



European
Research Area

EUROPEAN POLICY BRIEF

SPINTAN – Policy Brief No. 14

SPINTAN
smartpublicintangibles

**The role of intangibles in school performance:
a case study for England***

November 30, 2016

SUMMARY

Objectives of the research

We explore the role of intangibles in schools through a case study for England. The analysis focuses on the organisational capital component of intangibles, exploring variation in organisational capital across schools and its relationship with school performance.

Scientific approach / methodology

Using administrative data on the workforce in each English secondary school we measure schools' organisational capital generated by the leadership group, as well as that created by other staff, such as classroom teachers, who also hold leadership roles. By linking these data to measures of attainment we can assess their importance for school performance using descriptive and multivariate methods.

New knowledge and/or European added value

We find a positive association between organisational capital and school performance. The organisational capital among senior leaders and individuals employed outside of the main leadership group are both positively associated with school performance.

Key messages for policy-makers, businesses, trade unions and civil society actors

The study suggests organisational capital, defined in terms of the resources devoted to leadership in schools, is an important factor in determining school performance. Although the analysis cannot indicate a causal relationship between organisational capital and school performance, the association we find suggests the issue is worthy of further investigation. The study underlines the value in making administrative data such as those used in this study available for research use.

* This Policy Brief is based on the SPINTAN Working Paper No. 20: Stokes, L., D. Wilkinson and A. Bryson: "The role of intangibles in school performance: a case study for England", available on the SPINTAN website. <http://www.spintan.net/c/working-papers/>.

Objectives of the research

This research aims to explore the role of intangibles in schools. The education sector forms a significant part of the public sector; expenditure on education accounted for around 11 per cent of total public expenditure in the EU-28 in 2011 (Eurostat, 2015).¹ Although public spending on education comprises more than just expenditure on schools, a better understanding of the role and extent of intangible investment in schools has the potential to make an important contribution to measurement of intangibles in the public sector overall.

Our analysis focuses specifically on the organisational capital component of intangibles. We explore variation in organisational capital across schools and its relationship with school performance. We also investigate whether schools appear to make changes to their organisational capital following a school inspection.

A further important aim of our paper is to contribute to the debate within the intangibles literature on the measurement of organisational capital within public sector services. While it is often assumed that own-account organisational capital can be measured based on a proportion of managers' time, it has also been suggested that focusing only on managers may result in the exclusion of some organisational capital, particularly in the public sector. We are able to explore this by making use of detailed administrative data on the school workforce in England.

Scientific approach / methodology

This research is conducted for England, where detailed data on the school workforce, which have only become available in recent years, enable us to construct measures of organisational capital. Our analysis covers a three year period from 2010/11 to 2012/13 and focuses on secondary schools, which primarily cater for pupils aged 11-16. We link together data from three main sources: the School Workforce Census, the School Census, and school-level attainment at age 16 from the National Pupil Database.² The School Workforce Census allows us to identify not only staff employed within the leadership group, but also staff outside of the main leadership group, such as classroom teachers, who also hold leadership roles. These data are linked with information on school performance; two measures are used in our

¹ Eurostat (2015) Educational expenditure statistics, Eurostat statistics explained. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Educational_expenditure_statistics

² We thank the Department for Education for granting access to the National Pupil Database and the School Workforce Census for the purposes of conducting this analysis. All errors and omissions remain the sole responsibility of the authors.

**New knowledge and
European added value**

analysis, the first of which relates to the percentage of pupils in a school reaching a specified level of attainment, and a second measure which aims to capture progress made over the course of secondary school. Both descriptive and multivariate techniques are used to conduct the analysis. In the multivariate analysis we aim to identify whether a relationship between organisational capital and school performance is evident once controlling for a range of school characteristics, including pupil intake.

In conducting our analysis it is necessary to make a number of assumptions, in particular with regard to the construction of our organisational capital measures. The limitations of our approach are described in our working paper. Nevertheless, the research represents an important step towards understanding the role of organisational capital within schools.

Our results indicate a positive and statistically significant association between organisational capital and school performance. This relationship is evident not only for organisational capital embodied within senior leaders, but also among the wider workforce contributing to leadership and management within schools. The analysis cannot indicate a causal relationship but points to an association worthy of further exploration.

We also explore changes in leadership in response to school inspection, with the aim of exploring whether schools make changes to organisational capital following inspection, particularly if they obtain a poor inspection result. We find some evidence in support of this, as schools rated satisfactory show an increase in the relative size of their broader leadership group following inspection. The same did not apply for schools rated good or outstanding (who may see no need for change) or for schools rated inadequate (who may be constrained in their ability to implement changes due to restrictions placed on schools receiving this rating).

A considerable number of staff employed outside of the main leadership group held leadership roles. On average the main leadership group accounts for around 5 per cent of the school workforce, but once other staff with leadership roles are counted, on average around 12 per cent of the school workforce were involved in school leadership and management. However, this varies considerably across schools. Overall, our results provide further support for the consideration of a broader set of occupations,

**Key messages for
policy-makers,
businesses,
trade unions and
civil society actors**

and not just managers, in the measurement and analysis of organisational capital.

Our analysis provides tentative evidence that organisational capital matters for school performance. Furthermore, the results point to the importance of considering not just senior leaders in the measurement of organisational capital, but also contributions to leadership and management made by staff outside of the main leadership group.

Although our analysis was conducted for England alone, the results are also of relevance from a European perspective as improving educational attainment is an issue that attracts considerable attention across countries. It would be valuable to explore whether similar findings are apparent for other European countries. This requires the necessary data to be available, and a broader key message of this research is that it further demonstrates the value of making such administrative data available for research use.

SPINTAN – Smart public intangibles

| | |
|-----------------------------|---|
| Coordinator | Instituto Valenciano de Investigaciones Económicas (Ivie), Spain |
| Consortium | <p>Instituto Valenciano de Investigaciones Económicas (Ivie), Spain</p> <p>National Institute of Economic and Social Research (NIESR), United Kingdom</p> <p>LUISS Libera Università Internazionale Degli Studi Sociali Guido Carli (LUISS), Italy</p> <p>Istituto nazionale di statistica (Istat), Italy</p> <p>Imperial College of Science, Technology and Medicine, (IC), United Kingdom</p> <p>The Conference Board Europe (TCBE), Belgium</p> <p>Organisation for Economic Co-operation and Development (OECD), France</p> <p>Zentrum für Europäische Wirtschaftsforschung (ZEW), Germany</p> <p>Deutsches Institut für Wirtschaftsforschung (DIW), Germany</p> <p>Wiener Institut für Internationale Wirtschaftsvergleiche (wiiw), Austria</p> <p>Forum för reformer och entreprenörskap, (FORES), Sweden</p> <p>Kopint-tarki Konjunkturakutató Intezet (Kopint), Hungary</p> |
| Duration | Project started on December 2013 and will end in November 2016 |
| Funding Scheme | SSH.2013.1.1-2. Intangibles in the public sector - an unrecognised source for innovation, well-being and smart growth |
| Budget | 3,260,536.40 € |
| Website | www.spintan.net |
| Further reading | |
| Related websites | |
| For more information | info@spintan.net or matilde.mas@ivie.es |