The Effects of Income of Foreign Workers on Families' Consumption and Savings Pattern Behaviors in District Kech, Balochistan

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Abstract
Employees' remittances play a momentous role in influencing the consumption and savings behaviors of households in developing regions. International labor migration seems an ordinary action in the province of Balochistan due to the dearth of job opportunities. The primary aim of study is to scrutinize the effects of income of foreign workers on families' consumption and savings pattern behaviors in District Kech, Balochistan. Moreover, the closed-ended questionnaire has been designed to collect primary data with the help of stratified random sampling. The size of respondents (family heads) is 200 for this study. The theoretical models were developed with the help of Keynesian consumption theory. Moreover, the technique of data analysis was ordered logistical regression and descriptive statistics to check the households' behavior. The findings of the study show that the inflow of workers' remittances affects the behavior pattern of households' consumption and saving expenditures since the total monthly households' consumption likely increases by 0.30 units when one unit increases in workers' remittances and monthly households' savings likely increase 0.33 units if one unit increases in workers' remittances. The study suggest that the government should establish proper mechanisms for training these workers so that they will be able to avail better jobs with handsome salaries in international markets and also encourage the households to invest in local markets to improve the economic progress of the country.

Keywords: workers' remittances, consumption, saving, International labor migration and Households' behavior.

Introduction

Developing countries all across the world frequently experience migration. Normally, people travel from one place to another place for seeking better employment and living surroundings. Migrants contribute to and support the socio-economic development of their native nations by sending remittances (Dousem etzis and Taghavi, 2022). According to the economic survey of Pakistan (2021-22), actual figure of workers' remittances is US$ 22.9 billion during the Jul-Mar FY2022. Such remittances are a crucial funding source for recipient families' short-term requirements in their home countries. More importantly, remittances cover savings as well as consumption costs for food, health care, and education (Salahuddin *et al.*, 2021). Remittances not only give people a sense of employment but also are seen as a source of assistance in times of need. Similarly, Mishra *et al.* (2022) endorsed that that worker remittances affect living standards.

Additionally, remittances enhance the purchasing power of the recipient family to spend on consumption and saving. Utilizing remittances helps to meet necessities like food, shelter, education, and health (Shafiq *et al.,* 2022). As a result of increased expenditure on products and services due to an increase in household income from remittances, more goods and services are produced and more jobs are created in the nation (Pandikasala *et al.*, 2022). In addition to these intermediate improvements, worker remittances support the development of small businesses to boost investment and open up job opportunities near the homes of receivers. According to Saleem et al. (2022), microfinancing creates small-scale businesses at the local level, which then enables people to earn sufficient income and generously meet their daily necessities. This promotes community development and job opportunities. These initiatives, funded by worker remittances, would undoubtedly pave the road for advancement and start the nation's development process.

Human migration is a common phenomenon throughout history when to the scarcity of employment and low wages in the native country. As Lee (1996) stated people move abroad due to push factors such as famine, unemployment, political conflicts, climatic change, religious unrest, and wars. The above problems exist in developing countries. So, Niaz *et al.* (2010) mentioned that in developing countries people migrate to developed and rich countries. The flow of money affects the living conditions of households. It denotes the impact of remittances on household consumption and savings.

Statement of the Problem:

This study tries to evaluate the workers' remittances and household consumption and saving behavior in district Kech of Balochistan. Baloch workers are common in the Gulf Cooperation Council (GCC) nations as a means of supporting their families. Although several research on the effect of remittances on economic growth in Pakistan generally have been undertaken in the past, all of the studies have mostly focused on macro-level issues. According to my knowledge, so far the existing pieces of literature do not provide any scholarly works on households' consumption and saving behavior in Balochistan. This research fills the gap in the literature and provides views to understand the significance of remittances on households' consumption and saving behavior in Kech, situated in Balochistan.

Research Objectives
The objective of this paper is to analyze the impact of workers' remittances and households' behavior in District Kech. Also, this study seeks decision-making regarding the use of remittances by the recipient's family. The sub-objectives of this study are mentioned as follows:

- To investigate the relationship between workers' remittances and saving of households.
- To examine the relationship between workers' remittances and consumption patterns of households.

Research Questions
The research questions are mentioned as follows:

- How do workers' remittances affect households' behavior regarding consumption expenditures?
- What are the effects of recipients' households' regarding saving patterns?

Scope of the Study
This study focuses on how remittances affect home families' savings and consumption of durable and non-durable commodities. Significantly, from a Pakistani perspective in general and the context of Balochistan in particular, looks significant since it earmarks and discovers the parameters for think tanks to do homework on policies delivering realistic benefits to the employees and households. More importantly, this study uses Keynes's consumption theory (1936) to link it with the context of Balochistan. Because the research investigates the pattern of households' consumption and savings. More importantly, the study is to examine workers' remittances on households' behavior regarding consumption and savings in district Kech of Balochistan province.

Literature Review
Workers' remittances are handy to support in saving and consumption of households. Various research was conducted to investigate households' behavior regarding saving and consumption. Likewise, Haider *et al*. (2016) analyzed the impact of remittance on savings and consumption behavior by surveying rural families in Bangladesh. Researchers used the path model to examine the behavior of households. Moreover, the study compares the saving and consumption behavior of recipient households and non-recipient households. Thus, the findings indicated that remittances positively affect aggregate consumption and savings. Additionally, Ahmad and Asghar (2004) stated that households living in poor countries mostly have savings. The role of saving and investment seem essential for the development of the country. Collected data from the Federal Bureau of Statistics (FBS) of Households Income and Expenditure Survey (HIES) during 1998-1999 and employed OLS. So, the findings showed that employment status, education age, wealth, and dependency ratio influence savings behavior in Pakistan. Also, household income is one of the main factors to affect saving behaviors. Similarly, Kamenidou *et al.* (2002) investigated the consumption and purchasing behavior of Greek households toward three commodities such as canned peaches in syrup, juice, and peach jam. Consumption of peach juice was high since it possesses brand loyalty. Thus, purchasing and consumption behavior varies according to the satisfaction of households.
Duong *et al*. (2015) stated the behavior of pork consumption in Vietnam. Surveyed households to understand that pork consumption behavior is important to upgrade and increase in the region.
Amir and Bilal (2012) analyzed the different commodities that are being consumed in Pakistan. The study aimed to scrutinize the influence of household consumption behavior of households. The findings indicated that mostly poor individuals spend on necessities, but rich people consume luxuries when their income increases. Also, Ajmair and Akhtar (2012) examined factors like income, family size, and necessities that affect the household's consumption. The results of the study support the Keynesian consumption theory as income increases, consumption will increase; gender, education, and family structure are positively related to consumption and also support the Life cycle hypothesis as the saving of people reduces, the age of individual increases. So, age and saving have an inverse relationship.
Gibson and Scobie (2001) analyzed households' consumption, saving, and income in New Zealand. Data was gathered from the Household Economic Survey (HES) during 1984-1998. Applied regression model to know the behavior of households towards saving and consumption. The finding showed the pattern of households' income, savings, and consumption as a coherent analysis of the "V" shape. Similarly, Kirdruanga and Glewweb (2017) studied the effect of Universal Health Coverage (UCS) on the consumption and saving expenditures of households in Thailand employing panel data. Findings suggested that UCS has no impact on savings and consumption in the short run nevertheless definitely affects consumption in the long run.
Gatt (2014) analyzed household saving determinants in Malta. Precautionary savings occur for rainy days in the upcoming future. The findings indicate that aggregate savings have fluctuated significantly over the past thirteen years. Likewise, Yasmeen *et al*. (2011) discussed the effect of remittances on overall consumption, investment and economic growth during 1984 to 2009. The source of data was the Economic Survey of Pakistan. An ordinary least square model was applied. The

results show that workers' remittance positively affected private investment and consumption which led to increased economic growth.

Survey Method

The province of Balochistan with 36 districts occupies 44 percent of Pakistan's total land area. The bulk of the residents of the district Kech work abroad or smuggle oil from Iran, hence this study is based on district Kech. Kech land area is 420KM^2 and a population of 909116 (PBS, 2017). The four tehsils that makeup Kech are Buleda, Tump, Dasht, and Turbat. It borders Iran in the west, and the districts of Panjgor, Awaran, and Gwadar in the north, east, and south, respectively.

Empirical Research Methodology

Firstly, the collected data of durable goods and non-durable goods are comparatively analyzed by descriptive statistics and influences of remittances on households' consumption and savings behavior by applying ordered logistic regression.

Theoretical Model

The remittances effect on households' consumption and saving behavior and pattern have been studied by two separate ordered logistic regression models. The Keynesian theory of consumption and saving serves as the foundation for these models. The "absolute income theory of consumption," which Keynes introduced in 1936. Because people tend to spend on consumption and save when they have money, he introduced the concepts of Marginal Propensity to Consume(MPC) and Marginal Propensity to Save (MPS) (Ahuja, 2008).

Duesenberry (1948) argued that the relative income of an individual should be used to determine consumption rather than absolute income. According to Friedman (1956), spending on consumption is dependent on steady income. In addition to this, Neupane (2010) and Obaidullah (2015) utilized the Keynesian model's consumption and savings models. Below is a description of Keynes' fundamental consumption model:

$$C = f(y) \qquad \qquad (i)$$

Where C is the consumption of the household, and Y is income. In the instance of district Kech, family remittances from migrant workers are also a factor in determining household consumption costs. As a result, by using workers' remittances as an independent variable in the fundamental Keynesian model, we obtain:

$$C = f(Y, WR) \qquad \qquad (ii)$$

Where WR shows workers' remittances.

The number of family members in a household has an impact on consumption costs as well. Consumption costs are anticipated to rise along with family size. Thus, family size (F) is added to the model above. The model of consumption expenditure can now be expressed as follows:

$$C = f(Y, WR, F) \qquad \qquad (iii)$$

The level of education of the family head affects how much money a household spends since households with higher levels of education are more conscious of the quality of the things they consume, which leads to higher consumption costs. The model also includes the family head's education (EFH). This is a presentation of the final model of consumption expenditure:

$$C = f(Y, WR, F, EFH) \qquad \qquad (iv)$$

The behavior of consumers is one part spends on consumption and the second portion is kept saved for future consumption (Keynes, 1936). Hence, savings are expected to meet unforeseen contingencies. Similarly, Neupane (2010) and Obaidullah (2015) used the savings model in their research studies. For this study, the saving function can be written as:

$$S = f(y) \qquad \qquad (v)$$

Where S shows the savings of the household and Y shows income.

Chamon and Prasad (2013) endorsed that savings and remittances are correlated. Likewise, recipient households' savings relied on the remittances in district Kech. Consequently, workers' remittances (WR) are included as an independent variable in the model as cited:

$$S = f(Y, WR) \qquad \qquad (vi)$$

Household size is a crucial factor in influencing the saving level of families. If Households have many family members, it is estimated that they save few money. So, family size (F) is included as an independent variable in the model. The model is mentioned as follows:

$$S = f(Y, WR, F) \qquad \qquad (vii)$$

Faridi and Bashir (2010) displayed that households' savings are interrelated with literacy rate. The literate household affects the behavior of households' savings since educated families know healthier spending of income. The education of the family head (EFH) is included as an independent variable in the model. Now, the model of savings is mentioned below:

$$S = f(Y, WR, F, EFH) \qquad \qquad (viii)$$

Econometric Model
The order logistic regression is estimated by using Stata in this study. The models are based on ordered logistic regression because the dependent variables were ordinal (McCullough, 1980). In the social sciences, ordered logistic regression is frequently employed when the data is categorical and ordered (Fullerton, 2009 Michalaki et al., 2015). Similarly, Tsaurai, 2018; Adams et al., 2010 and Wahood and Hossain, 2017 used regression models of remittances on macro and micro socioeconomic circumstances. The fundamental configuration of ordered logistic regression is mentioned below:

$$\ln\left(\frac{\text{Pi}}{1-\text{Pi}}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 \ldots \ldots \ldots \ldots + u \qquad (ix)$$

Where, Ln stands for logit, Pi for probability of observed outcomes, I for estimating parameter, X for independent variables, and u for error term. So, the household savings model (viii) and consumption expenditure model (iv) can be expressed as the following econometric models.

Consumption Expenditure Model
The Econometric model of consumption expenditure can be written like this:

$$\ln\left(\frac{Ci}{Ci}\right) = \alpha_0 + \alpha_1 Y + \alpha_2 WR + \alpha_3 F + \alpha_4 EFH + \mu \qquad (x)$$

Where α_0 stands for intercept and α_i for slope coefficients.

Savings of Household Model
The econometric model of saving is constructed to examine the relationship.

$$\ln\left(\frac{Si}{Si}\right) = \beta_0 + \beta_1 Y + \beta_2 WR + \beta_3 F + \beta_4 EFH + \mu \qquad (xi)$$

Where β_0 stands for intercept and β_i for slope coefficients.

Data analysis and Interpretation of the results

Table 1.
Percentage Distribution of Households Spending on the Goods and Services.

Items	Before remittances earning Percentage		After remittances earning Percentage	
	Yes	No	Yes	No
Food	100	0	100	0
Education	60	40	95	5
Health	85	15	97	3
Savings	22	78	79	21
Business	20	80	52	48
Housing	69	31	86	14
Marriages	49	51	72	28
Loan return	14	85	50	50
Purchase land/property	11	89	72	28

Table 1 displays some items on which households spend. The table is divided into two portions in which one-part shows the expenditures of households before earning remittances, and the second part shows the households' expenditures after receiving remittances. This table aims to compare the condition of households before remittances earning and after remittances earning. According to data, 100 percent of households spent on food before earning remittances and after earning remittances. 60% of households spent on education, and 40 percent of households did not spend on education before remittances, but after receiving remittances, 95 percent of households invested in education, and 5 percent of households did

not invest in education. Before earning remittances, 85 percent of families spent on health, and 15 percent of households could not afford to spend on health, but 97 percent of households spent on health, and 3 percent of households did not spend on health. Besides these, 78 percent of households did not save money, and 22 percent of households saved before receiving remittances, but 79 percent of households saved money and 21 percent of households did not save money after earning remittances. 80 percent of households did do any business, and 20 percent of households had business before earning remittances, besides these, 52 percent of households had business and 48 percent of households did not have business. 69 percent of households constructed houses, and 31 percent of households could afford to build houses before receiving remittances, nevertheless after receiving remittances, 86 percent of households spent on building houses, and 14 percent of households did not spend on construction of houses. Also, before earning remittances, 51 percent of households did not spend on marriages, and 49 percent of households spent on marriages, but after receiving earning remittances, 72 percent of households spent on marriages, and 28 percent of households did not spend on marriages. 85 percent of households did not return their loans, and 14 percent of households returned their loans before receiving remittances, but 50 percent of households returned their loans, and 50 percent of households did not return their loans after receiving remittances. 89 percent of households did not purchase lands/property, and 11 percent of households purchased lands/property before receiving remittances, but 72 percent of households spent on purchasing lands/property and 28 percent of households did not purchase lands/property.

Table 2.

Households Have Following durable goods.

Durable goods	Before remittances earning		After remittances earning	
	Percentage		Percentage	
	Yes	No	Yes	No
Motorcycles	46	54	91	9
Cars	10	90	45	55
Air conditions	3	97	32	68
T. V	28	72	80	20
Refrigerators	21	79	82	18
Computers/ laptop	7	93	45	55
Microwave Oven	3	97	39	61
Washing Machines	18	82	65	35

Households have items which are mentioned in the table 2. This table is divided into two parts which compare the conditions of households before earning remittances and after earning remittances. 54 percent of households did not have motorcycles, and 46 percent of households had motorcycles before earning remittances, but 91 percent of households had motorcycles, and 9 percent of households did not have motorcycles after earning remittances. 90 percent of households did not possess cars, 10 percent of households possessed 10 cars before earning remittances, 55 percent of households did not have cars, and 45 percent of households had cars after earning remittances. Before receiving remittances, 97 percent of families did not own air conditions, and 3 percent of households had air conditions, but 55 percent of households did not keep air conditions, and 45 percent of households had air conditions after receiving remittances. 72 percent of households did not have televisions, and 28 percent of households possessed televisions before earning remittances. Besides these, 80 percent of households owned televisions, and 20 percent of households did not own televisions after earning remittances. Before receiving remittances, 79 percent of households did not have refrigerators, and 21 percent of households had refrigerators. But, 82 percent of households had refrigerators, and 18 percent of households did not have refrigerators after earning remittances. 93 percent of households did not possess computers/laptops, and 7 percent of households possessed computers/laptops before earning remittances. However after getting remittances, 55 percent of households did not have computers/laptops, and 45 percent of households had computers/laptops. Additionally, before getting remittances, 97 percent of households did not keep microwave ovens, and 3 percent of households kept microwave ovens. But, 61 percent of

households did not keep microwave ovens, and 39 percent of households possessed microwave ovens after receiving remittances. 82 percent of households did not keep washing machines, and 18 percent of households had washing machines before earning remittances. However, 65 percent of households had washing machines, and 35 percent of households did not have washing machines after receiving remittances.

Table 3.

Results of the Consumption Model

Expenditure of consumption	Coefficients	P value
Domestic Income	.2843474 (0.0999866)	**0.004**
Workers' Remittances	0.309139 (0.14416)	**0.032**
Family Size	0.078975 (0.387245)	**0.041**
Education of family head	.0005623 (0.0693368)	**0.994**

Table 3 displays the consumption model's results, which are significant statistically. Moreover, the coefficient of domestic income is 0.28 that is significant and has a p-value of 0.004. All other model variables are held constant, which indicates that if one unit increases in local income, it is possible to predict that total monthly households' consumption will most likely rise by 0.28 units. Also, the coefficient of remittances is 0.30 which is significant since the p-value is 0.032. The prediction states that assuming other factors remain constant, the total monthly households' consumption might most likely increase by 0.30 units when one unit increases in workers' remittances. Additionally, Because of the family size's relatively substantial coefficient, it affects consumption expenditures significantly. Although other factors in the model remain constant, the predictor freely predicts that when family size increases, monthly consumption of families will rise by 0.07 units with p value of 0.04. Besides these, the Education of the home head has no bearing on consumption costs. Consequently, Family size, remittances, and local income significantly influence the total amount of consumption that households make.

Table 4.

Results of the Saving Model

Savings	Coefficients	P –value
Domestic Income	.5964944 (.1079223)	0.000
Workers' Remittances	.33269 (.1485826)	0.025
Family Size	-.0298029 (.332646)	0.168
Education of family head	-.0331053 (.0706142)	0.639

Table 4 displays the results of the saving model, which is significant statistically in terms of probability. The local income coefficient is 0.59, and the p-value of 0.0000. It indicates that other variables remain constant, there may be a definite prediction that, if one unit rises in local income, household savings will likely increase by 0.59 units. Moreover, Workers' remittances have a coefficient of 0.33, which is significant and has a p-value of 0.025. This indicates that all other factors in the model remain constant when one unit of remittances increases, the predictors anticipate that savings will probably rise by 0.33 units. As a result, local income and remittances have a favorable impact on savings. However, the education of the family head and family size have an insignificant relationship with the saving of households in the model.

Conclusion

Remittances from workers and migration are now both significant sources of increased foreign earnings for developing nations. Foreign labor migration has increasingly increased in Pakistan, especially in Balochistan, which is thought to be the country's most undeveloped and backward province. This research tries to measure the difference in savings and consumption after and before the inflow of remittances. The people's consumptions improve largely when the income is sent by their relatives from foreign countries. The workers' remittances statistically and positively signify households' consumption. Additionally, the recipients' families spend on better nutrition, housing, clothing, education, and health because these are necessities for the improvement of households' quality of life. The majority of the households have savings after receiving income from overseas workers who have migrated for economic and monetary gains. If this saving is utilized in the local markets in effective ways like establishing small businesses and buying other assets then it would create opportunities for the unemployed members of the family to add to their income significantly and augment their overall well-being. On the other hand, the findings of the present study reveal that all migrants were men only. Further, it was found that the majority of the workers around 96 % work in gulf countries. In terms of average monthly income about Rs.6645000 is received by households. The outcomes of the research depict that the contribution of the migrants' incomes is directly and significantly proportional to the increase in the income of the family. The households' quality of life was compared before and after receiving earnings from abroad. The expenditures of recipients' households have increased in durable goods, as the findings of the study show that more recipients have bought motorcycles, cars, air conditioners, televisions, refrigerators, and washing machines respectively after receiving the money sent by their relatives from foreign countries.

Recommendation

The findings of our current study suggested the following recommendations.

- The government ought to establish proper mechanisms for training these workers so that they will be able to avail better jobs with handsome salaries in international markets.
- Documentation and money transferring process ought to be simpler and easier for migrant workers to use legal channels.
- The government should increase employment opportunities for workers in local companies and firms to produce goods for exports.
- The effective policies must be made regarding diminishing poverty.
- The lawmakers should enact laws and regulations that would enhance the socioeconomic circumstances of migrant workers and their families as a result the Baloch people's level of living would consequently increase.

Limitation and Future Direction

Primary data was gathered from local homes as there were no migrants in the nation at the time. Up to 200 respondents made up the sample size in the Kech area of Balochistan. It took some convincing to persuade some respondents who were hesitant to disclose their income, savings, and other durable assets. Finally, trustworthy and accurate data was supplied to allow for the analysis, finishing, and purification of this investigation. Our study's main goal was to determine how migrant workers' use of remittances affected the welfare of their households in the area. However, the same study might be expanded to the province or national levels, serving as a roadmap and guidance for prospective future developments.

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