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Impact of Internal Remittances on Labour Participation and Employment Choice in Pakistan

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Abstract
This study examines internal remittances' effects on Pakistan's labour market outcomes. The study utilises data from the Pakistan Social and Living Standard Measurement – Household Integrated Economic Survey (PSLM – HIES 2018-2019). The study uses Logit and Multinomial Logit models to estimate the effect of internal remittances on labour participation and employment choices. The study's findings suggest that individuals from households receiving internal remittances are less likely to participate in the labour market than those from households that do not receive remittances. Moreover, internal remittances lower the likelihood to participate in the labour market. Amongst the labour participating, the individuals of remittance-receiving households are more inclined to participate in farming vis-à-vis non-receiving individuals. It is also observed that a rise in remittances results in a greater likelihood of farming activities. The study's findings have important implications pertaining to understanding the entrepreneurial level and economic activities in remittance-receiving households.
Keywords: internal remittances, labour participation, employment choices

1. Introduction

The mobility of labour across various regional, state, and national jurisdictions has recently become widespread. The magnitude of internal migration flows in Pakistan surpasses that of international migration flows. According to estimates derived from the Labour Force Survey (LFS) 2020-21, the population of internal migrants is approximately four times greater than that of emigrants. According to the Pakistan Migration Snapshot report of 2019, about 13 per cent of the Pakistani population can be classified as internal migrants.

There is a positive association between the proportion of internal migrants and the population size in Pakistan. Regarding this matter, LFS (2021) depicts that the provinces observed proportional share of intra-provincial migration as follows: Punjab (66.9%), Sindh (18.8%), KP (12.5%), and Balochistan (1.7%). The inter-provincial migration is also attributed to the degree of urbanization and economic development. The movement of people between urban and rural areas is characterized by significant migration streams. This is because urbanization is a crucial factor in economic development. As a result, rural-to-urban migration is the focus of much attention, given the substantial demand it places on socio-economic resources. Based on the relevant proportions, it can be inferred that marriage (38.2%) and relocation with parents (19.8%) are the primary reasons for migration. The user has reported that job searching (6.5%), job acquisition (4.3%), and job transfer (1.1%) are the primary reasons for their current situation.

Typically, internal migration in Pakistan involves low-skilled labour who relocate from rural mountainous regions to urban centres (Hagen-Zanker, 2014). This phenomenon has been correlated with factors such as wage disparities between rural and urban areas, economic prospects, and marriage migration. However, it has also been connected to conflict and natural calamities. It is also argued that internal migration's positive economic potential and developmental consequences are hampered by a lack of evidence-based decision-making and policy gaps at the national level (Imam & Fatima, 2022). Notwithstanding its significance and size within the country, the phenomenon of internal migration in Pakistan has yet to receive adequate scholarly attention.

The outcome of the migration for economic purposes is the remittances sent by the migrant to the left-behind. On the external migration front, over the past two decades, Pakistan has experienced a significant increase in the stream of international remittances, rising from USD 2 billion to USD 33 billion, as reported by the World Bank (2021). According to the McAuliffe and Triandafyllidou (2021), Pakistan ranks sixth globally and third in Asia in remittance-receiving nations, primarily due to the remittances sent home by the Pakistani diaspora. Both domestic and international remittances are likely to have significant impacts on the recipient regions. One potential effect of remittances is that the inflow of cash to the recipient household may influence socio-economic indicators and the labour market behaviour of household members. Receiving remittances, whether from external or internal sources, can impact an individual's decision to participate in the labour market, their labour supply, and their choice of employment. There is a significant amount of literature available on the impact of external remittances on labour market outcomes, as evidenced by studies conducted by Kozel and Alderman (1990), Mughal and Makhlouf (2013), Shair and Majeed (2020); Shair et al., 2023; and Shair and Anwar (2023). However, there is a dearth of research on the effects of internal remittances on labour market outcomes.

In relation to the labour participation of individuals, it is crucial to consider the neoclassical labour and leisure choice model by Becker (1965). This model posits that individuals derive utility from both the consumption of goods and the allocation of time towards leisure activities (Killingsworth, 1983). The consumption of goods exhibits a positive correlation with wages, as wages are directly associated with an individual's working hours (Borjas, 2013).

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The determination of labour market participation is contingent upon the concept of the reservation wage, which represents the minimum wage level at which individuals are willing to engage in labour market activities. The determination of the reservation wage is contingent upon the presence and magnitude of non-labour income sources. One of the factors that can influence an individual's labour participation is the receipt of non-labor income, such as remittances and pension payments, among other sources (Jadotte, 2009). In this context, this research endeavour aims to investigate the impact of internal remittances, which refer to non-labour income, on the labour participation of individuals.

The extant body of literature pertaining to external remittances and their impact on labour market outcomes is abundant. For instance, the studies conducted by Itzigsohn (1995); Kim (2007) and Alcaraz et al. (2010) has been observed that external remittances have a direct impact on the reservation wage, which is a negative function of labour participation. The effect of remittances on labour force participation exhibits heterogeneity concerning gender (Airola, 2008; Acosta, 2020) and age (Grigorian and Melkonyan, 2011) of the individuals involved. In contrast, several studies (Cox-Edwards and Rodríguez-Oreggia, 2009; Jadotte, 2009) have yielded findings that indicate a lack of impact of remittances on the labour market outcomes of individuals who are not migrants. Nevertheless, the impact of internal remittances on labour market outcomes is unexplored in context of Pakistan.

This study utilizes data from the Pakistan Social and Living Standard Measurement – Household Integrated Economic Survey (PSLM – HIES 2018-2019), a comprehensive and nationally representative survey, to examine the effects of internal remittances on the labour market outcomes of non-migrant individuals in Pakistan. The study has three objectives. Initially, the analysis assesses the impact of internal remittance reception and inflow on the labour force participation of individuals. Subsequently, the study assesses the effects of internal remittances on selecting various employment categories, such as wage employment, self-employment, and agricultural work. Thirdly, it considers the impact of internal remittance inflow on selecting different employment statuses within the remittance-receiving households. This study has the potential to assist researchers and labour economists with labour market outcomes when non-labour income (internal remittances) is received, as well as provide insight into barriers to labour participation. The choice of different employment may help reallocate labour among different employment statuses. Moreover, analysis of preference towards various employment may support the policymaker to understand the entrepreneurial level and economic activities in the remittance-receiving households.

2. Methodology

2.1. Labour Participation Model

The objective of the study is to compare the labour participation of the internal-remittance-receiving and non-receiving households. In the case of labour participation, the dependent variable follows the dichotomous outcome coded 1 if labour participate and zero otherwise. For the dichotomous dummy dependent setting, the Logistic regression model is more appealing than others. The econometric model follow as:

$$y = \boldsymbol{X}\boldsymbol{\beta} + \gamma \mathrm{REC} + u \quad (1)$$

where y is a dependent variable comprises the labour participation outcome; **X** is the vector of independent variables; REC is a dichotomous variable coded 1 if household's head received remittance and zero otherwise; u is the error term, assumed to follow a standard logistic distribution; and $\boldsymbol{\beta}$ is the vector of regression coefficients which we wish to estimate. In this case the coefficient of interest is γ which shows the comparison of labour participation across the household categories.

In the study, we also examine the differential impact of internal remittances on the labour participation of internal-remittance-receiving individuals. For this purpose, we preferred to modify the equation 1 by replacing remittance-receipt with the remittance inflow variable. The econometric is as follow:

$$y = \boldsymbol{X}\boldsymbol{\beta} + \gamma \mathrm{R} + u \quad (2)$$

where y is a dependent variable comprises the labour participation outcome; $\boldsymbol{X}$ is the vector of independent variables; R is a continuous variable comprises the amount of monthly remittance received; u is the error term, assumed to follow a standard logistic distribution; and $\boldsymbol{\beta}$ is the vector of regression coefficients which we wish to estimate. The coefficient of interest is γ which shows the relationship between the remittances and labour participation.

2.2. Employment Choices Model

This study is an attempt to compare the employment choices in the internal-remittance-receiving and non-receiving households in Pakistan. In this setting, the dependent variable comprises the multinomial categories of different employment status. Therefore, in the presence of multinomial categories, the Multinomial Logistic regression is more preferable. The econometric model follow as:

$$z = \boldsymbol{X}\boldsymbol{\beta} + \gamma \mathrm{REC} + u \quad (3)$$

where z is a dependent variable comprises the different employment statuses; **X** is the vector of independent variables; REC is a dichotomous variable coded 1 if household's head received remittance and zero otherwise; u is the error term, assumed to follow a standard logistic distribution; and $\boldsymbol{\beta}$ is the vector of regression coefficients which we wish to estimate. In this case the coefficient of interest is γ which shows the comparison of employment choices across the household categories.

To estimate the differential impact of internal remittances on the employment choices of internal-remittance-receiving individuals we modify the equation 3 by replacing remittance-receipt with the remittance inflow variable. The econometric is as follow:

$$z = \boldsymbol{X}\boldsymbol{\beta} + \gamma \mathrm{R} + u \quad (4)$$

where z is a dependent variable comprises the employment choices; **X** is the vector of independent variables; *R* is a continuous variable comprises the amount of monthly remittance received.

3. Data and Descriptive Analysis

3.1. Data Source

The present study employs data from the Pakistan Social and Living Standards Measurements- Household Integrated Economic Survey (PSLM-HIES), specifically the 2018-19 wave. The data can be accessed through the official website of the Pakistan Bureau of Statistics (PBS). The ongoing survey for the period of 2018-19 represents the eleventh round of a comprehensive series of surveys that was originally launched in 2004. The survey encompassed a total of 24,809 households, allowing for a comprehensive analysis of various outcome indicators. These indicators include Education, Health, Population Welfare, Housing, Water Sanitation & Hygiene, Information Communication & Technology (ICT), Food Insecurity Experience Scale (FIES), and Income & Expenditure. By examining these specific areas, a thorough understanding of the surveyed population's conditions can be obtained.

We transformed the qualitative variables given in the survey to make it compatible for the regression analysis. In the study, we used discrete, continuous, and qualitative variables. The definition of the variables given in the table 1.

Table 1: Definition of the variables

Variables	Description
Dependent variables:	
Labor participate	Binary variable coded 1 if participate in labour, zero otherwise.
Employment status	Multinomial categorical variable, coded 1 if employer, 2 if self-employed, 3 if wage-employed, 4 if associated with farming. The employer is defined as a person engage in such activities in which employed one or more employees.
Independent variables:	
Gender	Binary variable coded 1 if male, zero otherwise.
Age	Continuous variable in year old.
Marital status	Binary variable coded 1 if married, zero otherwise.
Education	Binary variable coded 1 if individual is literate, zero otherwise.
Employed persons in household	Count variable comprises number of employed persons.
Province	Multinomial variable comprises four province of Pakistan. 1 for Punjab, 2 for Sindh, 3 for KPK, 4 for Balochistan.
Area	Binary variable coded 1 if individual is from urban area, zero otherwise.
Pension	Binary variable coded 1 if individual received pension, zero otherwise.
Poor	Binary variable coded 1 if individual is poor, zero otherwise. The poverty line defined as 165PKR/person/day.
Income monthly	Continuous variable comprises monthly income of household.
Internal remittances	Binary variable coded 1 if individual receive internal remittances, zero otherwise.
Internal remittances monthly	Continuous variable comprises the amount of monthly remittances received.
Non-remittances income monthly	Continuous variable comprises the non-remittance income monthly

3.2. Descriptive Analysis

The descriptive statistics are presented in Table 2. The findings of the descriptive analysis indicate that a significant proportion, specifically 85%, of the sampled households' heads are actively engaged in the labour market. There is a notable disparity in labour participation rates between individuals belonging to households that receive internal remittances and those that do not. Specifically, the prevalence of labour participation among individuals in internal-remittance-receiving households stands at 52 per cent, whereas it is significantly higher at 89 per cent among individuals in non-receiving households. The findings of the descriptive analysis indicate that there is a lower labour participation rate observed in households that receive internal remittances compared to those that do not receive remittances.

Examining various employment statuses reveals that wage employment holds a significant prevalence rate of 58 per cent in the whole sample. Further analysis indicates that within the individuals who receive internal remittances, the prevalence of wage-employment is 40 per cent, which is lower when compared with 59 per cent of individuals from the non-receiving sample. In contrast, it is observed that a greater proportion of farming activity is prevalent among households that receive internal remittances, with 44 per cent of these households engaging in farming activities, compared to only 20 per cent among individuals who do not receive such remittances.

In households that receive remittances, there is a lower proportion of male-headed households than those that do not. The findings indicate a higher proportion of literate individuals; specifically, a 12 per cent higher literacy rate is in the remittance-receiving households. The data suggests that a greater proportion of employed individuals in households do not receive

remittances than those who do. In the provided sample, it is observed that a higher proportion of individuals receiving remittances, specifically 66 per cent, originate from the Punjab region compared to the 45 per cent of individuals who do not receive remittances. The comparative analysis of the remittance-receiving sample and the non-receiving sample reveals an apparent disparity in the representation of urban residents. Specifically, fewer individuals are from urban areas in the remittance-receiving sample than the non-receiving sample. In the sample, it was observed that 6 per cent of individuals who receive remittances reported having a pension, whereas only 4 per cent of individuals from households that do not receive remittances reported the same. The comparative analysis reveals a notable disparity in poverty prevalence between non-receiving households and remittance-receiving households, specifically, a 5 per cent higher poverty rate in the non-receiving household.

The comparative analysis reveals that households receiving internal remittances exhibit a lower monthly income than households that do not receive such remittances. In households that do not receive internal remittances, the monthly income is observed to be 32,412PKR, whereas in households that do receive internal remittances, the monthly income is comparatively lower at 28,801PKR. In the provided sample, it is observed that approximately 10 per cent of households reported receiving remittances. The monthly internal remittance received by the household amounts to 15,725PKR, slightly below the established minimum wage of 16,000PKR. The households that receive internal remittances also reported the existence of additional income sources, apart from remittances, which contribute a monthly amount of 13082PKR.

Table 2: Descriptive statistics

Variables	Whole sample (N=23,105)	Remittance-receiving (N=2,537)	Non-receiving (N=20,568)
Labor participate	0.85	0.52	0.89
Employer	0.02	0.01	0.02
Self-employed	0.19	0.15	0.19
Wage-employed	0.58	0.4	0.59
Farming	0.22	0.44	0.2
Gender(=1 for male)	0.93	0.57	0.97
Age	45.58	48.29	45.24
Marital status(=1 for married)	0.91	0.82	0.92
Education(=1 for literate)	0.43	0.54	0.42
Employed persons in household	1.91	1.15	2
Balochistan	0.1	0.01	0.11
Punjab	0.47	0.66	0.45
Sindh	0.27	0.04	0.3
KPK	0.16	0.29	0.15
Area(=1 for urban)	0.36	0.22	0.38
Pension(=1 for pension receipt)	0.05	0.06	0.04
Poor (=1 for poor household)	0.56	0.52	0.57
Income monthly	32015.97	28801.01	32412.53
Internal remittances(=1 for remittance-receiving household)	0.11		
Internal remittances monthly (16200 minimum wage)	15725.97	15725.97	
Non-remittances income monthly	13082.95	13082.95	

The graphical representation of labour participation across different income categories was also presented in our study (refer to Figure 1). The findings of this study suggest that individuals who do not participate in the labour market tend to have higher household incomes. This observation implies that higher household income may influence the decision to participate in the labour market. According to our research findings, it has been observed that individuals who do not actively participate in the labour market tend to have an income that is approximately 20 per cent higher. Similarly, within households that receive remittances, individuals who do not actively participate in labour receive internal remittances that are 45 per cent higher than those who do. The implication is that internal remittances play a significant role in the decision-making process regarding labour participation.

In the sample, 6 out of 10 labour-participating individuals are from wage-employemnt status in the non-remittance-receiving cohort, while 4 out of 10 are in the remittance-receiving. A higher proportion of individuals from the internal-remittance-receiving household are employed in farming. A two-fold higher proportion of individuals engaged in farming-related employment in the remittance-receiving household than in the non-receiving. The penetration of self-employment is higher in the non-receiving household than in the receiving. The household's income, in which the household head is the employer, is higher across the other employment categories. Likewise, the employer's wage is also higher across all types of employment.

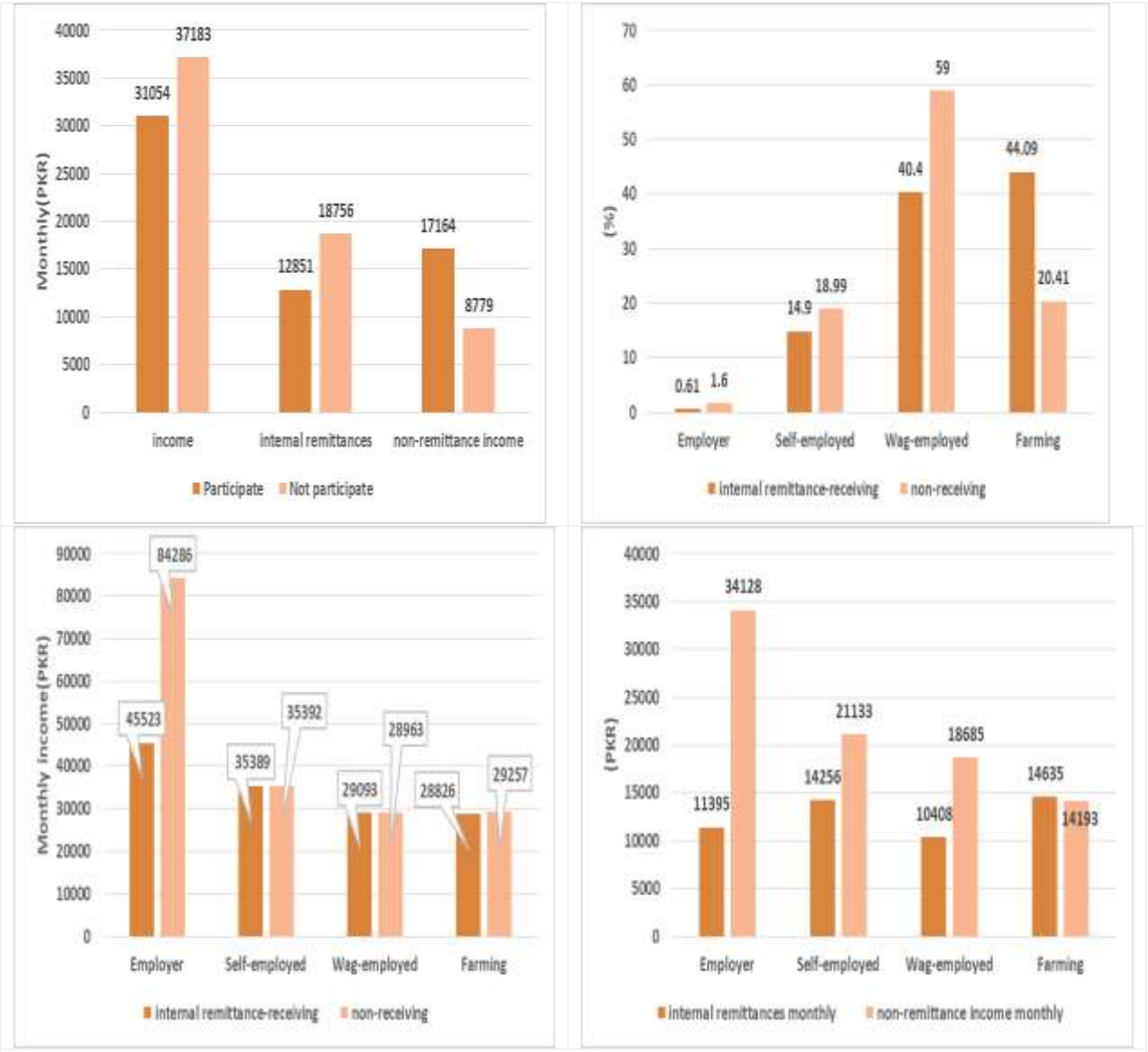

Figure 1. Labour participaiton employment choices, household income, remittance and non-remittance income across the housheold

4. Regression Analysis

4.1. Labour Participation Model

The consequences of the Logit model, as depicted in Table 3, are now being discussed. The focus of the present study is to examine the marginal effects of the Logit model in both model 1 and model 2, specifically in relation to the remittance-receipt and inflow model. According to the findings presented in Model 1 of Table 3, it can be observed that individuals belonging to remittance-receiving households exhibit a 5.3 per cent lower probability of engaging in labour compared to individuals from non-receiving households. The findings suggest that the existence of non-labour income, such as remittances, significantly impacts the reservation wage of individuals. This, in turn, leads to the decision of the left-behind individual to refrain from participating in the labour force. Instead, they may choose to engage in household production or fulfil other household obligations to compensate for the absence of the migrating family member.

According to the findings in Table 3, the remittance inflow model indicates that a one-unit increase in the logarithm of internal remittances is associated with a 9.7 per cent decrease in the probability of labour participation. The findings of this study indicate, specifically, that as the inflow of remittances increases from 6 log points to 12 log points, there is a noticeable decline in the likelihood of labour participation from 70 per cent to 40 per cent (see Figure 2). The increased influx of remittances, serving as a form of non-labour income, alleviates the financial limitations faced by households. Consequently, household members can pursue employment that aligns with their personal preferences and skillsets or engage in household production activities.

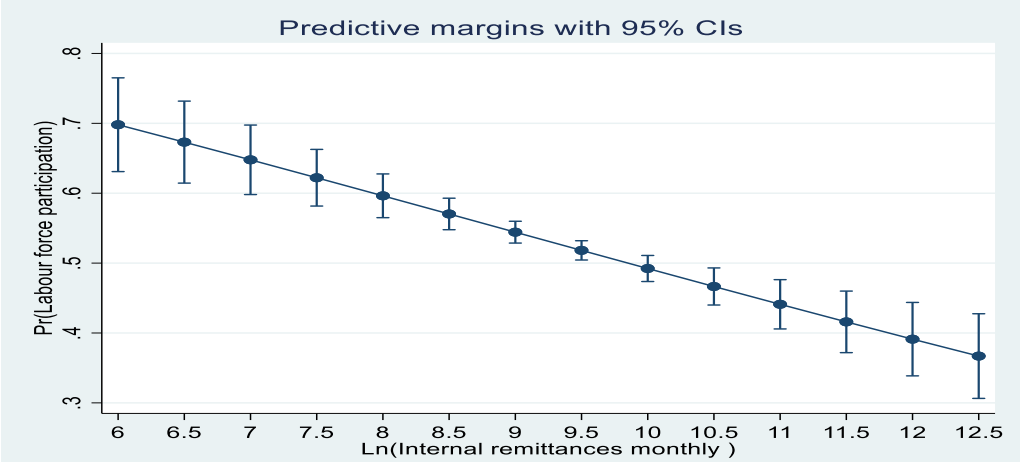

Figure 2: Margin plot of labour participation across different level of internal remittances

Table 3: Estimates of effect of remittance-receipt and remittances on labour participation

Variables	Model 1	Model 2
Gender(=1 for male)	0.503***	0.408***
	(0.0247)	(0.0309)
Age	-0.00591***	-0.0131***
	(0.000154)	(0.00117)
Marital status(=1 for married)	0.0254***	0.0861**
	(0.00754)	(0.0390)
Education(=1 for literate)	-0.0142***	0.0274
	(0.00325)	(0.0307)
Employed persons in household	0.0388***	0.377***
	(0.00172)	(0.0315)
Balochistan	-0.0191***	0.144
	(0.00645)	(0.118)
Punjab	0.00986***	0.114***
	(0.00365)	(0.0305)
Sindh	-0.000985	0.0902
	(0.00441)	(0.0684)
Area(=1 for urban)	-0.0136***	-0.107***
	(0.00330)	(0.0371)
Pension(=1 for pension receipt)	-0.138***	-0.154***
	(0.0136)	(0.0584)
Poor (=1 for poor household)	-0.0281***	-0.0610**
	(0.00344)	(0.0301)
Log natural(income monthly)	-0.0309***	
	(0.00275)	
Internal remittances(=1 for remittance-receiving household)	-0.0530***	
	(0.00755)	
Log natural(non-remittances income monthly)		0.0413***
		(0.00824)
Log natural(internal remittances monthly)		-0.0973***
		(0.0190)
Pseudo R2	0.4284	0.4400
Wald Chi2(13)	3838.27	541.58
Prob > Chi2	0.0000	0.0000
Observations	23,105	2,537

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

One of the covariates that influences an individual's labour participation is gender, which has been found to play a significant role in shaping this decision. It has been observed that males exhibit a 50 per cent higher likelihood of engaging in labour participation than females. The relationship between age and labour participation indicates a negative association, suggesting

that the likelihood of engaging in labour decreases as age increases. There is a 2.5 per cent higher probability of labour participation among married individuals than those not married. The literate individuals exhibit a 1.4 per cent lower likelihood of participating in labour activities than those who are illiterate. The number of employed persons within a household positively correlates with the probability of engaging in labour activities. The labour force participation rate is higher among individuals hailing from the relatively advanced province of Punjab, primarily owing to a diverse range of available opportunities. The research findings indicate that individuals residing in urban areas exhibit a 1.3 per cent lower probability of engaging in labour participation than their rural counterparts.

It is of utmost significance to acknowledge that individuals who receive a pension, a form of non-labour income, exhibit a 14 per cent reduced likelihood of engaging in labour participation. The research findings indicate that individuals classified as poor exhibit a 2.8 per cent lower probability of engaging in labour participation compared to their non-poor counterparts. The statistically significant relationship between household income and labour participation. Specifically, our research findings indicate that for every 1 log point increase in household income, there is a corresponding decrease of 3 per cent in the likelihood of labour participation. In contrast, it is noteworthy that non-remittance income has a discernible positive effect on the probability of labour participation.

4.2. Employment Choices Across the Recipient and Non-Recipient Household

The aftermath of the Multinomial Logit model are depicted in Table 4. The results of the study indicate that individuals belonging to households that receive remittances are associated with a 0.3 percent less likelihood of being employed as an employer, a 0.3 percent less likelihood of self-employed, and a 0.9 percent less likelihood of wage-employment, compared to individuals who do not receive remittances. In contrast, it has been observed that households receiving remittances exhibit a 12.5 percent higher likelihood to engage in farming-related activities compared to individuals who do not receive remittances (see Figure 3). The observed inclination towards farming as a preferred occupation suggests that a significant proportion of internal migrants originate from rural areas, which are typically characterized by agricultural pursuits. Furthermore, it is worth noting that the agricultural sector harbors a considerable reservoir of untapped potential, which could be effectively harnessed through the provision of financial resources from alternative revenue streams, such as remittances. Furthermore, it should be noted that the income derived from agricultural activities is exempt from taxation imposed by the government. Additionally, it is important to highlight that engaging in agricultural pursuits does not result in a decrease in purchasing power due to the lack of taxes levied on such activities.

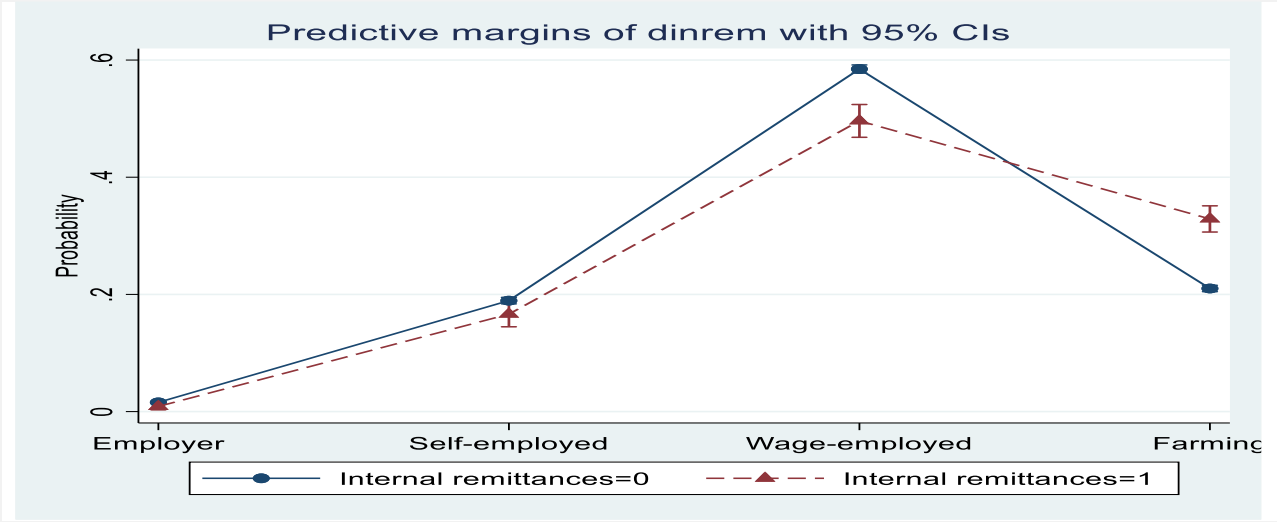

Figure 3: Margin plot of employment choices across household

Research findings indicate a notable disparity between genders regarding participation in various employment statuses. Specifically, males exhibit a higher likelihood of self-employment while displaying a comparatively lower inclination towards involvement in farming activities when compared to their female counterparts. A positive relationship exists between an individual's age and likelihood to engage in self-employment and farming activities. There is a higher likelihood for individuals who are married to engage in self-employment compared to those who are not married. The higher levels of education exhibit a greater likelihood to engage in farming-related activities compared to those with lower literacy levels. Individuals hailing from the relatively advanced province of Punjab indicate a higher likelihood of engaging in agricultural activities than individuals from other provinces. Individuals residing in urban areas are more likely to engage in various forms of employment, including employer, self-employment, and wage-employment, compared to their rural counterparts. Individuals who receive a pension are found to have a lower likelihood of being self-employed or wage-employed but exhibit a higher propensity for engaging in farming activities. Individuals from poor, disadvantaged households indicate a higher

likelihood to engage in agricultural activities. A positive association exists between household income and the likelihood to engage in employer-based and self-employment activities.

Table 4: Estimates of effect of remittance-receipt on employment choices

Variables	Employer	Self	Wage	Farming
Gender(=1 for male)	-0.0007	0.0685***	0.0382	-0.106***
	(0.0046)	(0.0182)	(0.0266)	(0.0226)
Age	-0.0001	0.0006**	-0.0042***	0.0036***
	(0.0000)	(0.0003)	(0.0003)	(0.0002)
Marital status(=1 for married)	0.0024	0.0288**	-0.0256*	-0.0056
	(0.0016)	(0.0126)	(0.0155)	(0.0117)
Education(=1 for literate)	-0.0004	-0.045***	0.0105	0.0349***
	(0.0012)	(0.0068)	(0.008)	(0.0058)
Employed persons in household	-0.0024***	-0.0006	-0.0393***	0.0423***
	(0.0005)	(0.0028)	(0.0033)	(0.0022)
Balochistan	0.0063**	-0.0927***	0.1028***	-0.0163
	(0.0025)	(0.0085)	(0.0125)	(0.0099)
Punjab	-0.0018	-0.0012	-0.0425***	0.0455***
	(0.0012)	(0.0081)	(0.0101)	(0.0077)
Sindh	-0.0022*	-0.1114***	0.0636***	0.0501***
	(0.0012)	(0.0077)	(0.0111)	(0.0094)
Area(=1 for urban)	0.0038***	0.1217***	0.1236***	-0.2491***
	(0.001)	(0.0069)	(0.0081)	(0.0053)
Pension(=1 for pension receipt)	-0.0015	-0.0484***	-0.0949***	0.1448***
	(0.002)	(0.0171)	(0.0256)	(0.0231)
Poor (=1 for poor household)	-0.0032**	0.0068	-0.0153*	0.0117*
	(0.0013)	(0.0078)	(0.0091)	(0.0067)
Log natural(income monthly)	0.0114***	0.0394***	-0.0456***	-0.0053
	(0.0012)	(0.0065)	(0.0079)	(0.0062)
Internal remittances(=1 for remittance-receiving household)	-0.0036**	-0.0264**	-0.0953***	0.1253***
	(0.0014)	(0.0123)	(0.0163)	(0.0139)
Pseudo R2	0.1373			
Wald chi2(39)	3810.50			
Prob > Chi2	0.0000			
Observations	19,482			

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

The study's findings are presented in Table 5, which shows the aftermath of the Multinomial Logit model. This model examines the impact of internal remittances on individuals' employment choices. The findings suggest a positive relationship between an upsurge in internal remittances and an increased likelihood to engage in agricultural activities while demonstrating a negative association with the likelihood of participating in wage employment. The margin plot was additionally presented, illustrating the probability of engaging in various forms of employment concerning varying levels of remittances. This study's findings indicate a positive relationship between the log of internal remittances and the likelihood of engaging in farming activities. Specifically, as the log of internal remittances increases from 6 to 12 log points, there is a notable increase in the probability of individuals participating in farming, with the likelihood rising from 20 per cent to 60 per cent. The likelihood to engage in employer occupation exhibits a consistent lack of change across varying levels of remittances.

The notable inclination towards farming as a favoured occupation due to the increased influx of remittances. This suggests that internal remittances alleviate capital constraints and enable household members to invest in or expand economic activities within the agricultural sector. This, in turn, allows for realising untapped potential by transitioning from labour-intensive to capital-intensive practices. It is worth noting that the predominant form of migration observed is internal migration, primarily originating from rural areas. Notably, higher remittances play a significant role in stimulating economic activities within these communities. It is essential to highlight that these economic activities primarily focus on agriculture rather than the industrial sector.

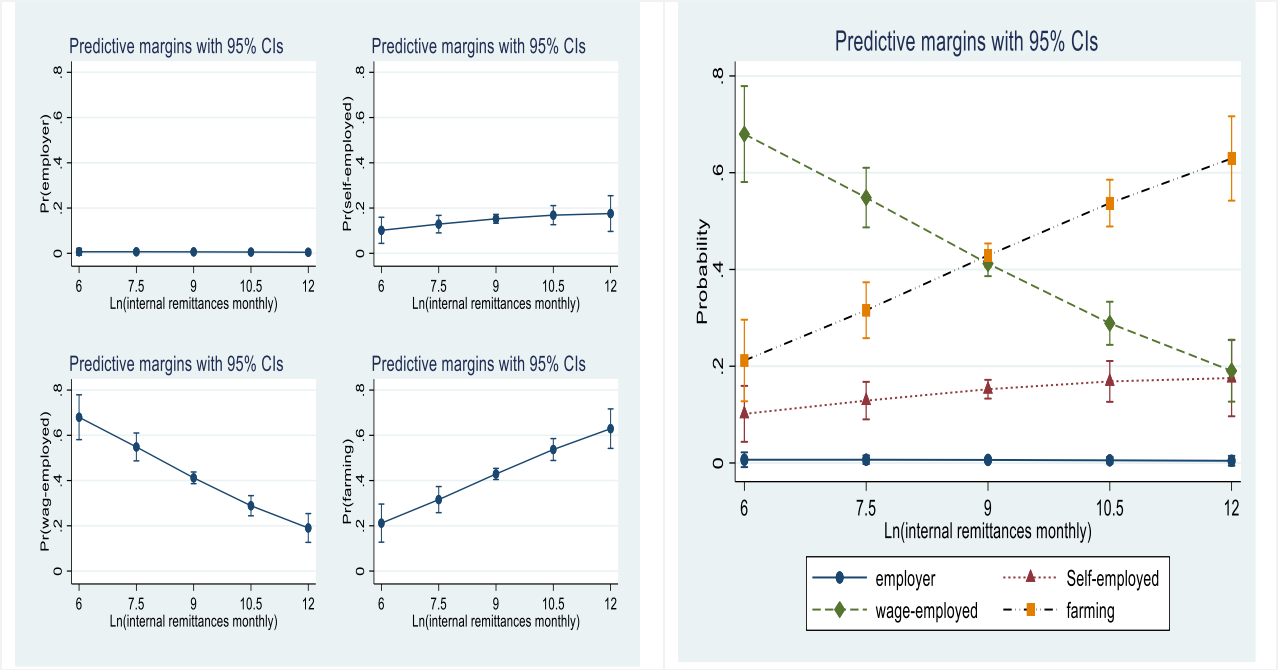

Figure 4: Margin plot of employment choices across different level of internal remittances

Table 5: Estimates of effect of remittances on employment choices

Variables	Employer	Self	Wage	Farming
Gender(=1 for male)	-0.0001	0.0467	0.2212***	-0.2679***
	(0.001)	(0.0328)	(0.0431)	(0.0494)
Age	0.0000	0.0002	-0.0099***	0.0097***
	(0.0000)	(0.0009)	(0.0014)	(0.0014)
Marital status(=1 for married)	-0.0015	-0.0225	-0.05	0.074
	(0.0018)	(0.038)	(0.0514)	(0.0504)
Education(=1 for literate)	0.0004	-0.0921***	0.0384	0.0533
	(0.0011)	(0.0265)	(0.0361)	(0.0343)
Employed persons in household	-0.0008	-0.0067	-0.06***	0.0675***
	(0.0007)	(0.0121)	(0.017)	(0.0157)
Balochistan	-0.0014**	-0.0746	0.4715***	-0.3956***
	(0.0007)	(0.0838)	(0.0847)	(0.0185)
Punjab	0.0002	0.0006	0.1355***	-0.1362***
	(0.0011)	(0.0273)	(0.0363)	(0.0365)
Sindh	-0.0022**	-0.0432	0.2186**	-0.1732*
	(0.0011)	(0.0526)	(0.0976)	(0.0991)
Area(=1 for urban)	0.0021	0.1516***	0.2422***	-0.396***
	(0.0028)	(0.0361)	(0.0406)	(0.0272)
Pension(=1 for pension receipt)	-0.0027**	-0.049	-0.2338***	0.2855***
	(0.0013)	(0.0404)	(0.0601)	(0.0681)
Poor (=1 for poor household)	-0.0003	0.0533*	-0.0857**	0.0327
	(0.0009)	(0.0278)	(0.0367)	(0.0368)
Log natural(non-remittances income monthly)	0.0006	0.0347**	0.0027	-0.038**
	(0.0009)	(0.0165)	(0.0161)	(0.016)
Log natural(internal remittances monthly)	-0.0001	0.0132	-0.1103***	0.0971***
	(0.0005)	(0.0147)	(0.0206)	(0.0215)
Pseudo R2	0.1844			
Wald chi2(39)	2205.06			
Prob > Chi2	0.0000			
Observations	1,302			

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

5. Conclusion

This study investigates the impact of internal remittances on labour market outcomes in Pakistan. This study utilises data from the Pakistan Social and Living Standard Measurement – Household Integrated Economic Survey (PSLM – HIES 2018-2019), a comprehensive and nationally representative survey, to investigate the impact of internal remittances on the labour market outcomes of non-migrant individuals in Pakistan. The study's findings indicate that individuals from households receiving internal remittances are less likely to participate in the labour market than those from households that do not receive remittances. In addition, the differential effects of remittances indicate that an increase in internal remittances lowers the probability of participation in the labour market. However, for the labour-participating individuals, households that receive remittances are more likely to engage in farming activities than those that do not. It appears that the impact of internal remittances on farming participation is quite significant, indicating that an increase in remittances can lead to a higher likelihood of engaging in agricultural activities.

This study highlights that internal remittances lower the labour participation which in turn create dependency in the household dependency, and its implications for development. Multiple deprivation act as a motivating factor for internal migration, as migrants often have the opportunity to earn higher incomes in their new location compared to their place of origin. In the presence of higher non-labour income and reallocating labour within households that receive remittances is necessary due to the presence of additional income helps to alleviate financial constraints and promotes economic activities, particularly in agriculture. Moreover, it is also imperative to ensure the technological advancement in agriculture to create the impact of remittances on entrepreneurial activities because remittance-receiving household prefer to engage in farming related activities.

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