The Borders of Inter-Firm Mobility for ICT Employees in Italy

Francesca Sgobbi, DIMI, University of Brescia, Brescia, Italy, & Centro de Estudos sobre a Mudança Socioeconómica e o Território, Instituto Universitário de Lisboa, Lisbon, Portugal

ABSTRACT

Workers with low skill transferability risk longer unemployment spells between jobs and face higher probability of poorer working conditions. Those risks are particularly strong for professionals in the area of Information and Communication Technologies (ICTs), due to fast changing technologies and processes. The empirical analysis provided in this paper tests the borders of skill transferability for ICT employees by assessing the return to employer mobility for firm changers in the same industry and firm changers moving outside the ICT industry compared to firm stayers. The 1990-2004 empirical analysis is based on WHIP, a longitudinal dataset including a representative sample of employment relationships in Italy. The results show that firm changers benefit from a wage premium, provided that they remain in the ICT industry.

Keywords: Empirical Analysis, Firm Mobility, Industry Mobility, Information and Communication Technologies (ICTs), Skills, Wage

1. INTRODUCTION

Shorter duration and higher volatility characterise an increasing share of employment relationships in industrialised countries. Skill transferability and return to employer mobility thus represent crucial requirements for the good functioning of labour markets, as witnessed by the growing amount of studies on this topic (Kletzer, 1996; Parent, 2000; Zangelidis, 2008; RPIC-ViP, 2011). Workers with low skill transferability risk longer unemployment spells between jobs and face higher probability of poorer working conditions when returning to employment (Neal, 1995). Those risks are particularly strong when involved professional skills concern fast changing technologies and processes, due to the higher rates of skill obsolescence (De Grip & Van Loo, 2002).

All the above concerns are emphasised in the case of professionals in the area of Information and Communication Technologies (ICTs). The processes of liberalisation and re-regulation that invested the telecommunication sector in the 1990s and the technology-driven diffusion of Internet-based
services sustained the growth of the whole ICT industry (Slaughter et al., 2007; Solimene, 2008) and promoted skill restructuring and inter-firm mobility among employees (Garrone & Sgobbi, 2001). In addition, the pervasive diffusion of ICTs across all economic and non-economic activities seemingly provides additional employment opportunities outside the borders of the ICT industry. Skill transferability thus represents a crucial requirement for ICT employees and the costs and benefits of employer change deserve in-depth investigation.

The empirical analysis provided in this paper tests the borders of skill transferability by assessing the return to employer mobility for firm changers in the same industry and firm changers moving outside the ICT industry compared to firm stayers. The underlying hypothesis is that a wage loss for firm and industry switchers signals that the value attached by a new employer to a bundle of skills developed in the ICT sector is lower than the value recognised by the initial employer. In contrast, a wage premium or the lack of a significant wage differential signal the transferability of the skills provided by employer switchers.

The empirical analysis is based on the 1990-2004 section of WHIP, a longitudinal dataset including a representative sample of employment relationships in Italy. The results show that ICT employees moving to a new firm benefit from a wage premium, provided that they remain in the ICT industry.

The rest of the paper is organised as follows. The next session outlines the drivers that make skill transferability a critical requirement for ICT professionals and briefly survey the literature on the return to industry-specific skills. Section 3 presents the data used in the empirical analysis, whereas Section 4 illustrates the econometric model to estimate the return to firm and industry mobility and the outputs of the empirical analysis. The last section provides some concluding remarks.

### 2. SKILL TRANSFERABILITY AND ICT PROFESSIONALS

Several studies point out the crucial role played by human resources in the development of an information society and the harms potentially associated with skill shortage and skill gap among ICT professionals both in the ICT industry and in other economy sectors (Forth & Mason, 2004; Wintjes & Dunnewijk, 2008; Didero et al., 2009; Colomo-Palacios et al., 2012). The risk of mismatch between demand and supply of ICT skills is deeply connected with the intertwined key events that have marked the history of information and communication technologies since the 1980s (OECD, 2005; Solimene, 2008; Didero et al., 2009). First, by unifying elaboration tools and transport and delivery channels of different types of information (voice, data, images), digitalisation processes drove the merge between telecommunications, computer industry and production of digital contents. Second, the switch of traditional ICT manufacturers from capital-intensive good production to knowledge-intensive service delivery has been driving progressive processes of outsourcing and offshoring, at least in industrialised countries (OECD, 2005; Didero et al., 2009; García-Crespo et al., 2010; OECD, 2011). Third, the pervasiveness of ICT made basic ICT-skills a requirement to perform a large range of working and non-working tasks in the daily life of most citizens and opened new positions for ICT professionals in virtually all economic activities (European Commission, 2012).

The consequences of the above mentioned drivers of change for ICT professionals are not negligible. Professional profiles in the field of ICTs are characterised by the continuous evolution (and sometimes revolution) of related skills and tasks (Casado-Lumbreras et al., 2011; Trigo et al., 2010). In addition, the uncertainty of professional careers and the offshoring of ICT manufacturing and services has discouraged the enrolment in ICT-targeted academic curricula in recent years (European Commission, 2012) leading to a so-called war for talent (Colomo-Palacios et al., 2010). These
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