

Dynamics of Solow residual technology – a case of Pakistan

BS Thesis



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Acknowledgement

Turning ambitions into reality is quite easier when there are people who provide you constant support from sharing of knowledge, experiences and precious time to moral support.

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Declaration

I hereby declare that no portion of this work that appear in this study has been used in support of an application for another degree in qualification to this or any other university or institution of higher learning.

This thesis is a presentation of my original research work. Wherever contributions of others are involved, every effort has been made to indicate this clearly, with due reference to the literature and acknowledgement of collaborative research and discussions.

The work was done under the guidance of Mr. Noman Arshed, Lecturer, Department of Economics, School of Business & Economics, University of Management and Technology, Lahore Pakistan.

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In my capacity as supervisor of the candidate's thesis, I certify that the above statements are true to the best of my knowledge.

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Table of Contents

Acknowledgement	2
Declaration.....	3
Abstract:	5
1. INTRODUCTION	6
1.1. Research objective:	8
1.2. Research Questions:.....	9
1.3. Theoretical Model.....	9
2. LITERATURE REVIEW:	11
3. METHODOLOGY:	19
3.4. Construction of Technology:	21
3.5. Methods of Analysis:	21
4. ESTIMATION:	24
4.2. Technology and Industrial Value addition Model (Model 1)	25
4.2.1 VECM	29
4.2.2 Long Run and Short Run Coefficients:.....	33
4.2.3. Diagnostics.....	35
4.3. Technology and Environment Quality Model (Model 2)	38
4.3.1. VECM	42
4.3.2. Long Run and Short Run Coefficients:.....	44
4.3.3. Diagnostics.....	46
4.4. Technology and Labor Market Model (Model 3)	48
4.4.1. VECM	52
4.4.2. Long Run and Short Run Coefficients:.....	56
4.4.3. Diagnostics.....	57
5. Results:.....	60
6. Conclusion:	61
6.1. Policy Implications:	64
7. References:.....	65

Abstract:

Technology is usually considered as a determinant of productivity, manufacturing industries are more commonly observed to use technology in order to enhance their level of productivity. This study has tried to capture the impact of technology on its contribution in industrial value addition, environment quality and capacity to create jobs. For this three models are constituted for the case of Pakistan. This study has used Vector Error Correction Model, utilized to estimate long run pattern of changes in technology. The results showed that technology has a positive impact on industrial value addition, it improves the environmental quality by reducing the carbon emissions and it has the potential to create jobs and reduce unemployment in long run.

Keywords: Technology, Industrialization, Environment Quality, Carbon emissions, and unemployment.

JEL Classification: Q55, L50, Q51, E24

Chapter 1

1. INTRODUCTION

In a process of production the production function gives the quantitative relation between physical output and physical inputs, the physical inputs in other words is basically the production function. Production function is considered as one of the main notion of neo-classical economics. It provides us a structure to analyze the contribution of Capital, Labor and technology in economic growth. With the help of this we can estimate that up to what extent the inputs such as capital and labor are contributing in economic growth, and what is the contribution of technology in economic growth. All the inputs in production function are subjected to diminishing returns, except technology,