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Ethnic diversity and firms' export behavior[☆]

Pierpaolo Parrotta[a,b,c,d], Dario Pozzoli[c,d,*], Davide Sala[d,e]

[a] ICN Business School, Department of Human Resource Management and Organizational Behavior, France
[b] Maastricht University, School of Business and Economics, Netherlands
[c] IZA, Institute for the Study of Labor, Germany
[d] Tuborg Research Centre for Globalization and Firms, Department of Economics and Business Economics, Aarhus University, Denmark
[e] Chair of International Economics, University of Passau, Germany

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ABSTRACT

Media are reporting of companies that are increasing the diversity of their workforce to expand their business internationally. This paper investigates whether these examples constitute pieces of evidence that diversity promotes firms' internationalization. Indeed, diverse companies are like a cosmopolitan world in small scale, in which their employees learn to relate to other cultures. This improves firms' *relational capital* and ability to market products internationally. To address endogeneity issues, we rely on several empirical strategies, one of which is centered on the well established "shift share" method. Our results are robust across all empirical models, confirming the hypothesis that ethnic diversity favors firms' engagement on international markets.

1. Introduction

A number of recent studies have made the strong case that cultural diversity is strongly linked to a range of economic outcomes (Guiso et al., 2009; Fernandez, 2011).[1] Clearly, the "diversity dividend" described in this literature can also mature within the firm boundary. When diversity increases at the workplace, firms become like a cosmopolitan world in small scale, and their employees learn to operate in a multicultural environment. *Relational capital* grows, and firms' ability to cater products on international markets improves. This seems confirmed by the practice of some international companies (i.e., Toshiba, Lawson, Arla Food) that are deliberately expanding the base of foreign employees in their headquarters with the

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* Correspondence to: Department of Economics, Copenhagen Business School, Porcelænshaven 16A, 2000 Frederiksberg, Denmark.
E-mail addresses: pierpaolo.parrotta@icn-groupe.fr (P. Parrotta), dp.eco@cbs.dk (D. Pozzoli), davide.sala@uni-passau.de (D. Sala).
[1] See Alesina and La Ferrara (2005) for a review of macro studies.

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aim of sustaining or developing globalized operations.[2]

The focus of this paper is to investigate whether these prominent business examples also constitute pieces of evidence in favor of the hypothesis that diversity promotes firms' internationalization. Albeit interesting, workforce diversity as a driver for firms' internationalization remains untested in international economics, presumably because of the inadequacy of available data.[3]

The linked employer–employee nature of Danish registry data allows not only to gauge workforce diversity at the firm level, but also to relate it to different measures of firm internationalization, namely *market reach* (i.e., export status, number of destinations and exported products) and *market penetration* (i.e., export sales). The measure of diversity adopted is the same as the one used to describe the diversity of a city in Ottaviano and Peri (2006), and considers the main language spoken in workers' country of origin as a proxy for employees' cultural background.

The major empirical challenge is that diversity is endogenous to the internationalization process of a firm. A critical aspect is that diversity responds also to labor demand.[4] In absence of quasi experiments to worker mix at the firm-level, we rely on an IV strategy to sort out the causal effect of interest. In this context, our IV strategy should identify variation in diversity off changes in the local labor supply and neutralize at best variation in diversity induced by shifts of the local labor demand.

We pursue two approaches. The main approach implements the well established "shift share" method, as recently proposed by Foged and Peri (2013). This identifies supply-driven diversity from changes to the local labor supply which are ascribable to migration shocks due to exogenous push factors. The alternative approach exploits drivers of migrants' settlements, that shape the diversity of the local labor supply without directly affecting firms' exports. Specifically we use rental opportunities and historical attitudes towards immigrants as instruments and make use of a difference-in-difference design to filter out changes in diversity stemming from the demand channel.

Our results prove to be robust across different instruments and empirical models (OLS, fixed effects, IV), providing pieces of convincing evidence in favor of the hypothesis that ethnic diversity promotes trade.

The international business literature has already provided theoretical arguments on the importance of diversity for the internationalization process of a firm. Mohr and Shoobridge (2011) have theorized that firms that successfully manage a diverse workforce have an advantage to engage with individuals with different values, norms, and tastes (better *relational capital*). The form of knowledge described has *global scope* and is therefore applicable to multiple markets simultaneously. Its implication is similar to the learning mechanism underlying the theory of *sequential exporting* (Albornoz et al., 2012). According to this theory, fledgling exporters use their first international market access as a "testing ground" to learn about their own profitability and export potential. Because this process builds the necessary confidence for operating internationally, it generates knowledge that has a global scope and becomes useful during all subsequent expansions abroad.[5] Likewise, in our context diversity gives firms the experience required to operate in a multicultural environment and to respond more promptly to new opportunities arising on several international markets.[6] The key difference compared to the sequential exporting theory is that this experience does not form on the first penetrated international market, but rather on the domestic market, and internally within the firm.

This highlights also an important difference between the diversity channel described here and the channel described in the network literature. In both cases, firms are using a form of *relational capital*, but with a different scope. *Relational capital* built with diversity management is applicable to multiple markets, whereas with networking, firms capitalize on employees' specific competences about their country of origin to overcome local informational or entry barriers (Rauch, 2001; Andrews et al., 2011; Hiller, 2013; Ottaviano et al., 2015). Therefore, networking is expected to impact exporting positively. However, the relation between diversity and trading is ambiguous, because its positive direct effect may be offset by other indirect effects. A large amount of macro and micro evidence points to a similar trade-off: The advantages of multiculturalism may be lost to the increased communication difficulties and distrust arising from the clash of cultures.[7] Moreover, both Grossman and Maggi (2000) and Bombardini et al. (2014) show that the relation between diversity and trading is theoretically ambiguous because technology acts as a mediating factor.

Our work intersects two strands of the literature: one investigating the economic effects of (cultural) diversity, the other analyzing the determinants of firms' internationalization. While it is consolidated that productivity determines firms' selection into exporting, recent hypotheses have started to investigate more closely the deliberate efforts undertaken by firms to become exporters (*conscious self-selection*). Some studies have explored technological investments or quality upgrading (Alvarez and Lopez, 2005; Iacovone and Javorcik, 2012), while other studies have focused on human capital investments with firms building up the

[2] Examples include the Japanese companies Lawson and Toshiba (see "Japanese companies throw doors open to foreign staff" by Michiyo Nakamoto, Financial Times, December 7th, 2010), and the largest Danish diary firm, "Arla Foods" (see the speech by its CEO Peder Tuborgh at the "More International Export Talent" event organized in Copenhagen at the Foreign Trade Ministry, on the 19th of November 2013).

[3] Ottaviano et al. (2015) have recently investigated the impact of immigrant diversity, measured at the local labor market, on imports, exports and productivity of service-producing firms in the UK. Our study considers the effect of an ethnically diversified workforce measured at the firm level, but it uses a similar methodology to tease out causality. See below for more details.

[4] Methodological difficulties are multiple: companies self-select into different levels of workforce diversity (Osborne, 2000) and there are no obvious simple omitted variables, because ethnic diversity is measured as an index.

[5] See Albornoz et al. (2012), p. 18.

[6] For example, a better *relational capital* means that diverse firms may (*i*) market their products in a way that resonate with an international customer base; (*ii*) understand and target specific customers' needs and niche markets; and *iii* timely adjust its products to distinct customer and regulatory requirements in several markets.

[7] See Becker (1957), Lang (1986), Lazear (1998), Lazear (1999) for a negative impact of diversity. See Hong and Page Scott (2001), Hong and Page Scott (2004), Berliant and Fujita (2008), Glaeser et al. (2000) and Casella and Rauch (2003) for a positive impact of diversity.