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Effect of Education on Unemployment in Pakistan

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Abstract:

The study is based on the effects of Primary Education on unemployment in Pakistan. Estimating the relationship of the variables the annual data is used from 1980 to 2009. The main objective of this study is to find long run and short run relationship between the variables. For Time Series data ARDL model run. To check the stationary ADF (Augmented Dickey Fuller) Unit root test used. For Short run relationship ECM technique is used and for long run relationship ARDL used. The results of the model shows that there is inverse relationship between the variables, means that if primary education will increased then Unemployment.

Key words: education, unemployment, Pakistan

Introduction:

Education is very imported factor of Human Development. Education encourages industrial sector of the country and made

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educated communities for the people. In fact, Education's quality and quantity affects Labor Force, Governance and working of most institutions. Education increased the productivity in wage employment 10 % if we control the other factors which affect the productivity. Primary education is the base of developing and educated countries (Stern, 2001).

When government crisis are disturbing the survival of the most poor people, then Primary education makes most critical situation. Promoting educational programs will help to eradicate poverty even it begins to yield returns in the labor market Pakistan shows a very critical situation. The economic records are as 5% annual growth rate over a fairly long time period of three decades, from 1960-1990, falling down the poverty to18% (Husain, 1999).

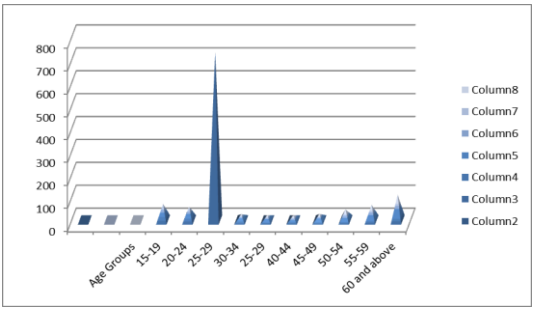
In 1990, two-third part of our country's population was illiterate; enrollment ratios were very low, dropout rates were very high, gender disparities access to education were in very bad position and the quality of education was very poor. There was no Investment in Schooling programs in Pakistan, because of less growing for low level income countries. Pakistan has many factors which affects the education system of the Pakistan that is the problem in the optimal utilization of human resources under giving labor market conditions (Hoodbhoy, 1998).

Many social scientists documented strong relationship between education and development of the nation. Education promotes a productive environment and creates opportunities for under prevailed people. Only education workforce deal with those skills which are exploiting the competitive and beneficial opportunities to remove unemployment from the country. Importance of the education like as a most probable tool for reducing poverty from the economy (Kazmi, 2005).

Unemployment is the most effective factor of education. Unemployment effects education in many ways; when the people are unemployed, they have no source to fulfill their

needs then, how can they educate their children, their first priority is to fulfill basic needs like Food, Shelter and clothes. After that they think about education. The government should promote the primary education especially in rural areas .The policy of promoting primary education in rural areas has control the rate of unemployment for the part of males but not for females (Blomqvist 1985).

Unemployment rates and age %



Source Labour Force Survey 2003-04 and 2005-06

This graph shows the fortified the distributional impacts of the economy of Pakistan which clearly testified that among the young age unemployment rates about males and females (Abbasi, 1989).

In early 1990s, The Social Action Program was introduced to promote education to provide trained teachers for better environment of school is the major aim of SAP. This program can be divided into two phases. First phase was completed in (1993-96) but the second phase is in progress. Based on the available data in Pakistan, most of the studies, for example, Haque (1977), Hamdani (1977), Guisinger et al (1984), Khan and Irfan (1985), Ahmad, et al (1991); and Ashraf and Ashraf (1993a, 1993b, and 1996) estimated the earning functions by defining the dummy variables for different levels of education. These studies observe low rates of returns at different levels of education as compared to other developing

countries. However, a positive association between levels of education and earnings and an inverse relationship between the degree of income inequality and educational attainment has been noted (Ghayur, 1989).

Most recent literature is based on the discussion of primary education with unemployment with control variable inflation deflator. Many researchers explained education's effect on unemployment. The literature helps us to be aware of its determinants, causes, level of its increase in different past phases, the reasons of failures in different societies to best this bother and the plan suggestion as promulgated by different economies to chalk it out. Flower and Freemen (1996) tested it empirically for the US economy. A research conducted by Khan and Ali (1986) explored a mass of educated unemployed falling below the age of 30 in Pakistan. A research conducted by Gayer (1989) on the repercussions of the unemployment of educated youth specific the unemployment to the faulty of the educational and training system, which only neglects demands of the labor markets. Chaudhry and Hamid (1998) divulged the low quality of human resource to blame for unemployment. A study by Lynch (1983) on the spells of youth unemployment stated way of life as a significant variable for the long spells of unemployment in Great Britain. A study by Cartmel and Furlong (2000) on the urban and rural youth unemployment exposed long-term unemployment to be less common in rural areas than urban areas. A study by Andrews and Nickel (1982) on the after world war phase translated the increment in real wages in lengthening of unemployment spells, a 1 percent rise in real wage resulted in 2 to 5 percent increase in duration of unemployment.

The objectives of this research are to increase the tools of money in country

1. To sort out the reasons of unemployment and check these reasons to make customary situation in Pakistan.

2. To adopt the policies in simulation with other countries that has successfully combated it.

Methodology and Results

The study is used to analyze the role of primary education with unemployment in Pakistan from 1980 to 2009.The main purpose of this study is to estimate impact of primary education with unemployment using control variable inflation deflator.

Dependent variable: Unemployment
Independent variable: Primary education
Control variable: Inflation Deflator

Table no.1 labeling of variables and source of data

Label	Variables	Source of data
UNEM	Unemployment	World Development Indicator (WDI).
PE	Primary Education	World Development Indicator (WDI).
ID	Inflation Deflator	World Development Indicator (WDI).

Methodological Frameworks

In theoretically, we hypothesize with the aim of unemployment is a function of primary education and Inflation deflator, where Unemployment is the Dependent Variable and Primary Education is the Independent Variable, Where Inflation Deflator is the Control Variable. Mathematically:

Model
UNEM =f (PE, ID)
$UNEM = \beta o + \beta_1 PE + \beta_2 ID + \mu_t$
UNEM = Unemployment
PE = Primary Education
ID = Inflation (GDP) Deflator
μ_t = Error term

Hypothesis of Model

H_0: $\beta_1 = 0$ Primary education did not affect unemployment.
H_1: $\beta_1 \neq 0$ Primary education did effect unemployment.
H_0: $\beta_2 = 0$ Inflation deflator did not affect unemployment.
H_1: $\beta_2 \neq 0$ Inflation deflator did effect unemployment.

The Augmented Dickey Fuller test is used to test stationary of variables. The Augmented Dickey Fuller test (ADF) is one of the types of Unit Root tests, it used when time series is AR (p) [where p shows the number of observation] and error term is not correlated with independent variable. The Unit Root is an attribute of a statistical model of a time series whose autoregressive parameter is one.

ARDL Model 1

Long Run Equation

$$\Delta EDX = \alpha_0 + \sum_{i=1}^{k} \alpha_{it-i} PC + \sum_{i=1}^{k} \chi_i GDP_{t-i} + \sum_{i=1}^{k} \varphi_i INF_{t-i} + \sum_{i=1}^{k} \gamma_i POPD_{t-i} +$$

$$\sum_{i=1}^{k} \theta_i EDX_{t-i} + \sum_{i=1}^{m} \rho_i \Delta PC_{t-i} + \sum_{i=1}^{m} \tau_i \Delta GDP_{t-i} + \sum_{i=1}^{m} \upsilon_i \Delta INF_{t-i} + \sum_{i=1}^{m} \psi_i \Delta POPD_{t-i} +$$

$$\sum_{i=1}^{m} \lambda_i \Delta EDX_{t-i} + \varepsilon_t \ldots$$

Short Run Equation

$$\Delta EDX_t = \sum_{i=1}^{m} \rho_i \Delta PC_{t-i} + \sum_{i=1}^{m} \tau_i \Delta GDP_{t-i} + \sum_{i=1}^{m} \upsilon_i \Delta INF_{t-i} + \sum_{i=1}^{m} \psi_i \Delta POPD_{t-i} +$$

$$\sum_{i=1}^{m} \lambda_i \Delta EDX_{t-i} + ECM_{t-1} + \varepsilon_t \ldots$$

The empirical results consist of the model which empirically explain the impact of primary education with unemployment. Where in this model unemployment is dependent variable and

primary education is the independent variable which used as proxy of economic development with control variable inflation deflator.

Results

Variables	Augmented dickey fuller test			Stationary
UNE	-6.601430	1%	-4.323979	At 1st difference
		5%	-3.580623	
		10%	-3.225334	
PE	-4.349929	1%	-4.339330	At 1st difference
		5%	-3.587527	
		10%	-3.229230	
ID	-5.882560	1%	-4.339330	At 1st difference
		5%	-3.587527	
		10%	-3.229230	

Results of Model:

Table 1 Variable Addition Test (OLS case)

Lagrange Multiplier Statistic	CHSQ(3)	15.1036	.002
Likelihood Ratio Statistic	CHSQ(3)	22.1292	.000
F Statistic	F(3, 19)	8.0407	.001

The exceeding results of the variable addition test verified that their exit long run relationship between Primary education and Unemployment. F-statistic shows no co-integration because of rejection of null hypothesis, which means that Primary Education affect Unemployment. (Pesaran, et al 1999)

Table 2 Estimated Long Run Coefficients using the ARDL Approach

ARDL (1, 0, 0) selected based on Akaike Information Criterion

Dependent variable is UNEM

28 observations used for estimation from 1982 to 2009

Regressor --	Coefficient	Standard Error	T-Ratio	Prob
LPE	- 10.7250	1.7714	6.0546	.000
LID	2.1146	1.3132	-2.6103	.020
C	19.3910	4.2507	4.5618	.000

The empirical results of long run model are obtained by normalizing unemployment, which shows in above table. The results of our model tell us that there exist an inverse relationship between Primary Education and Unemployment. When Unemployment increased then primary education will also decreased as a result our inflation deflator increased which shows that if some remedies are used to control unemployment then education would be increased. Some economist provided the evidence for the causal relationship between primary education and unemployment. The above table results show that there exists negative relationship between primary education and unemployment. The results show that 1 % increase in primary education leads to decreased 10.7250 % in unemployment and statistically significantly. The 1% change in primary education leads to decrease 2.6103% in inflation deflator. The results are showing in demographically as:

Table 3 Error Correction Representation for the Selected ARDL Model

ARDL (1, 0, 0) selected based on Akaike Information Criterion
Dependent variable is dune
28 observations used for estimation from 1982 to 2009.

Regressor	Coefficient	Standard Error	T-Ratio	Prob
dLPE	6.4585	2.0772	3.1092	[.005]
dLID	-1.2734	.86240	-1.4766	[.153]
dC	11.6771	4.1175	2.8360	[.009]
ecm(-1)	-.60219	.17548	-3.4317	[.002]

The above results an inverse relationship between variables because F-statistics is compared with two sets of critical values. If the calculated F-statistics is greater than critical value then there is no co-integration exist, so null hypothesis are rejected which shows that there exists long run relationship among the variables.

Once identifying the reality of long run relationship among unemployment and primary education; therefore in command to establish short run relationship error correction model (ECM) used. From the above Table, elaborates the ECM model results that verify the reality of a short-run relationship among Unemployment and Primary education in Pakistan. . Error correction model (ECM) worth shows the speediness of convergence, which is close to concerning 60219. The value of the ECM shows that 60 % (percent) convergence get position in one year.

R-Squared	.33101	R-Bar-Squared	.24739
S.E. of Regression	.80969	F-stat. F(5, 21)	3.9583[.020]
Mean of Dependent variable	.16276	S.D. of Dependent Variable	.93333
Residual Sum of Squares -	15.7345	EquationLog-likelihood	-31.6614
Akaike Info. Criterion - - DW-statistic 2.6564	-35.6614 1.9587	Schwarz Bayesian Criterion	-38.3258

Suggestions:

After finding the results, the study shows that there is inverse relation between the Unemployment, Primary education and Inflation Deflator. If Unemployment decreased than our Inflation Deflator, increased and primary education increased too. Make Investment in Private and non-governmental educational institutions. Investments in education have been fulfilled the peak main concern for the country above the small time and a figure of personality plans include outlined for this idea. Unluckily in Pakistan, low representative goods for this position and very low salaries on hand to the teachers, particularly at the primary level, accorded to basic education means that small point in time of priority. An increase in the budgetary allocations for education this requires not only but

also its optimal utilization. In adding up, remarkable events are desired to slim down the femininity and state gap.

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