

The Impact of Technology and Innovation on Family and Non-Family Businesses in the Irish Services Sector

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Abstract

As economies become more globalised and grow increasingly sophisticated and complex, our approach to analysing trends and developments must also evolve. To date, few analysts in Ireland have exploited the full potential of the official data available. This paper outlines some exciting results from analysis of the Irish services sector.

The paper uses a number of official data sources and demonstrates by linking these data how the power of the data increases significantly. The anchor dataset is the Annual Services Inquiry (ASI) micro data (CSO, 2007a) compiled by the Central Statistics Office in Ireland, which provides robust structural data, such as employment, turnover and GVA for services enterprises in Ireland. The paper also highlights new data recently compiled by the ASI (CSO, 2008) on family Businesses, facilitating a new way of analysing and understanding the Irish services sector.

A number of other micro datasets have been linked to the structural data, namely:

- The e-Commerce and ICT survey (CSO, 2007b) compiled by the CSO and details enterprise ICT systems, internet and network take-up;
- The Forfás Innovation Survey (Forfás, 2006) compiled by Forfás detailing organisational, product or process innovation introduced or intellectual property developed;
- VAT registrations micro data compiled by the Revenue Commissioners.

Linking these datasets at a micro data level has created a very powerful tool for a robust sectoral analysis of the Irish services sector. Apart from facilitating analysis, the linking exercise undertaken for this paper highlights the importance of a coherent statistical infrastructure and demonstrates the power of a unique business identifier. The paper investigates the impact of ICT and innovation adoption and diffusion on labour productivity for Irish businesses and tests the correlation between them. The paper also highlights the significant impact of Foreign Direct Investment in Ireland, both in terms of employment and international trade but also in terms of investment behaviour.

This analysis is particularly relevant for a country like Ireland, with a small open economy where 46% of traded services GVA is generated by multinational enterprises and 24% of all services employment is generated by them. There are nearly 600 multinationals with 20 or more persons engaged operating in the traded services sectors in Ireland. Of these, 46% are medium sized enterprises with between 50 and 249 persons engaged and 16% are large enterprises with 250 or more persons engaged. Over 91% of these multinationals are located in the Southern and Eastern region while 89% of their turnover and 91% of their GVA is generated there.

The high proportion of multinational enterprises trading in Ireland leaves the country very much exposed to international sourcing. Capitalising on the usage of Information and Communication Technologies (ICT) is essential for Irish businesses if they are to survive and remain competitive. On the 2005 ASI, non-family businesses reported a higher ICT uptake than family businesses, 21% of non-family businesses reported that they had a website compared to just 16% of family businesses. It also appears that non-family businesses make better use of their websites. In 2005, non-family businesses generated 15% of their turnover from electronically submitted orders. This compares with just 9% for family businesses. The idea that productivity should increase with the adoption of ICT is supported by the results of the 2005 ASI. Average indicative labour productivity was over 40% higher for enterprises that reported having e-mail, a website and electronic sales than for enterprises who did not have all three.

The paper also discusses whether non-family businesses are better than family businesses at maximising their profits. Average indicative labour productivity for non-family businesses in the traded services sectors is about €80,000, compared to about €35,000 for family businesses despite the fact that family businesses tend to have significantly lower overheads. Also family businesses in these sectors don't seem to benefit from economies of scale as there is little variation in indicative labour productivity between small, medium and large sized family businesses.

The paper also recommends future work that could be undertaken, in particular linking the micro datasets outlined above to the new data being compiled by CSO on International Sourcing to test, for example, the correlation between the development of intellectual property and offshoring. It also makes recommendations on how the datasets could be improved to further improve analysis.

References:

CSO (2007a), Annual Services Inquiry 2005.

CSO (2007b), Information Society Statistics – Ireland 2005.

CSO (2008), Family Business in Ireland.

Forfás (2006), Forfás Innovation Survey 2005.