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Labour use efficiency in the Indian and Pakistani commercial banks

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Abstract

The Indian and Pakistani banking industry is said to have an excessive use of labour due to the significant market share of government owned banks. Both countries have undertaken a process of regulatory reform to bring about market discipline in the usage of inputs and to increase the labour use efficiency and productivity. The focus of this paper is the estimation of productivity and efficiency of labour use in the banking sectors of the Indian sub-continent. The results show that the efficiency of labour use across the Indian sub-continent is improving over time and that foreign banks are more efficient compared to domestically owned banks in their usage of labour.

JEL classification: G21; G28; E24; J23

Keywords: Bank efficiency; Regulatory reforms; Labour use; Wage elasticity; Employment variance

1. Introduction

Banks, just like any other firm, need to transform inputs into outputs at an efficient rate in order to maximise profitability and to survive under competitive conditions. Therefore, if a bank is using more resources in the production process than is technically required, it will be operating below the 'frontier' of efficiency and stakeholders, policy makers and academics alike take a keen interest when these relative levels of inefficiency are displayed. Chief among the resources used to produce output is labour which typically consumes between one third and one half (or more) of the operating expenses incurred during a production process. Overall cost efficiency is therefore difficult to achieve if labour use is not efficient. Despite the importance of labour as an input to the production process, studies looking specifically at labour use efficiency have not been as forthcoming as one might expect. The few studies conducted so far that have concentrated on labour use efficiency have tended to focus mainly upon various manufacturing or agricultural industries (see Deolalikar, 1988; Haouras, Yagoubi, & Heshmati, 2003; Kumbhakar & Bhattacharyya, 1992; Liefert, Lerman, Gardner, & Serova, 2005, or Fafchamps & Quisumbing, 1999 for examples of such studies). Those few papers that have turned their attention to look at labour use efficiency in banking have mainly focus on developed economies (such as the Swedish banking sector, analysed by Battese, G, Heshmati, & Hjalmarsson, 2000; Heshmati, 2001; Gjirja, 2004, perhaps due to the ease of data availability). The only existing study that we are aware of that examines the banking industry of a developing country (in this case, Turkey) is of El-Gamal and Inanoglu (2005).

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As a result, detailed investigation into the labour use efficiency of the banking sectors of developing countries has not taken place to the desired extent.

Banking industries across the world are going through a series of rapid changes due in part to the pace of technological development. Use of automated teller machines (ATMs), advanced statistical models for risk management and Advance Ledger Posting Machines (ALPM) has transformed the way traditional banking activity was performed. Technological advancement has changed the nature of bank's demand for labour to perform banking activities. Computer literate, skilled workers are in demand with better compensation on offer compared to that received by low paid clerical and subordinate workers even a few years ago. Banks in the last few years have spent a huge amount of money on acquiring state of the art technologies. Substitutability of labour with capital is almost uniform across the globe with obvious differences in magnitude. This has also altered the ratio of capital and labour costs relative to total cost, as well as the relative prices of labour and capital. Deregulation in banking markets means the effect of changes in wage levels can be passed on to the consumer, depending upon the elasticity of demand for final products. Neoclassical theories of labour demand predict a resultant shift in the demand for labour and corresponding elasticities with respect to inputs and outputs as a consequence. However, studies aiming to estimate changes in the demand for labour as a consequence of the modernisation of banking markets are not forthcoming.

This study seeks to fill this gap and assess levels of labour use efficiency and elasticities of labour demand with respect to inputs and outputs in two important emerging countries of Asia in response to a sustained period of regulatory reform observed in both countries over the course of the 1990s (Table 1). Historically both countries had followed same growth path and similar economic policies (aside from a very few exceptions). Although the pace of reforms in these two countries has been different, the objective and mechanisms have almost been the same. Not only are these regulatory changes designed to give banks the ability to adjust their use of labour to become more efficient, they also aim to make the banking sectors of India and Pakistan more competitive. It therefore becomes imperative that banks succeed in moving closer to the efficiency frontier in order to be able to survive the increased competitive pressures that should result from enhanced levels of competition. The paper employs a panel data set, encompassing data from Indian and Pakistani commercial banks over the period between 1985 and 2003. This study adopts a different approach to many previous studies with respect to more comprehensive coverage of the pre- and post-reform periods in the Indian sub-continent.

We find, that, on average, banks in the sub-continent could have reduced their labour usage by 34.7% and the banking industry was generally experiencing increases in labour use efficiency in post-reforms period. The results indicate that the largest banks in the sample could reduce their labour demand on average by 43.6% while the very smallest banks could have enjoyed a reduction in labour use of 25.9% if they were to operate on the efficiency frontier. Among banks of different ownership types, it was found that foreign banks were the most efficient in terms of labour usage, followed by private domestic and public domestic banks, respectively. Our second stage multiple regression estimates confirms that corporate governance plays an important role in enhancing labour use efficiency, as the effect of full or partial privatisation on efficiency is positive and significant.

The next two paragraphs highlight the reason of our choice of the Indian and Pakistani banking sector in evaluating the effectiveness of these reforms. According to estimates by Wilson and Purushothaman (2003), in a study for an accounting firm PricewaterhouseCooper, India is in place to become the fourth largest economy in the world during the next two to three decades. The significance of Indian banking in the overall global banking system is also underlined by the fact that India is likely to become 3rd largest banking sector behind the USA. The study also predicted that by 2050, banks in emerging economies such as China, India, Brazil, Russia, Mexico, Indonesia and Turkey are likely to have more banking assets than current G7 countries. The (as yet) untapped consumer lending market is expected to create a situation where growth in borrowing from banks will outstrip overall economic growth. Larger banks in these emerging economies are expected to start acquiring smaller banks in developed economies, such as those in Europe and the USA and might become significant global players. India is an important member of these emerging economies, with a rapidly growing middle class and holding membership as part of the G20 group of countries that provide input to the IMF's Financial Stability Forum. India is also one of the first members of the IMF to voluntarily undertake the Financial Sector Assessment Programme. Furthermore, India has made a significant stride in complying with the core principles of Effective Banking Supervision laid down by the Basel Committee on Banking Supervision and is an early subscriber to it.

Pakistan has been one of the world's most dramatic turnaround stories amongst emerging markets. If India has seen a gradual shift in banking policy, Pakistan on the other extreme has experienced an aggressive agenda of reform. Private shareholding in the Pakistani banking market has seen a dramatic increase during the past 15 years. When the