



The probability value is 0.1619 which exceeds 0.05 meaning that we cannot reject Null hypothesis which further implies that error term is normally distributed.

4.2.5 Bound Test **IEEESEM**

Bound test is used to identify whether long run relationship between dependent and independent variables exist or not.

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	4.744392	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

The above value of F-statistics is 4.74 which exceeds the upper bound value of 3.67 at 5% level of alpha, means that Long Run relationship exists between predicting and predictor variables.

4.3 ARDL Model:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EDU_EXP	-3.343200	1.533488	-2.180128	0.0361
GFCF_PC_GDP1	-0.246363	0.497839	-0.494865	0.6238
ODA1	8.32E-10	8.48E-10	0.980778	0.3334
C	12.88210	3.662962	3.516853	0.0012

The estimated equation will be like.

$$\text{GDP growth} = \beta_0 + \beta_1 \text{Education expenditure} + \beta_2 \text{ODA} + \beta_3 \text{GFCF_pc_GDP} \dots \dots \dots (1)$$

or

$$\text{GDP growth} = 12.88 - 3.34 \text{Education expenditure} + 8.32 \text{ODA} - 0.24 \text{GFCF_pc_GDP} \dots (2)$$

From the above values of estimation, we can say that there exists a negative relationship between education expenditure and GDP growth rate in the case of Pakistan. The value of t-statistics and probability confirm its significant impact. Each one-unit change in education expenditure has brought a negative change in GDP growth rate by 3.34 units. On the other hand, official development assistance (ODA) has positive insignificant and GFCF has negative insignificant relationship with GDP growth rate.

4.4 Conclusion

The overall results after applying the essential tests conclude a long run negative and significant relationship between education expenditure and GDP growth rate in case of Pakistan which means that there is some leakage or misuse of the expenditure. Also, an

enormous rate of brain drain from the developing economies to the developed world is a general trend for a long time. Most of our researchers, doctors, engineers and other technical experts go abroad as they do earn attractive income here and hence affect domestic economy

awfully as the affairs of the already struggling economy are then regulated by the inexperience and, or under-educated people which further deteriorate the crippling situation of the local economy.

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Chapter 5

Conclusion

5.1 Conclusion

The study has been conducted to find impact of education expenditure on economic growth of Pakistan. In the given study 3 independent variables are used which are education expenditure, gross fixed capital formation and official development assistance. Various test have been applied i.e Jacque-bera for normality, ADF test for stationarity, Bound test to find relationship between dependent and independent variables. The data has been taken from World Development Indicator (WDI) for the period 1975-2016.

The tests and results concluded that there is a long run negative and significant relationship between education expenditure and GDP growth rate of Pakistan which means that the education expenditure of Pakistan is wasted or misuses. There are many reasons for that like corruption and most of the foreign aid for education is wasted by the government. There is also a problem of brain drain in developing countries like Pakistan. Most of our doctors, engineers, researchers go abroad for better jobs and lifestyle. This greatly affect the economy as experience citizens left the country leaving behind un-educated and inexperience people.

Recommendations

- 1.** Government should make Spending distribution fair.
- 2.** Proper education should be provided to improve human's skills.
- 3.** Government should increase education expenditure because it will help in economic growth as educated people will make economy good.
- 4.** In public policies government should keep education on top priority.

- 5.** Government should depend more on its own resources and should not dependent more on foreign aid.
- 6.** Government and policy makers should utilized aid positively.
- 7.** Government should focus on institutional development and technical education.
- 8.** Primary education should be made compulsory and free of cost.

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References

- Ali, H. Mahmud, A. (2018). Relationship between Education and Economic Growth: Case study of Pakistan. *International SAMANM Journal of Finance & Accounting (ISJFA)*. 6 (1). 2309-3439.
- Arif, S. Shahzad, A. Hayat, M. (2017). Comparative Analysis of the Vision of Quality Education of different Political Parties in Pakistan. *FWU Journal of Social Sciences*. 11 (1). 202-218.
- Anwar, M. Aman, S. (2010). Aid Effectiveness in the Education Sector of Pakistan. *Pakistan Journal of Social Sciences (PJSS)*. 30 (2). 355-371.
- Asghar, Z. Zahra, M. (2012). A Benefit Incident Analysis of Public Spending on Education in Pakistan Using PSLM Data. *The Lahore Journal of Economics*. 17 (2). 111-136.
- Arshed, N. Hanif, N. (2016). Relationship between School Education and Economic Growth: SAARC Countries. *International Journal of Economics and Financial Issues*. 6 (1). 294-300.
- Arshad, M. Farooq, O. Sultana, N. Farooq, M. (2016). The Role of Foreign Aid in the Development of Pakistan's Education Sector: A Time-Lag Analysis. *European Online Journal of Natural and Social Sciences*. 5 (3). 588-594.
- Ali, A. Hakim, R. Abdullah, H. (2017). Relationship between Government Spending on education and economic growth of Pakistan. *Asian Journal of Multidisciplinary Studies*. 5 (2). 2348-7186.
- Afzal, M. Butt, A. Akbar, R. Rosh, S. (2013). Gender Disparity in Pakistan: A Case of Middle and Secondary Education in Punjab. *Journal of Research and Reflections in Education*. 7 (2). 113-124.
- Ahmed, S. Javed, A. (2017). The Effect of Public Sector Development Expenditures and Investment on Economic Growth: Evidence from Pakistan. *Journal of Economics and Political Economy*. 4 (2). 203-214.

Anwar, M. Khan, G. Khan, S. (2017). The Impact of Foreign Aid on Education in Pakistan. *Journal of Education in Black Sea Region*. 3 (1). 106-115.

Awan, A. Zia, A. (2015). Comparative Analysis of Public and Private Educational Institutions: A Case Study of District Vehari-Pakistan. *Journal of Education and Practice*. 6 (16). 122-130.

Hakro, A. Akram, M. (2007). The Incident of Government Expenditures on Education and Health: Microeconomic Evidence from Pakistan. *The Lahore Journal of Economics*. 12 (2). 27-48.

Jabeen, N. Shah, F. (2015). Impact of Government Spending in Education on Economic Growth in Pakistan. *RADS*. 3 (1). 25-35.

Khattak, N. Khan, J. (2012). The Contribution of Education to Economic Growth: Evidence From Pakistan. *International Journal of Business and Social Science*. 3 (4). 145-151.

Khattak, S. (2018). The War on Terror is a War on Women: The Impact of Terrorism and Counter-Terrorism on Pakhtunkhwa (Pakistan). *Journal of International Women's Studies*. 19 (6). 157- 177.

Mukit, D. (2012). Public expenditure on Education and Economic Growth: The Case of Bangladesh. *International Journal of Applied Research in Business Administration and Economics*. 1 (4). 10-18.

Rahim, B. (2017). Improving Primary Education in Pakistan: An Examination of the Association between School Autonomy and Children's Learning Outcomes. *Forum for International Research in Education*. 4 (1). 94- 112.

Reza, A. Valeecha, S. (2012). Impact of Education on Economic Growth of Pakistan Econometric Analysis. *IOSR Journal of Business and Management (IOSR-JBM)*. 5 (4). 20-27.

Riaz, H. Jabeen, N. Salman, Y. Ansari, N. Moazzam, A. (2017). A Study of Higher Education Reforms in Pakistan: Key Reforms and Drivers. *Journal of the Research Society of Pakistan*. 54 (2). 79-94.

Sarwar, A. Jadoon, A. Azeem, A. (2017). Education, Employment and Economic Growth Nexus: A case study of Pakistan. *JISR-MSSE*. 15 (1). 15-30.

Umer, S. Othman, Z. Hassan, K. (2016). Education and Empowerment of the Women in Rural Areas of Balochistan: The Views of Baloch Tribal Men. *International Journal of Humanities and Social Science*. 6 (10). 24-29.

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