

Response to NIESR call for evidence on ‘Sizing the productivity problem: international, national, regional and sectoral aspects’.

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Introduction

The Creative Leadership and Enterprise Centre (CLEC) is an unit within the Cardiff School of Management, Cardiff Metropolitan University (CMU). It runs the EU funded 20Twenty Leadership for Business Growth programme, accredited by CMU and CMI. The programme has seen 920 managers from SMEs to large international companies such as Sony, Admiral, and Atradius participate over a period of 11 years. For a four-year period from 2014, CLEC also ran the £3m Construction Futures Wales manager leadership programme funded by the Welsh Government and the CITB, through which 230 managers were trained. It conducts research on the impact of such training programmes on the capabilities of managers and firms.

Managing Productivity in Welsh Firms

In 2020 CLEC published a report on *Managing Productivity in Welsh Firms*¹ and our evidence in response to this call is largely based on that report, with some comments deriving from other work in addition.

The report sought answers to why productivity is lower in Wales than elsewhere, with GVA per unit of labour in Wales at some 82% of the UK average in 2019 according to the ONS. Whilst many other reports have dealt with productivity at an aggregate level, our work sought a better understanding of some of the more micro-elements of the ‘productivity puzzle’ in Wales.

The report was based on a two-year research programme funded by the Hodge Foundation, and presents evidence from seventy-four companies that were interviewed to assess:

1. the types of objectives that firms set for business development
2. the strategies they use to achieve these objectives
3. the performance measures they utilise
4. the measurement techniques and management practices they employ
5. and whether they could be said to consciously foster innovation

Earlier research² undertaken by CLEC examined regional productivity differences across the globe and found that productivity performance correlated with levels of investment in higher education; investment in innovation (R&D); as well as the proportion of employment in high-tech services.

In the *Managing Productivity in Welsh Firms* report, we make some policy recommendations in relation to Managerial Capacity, Skills Training, Networking, Regional Support Services, and what we term as the Digital Deficit. In these recommendations we address the challenges for firms in making improvements in their management standards, and in developing the types of skills that raise productivity. We highlight the relationship between rates of innovation and productivity performance and the need for effective networks to address challenges. We also look at the role of

¹ [Managing Productivity in Welsh Firms – Final Report - Hodge Foundation \(welsheconomicchallenge.com\)](https://welsheconomicchallenge.com)

² Holtham, G and Huggins, R (2017) ‘What accounts for the success of regions? Examining the factors associated with economic development.’ *Welsh Economic Review*, 25, 1–8. DOI: <http://doi.org/10.18573/j.2017.10193>

public policy in facilitating productivity gains through regional policies that enhance business support systems, and the ways in which the proposed policy changes in Wales can be most efficiently administered. Finally, we outlined the requirement for the business community to develop more digitally mature strategies and to assess the potential impact of Artificial Intelligence.³

Welsh Industry in the UK Context

In Wales, most firms are concentrated towards the lower end of both the productivity range and the profitability range. The average value of the profit to sales ratio is about 10 ½ per cent in Wales (according to Companies House data) and over 60 per cent of Welsh firms are below the average. If smaller firms and single traders (who do not report profits) could be included, the situation would probably be even more skewed.

Among firms reporting profits, however, this pattern of a thick tail of low performers is found across the UK. Once we take account of firm size and sector, Welsh firms look much the same as others in the UK, but there is plenty of room for improvement. Indeed, given the relative concentration of Welsh firms in relatively low-productivity sectors, improvement is essential if Wales is to close the GVA gap with the rest of the UK.

What Productivity Means to Firms

The productivity of firms and their attitude towards productivity was a central theme for our research, and the key drivers of productivity were found to be correlated with factors that include

- levels of investment in human capital – particularly work-based skills and managerial skills
- investment in innovation, in upgrading information systems, and in upgrading other technology
- and involvement in networking activity.

Various other studies have identified poor management practices as a key reason for underperformance according to a number of measures. Key headline findings from our survey were that

1. *Productivity Measurement*: Most firms measure labour productivity (76%), while some respondents said it was difficult to measure directly in their business or sector. Only 41% of firms measure the productivity of Plant and Equipment, whilst only 24% measure the productivity of IT and 28% the productivity of buildings or physical space.
2. *Strategic Planning*: Only 37% of firms have a full strategic plan in place and these vary in form and function - ranging from three-year plans to annual business plans. Most respondents to the survey consider profitability and growth as the focus of the business, although competitiveness is also significant.
3. *Controlling Performance*: In total, 76% of firms have either monthly or quarterly board meetings, with 87% of firms having either monthly or weekly senior management team (SMT) meetings. The most popular forms of techniques and procedures used for management are KPI development (55% of firms use this across the business); project management (51%); and inventory control (49%). The importance of leadership is regarded

³ A recent McKinsey report highlight the links between data flows and total growth by raising productivity: <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20globalization%20The%20new%20era%20of%20global%20flows/MGI-Digital-globalization-Full-report.ashxt>

as high by most firms in terms of improving performance (86% of firms), driving innovation (80%), and setting targets (80%).

4. *Managing for Change and Innovation*: Firms most frequently use employee development and training, investment in technology, and management information as a means for managing change and promoting innovation. Most firms (75%) do not have any formal staff reward schemes in place to promote innovation. Whilst external networks are used by many firms to different degrees, they are rarely seen as transmitters for new ideas, and few firms are able to fully exploit such sources of information and to act upon them.

We included in the report quantitative results on statistically significant relationships between firm characteristics and measures of firm success. Firms that have more measures of productivity also tend to score highly on controlling performance and setting strategy. The analysis finds that both the size and age of firms are significantly associated with the measurement of productivity, and a significant association is also found between firms that export and those that use innovative techniques of management control such as lean production methods.

The Influence of Firm Characteristics on Productivity

Sectoral characteristics influenced attitudes and readiness to measure aspects of business operation, and we found that manufacturing firms measure more productivity KPIs than other sectors. The stability of firm ownership; the link between scale of operation and improvements in management performance; the characteristics of managers; and the lack, or availability of technical skills were all factors that influenced the firm's productivity.

One set of firms that were surveyed for the report could be characterised as technology based, high-tech, innovative companies with the capacity to raise their productivity and economic performance. A common characteristic for firms in this set was often high product or service standards in addition to a focus on work-life balance and job satisfaction. These firms demonstrated an understanding of the speed of development and the importance of deploying new ideas. For them, productivity meant the capability to use technology to work smarter, not necessarily harder, meeting innovation objectives and project targets within an adjustable timeframe.

Few construction firms viewed developing a strategy as an important exercise. Neither did they see it as something that could produce benefits relating to employee engagement and succession planning. In some cases, where it was claimed a detailed Strategic Plan existed, it transpired that it had been developed by a very small internal group - in many cases by one individual - and not been shared widely through the firm.

Other firms defined productivity in terms of the capability to create wealth and value. These firms saw job satisfaction as important, and their business model was less reliant on their current internal resources than is the case for traditionally structured firms. They appear to be much more inclined to use external freelancers, specialists, and collaborators to make specific contributions as and when they are required on a project rather than to try to maintain relatively wide-ranging in-house capabilities.

For these latter firms, the internal working culture is often a key success factor. The strength of a firm is often a function of the capacity, capability, and attitude of the founding entrepreneur. For these firms, (who may be considered to be 'new economy' firms), the nature of work is largely dependent on pitching for discrete projects. The employment culture within the firm is, thus, important with employees given the responsibility and trusted to deliver. This approach was, however, not limited solely to 'new economy' firms. Some more traditionally structured firms, such

as pharmaceutical or project-based batch engineering may also operate within similar constraints and opportunities.

Manufacturing businesses, because of the nature of the work and product, and particularly those that produce relatively large runs of standard product, tend to have more KPIs than may be possible in other sectors. The production of a tangible product allows these businesses to develop explicit cost structures and productivity measures linked directly to output. Some of these firms actually linked their technical KPIs with the overall strategy of the company in terms of efficiency and outputs and were aware of the key drivers of their cash flow. However, not many firms participated in benchmarking their performance against other firms and similarly, only a minority of firms developed the linkages between technical KPIs, finance, and strategic planning. Many of the firms that did develop such links were engaged in exporting.

Service-sector businesses, on the other hand, appeared to have fewer measures (compared to standardised manufacture) that are often tied more directly to income. For example, the number of customers and customer engagements were used as an indicator of revenue and efficiency. Similarly, serviced product-throughput, together with revenue was sometimes broken down by the hour so that the efficient growth of the business could be measured by customer sales. Strategy, therefore, was rarely linked to KPIs.

Services providers, especially those focused on business-to-business markets, relied on external drivers (i.e. responses from customers) to help define what exactly 'value' means and what measures might improve performance. Historically, these firms have typically been focused around billing for project hours (an input measure). As the number of hours involved has decreased (due largely to information technology), these firms, which can also often be labelled as 'new economy', have sought to 'educate' their clients regarding the real value of the intellectual property (IP) that is being produced. The ability to do this (and deliver upon it) appears a key success factor but is one that does not lend itself particularly well to those structures and metrics derived from manufacturing scenarios.

Inexperience in some project-oriented businesses, has led to managerial mistakes in pricing and in over-delivering on projects leading to lower performance. Learning by doing is very important in project-based, non-standardised businesses, and there is no substitute for experience. Managerial competence was highlighted as vitally important in pricing and estimating time spent on projects.

Companies often need time to reach a certain scale, at which rapid improvements in management could be achieved. Greater awareness of productivity issues and managerial focus on measurement and control come with time and size, which may also be true of strategic direction: for example, a firm based largely on technical advantage may be uncertain of the best way to deploy that advantage or the best markets to focus on. The importance of external mentors and investors with the requisite experience and contacts was thus seen as important for profitable growth.

Particularly for small firms, the management of finance and production control had improved as the firm had grown and been able to employ specialised managers. Issues with the bandwidth of management capacity was noted in a number of instances during the research. This often led to a focus being applied to particular aspects of firm activities at the expense of others, for example, on distribution and marketing, as opposed to product development. As a result, some companies, who had excellent products, did not seem to generate much profit. It appeared that the process of developing the business in the face of limited management capacity had led to poor financial

control. Many firms have only gradually built up their management structures to measure KPIs and achieve better financial performance.

The Influence of Firm Ownership on Management Action

For those firms that are branch plants or operate as subsidiary firms to larger organisations, management freedom is limited by the degree that the parent organisation exerts control. This is particularly pertinent when considering the long-term strategy of the firm, but to some extent also determines the degree of importance put on the range of KPIs utilised, and the extent to which KPIs are developed in order to fine-tune management control. In our survey, firms under foreign ownership often had a particular role to play within the wider corporate group, signified by significant local R&D commitment and the ability to develop new products in a competitive global marketplace. They also had access to group-wide resources and contributed to internal corporate knowledge flows.

Foreign ownership includes MNCs with HQs in the US, Japan, China, India, Sweden, and Germany, whilst those firms that are UK-owned are nearly all owned privately and based in Wales, including a couple of firms that had re-located to Wales. For founder or entrepreneur-led firms, ownership has been diluted due to the equity investment they have received from venture capitalists and business angels, which has to some extent compromised the original approach of the founder, but also adds the required know-how necessary to manage a growing enterprise.

An aspect of ownership that was important in a number of examples was the influence of the stability of ownership. Although this did not always equate with high performance, there was a relationship with performance-measurement activity and with managerial experience. One firm that had decades of experience and was very profitable could be contrasted with a firm which had a ten-year track record and innovative technology but did not make as much money as might be expected. Another firm (that was also well established and founded on the basis of technical advantage) was lacking in new investment and barely made a profit at all. It had suffered from a history of unstable ownership, changing hands five times over its lifetime, and had an absentee owner who was not keen to invest.

Barriers to Improved Productivity

Key barriers to improved productivity we found include management capacity; skills; regulatory bureaucracy; and access to information. Our research also identifies a link between attitudes to innovation and to productivity, identifying some strategic limitations to improving innovation capacity. The research provides evidence of an 'innovation paradox' in Wales i.e., that despite being in receipt of significant public funding to support innovation, there is little evidence of improved performance.

The inability to effectively utilise the spending made available for innovation suggest there is a lack of absorptive capacity, in both the public and private sectors, to make good use of such funding in Wales. The lack of a motivation to grow across many firms could also be an issue. As a means of addressing these issues, a range of pointers as to where firms in Wales can best reap productivity rewards can be identified: from enhanced business support in areas such as management and leadership development; investment in intangible assets: and the promotion of business change and innovation.

Business Support and Networking

In addition to government and other business support efforts, the involvement of firms in networks and other collaborative activities is shown to help firms develop new products, processes, and organisational methods that result in productivity growth. The term 'open innovation' has been coined to describe these relationships. There is evidence of a growing acceptance among what may be termed 'frontier firms' that innovative activity may need a more open and collaborative approach rather than attempting to rely on purely in-house effort.

Productivity and Leadership

Finally, the lack of a strong strategic orientation among a number of businesses in the study highlights the need for more effective leadership. Previous research has shown that the channels for improving productivity are at their most effective when employees have more autonomy to decide how to do their jobs, more supportive line management, more meaningful appraisals, and when employee views are heard. Improving employee engagement is therefore an important leading indicator of upgrades in firm performance. However, firms cannot expect their employees to be engaged if their managers are not. Consequently, leadership skills development programmes should have a focus on employee engagement. Targeted initiatives to improve the skills of SME owner-managers in this area could have a positive impact on productivity at both the level of the individual firm, as well as the wider networks in which firms operate.
