

# **ESSAYS ON THE INDIAN LABOUR MARKET**

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**INDIAN INSTITUTE OF TECHNOLOGY DELHI**

**JULY 2022**

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# **ESSAYS ON THE INDIAN LABOUR MARKET**

*by*

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**Submitted**

**in fulfilment of the requirements of the degree of Doctor of Philosophy  
to the**



**INDIAN INSTITUTE OF TECHNOLOGY DELHI**

**JUNLY 2022**

# THESIS CERTIFICATE

This is to certify that the thesis titled **Essays on the Indian Labour Market**, submitted by **Diti Goswami**, to the Indian Institute of Technology, Delhi, for the award of the degree of **Doctor of Philosophy**, is a bona fide record of the research work done by her under our supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

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## ACKNOWLEDGEMENTS

I express my heartfelt gratitude to many people for their support during my doctoral days at IIT Delhi. I am immensely grateful to my academic advisor, Sourabh Bikas Paul, for his guidance and support. Apart from completing the thesis, he has been an inspiration to me in many ways. I will always be grateful for his companionship and the affection bestowed on me. In addition, I owe thankfulness to family and friends, Ma and Baba (parents) being the foremost. My biggest strength in this journey is the unconditional love and support of my mother (Durba Goswami) and father (Jayanta Goswami). Their teaching of kindness, compassion, patience, and resilience, among others, have helped me to sail through the ups and downs thus far. I will always be thankful to my lifetime motivator, my brother, Rishi Goswami, for his encouraging words that instilled hope and confidence in me. A warm and special thank-you to my partner, Souradeep Ghosh, for supporting me in whatever way possible and making me happy. I am also immensely thankful to my grandparents, uncles, aunts, and cousins for all the blessings and kind support. For his mentor-like role in my life, I am always grateful to Sandeep Kumar Kujur, who has been an integral part of my life journey for the last couple of years.

I wholeheartedly thank the members of my student research committee, Ankush Agarwal (IIT Delhi), Debasis Mondal (IIT Delhi), and Abhiroop Mukhopadhyay (ISI Delhi), for the insightful suggestions and support in the thesis. I am also thankful to the faculty members of the Humanities and Social Science Department, IIT Delhi, for their support at various stages of my doctoral journey, especially Reetika Khera, Jayan Jose Thomas, V Upadhyay, and Sisir Debnath. This journey would not have been possible without the encouraging support from my friends both in my hostel and department. I was lucky enough to develop some special bonds with my hostel mates. Mandira, Suchismita, Soumi, Aranya, Srishti, Gunjan di, and Priya owe a special thanks for keeping me sane. In the department, I have spent some wonderful moments with Vandita, Megha, Sandip Dutta, Jayesh, Chinju, Ahalya, Asmita, Ekta, Deeksha, Satheesha, Neha, Taniya, Rituparna Kaushik, Neaketa, Prakriti, Angarika, Neise, Kopal, Komal, Rituparna Sengupta, Abhigya, Sandip Debnath, Debottam, and Anand among many others to whom I would be ever grateful for bringing cheer in my life. I am thankful to all the administrative staff at IIT Delhi for the support extended to facilitate my PhD. Like most graduate students, I have also been through phases of self-doubts. The unconditional support and affection I have received from all these amazing people have improved me over the years. However, any errors or limitations in my thesis are mine alone. As my doctoral journey ends, I will be grateful to these wonderful people and cherish the fond memories.



# ABSTRACT

Creating productive jobs is crucial for sustainable growth, especially in developing economies. Against this background, the importance of organised manufacturing in India is manifold as the facilitator of employment creation and productivity growth. Thus the thesis provides a detailed understanding of three crucial aspects of organised manufacturing in India, focusing on the employment and productivity dynamics.

First, the thesis analyses the dynamics of job reallocation in India's organised manufacturing using establishment-level longitudinal data of the Annual Survey of Industries (ASI) from 2004-05 to 2014-15 and the methodology stated in Davis and Haltiwanger (1992). The study finds that during the expansionary periods, job creation and job destruction were rising. While during the contractionary period from 2008-09 onwards, job creation declined, whereas job destruction was constant. The reallocations of jobs varied substantially across the narrow heterogeneous sectors defined by observable plant characteristics. The rate of these simultaneous job creation and destruction processes is high for a large number of establishments and accounts for a significant portion of worker reallocation. However, the persistence of these newly created and destroyed jobs is low. Theories like 'passive learning' and 'between sector employment shifts' partially explain this phenomenon of high job reallocation. The study provides useful insights into labour demand, worker reallocations, and establishment heterogeneity, especially in a catching-up country like India.

Second, the study examines the micro-components of aggregate productivity growth from within the plants, re-allocation between plants, and net entry effects over the business cycle, using plant-level data of the organised manufacturing sector in India. The pro-cyclicality of the aggregate productivity growth is explained by the pro-cyclical contributions from scale economies, capacity utilization, technological progress from within the plants, and re-allocation of inputs pertaining to plants. This pro-cyclicality is dampened by the counter-cyclical contributions from capital deepening and net entry that cleanse the economy during the contractionary period. At the micro-level, economic contraction stimulates the exodus of inefficient plants and the entry of productive plants, thereby re-affirming the counter-cyclical net entry effect.

Third, we examine the impact of labour reforms on plant employment and performance. After several years, in 2014, Rajasthan became the first Indian state to introduce deregulations in labour laws by amending the Industrial Disputes Act (1947), the Factories Act (1948), the Contract Labour (Regulation and Abolition) Act (1970), and the Apprentices Act (1961). This was done keeping in mind the concept of ‘perversity trope’, indicating that the laws created to help workers often end up hurting them in developing countries. Exploiting the unique quasi-natural experiment, we examine the impact of labour law deregulations on plant employment and performance. We apply a difference-in-difference framework using the longitudinal data of India’s organised manufacturing establishments from the ASI dataset. Our results show that the deregulations in the labour laws had an unintended consequence of the decline in labour use. The reforms caused a disproportionate decline in the number of directly employed workers and increased the use of contractual workers. Evidence suggests that the reforms positively impacted capital, gross value added, and emoluments, whereas they decreased inputs, productivity, and profits. The efficacy of these effects varies depending on the underlying industry and reform structures. The findings prove robust to a set of specifications.

**KEYWORDS:**    **Employment; Productivity; Business cycle;**  
                  **Labour law reforms; Manufacturing; Emerging**  
                  **countries**

**JEL classification:**    **J21; O47; E32; K31; L60; O50**

## सार

सतत विकास के लिए विशेष रूप से विकासशील अर्थव्यवस्थाओं में उत्पादक रोजगार सृजित करना महत्वपूर्ण है। इस पृष्ठभूमि के खिलाफ, रोजगार सृजन और उत्पादकता वृद्धि के सूत्रधार के रूप में भारत में संगठित विनिर्माण का महत्व कई गुना है। इस प्रकार थीसिस रोजगार और उत्पादकता की गतिशीलता पर ध्यान केंद्रित करते हुए भारत में संगठित विनिर्माण के तीन महत्वपूर्ण पहलुओं की विस्तृत समझ प्रदान करती है।

सबसे पहले, थीसिस उद्योगों के वार्षिक सर्वेक्षण (एएसआई) के स्थापना-स्तर के अनुदैर्घ्य डेटा का उपयोग करके भारत के संगठित विनिर्माण में नौकरी के पुनर्वितरण की गतिशीलता का विश्लेषण करती है। 2004-05 से 2014-15 तक और डेविस और हल्टिवांगर (1992) में बताई गई कार्यप्रणाली। अध्ययन से पता चलता है कि विस्तार अवधि के दौरान, रोजगार सृजन और नौकरी विनाश थे उभरता हुआ। जबकि 2008-09 से संकुचन अवधि के दौरान, रोजगार सृजन में गिरावट आई, जबकि नौकरी का विनाश निरंतर था। नौकरियों का पुनर्वितरण काफी हद तक भिन्न है अवलोकनीय पौधों की विशेषताओं द्वारा परिभाषित संकीर्ण विषम क्षेत्र। इस दर में ये एक साथ रोजगार सृजन और विनाश की प्रक्रिया बड़ी संख्या में प्रतिष्ठानों के लिए उच्च है और कार्यकर्ता पुनर्वितरण के एक महत्वपूर्ण हिस्से के लिए जिम्मेदार है। हालांकि इन नव निर्मित और नष्ट नौकरियों की दृढ़ता कम है। 'निष्क्रिय शिक्षा' जैसे सिद्धांत और 'सेक्टर रोजगार बदलाव के बीच' उच्च नौकरी के पुनः आवंटन की इस घटना को आंशिक रूप से समझाते हैं। यह अध्ययन श्रम की मांग, कामगारों के पुनः आवंटन, और में उपयोगी अंतर्दृष्टि प्रदान करता है स्थापना विविधता, विशेष रूप से भारत जैसे आकर्षक देश में।

दूसरा, अध्ययन भारत में संगठित विनिर्माण क्षेत्र के संयंत्र-स्तरीय डेटा का उपयोग करते हुए, संयंत्रों के भीतर से कुल उत्पादकता वृद्धि, पौधों के बीच पुनः आवंटन, और व्यापार चक्र पर शुद्ध प्रवेश प्रभावों के सूक्ष्म घटकों की जांच करता है। कुल उत्पादकता वृद्धि की प्रो-चक्रीयता को पैमाने की अर्थव्यवस्थाओं से प्रो-चक्रीय योगदान, क्षमता उपयोग, संयंत्रों के भीतर से तकनीकी प्रगति और पौधों से संबंधित इनपुट के पुनः आवंटन द्वारा समझाया गया है। यह प्रो-चक्रीयता पूंजी गहनता और शुद्ध प्रविष्टि से प्रति-चक्रीय योगदान से कम हो जाती है जो संकुचन अवधि के दौरान अर्थव्यवस्था को शुद्ध करती है। सूक्ष्म स्तर पर, आर्थिक संकुचन अक्षम पौधों के पलायन और उत्पादक पौधों के प्रवेश को उत्तेजित करता है, जिससे प्रति-चक्रीय शुद्ध प्रवेश प्रभाव की फिर से पुष्टि होती है।

तीसरा, हम संयंत्र रोजगार और प्रदर्शन पर श्रम सुधारों के प्रभाव की जांच करते हैं। कई वर्षों के बाद, 2014 में, राजस्थान औद्योगिक विवाद अधिनियम (1947), कारखाना अधिनियम (1948), अनुबंध श्रम (विनियमन और उन्मूलन) अधिनियम (1970) में संशोधन करके श्रम कानूनों में विनियम लागू करने वाला पहला भारतीय राज्य बन गया। शिक्षा अधिनियम (1961)। यह 'पेरवर्सिटी ट्रॉप' की अवधारणा को ध्यान में रखते हुए किया गया था, जो दर्शाता है कि श्रमिकों की मदद के लिए बनाए गए कानून अक्सर विकासशील देशों में उन्हें नुकसान पहुंचाते हैं। अद्वितीय अर्ध-प्राकृतिक प्रयोग का उपयोग करते हुए, हम संयंत्र रोजगार और प्रदर्शन पर श्रम कानून विनियमों के प्रभाव की जांच करते हैं। हम एएसआई डेटासेट से भारत के संगठित विनिर्माण प्रतिष्ठानों के अनुदैर्घ्य डेटा का उपयोग करके एक अंतर-अंतर-ढांचा लागू करते हैं। हमारे परिणाम बताते हैं कि श्रम कानूनों में विनियमों का श्रम उपयोग में गिरावट का एक अनपेक्षित परिणाम था। सुधारों ने सीधे नियोजित श्रमिकों की संख्या में अनुपातहीन गिरावट का कारण बना और अनुबंधित श्रमिकों के उपयोग में वृद्धि की। साक्ष्य बताते हैं कि सुधारों ने पूंजी, सकल मूल्य वर्धित और परिलब्धियों को सकारात्मक रूप से प्रभावित किया, जबकि उन्होंने इनपुट, उत्पादकता और मुनाफे में कमी की। इन प्रभावों की प्रभावकारिता अंतर्निहित उद्योग और सुधार संरचनाओं के आधार पर भिन्न होती है। निष्कर्ष विनिर्देशों के एक सेट के लिए मजबूत साबित होते हैं।

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