



ENTREPRENEURSHIP AND HOUSEHOLD WEALTH: COMPARING EMPLOYERS AND SELF-EMPLOYED NON-AGRICULTURAL HOUSEHOLDS IN PAKISTAN

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Abstract

This study examines whether all non-agricultural entrepreneurs benefit equally in terms of household wealth in Pakistan. Using nationally representative PSLM 2019-20 data and a large sample of 35,503 entrepreneurial households, the analysis compares self-employed households with those led by employers. A PCA-based household wealth index is used as the outcome, and a series of baseline and extended OLS models are estimated. The results show a clear and strong wealth premium for employer households. This advantage remains significant after controlling for region, province, gender, education, age, marital status and household size. The analysis also reveals meaningful regional and provincial heterogeneity, with stronger gains in urban areas, Punjab and Khyber Pakhtunkhwa. The findings highlight that entrepreneurship is not uniform. Higher-tier, employment-generating entrepreneurship delivers stronger economic returns and greater household security, pointing to the need for supportive, region-sensitive entrepreneurship policy.

Keywords: Entrepreneurship, Household Wealth, Employers vs Self-employed, Regional Heterogeneity, Pakistan

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Introduction

Entrepreneurship is more than a job choice. It shapes how families build security, save, and move upward. Many studies show that business-owning households often hold more wealth and experience stronger upward movement than wage earners, suggesting entrepreneurship plays a powerful role in household prosperity (Quadrini, 1999; Cagetti & De Nardi, 2006). In developing economies, non-agricultural enterprise is especially important. When formal labour markets are limited, households rely on business ownership to stabilise income and expand their financial base. Entrepreneurship also forces families to rethink saving, risk, and investment decisions, linking business activity closely with wealth management (Li, Wang, & Zhou, 2021).

Recent work highlights how entrepreneurship influences financial behaviour. Entrepreneurial households adjust portfolio choices, manage risk differently, and often rely more on financial information and strategic decision-making, which shapes long-term wealth (Li & Qian, 2021; Liu & Zhang, 2021). These dynamics show that entrepreneurship and household finance develop together, not separately. At the same time, wealth itself affects who becomes an entrepreneur. Some studies argue that financial resources matter for business creation and survival, especially when liquidity constraints exist. Yet evidence also shows that the wealth–entrepreneurship link is not uniform and may benefit mainly those already financially advantaged (Hurst & Lusardi, 2004; Fairlie & Krashinsky, 2012).

Debate continues over whether entrepreneurship truly opens doors for low-wealth families or strengthens the position of already wealthier households. Some research finds disengagement risks are higher for households with fewer assets, while wealthier households can persist longer and capture larger gains (Frid et al, 2016; Hurst & Lusardi, 2004). This tension raises important questions about inequality. Most evidence comes from advanced economies or China, where financial systems, markets, and institutional conditions differ sharply from South Asia. Although global research highlights wealth concentration among entrepreneurs and distinctive saving patterns, it rarely examines internal differences within entrepreneurial groups, especially in developing contexts (Quadrini, 1999; Li, Wang, & Zhou, 2021).

Entrepreneurship shapes household wealth in powerful yet uneven ways. Evidence shows that while successful business ownership can support upward wealth mobility, business failure can pull families downward, especially where survival conditions and access to finance are unequal (Kroeger & Wright, 2021; Shair et al., 2024a). Their analysis highlights that the real economic gains come not simply from entering entrepreneurship but from sustaining it over time, as success and failure carry very different wealth consequences (Friedline & West, 2016). These insights are highly relevant for Pakistan. They strengthen the motivation to compare employers and self-employed households, because different positions within entrepreneurship may translate into different wealth outcomes in contexts where structural and opportunity gaps remain significant.

Pakistan is a critical but understudied setting. Non-agricultural entrepreneurship is expanding, yet we know little about how different entrepreneurial households accumulate wealth. In particular, the distinction between employers and own-account self-employed households remains poorly understood, although international evidence suggests potential inequality within entrepreneurship itself (Quadrini, 2000; Li & Qian, 2021). In context of Pakistan, the impact of distinct economic outcomes have been examined on household poverty (Shair et al., 2024b; 2024c), but at aspect of wealth, it remain scant.



This study has three core objectives. First, it examines the baseline effect, showing whether employers in non-agricultural sectors enjoy higher household wealth than the self-employed. Second, it explores regional heterogeneity, assessing how rural and urban contexts shape this relationship. Third, it investigates provincial heterogeneity, identifying how wealth advantages differ across provinces. The significance lies in revealing that not all entrepreneurs benefit equally, and employers gain more than others. This makes the study highly relevant for policy, as it guides targeted interventions, fairer support strategies, and more informed development planning to strengthen inclusive and balanced entrepreneurial growth in Pakistan.

2. Data and Empirical Strategy

The study is based on nationally representative household data of the Pakistan Social and Living Standards Measurement, Pakistan Bureau of Statistics (2019-20), Survey 2019-20. After adjusting the missing values, the total sample size is consist of 35,504 non-agricultural entrepreneurial households, including 32,498 self-employed households and 3,005 employer households.

Based on this rich sample size, the study develops a PCA-based wealth index of household wealth and examined the impact of the entrepreneurial status, along with other covariates such as: demographic, and reginal. Formal econometric model takes the following form:

Let $Wealth_i$ be the PCA-based wealth index for household i . The baseline OLS specification is:

$$\begin{aligned} Wealth_i = & \beta_0 + \beta_1 Employer_i + \beta_2 KPK_i + \beta_3 Sindh_i + \beta_4 Balochistan_i + \beta_5 Urban_i \\ & + \beta_6 Female_i + \beta_7 Illiterate_i + \beta_8 Age_i + \beta_9 NeverMarried_i \\ & + \beta_{10} FormerlyMarried_i + \beta_{11} HHSize_i + \varepsilon_i \end{aligned}$$

Here, $Employer_i = 1$ if the head is a non-agricultural employer and 0 for self-employed (reference). Punjab, rural, male, literate, and currently married serve as base categories. The description of the variables used in the study is provided in Table 1. To capture regional heterogeneity, the same specification is estimated separately for rural and urban households:

$$\begin{aligned} Wealth_i^{(s)} = & \alpha_0^{(s)} + \alpha_1^{(s)} Employer_i + \alpha_2^{(s)} Female_i + \alpha_3^{(s)} Illiterate_i + \alpha_4^{(s)} Age_i \\ & + \alpha_5^{(s)} NeverMarried_i + \alpha_6^{(s)} FormerlyMarried_i + \alpha_7^{(s)} HHSize_i + u_i^{(s)}, s \\ & \in \{\text{rural,urban}\} \end{aligned}$$

This allows the employer-self-employed wealth gap and control effects to differ between rural and urban Pakistan. Finally, to assess provincial heterogeneity, the model is estimated separately for each province p :

$$\begin{aligned} Wealth_i^{(p)} = & \gamma_0^{(p)} + \gamma_1^{(p)} Employer_i + \gamma_2^{(p)} Urban_i + \gamma_3^{(p)} Female_i + \gamma_4^{(p)} Illiterate_i \\ & + \gamma_5^{(p)} Age_i + \gamma_6^{(p)} NeverMarried_i + \gamma_7^{(p)} FormerlyMarried_i + \gamma_8^{(p)} HHSize_i \\ & + \nu_i^{(p)}, p \in \{\text{KPK, Punjab, Sindh, Balochistan}\} \end{aligned}$$

These province-specific equations show whether the wealth advantage of employers over self-employed households is stable or varies across Pakistan's provincial contexts.

**Table 1: Definition of Variables**

Variable	Description / Measurement
Wealth Index (0-100)	A continuous index representing household economic wellbeing derived using Principal Component Analysis (PCA) based on ownership of durable assets and housing characteristics. The index is normalized to a 0-100 scale, where higher values indicate higher household wealth. The list of the durable assets are given in the Section H of questionnaire of the PSLM 2019-20.
Entrepreneurship Status	Binary measure of the household head's primary economic engagement in the non-agricultural sector.
• Employer (=1)	Household head owns a non-agricultural enterprise and employs paid workers. Captures higher-tier entrepreneurship status. Household head operates own non-agricultural business without employing paid workers. Serves as the reference category.
Province	Categorical regional identifier indicating household location within Pakistan's four provinces.
• Khyber Pakhtunkhwa	Household located in Khyber Pakhtunkhwa province (=1, otherwise 0).
• Punjab	Household located in Punjab province (=1, otherwise 0).
• Sindh	Household located in Sindh province (=1, otherwise 0).
• Balochistan	Household located in Balochistan province (=1, otherwise 0).
Region of Residence	Binary classification indicating residential context.
• Urban households	Household located in urban area (=1, otherwise 0).
Gender of Household Head	Indicates whether the household is headed by a male or female individual.
• Female-headed households	Household head is female (=1, otherwise 0).
Education of Household Head	Binary indicator of literacy status of household head.
• Illiterate	Household head cannot read and write (=1, otherwise 0).
Age of Household Head (years)	Continuous variable measuring age of household head in completed years.
Marital Status of Household Head	Categorical status of marital condition of the household head.
• Never married	Household head never married (=1, otherwise 0).
• Formerly married	Household head widowed/divorced/separated (=1, otherwise 0).
• Currently married	Household head currently married (=1, otherwise 0).
Household Size (persons)	Continuous variable indicating the total number of persons living in the household.

3. Descriptive Analysis of Household Wealth and Entrepreneurship

3.1 Descriptive Profile of Entrepreneurial Households

Table 1 gives a clear snapshot of the entrepreneurial households in the sample. The average wealth index is about 29.7 on a 0-100 scale, with wide dispersion, ranging from very low wealth (0.39) to almost 100. Most households in this entrepreneurial group are self-employed; around 92 percent do not employ paid workers, while only 8.5 percent are employers. This already hints that higher-tier entrepreneurship is relatively rare.



Geographically, over half of these households reside in Punjab (54 per cent), followed by Sind (19 per cent), Khyber Pakhtunkhwa (17 per cent) and Balochistan (9 per cent). A small majority of entrepreneurial households reside in rural areas (56 percent), demonstrating the fact that non-agricultural enterprise is not solely a feature of urban areas.

The profile of the household heads is also quite specific. Nearly all of them are men (99 per cent), and two-thirds of them are literate and one-third are illiterate. The mean age is about 43 years with a wide range from 16 to 95 suggesting participation throughout the life cycle but focused in mid-working ages. Most of the heads are currently married (95 percent) and households are fairly large, with an average of 5.5 members. Together these patterns show that entrepreneurship in Pakistan is predominantly done by males, mid-aged, married, and often rural, with significant variation in terms of wealth.

Table 2: Descriptive Statistics for Entrepreneurship Sample (N = 35,503)

Variable	Obs.	Mean / %	Std. Dev.	Min	Max
Wealth index (0-100)	35,503	29.70	15.88	0.39	98.05
Entrepreneurship status					
• Self-employed (=1)	35,503	91.54%	0.28	0	1
• Employer (=1)	35,503	8.46%	0.28	0	1
Province					
• Khyber Pakhtunkhwa	35,503	17.35%	0.38	0	1
• Punjab	35,503	54.36%	0.50	0	1
• Sindh	35,503	19.41%	0.40	0	1
• Balochistan	35,503	8.88%	0.28	0	1
Region					
• Rural households	35,503	56.24%	0.50	0	1
• Urban households	35,503	43.76%	0.50	0	1
Gender of household head					
• Male-headed households	35,503	98.88%	0.11	0	1
• Female-headed households	35,503	1.12%	0.11	0	1
Education (household head)					
• Literate	35,503	67.11%	0.47	0	1
• Illiterate	35,503	32.89%	0.47	0	1
Age of household head (years)	35,503	42.68	11.40	16	95
Marital status					
• Never married	35,503	1.79%	0.13	0	1
• Formerly married	35,503	2.99%	0.17	0	1
• Currently married	35,503	95.22%	0.21	0	1
Household size (persons)	35,503	5.53	2.48	1	37

The general distribution of the household wealth index is shown in Figure 1 on a scale of 0 to 100. The pattern is clearly right-skewed, so that a high proportion of households lie at the bottom and middle end of the wealth distribution, with comparatively fewer households at the top end of the distribution. Most households are clustered between scores around wealth level in the 15-40 range, with the largest concentration around the mid-20s. As wealth increases further from this range, the frequency gradually falls and only a small part of the population attains very high wealth levels above 70 or 80.

This distribution tells an important story. It indicates that the distribution of wealth in Pakistan is highly unequal and that there is a broad base of households with a low level of asset ownership and living standards with only a fraction having a privileged wealth



status. The length of the right tail also shows that there is a wide disparity in wealth between a few individuals who have much more economic advantage than the rest.

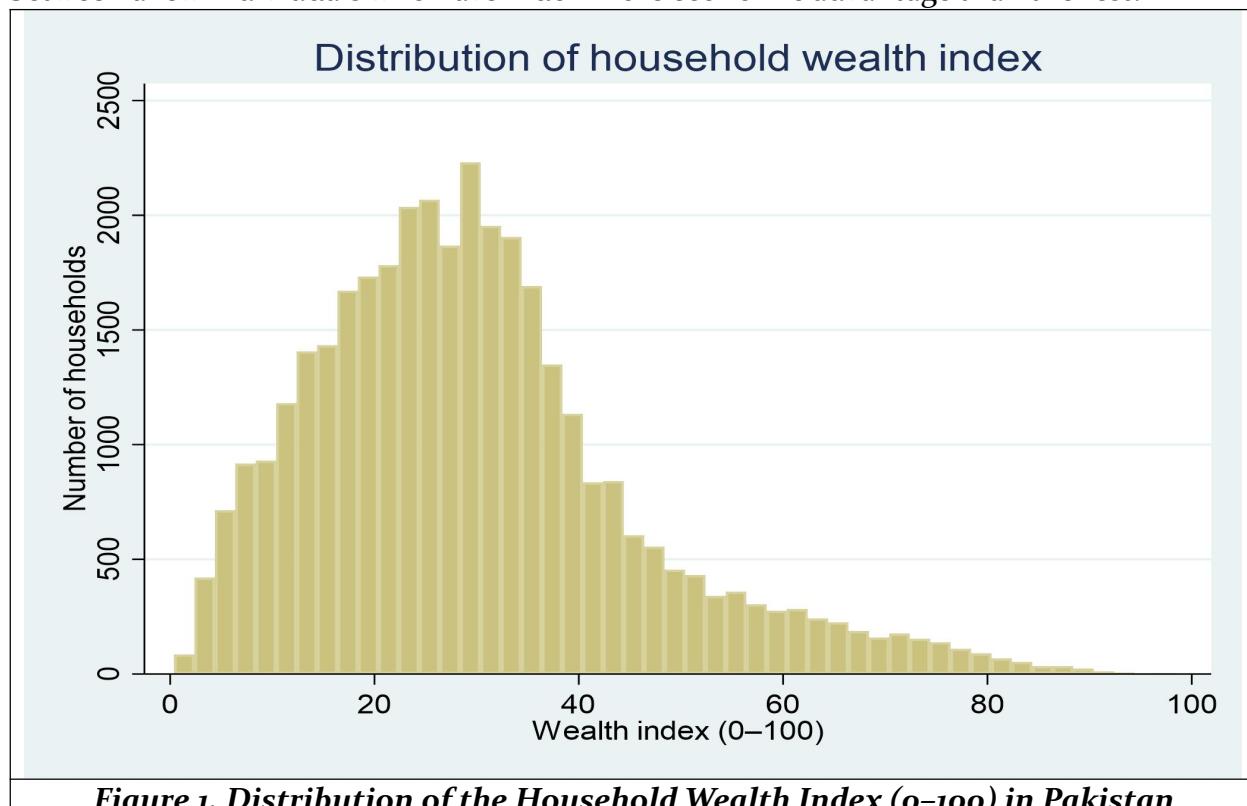


Figure 1. Distribution of the Household Wealth Index (0-100) in Pakistan

3.2. Wealth Differences between Employers and Self-Employed Households

Table 3A compares average household wealth for two important dimensions: entrepreneurship status and place of residence. In Panel A, employers are obviously rich compared to self-employed households. Self-employed households have an average wealth index of 28.7 and an average index of 40.4 for employer households. The average difference between them is about 11.7 points and the confidence interval: (-12.30 to -11.13) tells us that the difference is precise and not an effect of sampling noise. This is already an indication of a strong wealth hierarchy in non-agricultural entrepreneurship.

Panel B moves the lens to space. Rural households have a mean wealth index of 21.8 as compared with 33.3 of urban households. The rural-urban gap is again high (around 11.5 points) and the narrow confidence interval is indicative of a systematic advantage to urban households. Together, these raw means suggest that the position and location of entrepreneurship matters a lot for household wealth.

Table 3B conducts a formal test of whether there are statistically significant differences. For entrepreneurship status, using the two sample t-test, the null of equal means is strongly rejected ($t = -39.52$, $p < 0.001$). This confirms the fact that the wealth of employer households is much higher than that of self-employed households. For rural versus urban, the evidence is even stronger: the t-value is -150.00 with a p-value of 0.000 , again rejecting equality of means. In simple terms, these tests tell us that the observed gaps are large, systematic, and highly unlikely to be driven by chance.



Table 3A. Mean Comparison Of Household Wealth Index By Entrepreneurship Status And Region

Group	Obs.	Mean	Std. Dev.	Std. Error	95% Confidence Interval
Panel A: Employer vs Self-employed (entrepreneurship sample, N = 35,503)					
Self-employed households	32,498	28.71	15.05	0.08	28.55 – 28.88
Employer households	3,005	40.43	20.16	0.37	39.71 – 41.15
Difference (Self-employed – Employer)	–	-11.71*	—	0.30	-12.30 – -11.13
Panel B: Rural vs Urban households (full sample, N = 157,456)					
Rural households	107,780	21.78	13.27	0.04	21.70 – 21.86
Urban households	49,676	33.31	16.30	0.07	33.17 – 33.46
Difference (Rural – Urban)	—	-11.54*	—	0.08	-11.69 – -11.39

Table 3B: Hypothesis testing results for mean differences in household wealth index

Panel A: Employer vs Self-employed (Entrepreneurship Sample, N = 35,503)

Test	Null Hypothesis (H ₀)	Alternative Hypothesis (H ₁)	Test Statistic (t)	df	p-value	Decision
Two-sample t-test (equal variances)	Mean(Employer) = Mean(Self-employed)	Mean(Employer) ≠ Mean(Self-employed)	-39.52	35,501	0.000	Reject H ₀

Panel B: Rural vs Urban (Full Sample, N = 157,456)

Test	Null Hypothesis (H ₀)	Alternative Hypothesis (H ₁)	Test Statistic (t)	df	p-value	Decision
Two-sample t-test (equal variances)	Mean(Rural) = Mean(Urban)	Mean(Rural) ≠ Mean(Urban)	-150.00	157,454	0.000	Reject H ₀

Figure 2 visually compares the distribution of household wealth between self-employed and employer households. The difference is striking. The median wealth of employer households is certainly higher than the median wealth of self-employed households, supporting the view that employers hold a more advantageous position in the entrepreneurial spectrum. The Interquartile range for employers is also substantially higher than that of the self-employed, which means that even the 'typical' employer household has higher levels of wealth than most self-employed households.

Another important characteristic is dispersion. Employer households exhibit a broader distribution of wealth values which indicate a greater degree of variation but also a stronger presence at the higher end of the wealth distribution. In contrast, wealth among self-employed households is more compressed and concentrated in lower to mid-levels, with only a tail of households reaching higher brackets of wealth. Overall, this plot

strengthens the analysis that entrepreneurship is not a homogenous experience; being an employer has a very different and higher and broader wealth profile than own account self-employment.



Figure 2. Boxplot: Wealth distribution by entrepreneurship status

Figure 3 gives a smooth comparison of the wealth distribution of employer households and self-employed households in terms of kernel density curves. The difference between the two groups is obvious and in line with earlier evidence. The distribution of the self-employed is highly peaked at lower values of wealth, primarily between 20 and 35, which suggests a considerable proportion of these households are concentrated at relatively low values of wealth. Beyond this range, the curve drops off rapidly, which indicates that very few self-employed households reach higher points in the distribution of wealth.

The employer curve is shifted to the right, in contrast. It reaches its highest level of wealth and decreases less steeply, reflecting both greater typical wealth and a greater presence among households with medium to high levels of wealth. The longer right tail for employers points out that they are much more likely than self-employed households to fall at the upper end of the wealth spectrum. Overall, this number reinforces the fact that employers are systematically wealthier, while self-employed households are concentrated in the bottom and middle of the distribution.

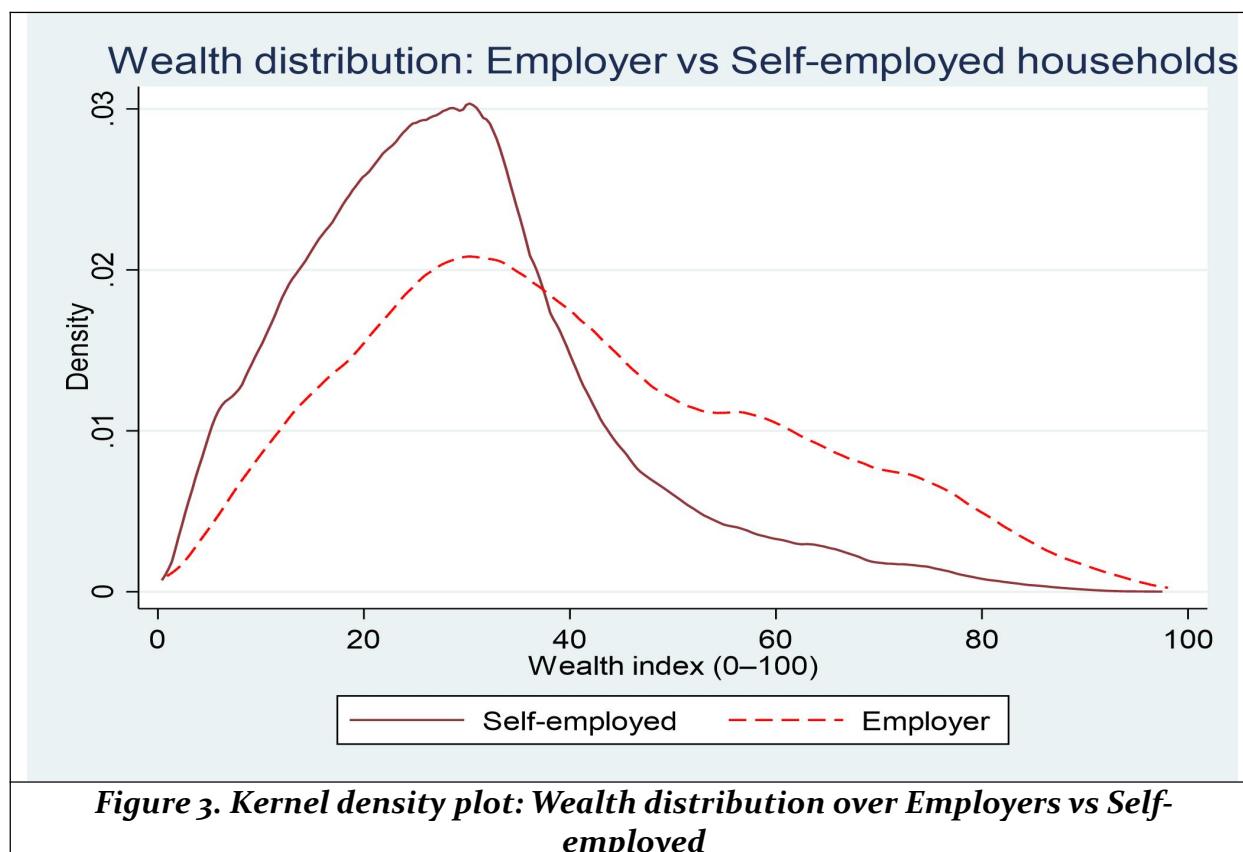


Figure 3. Kernel density plot: Wealth distribution over Employers vs Self-employed

3.3. Spatial Wealth Patterns across Region and Provinces

Figure 4 shows a clear provincial picture of household wealth for both self-employed and employer households, and results are, numerically at least, very strong and easy to interpret. Among the self-employed households, the mean wealth is highest in Punjab (30.9) followed by Khyber Pakhtunkhwa (KPK) (27.0), Sindh (26.3) and Balochistan (23.5). This pattern indicates that even in the case of self-employment households in Punjab have a comparatively stronger position on the wealth scale whereas households in Balochistan are the most disadvantaged.

The advantage can be seen even more clearly if we examine employer households. The mean wealth of the employers is 45.9 in Punjab, 38.7 in KPK, 36.2 in Sindh and 27.6 in Balochistan. In all provinces, family wealth is higher in households with employers than among the self-employed, suggesting that having an employer is linked to a better economic position in all provinces of Pakistan.

The size of the gap is also important. In Punjab, employers are ahead of self-employed households by around 15 percentage points in terms of wealth index (45.9 vs. 30.9). In KPK, the difference is about 11.7 points (38.7 vs. 27.0) whereas in Sindh, it is about 9.9 points (36.2 vs. 26.3). Even in Balochistan, where the overall level of wealth is lower, employers are still in the lead with a 4.1 point advantage (27.6 versus 23.5).

Overall, this number is revealing two important insights. First, not all entrepreneurs are equally well-off economically and employers consistently have higher wealth than own-account self-employed households. Second, location matters. Punjab has the best wealth results for both groups with KPK and Sindh following while Balochistan is economically weak. These results highlight the interactive effect of the entrepreneurial position and the provincial context on household wealth in Pakistan.

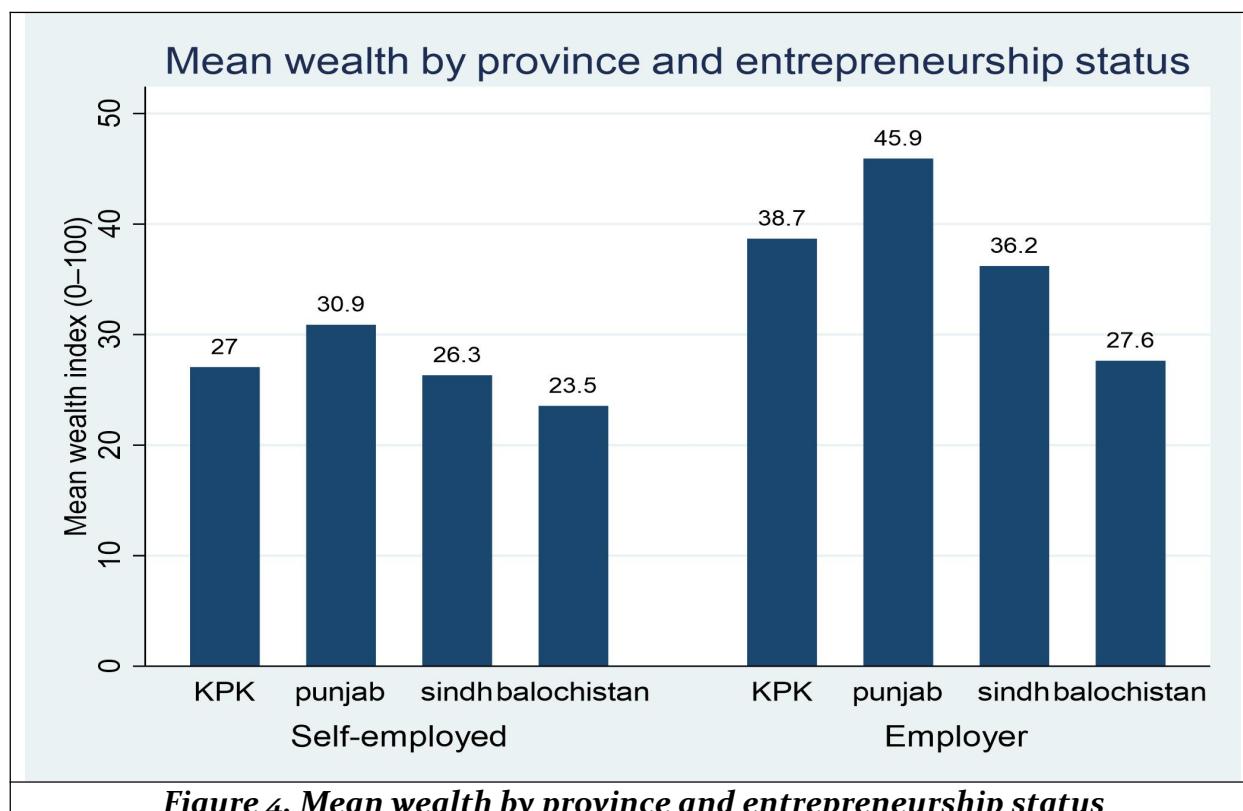


Figure 4. Mean wealth by province and entrepreneurship status

4. Results and Discussion

4.1. Baseline Regression Model

Table 4 demonstrates that the use of eight increasingly extended OLS models is important because it enables the use of this technique to take steps to go from a simpler relationship to a more realistic and policy relevant understanding of household wealth differences. The first model reveals the raw association between being an employer and having wealth. Each subsequent model adds meaningful layers of controls. Province and region - captures spatial inequality. Gender and education explains human capital and structure disadvantages. Age, marital status, and household size toss in some demographic realities. This gradual approach helps to ensure that the result is not driven by factors that have been left out and increases the credibility of the result.

In all the models, the employer coefficient is positive, large, and highly significant. In the simplest specification (Model 1), employer households have on average 11.7 points more wealth on the 0 to 100 index than self-employed households. When provincial fixed effects are included in Model 2, the coefficient slightly grows and becomes 12.1, implying that once underlying spatial disparities are recognised, the relative advantage of employers becomes even clearer.

Figure 5 is a graphical way of following the change in the estimated effect of being an employer on household wealth as more controls are added to the regression models. The plot represents a very clear and intuitive story. In the first specification (M1), which includes entrepreneurship status only, the employer advantage is large, close to 11.7 wealth index points. When provincial controls are added in M2, the coefficient increases slightly to about 12, suggesting that the relative advantage of employers becomes even more visible when basic spatial differences are controlled for.

As the models slowly add region, gender, education, age, marital status, and household size (M3 to M8), the coefficient decreases but it is firmly positive and statistically significant. By



the fully saturated model the employer effect stabilises around 9.2 to 9.3 points. Such a downward adjustment is significant. It indicates that part of the initial gap is accounted for by factors like education, urban residence and demographic characteristics, which of course explain a natural preference for employer households. However, the fact that a large effect remains even after extensive controls suggests that there is an independent wealth premium due to employer status per se.

The robustness of these results is confirmed by the confidence intervals. In all eight models, they do not cross zero, which strengthens the idea that the employer advantage is not a statistical accident. Instead, the positive graphical evidence in Figure 5 strongly supports that transition from self-employment to employer status is consistently associated with substantially greater household wealth, even after taking into account geography, education and household structure.

Employer households usually operate at a larger economic scale, and this helps them build more wealth. Their businesses employ workers, manage bigger operations, and often reach wider markets. Many employer-run firms are more formal, organised, and stable. This improves access to finance, suppliers, and growth opportunities. Over time, these advantages support higher earnings, stronger financial security, and greater asset accumulation. As a result, employer households appear wealthier and more resilient.

Self-employed households often face a very different reality. Most run small, individual businesses with limited capital and uncertain demand. Many operate informally, with fewer protections and weaker links to formal markets. Their income can be unstable and vulnerable to shocks. With fewer chances to expand and accumulate assets, wealth grows slowly. This structural difference in opportunities explains why employer households have much higher wealth index values than self-employed households.

Table 5. Baseline and Extended OLS Models Explaining Household Wealth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	M1: Employer only	M2: Province	M3: Region	M4: Gender	M5: Education	M6: Age	M7: Marital status	M8: Household size
Employer	11.715*** (0.296)	12.088*** (0.292)	10.609*** (0.274)	10.581*** (0.274)	9.549*** (0.262)	9.260*** (0.257)	9.250*** (0.257)	9.240*** (0.257)
Punjab		4.113*** (0.224)	1.107*** (0.214)	1.155*** (0.214)	0.734*** (0.204)	0.800*** (0.200)	0.882*** (0.200)	1.059*** (0.203)
Sindh		-0.903*** (0.268)	-7.299*** (0.267)	-7.254*** (0.267)	-7.411*** (0.255)	-6.877*** (0.250)	-6.820*** (0.250)	-6.557*** (0.255)
Balochistan		-4.355*** (0.335)	-5.490*** (0.314)	-5.486*** (0.314)	-4.869*** (0.300)	-4.101*** (0.294)	-4.088*** (0.294)	-3.962*** (0.295)
Urban			11.530*** (0.164)	11.537*** (0.164)	10.689*** (0.158)	10.104*** (0.155)	10.099*** (0.155)	10.117*** (0.155)



Female		-5.384***	-2.686***	-3.368***	-0.916	-0.830	
		(0.724)	(0.693)	(0.678)	(0.758)	(0.757)	
Illiterate			-9.089***	-	-9.819***	-9.839***	
			9.846***				
Age			(0.157)	(0.154)	(0.154)	(0.154)	
			0.252***	0.258***	0.251***	0.251***	
			(0.006)	(0.006)	(0.006)	(0.007)	
Formerly married					-2.892***	-2.858***	
Currently married					(0.719)	(0.719)	
					0.531	0.322	
Household size					(0.543)	(0.544)	
						0.166***	
Constant	28.713***	27.007***	25.063***	25.088***	28.710***	18.287***	17.506***
	(0.086)	(0.196)	(0.186)	(0.186)	(0.188)	(0.320)	(0.589)
Observations	35,503	35,503	35,503	35,503	35,503	35,503	35,503
R-squared	0.0421	0.0747	0.187	0.189	0.259	0.291	0.292
N	35503	35503	35503	35503	35503	35503	35503

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 4 also offers important insights from the control variables that influence the household wealth along with entrepreneurship. The provincial coefficients are all measured from Khyber Pakhtunkhwa. In Model 2, the households in Punjab have a higher (by an average of 4.11 points) wealth index than those in Khyber Pakhtunkhwa, with a premium declining to around 0.73 to 1.06 points after controlling for other characteristics. In comparison, Sindh and Balochistan have a persistent disadvantage. In the fully specified model, the mean difference for households in Sindh is approximately 6.56 points and that for households in Balochistan is approximately 3.96 points less than their counterparts in Khyber Pakhtunkhwa and these differences are quite significant.

The urban coefficient is always large and positive. After all controls have been added, urban households still have a wealth advantage of around 10.1 points compared to rural households, which attests to the power of location and local opportunity structures in determining wealth. Gender differences are more subtle. As we can see at the outset, female-headed households seem much poorer with a difference of 5.38 points estimated in Model 4. Once education, age, marital status and household size are included, though, this effect is smaller and statistically insignificant, suggesting that the apparent gender penalty is mediated to a great extent through these factors.



Education shows a powerful and stable association with wealth. Illiterate household heads have between 9.09 and 9.85 points lower wealth than literate heads, even after accounting for all other covariates. Age is positively associated with wealth, with each additional year of age linked to about 0.25 points higher on the wealth index, reflecting accumulation over the life cycle. Marital status also matters. Formerly married heads have roughly 2.86 to 2.89 points lower wealth than never-married heads, while currently married heads do not differ significantly once other controls are considered. Household size has a small but positive association: each additional household member is linked to about 0.17 points higher wealth, which may reflect the contribution of more working-age members or shared assets in larger families.

Finally, the pattern of R-squared values shows that these controls jointly improve explanatory power in a meaningful way. The model with only employer status explains about 4 percent of the variation in wealth, which rises to almost 29 percent when province, region, gender, education, age, marital status and household size are all included. This confirms that household wealth is shaped by a combination of entrepreneurial position, geography and demographic characteristics, and that the extended specification captures a much richer picture of inequality in Pakistan.

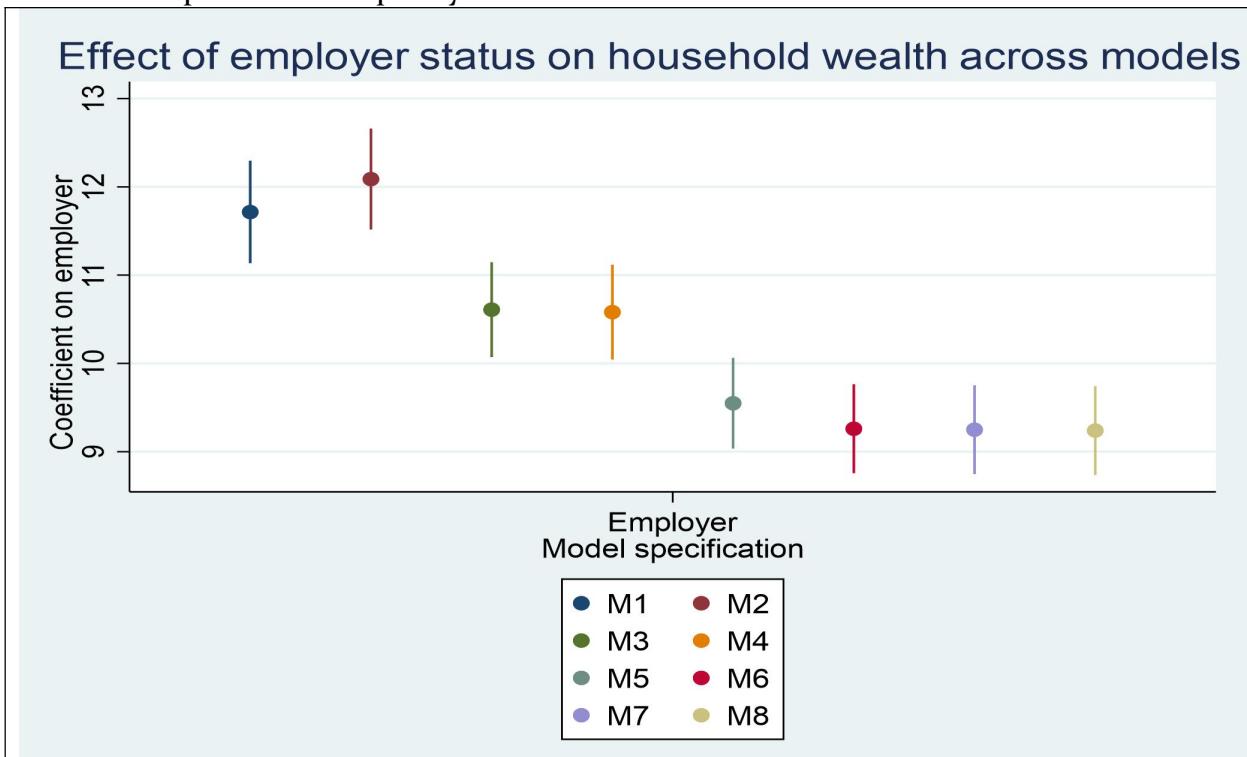


Figure 5. Coefficient plot of employer on wealth index

4.2. Regional and Provincial Heterogeneity in the Wealth Effects of Entrepreneurship

Table 6 shows how the wealth premium associated with being an employer varies across regions and provinces. In the rural sample, the coefficient on employer is 7.744. This means that, after controlling for education, age, marital status, household size, gender and province, rural households whose head is an employer have on average about 7.7 points higher wealth index than otherwise similar self-employed households. In the urban sample, the premium rises to 10.146, indicating that becoming an employer in cities is associated with roughly 10.1 points higher wealth compared with urban self-employed households.



The provincial subsamples tell a similar but more nuanced story. The coefficient of employer in Khyber Pakhtunkhwa stands at 9.442, implying that employer households receive approximately 9.4 score more wealth as compared to self-employed households in the same province. The impact is greater in Punjab, with the coefficient standing at 10.871 which indicates that there is almost 11 point employer wealth advantage. In Sindh, the premium is smaller though quite decent in 6.981, and in Balochistan it is 5.074, the lowest of the provinces but economically significant. In all six subsamples, the employer coefficients are positive, large in value and significant at a 1 percent level and this confirms that there is a steady increase in household wealth attributed to transition to employer status across the whole of Pakistan, though the magnitude of such benefit differs depending on geographic setting.

Table 6. Subsample OLS Estimates of the Effect of Employer Status on Household Wealth by Region and Province

VARIABLES	(1) Rural	(2) Urban	(3) KPK	(4) Punjab	(5) Sindh	(6) Balochistan
Employer	7.744*** (0.349)	10.146*** (0.378)	9.442*** (0.585)	10.871*** (0.385)	6.981*** (0.509)	5.074*** (0.642)
Punjab	0.666*** (0.211)	2.854*** (0.474)				
Sindh	-9.708*** (0.336)	-3.871*** (0.498)				
Balochistan	-2.955*** (0.310)	-5.761*** (0.662)				
Female	0.168 (0.951)	-1.921 (1.208)	1.603 (2.539)	-0.995 (0.968)	-1.362 (1.620)	-1.835 (3.458)
Illiterate	-8.395*** (0.181)	-11.749*** (0.267)	-6.726*** (0.332)	-11.145*** (0.224)	-9.724*** (0.334)	-7.741*** (0.419)
age	0.188*** (0.008)	0.318*** (0.011)	0.202*** (0.015)	0.242*** (0.009)	0.298*** (0.014)	0.208*** (0.020)
Formerly married	-3.923*** (0.907)	-1.719 (1.139)	-5.403** (2.108)	-1.950** (0.920)	-3.291* (1.793)	-0.655 (3.034)
Currently married	-0.610 (0.701)	1.031 (0.841)	-1.539 (1.273)	1.304* (0.715)	-1.317 (1.439)	0.620 (1.759)
Household size	0.226*** (0.035)	0.142*** (0.053)	0.134*** (0.051)	0.259*** (0.047)	-0.143* (0.076)	0.410*** (0.084)
Urban			8.212*** (0.412)	10.099*** (0.208)	13.371*** (0.353)	4.740*** (0.451)
Constant	20.108*** (0.750)	22.231*** (0.994)	20.242*** (1.310)	17.210*** (0.759)	9.303*** (1.531)	14.082*** (1.819)
Observations	19,967	15,536	6,160	19,299	6,891	3,153
R-squared	0.193	0.236	0.188	0.285	0.359	0.171
N	19967	15536	6160	19299	6891	3153

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1



Figure 6 is a visual summary of how the wealth advantage of employer entrepreneurship differs across locations. The plot compares the estimated coefficients for the dependent variable, in this case employer status, based on the baseline model and various regional and provincial subsamples, and the confidence intervals. The baseline estimate indicates a clear positive relationship between employer status and household wealth and this pattern is replicated in the subsample plots where positive effects are consistently observed across all contexts.

But the figure is also pointing out some meaningful heterogeneity. The employer premium is the strongest for urban households where the coefficient is near 10, implying a high wealth return to switching from self-employment status to employer status in urban settings. Punjab and Khyber Pakhtunkhwa also have high coefficients, indicating large wealth advantages for the employer households in these provinces. In contrast, the effect is lower in Balochistan and somewhat moderate in the case of Sindh, which implies that structural market or institutional conditions may restrict the extent to which entrepreneurship translates into wealth in these areas. Overall, the figure indicates that although the link between employer entrepreneurship and higher wealth is consistently positive, the magnitude of this association is affected by the regional and provincial economic environment.

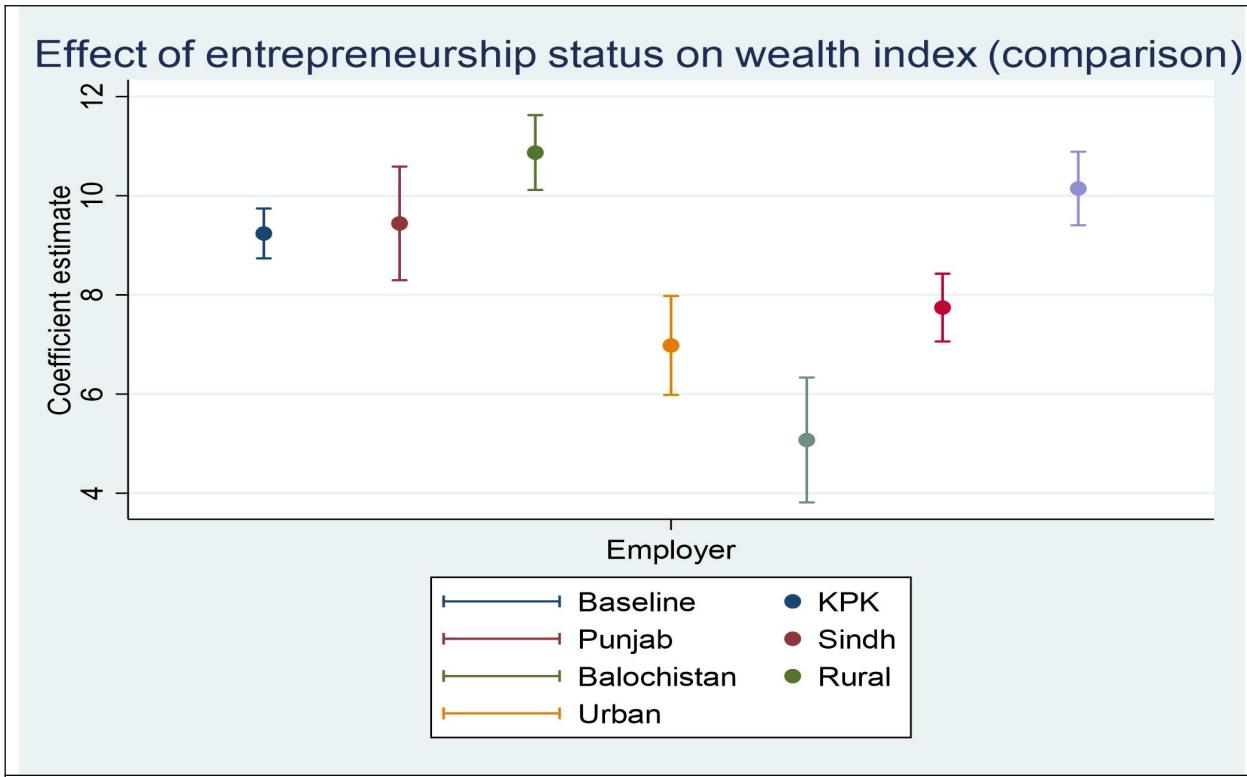


Figure 6. Heterogeneous Impact of Employer Entrepreneurship on Household Wealth

5. Conclusion

This study set out to understand whether all non-agricultural entrepreneurs in Pakistan benefit equally in terms of household wealth. The answer is clear. Households led by employers enjoy significantly higher wealth than those led by self-employed individuals without hired workers. This wealth premium is strong, stable and statistically robust. It remains significant even after adjusting for province, region, gender, education, age, marital status and household size. In simple terms, moving from self-employment to



employer status is associated with a meaningful improvement in household economic wellbeing.

The study also shows that this relationship is not uniform across space. The wealth advantage of employer households is much stronger in urban areas, where markets, infrastructure and business opportunities are better. It is also higher in Punjab and Khyber Pakhtunkhwa, where the business environment appears more enabling. In Sindh and Balochistan, the benefits are still positive, but noticeably smaller. These differences matter. They reflect how geography, opportunity and institutional support shape the rewards of entrepreneurship.

Overall, the findings remind us that entrepreneurship is not a single pathway. Its benefits depend on scale, capability, and context. Simply encouraging "entrepreneurship" is not enough. Pakistan needs policies that help small, survival-oriented entrepreneurs grow into stronger, employment-generating firms. Access to finance, business development support, better markets and region-sensitive interventions can make this transition easier. If approached thoughtfully, entrepreneurship policy can do more than create businesses. It can lift households, reduce vulnerability and strengthen economic resilience across regions of the country.

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