

State of the Art Review



Is there a Link between Small Business Leadership and Productivity?



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Leadership quality has been proposed as an important explanation for differences in the productivity performance between so-called ‘frontier’ and ‘laggard’ firms. Quantitative studies have sought to understand if human resource management systems and skills can improve SME performance, including productivity. Other influential international research on management practices has motivated survey data collection and analysis covering SME populations. Performance gaps amongst SMEs have provoked substantial policy interest in the funding and provision of leadership development programmes. Twenty years of experience with this provision, supported by other research evidence on entrepreneurial learning has identified several areas of best practice and good programme design, including action learning, peer learning networks and peer mentoring. Although qualitative and participant evaluation evidence provides useful insights, quantitative evidence which assesses apparent productivity gains against a robust counterfactual case is scarce. A clear conclusion is the need for improved ‘designed-in’ evaluation methods. A further conclusion is that, since the cost of provision at scale is very high given the size of the UK SME population, careful targeting of leadership development support is required. Those SMEs most receptive to support may not necessarily be the laggards. Improved leadership skills in SMEs with already above average performance may work more effectively by sharpening the competitive forces faced by those laggards.

Background

Productivity is typically higher in larger firms, other things equal. However, identification of the 'long tail' of low productivity SMEs (Haldane, 2017) has focused attention on relative performance and differentiating factors between frontier and laggard firms. An important contextual issue here is that business understandings of the enablers and promoters of growth in productivity (value added per unit of labour input) may vary in sophistication and by sector (Roper et al., 2019). The difficulties in identifying systematic differences in firm characteristics (age, size, sector etc.) and investment levels as drivers of productivity has focused attention on other qualitative drivers (Jibril et al., 2020). The quality and effectiveness of leadership and management is likely to be a key differentiator, leading to practical questions concerning the best way to improve leadership skills in less productive SMEs. This is not a new conclusion - it is over 50 years since the Bolton Report identified low levels of management skill in SMEs as a hindrance to business performance. The Bolton Committee's concern remains salient, as does the question of how best to address this through targeted support for the SME sector (Wapshott and Mallett, 2022), illustrated notably in the conclusions of the UK Government's 2019 Business Productivity Review (BEIS, 2019).

The entrepreneurial leadership literature highlights, from qualitative and ethnographic studies, various 'pathologies' which characterise leadership styles amongst SME owner-managers (Kempster, 2009). These include a reactive focus on operational issues to the exclusion of strategic thinking, a reluctance or lack of confidence to delegate effectively, and a sense of isolation which restricts opportunities to acquire tacit knowledge and learning from peers (Thorpe et al., 2005). These span deficiencies in various disciplines of management but may in summary point to the absence of distributed leadership as a constraint on SME development (Cope et al., 2011). Any combination of these features is likely to have adverse consequences for business performance and productivity. A full review of the literature up to 2013 can be found in Lockett et al (2013). The key conclusion here is that leadership skills through promoting entrepreneurial cognition and motivation can support SME performance. The question of how cognition translates into dynamic capabilities (the ability to adapt and deploy resources effectively), and how they in turn lead to performance improvement remains unresolved.

A further strand of now somewhat dated literature examines the impact of human resource management systems and practice on small business performance (for example, Sels et al., 2006 and further references in Bryson and Forth, 2018). The use of so-called 'high-performance working' practices may be included here, since success or failure is often conditional on the relationship between leadership and employee engagement. There is evidence here to suggest that HRM systems and practices, which may be coincident with the acquisition of leadership skills to mitigate the 'pathologies' described above, are associated with improved SME productivity in various national contexts.

A more recent and distinct literature identifies the presence or absence of certain operational management practices on productivity performance. These studies drawn largely on data collected by the World Management Survey across a growing number of countries (Bloom et al., 2013). This methodology employs a set of standardised management practice questions, originally developed by Bloom and Van Reenen (2007). Across this body of international quantitative evidence, a strong case for the linkage between management and leadership practice and productivity is established. This case has attracted substantial attention from policy makers. Such practices include the establishment and monitoring of performance targets, the provision of training and

development, the use of performance indicators for remuneration and promotion, and tactics for addressing under-performance. However, data in these surveys is largely or entirely confined to large organisations, initially focused on manufacturing.

The adoption of formal management practices might imply some level of sophistication and organisation in the human resource management function. This may exist in large organisations and larger SMEs but is far less likely to be found in small and micro-businesses. The paradox here is that, as noted above, SME leadership may be overly focused on the operational to the exclusion of strategic thinking. So, a major question arises as to whether leadership development which focuses on the acquisition of skills and practical knowledge to implement such practices will yield benefits for smaller businesses. Formal management practice adoption may even be damaging (Kitching and Marlow, 2013). Intersecting with volatile entrepreneurial contexts, qualitative aspects of leadership, such as articulation of vision and ability to influence, may be more significant and important for performance (see Reid et al., 2018 for a survey).

In the UK it is perhaps the literature on entrepreneurial leadership which, until recently, has had most impact on the design of support interventions for SME owner-managers. Over the past two decades in the UK, various programmes have been introduced. Universities have been at the forefront, although often in partnership with other institutions, funders, and independent delivery consultants. A non-exhaustive list includes:

- Leading Enterprise and Development (LEAD) (developed by Lancaster University and delivered with EU Structural Fund support by various providers in North West England and in Wales, 2004-2015);
- Goldman Sachs 10,000 Businesses (2010-present, delivered by various universities);
- Cranfield Business Growth Programme (delivered by Cranfield University, 2016-present);
- Aston Growth Programme (delivered by Aston University with EU Structural Fund support in West Midlands, 2017-present);
- Help to Grow Management (piloted as the Small Business Leadership Programme, by the Chartered Association of Business Schools, funded by UK Government, and now delivered by various UK university business schools, 2020-present).

Programme design and content tends to focus on wider strategic thinking ('working on the business, not in it') rather than on prescriptive HRM or operational practices. To that end, a strong consensus has emerged that owner-managers learn and acquire knowledge as much through peer-mentoring and action learning as through formal curriculum delivery (Thorpe et al., 2009). Typically, programmes impose entry criteria to exclude the smallest micro-businesses and recent start-ups. However, participation is inevitably selective and attracts those SMEs who are already growth or productivity orientated, or seeking support in a crisis (Jibril et al., 2022). Selection is in fact desirable for effectiveness of programme delivery (Roper and Hart, 2013), but does raise substantial implications for outcome evaluation. Particularly away from the prosperous South East of the UK, SMEs face difficulties in accurately projecting financial benefits from programme participation. Hence delivery at scale has required and continues to require substantial funding support.

It is noticeable that productivity growth has emerged recently as a key intended outcome of such support programmes, alongside growth performance and well-demonstrated soft leadership skills outcomes. However, there is no reason that growth in turnover or

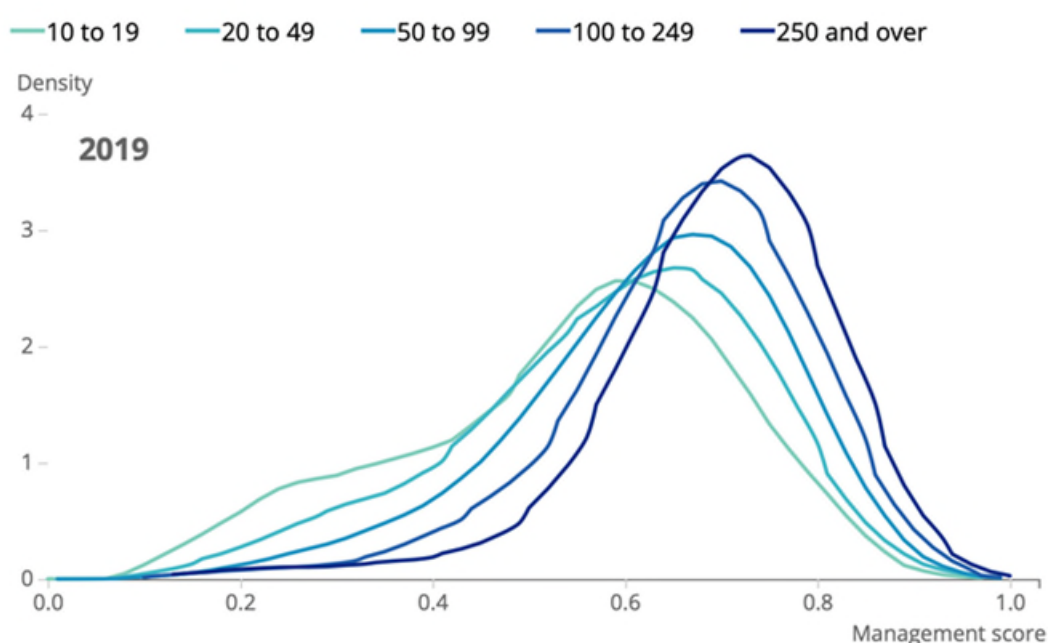
employment is necessarily associated with productivity improvement. Supporting SME leaders to create jobs might even damage productivity performance.

Research Evidence

The ONS has undertaken a series of recent surveys of management practice adoption across firms in Great Britain, including SMEs (ONS, 2021). For this discussion, two key findings emerge. The first is that across all firm size bands there had been a general improvement in the adoption of management practices over a short period from 2016 to 2020, suggesting quite rapid dissemination of management practices into the ‘tail’ of less productive firms. The second, confirming the discussion above, is that management practice adoption levels generally decrease down the firm size distribution (see Figure 1).

Table 1 summarises several studies which investigate hypothesised performance benefits from management and leadership practices explicitly focused on SMEs. The table therefore excludes the body of work undertaken by Bloom, Van Reenen, and colleagues because, as noted, this focuses on large organisation data. Not all studies are able to include productivity as an outcome of interest. Direct or moderated performance benefits are seen in most studies. However, where subsample comparisons are feasible, strong conclusions are that 1) SMEs are less likely to adopt management practices, and 2) the association between management practice adoption and performance is weaker (Broszeit et al., 2016; Bryson and Forth, 2018). One further finding to note is that small businesses who are better networked are more likely to adopt management practices (Bryson and Forth, 2018). This points to the likely benefits of support interventions to share best practice and unlock tacit knowledge.

Figure 1: Distribution of Levels of Management Practice Adoption by Employee Size Band, 2019



Source: ONS (2021). Management score is normalised to (0,1) range. Density is a percentage.

Table 1: Quantitative analyses of performance benefits from management and leadership in SME samples

	<i>Sample details</i>	<i>Management and Leadership</i>	<i>Performance outcomes</i>	<i>Key findings</i>
Guest et al., (2003)	UK, N=366, 50% SMEs in 50-200 employee range	HR practices	Various including labour productivity	Significant positive association
Sels et al. (2006)	Belgium N=385 SMEs in 10-99 employee range	HR practices	Various including labour productivity	“strong’ significant positive association
Patel and Cardon (2010)	UK, N=172, SMEs in 10-99 employee range	HR practices	Labour productivity	Significant positive associations when interacted with group culture and with product market competition
Sheehan (2014)	UK, N=336 SMEs in 10-249 employee range	HR practices	Financial performance, innovation, labour turnover	Significant positive associations across different outcomes
Dunne et al. (2016)	Tennessee, N=76, SMEs	Leadership attributes	Innovation	Significant positive associations for inspirational and efficacy attributes, and negotiation skill
Bryson and Forth (2018)	UK, N=1073 with 525 in SME subsample, 5-249 employee range	Management practices	Various including labour productivity growth	Significant positive association for labour productivity growth, although less so in SME sub-sample
Broszeit et al. (2016)	Germany, N=1772 with 1578 in SME subsample, 25-249 employee range	Management practices	Labour productivity	Significant positive association, weaker relationship in small and medium sized sub-samples.
Peng et al. (2019)	UK, N=1900, SMEs linked to longitudinal administrative business performance data	HR practices, strategic management practices	Labour productivity	Models condition on entrepreneurial, leadership, and management skill. Significant positive associations for 2 of 3 dimensions of strategy practice, and for HR practices. Stronger effects in larger SMEs.

Nearly all these studies address the impact of either human resource management practices or the set of management practices constructed by Bloom and Van Reenen. One small scale study has been identified here which addresses the potential association between leadership attributes and SME performance - in this case innovation performance (Dunne et al., 2016). The study of SMEs by Peng et al. (2019) conditions

on levels of leadership skills in the relationship between management practices and productivity, as well as finding stronger productivity effects in larger SMEs. The adoption of management practices is strongly associated with some leadership and management skills. This is the only study to examine the use of strategic management practices, although the association with productivity is weaker than for the adoption of HR practices.

A further potentially important source of evidence might arise from the evaluation of SME leadership development programmes. An existing body of quantitative studies evaluates the impact of public grants in the EU to SMEs in support of entrepreneurship. A recent systematic review of this literature concludes that evidence for impact on productivity is mixed (Dvoulety et al., 2021). Noteworthy here is the number of studies able to deploy quasi-experimental methods, conforming to evaluation good practice (Storey, 2006). Available evaluation evidence of SME leadership development interventions in the UK is largely qualitative. Some quantitative work has been attempted. For the LEAD programme in north-west England, Wren and Jones (2012) calculate quantitative productivity benefits. Ex post survey data (N=110) show 72% participants report some level of productivity gain, with a mean gain of £8,800 in turnover per employee, and a large majority of respondents attributing this gain wholly or to some extent from programme participation. Similarly positive productivity outcomes are reported for Goldman Sachs 10,000 Businesses programme across the UK, with surveyed participants reporting an average estimate of 28 per cent improvement in turnover per employee from programme participation (Goldman Sachs, 2018). The evaluation analysis in this report was undertaken by Aston University researchers and it does undertake comparisons with control groups of SMEs constructed from official ONS data to estimate significant additionality for job creation and business turnover. One further small-scale recent UK management and leadership development intervention (Cavendish Enterprise 'Business Boost'), focused on small- and micro-businesses, shows promising results in terms of improved adoption of productivity-enhancing practices. These conclusions are based on robust experimental (randomised control trial) evaluation methods, albeit with a fairly small sample (Roper et al., 2020).

Overview and evidence gaps

It is difficult to reach clear conclusions about the relationship between SME leadership and productivity because of the nature of extant evidence. Most of the available quantitative evidence links performance, including productivity, to quantitative measures of the adoption of human resource or operational management practice. These might be treated as a proxy indicator for leadership skills. However, as discussed, the extent to which these are an effective proxy in the smaller firm context is open to debate. It is risky to draw a firm conclusion that lower productivity in smaller firms arises because less effective leaders have a lower propensity to 'tick the boxes' of management practice.

Small business leadership development practitioners, and particularly those working in a higher education setting, appear to have reached a high level of consensus about 'what works' – methods of programme delivery which facilitate well peer-to-peer learning and the sharing of tacit knowledge amongst participants. What works here relates to improved levels of leader vision and self-confidence. However, robust quantitative evaluations of programme impact on business performance are scarce.

There are therefore various issues which need addressing to improve the evidence base. Some these are conceptual; some relate to methods, and some to policy assessment.

- 1) There is a need for a stronger conceptualisation of how best to measure leadership quality in the context of evaluating SME performance.
 - 2) Productivity is often one of various performance outcomes addressed. Further research is needed to address how SME leaders understand and frame productivity in the context of a policy narrative legacy which has tended to emphasise growth or job creation, and in which there is no reason to assume that public support to achieve the latter will be associated with productivity improvement.
 - 3) Even where studies can focus on productivity, limitations in survey design or data linkage mean that productivity is proxied by measures of sales revenue per employee. More attention could be given to multi-factor (total factor) productivity outcomes, as these will reflect the extent to which leadership quality connects to decisions about the wider resource configuration of the enterprise.
 - 4) An important area for future analysis is the extent to which improved SME leadership can support innovation for 'clean' productivity growth in pursuit of pressing zero-carbon priorities.
 - 5) While qualitative evidence on SME leadership support interventions has been useful in identifying and disseminating best practice in programme delivery, formal quantitative evaluation of productivity outcomes needs to be 'designed in'. This is particularly important because of issues of biased participant selection.
 - 6) The benefits of changes in leadership quality and of leadership support interventions may take time to fully emerge. This highlights the importance of longitudinal data. Improved longitudinal data will also allow issues of causality in the leadership-productivity relationship to be better investigated, as well as potential competitive spillover effects on laggards or non-participants.
 - 7) Given the numerical size of the UK SME sector, and the scale of the productivity gap between frontier firms and those in the tail, models of funding support to support leadership development at scale should be subject to regular review. This is particularly so given apparent reluctance on the part of SMEs (before participation) to appreciate accurately needs and benefits and therefore to pay full economic cost.
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