



# The Indian Economic Journal

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## Banking and Financial Sector for New India

- ▶ NPAs and Revival of Banking Sector
- ▶ Measures to Improve Non - Banking Financial Companies
- ▶ Cooperative Banking Problems and Solutions
- ▶ Credit to Agriculture and MSMEs
- ▶ Insolvency and Bankruptcy Code
- ▶ Technology and Financial Sector
- ▶ Financial Inclusion





# The Indian Economic Journal

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The Journal, an organ of the Indian Economic Association aims at promoting scientific studies in Economic Theory, Indian Economic Policies, Energy and Water Resources, Human Resources Development, Monetary Economics, International Trade and Finance, Industrial Economics, Poverty and Unemployment and related topics of current interest.



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## Determinants of Financial Inclusion In Goa: A Micro Level Analysis

Meenakshi Bawa

### ABSTRACT

The aim of the paper is to examine the extent of financial inclusion at both the individual and household level in Goa and to identify the individual and household characteristics which impact financial inclusion. The paper begins with a brief analysis of financial inclusion in Goa. As far as computing the index of financial inclusion for Goa is concerned, this study is restricted to two dimensions of financial inclusion. The access to banking services is measured in terms of two indicators, namely, geographic branch penetration (i.e. bank branches per 100 sq. km.) and demographic branch penetration (i.e. bank branches per 10000 people), basically reflecting the availability of banking services. The use of banking services is measured in terms of total deposits mobilized and total credit advanced. The study uses primary data made available by means of a structured interview schedule administered to 400 households across four talukas in the state of Goa. The study reveals that several factors play an important role in determining whether an individual would have a bank account or not. The estimation results of the binomial logistic regression model show that the individual's educational attainment, his/her age and he/she being a beneficiary of some government scheme have a positive impact on his/her holding a bank account. For the purpose of this study, the number of bank accounts held by a household is used as an indicator of financial inclusion. In the present study, all the sample households had bank accounts and hence were financially included. The multiple regression estimation results reveal that a household earning higher income, belonging to the APL category, having more adult members and more members who are employed will have a greater degree of financial inclusion. Further, if the household head is older and educated, it will have greater financial inclusion. This micro-level study of financial inclusion among households in Goa highlights the demand-side factors that need to be considered so as to attain higher levels of financial inclusion. The results reveal that household income is an important factor that influences financial inclusion. A major implication of the study is that states with higher per capita income, like Goa, can achieve higher levels of financial inclusion. In the less developed and underdeveloped states, availability of banking facility and infrastructure may be important factors determining financial inclusion. It, therefore, follows that the elevation of the poorer population can only be realized through higher banking facility, better education and better income and employment.

**Keywords:** Financial inclusion, Index of Financial Inclusion, Access dimension, Usage Dimension, binomial logistic regression

Associate Professor

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## MEASURING LABOUR AND CAPITAL PRODUCTIVITY IN ORGANIZED TEXTILE SECTOR OF INDIA IN POST- REFORM PERIOD

Rajesh V. Shetgaokar

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### ABSTRACT

The paper examines the issue related to the measurement of labour productivity in the organized textile sector of India. The study using ASI data between 1991-92 to 2014-15, estimated the trends in labour productivity, capital productivity. The paper also explores the relationship between capital intensity and labour productivity. Analysis reveals that in the post-reform period, there is substantial acceleration in labour productivity in the post-reform period. The results also reveal that capital productivity has shown dwindling trends in the organized textile sector of India. Moreover, capital intensity has been found as a significant factor influencing labour productivity. The relationship between capital intensity and capital productivity was found negative. The growing capital intensity in the textile sector, suggests that the sector is getting modernize.

**Key words:** Textile, Reforms, Productivity, Labour, Capital, Capital intensity

**JEL Codes:** JO1, JO8, J21

### INTRODUCTION

In a labour-abundant country like India, the productivity issue has received significant deliberation from the economic and political communities. It is largely due to positive contribution of labour productivity in economic growth and development, particularly in underdeveloped countries. There is enormous substantiation in theory and empirical literature about the nexus between productivity and economic growth. Eminent studies have shown that economic growth accomplished through a sustained increase in labour productivity can raise per capita income (Bandopadhyay, 2008). Higher productivity is considered as a conceivable route to support competitiveness and place the country on a strong growth path. Labour productivity - wage rate link stimulates workers to be productive by influencing their willingness and ability to work.

Although labour productivity play a multidimensional role, empirical literature shows that no concrete attempt was made to estimate labour productivity in India. Most of the studies preferred total factor productivity concept over labour productivity. Several arguments were put forward for justifying the estimation of total factor productivity rather than labour productivity. Researcher argued that the labour productivity measured by partial productivity index does not hypothesise the influences of productivity in its respective capacity, but assimilates the cumulative influence of other inputs. Again, an aggregation of all inputs does not bring a direct effect of the technical



# Journal of Positive School Psychology

## Acceptance of Research Paper

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Dear Authors:-

**Rajesh V. Shetgaokar,**

We would like to inform you that your paper titled “**Determinants of Labour Productivity in the Organised Textile Industry of India: A Panel Data Approach**” has been accepted for publication in **Journal of Positive School Psychology**, in the forthcoming issue, 2022, based on the Recommendation of the Editorial Board without any major corrections in the content submitted by the researcher. This letter is the official confirmation of acceptance of your research paper.

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## Determinants of Labour Productivity in the Organised Textile Industry of India: A Panel Data Approach

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### Abstract

The paper aims at identifying the major determinants of labour productivity in the organised textile sector of India using unit-level panel data drawn from ASI for the period 2007-08 to 2018-19. Based on the Hausman test results, the fixed effect model was more consistent, efficient and reliable than the random effect model for interpretation of results. The results obtained were consistent with economic theories and empirical literature. The skill, capital intensity, wages and capacity utilisation were the most significant determinants of labour productivity in the organised textile sector of India. This further substantiates the significance of all these variables in accelerating labour productivity. The conclusive relationship between wages and labour productivity recommends that textile firms should set up a productivity-based wages policy. Also, comprehensive skill development programs have to be developed for the entire value chain of the textile industry supported with technological advancement.

**Key Words:** *Labour Productivity, Textile Sector, Panel Data, Skill, Capital Intensity, Wages, Capacity Utilisation*

### 1. Introduction

A sustained increase in productivity is a prime factor in economic growth. There is mounting theoretical and empirical evidence that productivity growth can accelerate economic growth and development. A developing country like India with surplus labour and a scarcity of capital is required to increase labour productivity for its rapid economic growth and development. However, developing countries have experienced negative growth in productivity for several decades due to inefficient utilisation of resources and poor labour productivity performance (Barik, 2009; Bhatia, 2018). Notwithstanding, an economy's ability to grow and develop is influenced by several factors that contribute to economic growth and development in the long run. Labour productivity deserves particular attention among these factors. One can attribute this to several reasons. Firstly, the percentage of labour input that

makes up the labour cost of production is relatively high. Secondly, it provides a comparative analysis of the contribution of labour and capital in production. Thirdly, labour productivity is highly correlated with social welfare and standard of living. Fourthly, statistics on labour, including the number of people employed and hours worked are mostly available for conducting the research and analysis (Heshmati, 2009). Fifthly, per capita income in the economy is also determined by the rate of growth in labour productivity. Higher labour productivity also indicates better capital utilisation in the economy. Sixthly, the productivity of the labour force is a significant factor for determining competitiveness and providing better support for bargaining wage rates for workers.

Although labour productivity plays a multidimensional role, empirical literature shows that no concrete attempt was made to



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## **DETERMINANTS OF LABOUR PRODUCTIVITY IN THE ORGANISED TEXTILE SECTOR OF INDIA: DYNAMIC PANEL DATA EVIDENCE**

**Rajesh V. Shetgaokar**

Assistant Professor, M.E.S College of Arts and Commerce, Zuarinagar-Goa

### **Abstract:**

The paper aims at identifying the major determinants of labour productivity in the organised textile sector of India using the panel data methodology. The study utilized plant level panel data drawn from ASI for organised textile firms for the period 1998-99- 2018-19. Based on the Hausman test results, fixed effect model was consistently more efficient and reliable than random effect models. The results obtained are consistent with economic theories and empirical literature. As evident from the result, skill, capital intensity, wages, capacity utilization were the most significant determinants of labour productivity in the organized textile sector. This indeed further substantiates the significance of all these variables in boosting productivity. The finding will supplement the existing literature as mostly the determinants of labour productivity are neglected topics in India. The conclusive relationship between wages and labour productivity recommends that textile firms should carry out the productivity-based set up of wages policy. Also, comprehensive skill development program have to be developed for the entire value chain of the textile industry supported with technology advancement.

**Key Words:** *Labour Productivity, Panel data, Skill, Capital Intensity, Wages*

### **Introduction**

Labour Productivity is a decisive driver of economic performance and precisely influences the welfare of people in the economy. The divergence in output in the economy across time is due to the difference in the contribution of labour productivity (Romer (1996)). According to ODEC (2011), the increment in labour productivity facilitates the country to boost its competitive position and keep the nation at the leading edge in global performance. Further, labour productivity is recognized as an indicator that demonstrates the efficiency of the workforce. The upsurge in labour productivity is indispensable for enlarging the standard of living. The growth in labour productivity leads to increment in wages due to increased output per labour. Also, it is a better measure of scrutinizing the trends in long run economic growth due to given biases in obtaining the capital stock. Further, higher labour productivity reveals a better utilization of capital. The empirical literature states that per capita income over the long term revolves around growth in labour productivity. It also contributes significantly to captivate investment in the different sectors of the economy as it regulates the profitability. Higher labour productivity also contributes to the expansion in exports as it lowers the per-unit cost and helps the firms to export the good and services at competitive price in the international market.

The issue of labour productivity is of extraordinary interest especially in developed countries as it mirrors the welfare and developmental level. Surprisingly, India being a labour-intensive country, these issues are not accorded considerable attention. The scant attention to labour productivity is the cause of apprehension because it is estimated that the productivity of labour is noticeably low in India. For instance, for the period 2003-04 to 2008-09, India's labour productivity advanced by over average 14 percent every year. This period was a phase of a high growth rate in India.



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# *Stochastic Modeling & Applications*

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**ANALYSIS OF THE REAL WAGE- PRODUCTIVITY RELATIONSHIP IN THE ORGANIZED TEXTILE SECTOR OF INDIA USING THE VECM APPROACH****RAJESH V. SHETGAOKAR****ABSTRACT**

*The paper examines the wage-productivity relationship between the real wage rate and labour productivity in the organised manufacturing sector of India for the period of 1980-81 to 2018-19 using the Annual Survey of Industries data. The study aims to establish causality between the two variables in the short run and the long run. Analysis suggests that the organized textile sector of India has experienced a substantial wage productivity gap, where labour productivity have shown the accelerating trends but at the same time the real wage rate have remain stagnant during the study period. Further, the pair-wise Granger Causality test shows that in the organised textile sector of India, the causality runs in a unidirectional way from real wage to labour productivity. Further, to understand the real wage rate and labour productivity causality in short-run and long-run, the study applied the Vector Error Correction Model (VECM). The VECM results also reveal unidirectional causality from real wages to labour productivity operates in the long-term and the short-term. Moreover, any deviation in the long-run equilibrium will be corrected by 13 percent each year as per error correction term estimates. Thus, considering the positive influence of real wages on labour productivity, it would be appropriate to link wages to labour productivity in organised textile sector of India.*

**INTRODUCTION**

Families and wage earners need wages to sustain their living standards. Economic progress and social justice are also closely associated with wages and labour productivity. The studies have shown that higher wages increase productivity since it improves workers' health and physical capabilities. In addition, a wage increase stimulates employees to carry out more intensive work (Yusof, 2007). According to Erumban et al. (2016), a real wage is a tool by which productivity is deciphered into welfare. Further, living standard depends critically on real wages (Katovich and Maria, 2018). A close relationship between wages and productivity helps the country to achieve international competitiveness and deplete wage-price spiral risks. Also, the most common reason for industrial disputes is wage issues. Collective bargaining is centered on them. Higher productivity facilitates higher wages and an increase in wages induces an increase in productivity (Patra, 2012). When labour productivity rises, it provides a ground for labours to demand higher wages. The real wages of workers must rise significantly in order to benefit from the gains in labour productivity.

Economic growth is inextricably linked with real wages and both of these factors contribute to welfare. Considering neoliberal reforms taking place in developing countries, the relationship between wages and productivity has become increasingly relevant (Das et al., 2017). According to theory, labour productivity should increase together with real wages, but recently, there has been a growing disparity between them (Erumban and Vries, 2016). In reality, wage distribution tends to diverge depending on economic and institutional factors (Katovich and Maria, 2018). Although real wages, employment and productivity are correlated, the evidence is contradictory about their relationship. For instance, according to Bhattacharya and Mitra (1994), wages in the organized manufacturing sector of India are growing more slowly than productivity. Based on the methodology, the data and perhaps the deflator used, there is varying support for the wage-productivity relationship. Policies in the area of wages must be understood and implemented by policymakers to establish comprehensive and continuous growth.

Considering the significant nexus between real wage rate and labour productivity, we attempt to explore the nexus between labour productivity and wages in organized textile industry of India. We found previous studies on real wage rates and labour productivity is mainly aggregate-based. There have been no studies specifically dealing with the issue of causality between the real wage rate and labour productivity. Receiving cognizance of this, we offer to fill this void by estimating labour productivity in the textile industry of India. Our study is precisely industry specific as we recognise that, Indian industries have a formidable degree of intra-industry diversity. Policy measures based on the macro level will fail to transmit a rewarding outcome due to significant contradiction in policies of each state, the sectors and deviation in the performance of each industry (Kathuria, 2010). The in-depth study of this issue will be of enormous value to validate the implication of real wage-productivity relation particularly in labour-intensive industry like textile. Thus, this paper will be a potentially