatives mostly or from their elders. However, the information was edited several times until and unless proper information was not verified.
Before starting an interview, I explained to the interviewer about my purpose of visit at their door step it is because of the bad law and order situation in Peshawar Khyber Pukhtunkhuwa. People were not willingly give information about their assets and income because of personal safety, but due to some references, sources and specially this survey was conducted for education purpose that’s why people are willingly gave me a positive response and they are satisfied to give proper answers given in the Questionnaire. Most of the respondents did not keep information regarding their assets and income it might be because of the tax evasion or some other reason. But overall the respondents were very cooperative and helpful all the time that is why I have a reasonable data.

Most of the respondents specially fathers of the children were found outside the country because most of the people went to oil rich but labour scarce Gulf states because of the simple visa process and high job opportunity. The survey questions mostly focused on the income which the respondents were received in the form of remittances from abroad. Information on the items like (Consumption, Investment, education, health, food and other durables). They had been ask about where do they mostly spend their income in the form of Remittances and what sources do they used to take the money from Banks, Western union,Ria Money exchange or do they using other illegal channels like hundi and hawa.

The following problems are anticipated in completing this research:
1. Sample size was limited due to time constraint
2. Data was collected from the respondents as per convenience
3. Law and order of the city, Peshawar will be considered all the time
4. Due to confidentiality issues, record of identity of respondents would not be given
5. All respondents only belong to Peshawar, Pakistan
6. Results are analyzed only through logit model

The researcher tried to minimize these limitations as much as possible in order to ensure valid and reliable results. The most expected limitations that this research may confront are with respect to the accessibility to the desired research material for the primary research. Moreover, there exists a possibility of the biasness from the employees, in giving the required or right answers to the questions.

6 Conclusions
Foreign remittance is an important source of income in the study area and therefore people of the sample are prefer to adopt foreign migration in order to improve their socio-economic conditions. At present a large number of the people of study area earn their livings through remittances. Lot of factors was found responsible for this high percentage of dependency on remittances. Low income, physical environment and non-irrigated land forced people to migrate from the study areas

The aim of the study was to see the effect of remittances on socio-economic conditions and decision-making process of rural families they are. It was observed that in the study area the income of the people improved, and their expenditure on durable / non-durable goods went up. Last for possession of vehicles, improvement in bank balances, construction of constructed houses, and purchase of electrical appliances also increased. It was observed that during the last 20-30 years improvement has taken place in the schooling patterns, increased in the business, transportation and construction of plazas in the project areas.
Study revealed that Peshawar has a big mass of overseas migrants and they earned a lot and sent their remittance income back to their families. The changing attitude of the people has helped in the utilization of remittances. Educating their children in private schools is chaining attitude. The marital status of the migrant revealed that most of them were not married at the time of migration.

The absence of a standard pattern of transferring money make it difficult to calculate exact amount of remittances transferred from abroad on monthly or yearly basis. High increase in household income and consumption has been observed during migration. This increase ranges from five to six times or more than six times in case of income and 6 or more than 6 times in case of household consumption or expenditure. The study also revealed that emigrants make majority of the decisions, regarding marriages, land purchase, construction of houses and education etc.
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