The Business Benefits of Training in the Food and Drink Manufacturing Industry

Summary Document

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by

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1. Introduction

Recent labour market research produced by Improve Ltd shows a number of important skills challenges for the food and drink (F&D) sector\(^1\). For example, while the majority of English F&D employers are expecting business growth to continue, skills gaps have been identified as a major constraint, especially in sectors such as fruit & vegetables, dairy and bakery with much of this problem being concentrated in the Midlands. As well as skills gaps, English employers also found that skill shortages exist in certain jobs, and these are reflected by 44% of those ‘hard to fill vacancies’ having been identified as a consequence of skill shortages.

Research on Foundation Degrees and the relevance of higher education in the food and drink sector in the East Midlands found that many employers interviewed had little information about skills provision at the higher level\(^2\). Some saw little relevance for their company due to the low skills nature of the work. Above all, however, it was emphasised that the business case for investment in higher level skills needed to be clear before employers could be persuaded of the benefits, even when training managers were supportive of further skills development they needed this business case in order to secure funding and company support. As such, being able to demonstrate the value of skills and the benefits of training for business, as this current project aims to do, is vital.

The general assessment from these reports is telling. While employers are not ‘crippled’ by these skills problems, skills gaps and skill shortages are posing major threats to the industry’s performance and future competitiveness. Overcoming these skills challenges may yield significant benefits to the food and drink industry as a whole. However, it is here that the current research project can create a very important impact.

Among many findings in the English region study\(^3\), the importance of skills is often recognised by employers. However, they are not sure exactly how the benefits of training may impact on their business. In this case, the benefits of adopting a skill strategy within the business often become at best uncertain and at worst are simply treated as a cost. We will therefore use the current research project to enhance employers’ understanding of the value of skills in business, as well as locating specific examples within the food and drink industry that have successfully utilised skills to leverage business performance and company development.

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2. Methodology

The research data is drawn from two parts – a national survey among food and drink manufacturers and nine case studies.

The survey covers the industrial footprint of Improve, the Sector Skills Council for the Food and Drink Manufacturing sector. Thus, the survey includes organisations with the Standard Industrial Codes (SIC) from 15110 to 15980, plus 51380. The contact details of these enterprises were supplied by MarketScan Ltd which had been extracted from public sources such as Companies House. Altogether 11,000 contacts were extracted.

Between March and mid-April 2008, 380 successful phone interviews were carried out. The interviews were randomly drawn from the contacts, though the sector quotas were guided by the national profile of the sectors. All phone interviews were conducted by a team of interviewers at the Centre for Labour Market Studies, the University of Leicester. These interviews used a structured questionnaire.

The majority of the case studies were chosen from a number of organisations which were recommended by Improve stakeholders. These cases were constructed through the use of semi-structured interviews which normally lasted between 75 minutes and 90 minutes.

Interviews were conducted on site by the authors of this report and recorded. Cases studies were subsequently written up and were sent to respondents for verification.

3. The Existing Research Evidence

There has been a huge amount of research undertaken into the benefits of training, revealing two main ways in which employers can expect major benefits from their investments in training. The first is through increased productivity for the firm (and earnings for employees) while the second is through employers using that investment in skills to further improve company performance.

Companies Benefiting From Training
Productivity gains are usually divided between the company and employees. Employees receive their gains in terms of higher earnings, but employers’ gains from increased productivity have been estimated as twice the size of increased earnings going to employees.\(^4\)

Investment in training significantly increases the firm’s chance of survival. In the manufacturing sector, within which F&D is located, more than 50% of

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establishments which did not provide training closed down during the period 1998-2004 compared with only 20% of those that did provide training\(^5\).

Comparative research examined similar firms in the same industrial sectors in the UK and Germany. In Germany the more highly trained apprentices were far more productive than their British counterparts who had not had the same level of training\(^6\). Studies of Japanese firms show how workers use workplace learning in conjunction with management practices such as continuous improvement to make very significant improvements in productivity\(^7\).

Researchers who have been able to measure less formal training delivered either on-the-job or off-the-job have found similar results in terms of the effect on worker performance.

When it comes to gains that individual employees acquire from investments in training, there is massive amount of evidence that the investment by them or their employers in qualifications increases their average earnings. These studies deduce that higher earnings are only possible because employers receive higher gains in productivity\(^8\).

Research by the American Society for Training and Development (ASTD) found a strong link between the level of a company’s investment in formal training and their financial performance (e.g. stock performance, gross profit margin and market value per employee) in the following year.

The ‘high performance working’ research shows that gains in training can be further enhanced and sustained through the use of various management techniques – e.g. appraisals, multi-skilling, team working and Total Quality Management – which when used in combinations (known as ‘bundles’) will reinforce the impact of each other.

Research also found that it takes time for investments in training and skill development to take effect and sustained training benefits cannot be achieved by making a ‘one-off’ investment in skills.

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4. National Survey - Food & Drink Manufacturers

Table 1 gives the profile of the telephone survey interviews conducted between March and April 2008. The survey covers 380 enterprises in the F&D manufacturing industry. The respondents are human resource managers, senior managers or owner/managers of their businesses. Around 77% of the sample comes from the English regions with the remaining sample coming from Scotland (16.2%), Wales (4%) and Northern Ireland (2.7%). Just over half of respondents are ‘micro’ enterprises with less than 10 employees. Of the remaining respondents (47%), 2.9% are over 500 employees.

Among the other characteristics of the sample, we notice that the use of temporary workers is not that high - 10%. Female employees represent just over a third of the workforce within this sample. However, it is important to emphasise that these are averages. There are great variations across the respondents. Pay is influenced by size and by region and the use of migrant workers also varies from case to case and across sectors.

Table 1: The Profile of the National Telephone Survey Sample

<table>
<thead>
<tr>
<th>Region</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Anglia</td>
<td>9.0</td>
</tr>
<tr>
<td>London</td>
<td>6.4</td>
</tr>
<tr>
<td>Midlands</td>
<td>9.3</td>
</tr>
<tr>
<td>North East England</td>
<td>13.0</td>
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<tr>
<td>North West England</td>
<td>14.9</td>
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<tr>
<td>South Central England</td>
<td>6.4</td>
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<tr>
<td>South East England</td>
<td>3.2</td>
</tr>
<tr>
<td>South West England</td>
<td>14.9</td>
</tr>
<tr>
<td>Wales</td>
<td>4.0</td>
</tr>
<tr>
<td>Scotland</td>
<td>16.2</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2.7</td>
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<table>
<thead>
<tr>
<th>Size Band</th>
<th>%</th>
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<tbody>
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<tr>
<td>10 to 49 employees</td>
<td>31.9</td>
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<tr>
<td>50 to 99 employees</td>
<td>6.1</td>
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<tr>
<td>100 to 499 employees</td>
<td>6.9</td>
</tr>
<tr>
<td>500 or more employees</td>
<td>2.9</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Other Characteristics</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time employees</td>
<td>75.4</td>
</tr>
<tr>
<td>Temporary employees</td>
<td>9.6</td>
</tr>
<tr>
<td>Full-time female employees</td>
<td>35.8</td>
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<tr>
<td>Employees aged 25 or under</td>
<td>17.4</td>
</tr>
<tr>
<td>Employees aged 26 to 49</td>
<td>57.7</td>
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<tr>
<td>Employees aged 50 or over</td>
<td>24.9</td>
</tr>
<tr>
<td>Annual staff turnover</td>
<td>6.7</td>
</tr>
<tr>
<td>Employees with gross earnings less than £14,000 a year</td>
<td>36.9</td>
</tr>
<tr>
<td>Employees with gross earnings more than £25,000 a year</td>
<td>13.9</td>
</tr>
<tr>
<td>Migrant workers</td>
<td>7.3</td>
</tr>
</tbody>
</table>
4.1 Human Resource & Work Practices within the F&D Industry

Previous studies have shown that skills and training can be embedded or encouraged by the adoption of particular human resource and work practices. For this reason, we have included in the survey a series of questions which have been commonly adopted by HR research. Diagram 1 shows that of all the practices surveyed, ‘training to perform multiple jobs’ is the most widely adopted practice - 81.3%. Together with ‘family friendly policy’, ‘flexible working’, ‘structured induction’ and ‘informing staff about company performance’, these make up the five most frequently adopted practices in the F&D sector.

Diagram 1: Human Resource & Work Practices Adoption in F&D Manufacturing (%)

The high prevalence of practices such as multi-skilling, family-friendly policies, flexible working and structured induction in the F&D sector are often mentioned in our case studies (see Section E). They also reflect the nature of food and drink manufacturing, namely the need to work flexibly in response to changing demand, training is important at the outset with structured elements such as health and safety. Also, the fact that ‘margins’ are often very tight in F&D manufacturing, means that wages tend to be linked to minimum wage rates. Hence, the room for using financial rewards as a management tool is limited. One of the tools for building a committed workforce is therefore the use of family-friendly policies.

4.2 Training and Skills Profiles in the F&D Industry

There are a number of useful indicators that we can use in order to examine how serious employers’ attitudes are towards training. One of the most useful clues is the extent of ‘formalisation’ of training. For example, a company which is serious about using training in a systematic manner to support its business is likely to have a training budget, pay attention to on-the-job training, make use of qualifications and so on.
In Diagram 2, the survey finds that only a small number of F&D enterprises have a formal training budget (16%). Out of these enterprises with a training budget, over half come from larger companies (52%) while the differences between the micro enterprises and those with 10 to 49 employees are very little.

Diagram 2: Do F&D Enterprises Have a Formal Training Budget?

Formal health and safety training is used by almost every respondent in the survey (94.4%) among all the training activities polled. Likewise, on-the-job training is prevalent (93.6%). At the other end of the spectrum, apprenticeships are only used by 15.1% of the F&D enterprises surveyed.

The majority of the F&D workforce (62.8%) has around S/NVQ3/A level types of qualification. Other forms of qualification appear to be low. In particular, just under 5% of the sample workforce has an apprenticeship qualification. Only 15% of the workforce has a degree or higher. Around 1 in 5 of the workers has no qualification at all.

4.3 The Benefits of Training in the F&D Industry

One of the most difficult areas of training impact is that most organisations do not evaluate every training activity that they do. Also, when training is on the job, much of the training may not be regarded as ‘training’. Even when effort is made, it is often impossible to capture all the effects of training because some of the impact is more long term than what is measured at any point in time.

In the current survey, we have tried to capture the perceptive evaluation of the respondents who are either the owner managers or the HR directors in order to provide an approximate measure of training impact. Although there are limitations regarding the use of perceptive measures, many of the respondents are very close to their business and training.

There are two broad areas of training benefits that the survey focuses upon: training benefits relevant to the workers and those relevant to the organisation.

The overwhelming majority of the respondents are in agreement that they see at least some (if not a great deal of) benefit of training for the workers in areas such as overall competence, teamwork, job satisfaction and technical skills. Roughly around 1 in 2 respondents see ‘a great deal’ of training benefits in the
first 3 areas. The assessment on ‘technical skills’ is little lower than all other areas of impact (44.5%).

For the organisation, 1 in 2 respondents sees ‘a great deal of’ training benefit in quality of products, productivity and staff retention. Around 1 in 3 sees ‘a great deal of’ training benefit in growth capability, profitability and innovation (see Diagram 3 below).

**Diagram 3: Training Benefits for the Organisation**

Looking at the links between training and training benefits; formalising training in Food and Drink Manufacturing organisations is significantly and positively linked to immediate operational benefits (e.g. workplaces have benefited in areas such as improved technical skills and overall competence and improved product/service quality) as well as building capacity (e.g. growth capability and staff retention). The formalisation of training may also have greater effects in building a more committed workforce.

The most significant training benefits for businesses in the Food and Drink Manufacturing industry are those associated with intermediate level skills. Investment in intermediate level skills brings broader benefits, not just internally in terms of job satisfaction, and career opportunities but also in meeting business goals, innovation and responding to the market;

- F&D workplaces with higher percentages of their workforces having intermediate qualifications are significantly associated with greater benefits in productivity, growth capability, profitability and innovation;
- F&D workplaces with a low percentage of workers without any qualifications (or with a higher proportion of their workforce with degrees) are significantly related to a greater ability to improve innovation; and
- F&D workplaces with management that is ‘highly trained’ or ‘professionalised’ are significantly more likely to report ‘a great deal’ of benefits in areas such as ‘improved overall competence’ and ‘improved technical skills’.
Higher levels of training are associated with employers reporting greater benefits of training – technical skills, quality of products, staff retention and growth capability. The nature of the 4 areas suggests that higher levels of training are likely to impact upon the quality of the staff and future expansion.

The more a Food and Drink Manufacturing company is organised through better systems (reflected by the adoption of High Performance Working (HPW) practices; see Diagram 4 below), the greater the impact of training in areas such as company productivity, growth capability, technical skills, product quality, staff retention and overall competence.

**Diagram 4: High Performance Working Practices**

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5. The Case Studies – An Overview

9 case studies have been carried out with the Food and Drink (F&D) Manufacturing industry. The aim of the cases is to provide ‘live’ examples of the business benefits of skills and development. Each case outlines an example of a company which has consistently invested in skills and has identified various business benefits as a result of doing so. Eight sectors are covered. These include:

- Alcoholic beverages
- Bakery
- Confectionary
- Dairy
- Fish processing
- Fruit and vegetables
- General food production
- Meat
Whilst the nature and conditions of the sector may vary, the business benefits of skills which can be identified in these case studies are often shared across the companies. Each case raises a number of issues, and lessons to be learned have been summarised for each case study. However, in order to provide an overview of the cases, we now consider some of the common areas observed across the case studies. These can be characterised under three key headings, namely: business solutions, building capacity and achieving strategy.

5.1 Business Solutions

In all of the cases, specific solutions to business problems were found through skills development and training.

**Solving staffing issues: staff turnover and recruitment**
Recruitment and staff turnover are two common problems faced by these companies, reflecting the challenges faced by companies in the food and drink manufacturing industry more widely. This is often compounded by skills shortages, a sometimes poor perception of different parts of the industry and, in some cases, the lower wages attached to the jobs on offer.

These case studies illustrate a range of ways in which investment in training and skills development has helped the companies to overcome these issues. By building in a systematic framework of initial and continuous training and development for employees, these companies have been able to build potential career pathways and to demonstrate the range of opportunities available. At the same time, the training frameworks are often linked to recognition and reward, whether that be in terms of qualifications, promotion or pay. This creates a sense of a ‘win-win’ situation between the company and employees – as skills are developed, recognition is given to individuals for their progress.

By doing this in a sector which is often wrongly considered to lack opportunities, it has become both easier to retain staff, by building trust and commitment, but it has also meant that companies have gained a reputation as a good employer in the immediate areas (or sometimes nationally), making it easier to attract new staff.

Growing skills in-house has become a means of building internal progression and external recruitment, but also of planning for succession and future change. Indeed, as part of a larger employment ‘package’, systematic training and skills programmes, as shown by many of the case studies, have been linked to lower turnover and absence rates, higher job satisfaction and commitment and long-term organisational growth and profitability.

**Solving technical challenges: production and efficiency**
Technical challenges were another commonly experienced day-to-day business issue. Technical difficulties or shortcomings could cause inefficiencies and lower standards, having a significant impact on production and quality and, in the longer term, on productivity and profit. Equally, technical challenges could be
experienced in the search for new production methods, or products, which require new skillsets and development of knowledge. Here, developing greater food technology skills could be vital. We can see from several of the case studies that investing in training helped to tackle short term technical challenges. Equally, however, longer-term investment in skills led to a reduction in inefficient practices and technical problems. For example, development of multi-skilling has enabled more efficient use of staff time, increasing production, bringing business savings and enabling more flexible production to meet shortened production times, last minute orders or rapid line changes.

5.2 Building Capacity

In all of these cases, investment in skills development and training has played a vital role in building the capacity of the company, more specifically, by building the capacity of employees. This is demonstrated in a number of ways.

**Building confidence, identifying improvements**

The idea of building individual employee confidence comes through in many of these cases. Above all, training and continuous development is seen as a way to build individuals’ own confidence so that they can perform to a higher standard and, importantly, identify problems and solutions within their work area. Equally important is the confidence to contribute innovative ideas to the business. Tapping into this source of ideas and improvements, drawing on the experience and expertise of those working directly on production or technical development, for example, brings greater efficiencies and improved practices, as well as new ideas for products and markets.

**Taking a knowledge-based approach**

Although formal qualifications and training are not prioritised in all cases, in a good number of cases these are seen to support professionalisation of the business and sector, as well as facilitating a more knowledge-based as opposed to skills-based approach. For example, a number of companies are seeking to qualify their management-level staff, aiming to develop stronger evidence-based practice and bring in new thinking through formal training and qualifications.

**Investing in the longer-term**

It is often recognised in these case studies that investment in skills is a long-term investment in the future of the company. We can see here examples of how that longer-term vision has paid off in terms of increased profitability and, above all, increased company capacity to develop new areas and to grow. As such, training is not a one-off activity, but a longer-term activity which aims to support continuous improvement across the business. Indeed, whilst migrant labour has been an important source of workers in recent years, it is also recognised that this source of labour is likely to reduce in coming years as more EU member states are opening up to migrant workers from the new states. At the same time, succession planning is important for a number of companies, with a number of key staff coming up for retirement. Therefore, longer term
investment in skills is also a way to prepare for potential recruitment problems in the future.

5.3 Achieving Company Strategy

In most case studies, the actual companies represent leading businesses in their sector. Each is competing in a challenging market, albeit the exact conditions differ between the sectors. However, it is evident that the strategies followed by these firms have been achieved in large part via the skills, capacity and commitment of employees. In turn, these have been grown through the use of systematic training and development practices.

Finding a niche market via innovation

Innovation has been important to the strategy of many of these companies, developing new products and identifying niche markets. In many cases, it is on the basis of skills developed in the company which these new directions can be developed and taken forward. This includes refining new production methods, developing new and specialist products, identifying gaps in the market and entering higher value-added markets. The skills and knowledge of food science/technologists, for example, have become central to new product development, whilst operatives have been able to identify ways to enhance this production.

Building and maintaining company reputation

Standards and excellence of quality are central to the business strategy of these case studies. By producing a consistently high-quality product, these companies have developed a reputation for excellence and been able to grow and attract new customers. However, in order to meet this standard, training and development of employees has been vital. Systematic training can be used to embed standards of production, but also to build a culture of excellence. In some cases, employees not only know what standards are required and maintain them, but are highly committed to them. A shared sense of pride is evident across the cases and this is not only a central element of company strategy, but a source of business growth and competitive advantage.

In some cases, maintaining a wider reputation in the community has also been a key element of the business strategy. Here, investing in skills and people, both inside the company and in the wider community, are essential means to maintain the company ethos and reputation. This includes developing skills in the community and industry, developing but also protecting employees and providing work opportunities in the local area.

Changing culture

In order to achieve business strategy, in some cases it has been important to first bring changes to their culture. Training and skills have been used in these cases in order to support culture change at the organisational but also individual level. This includes building a sense of pride, instilling standards, bringing in new work practices, gaining wider support for training, building a learning culture and developing more flexible skillsets.
6. Conclusions

Our survey shows that the most significant training benefits to businesses in F&D are those associated with intermediate level skills. Organisations with few qualified employees qualified at this level tend to be less responsive to the market and more inflexible. Furthermore, investment in intermediate level skills brings broader benefits, not just internally in terms of job satisfaction, career opportunities but also in meeting business goals, innovation and responding to the market. By contrast investment in higher level qualifications (e.g. degrees) tends to produce more specific, but nevertheless important gains in terms of innovation and responsiveness to market changes.

Formalising training, through the use of a formal training budget, appears to be associated with workplaces that have benefited in areas such as ‘improved overall competence’, ‘improved technical skills’ and ‘improved quality of products/services’. Interestingly, these benefits are all closely related to training for the immediate requirements of work. In addition, the survey identifies long-term benefits too – ‘improved staff retention’ and ‘improved growth capability’. The results therefore seem to suggest that it is important to change organisation culture such that F&D organisations can obtain greater and more sustained benefits of training through greater formalisation.

Our survey also suggests that ‘High Performance Working’ (HPW) is relatively new in the F&D sector. However, there is evidence that the level of HPW adoption is positively related to most of the identified training benefits and performance indicators. The results show that the various ‘bundles’ of HPW are closely associated with most of the 15 performance indicators and 8 areas of training benefits. The only areas that HPW has no statistical relationship with are ‘improved innovation’, ‘ensuring effective teamwork’ and ‘customer retention’. The implication here is that training benefits can be better enhanced if more F&D organisations can place greater attention to HPW. Training is unlikely to attain its full benefits unless it is supported by relevant and synergetic work practices.

From our case studies, each case raises a number of issues and the possibilities of achieving different workplace impact through training. Training impact can be found in three areas: business solutions (e.g. staff turnover, recruitment problems, solving technical challenges such as production and efficiency), building capacity (e.g. building workforce confidence, identifying improvements and adopting a higher value/knowledge-based approach) and achieving strategy (e.g. market niche, enhancing brand reputation and changing organisational culture).

These three areas of training impact also mean that training benefits can become more strategic in many F&D organisations. For example, we see in some case studies that ‘standards’ are not simply a matter for ‘regulations’ or ‘quality’. Standards can actually function as an effective means to up-skill and to add a competitive capability to the organisation. Standards, and the training that goes with them, are in this sense crucial. However, organisations tend to view training more relevant to the immediate operational needs, the immense potential of standards (coupled with training) often gets overlooked. It is here
that as well as advocating formalising training, promoting standards strategically may actually provide huge policy leverage for improving the performance of organisations.

The benefits of training can also go beyond the confines of the ‘workplace’. Many case studies show that they have workforce issues which are ‘located’ within the wider community. These issues can only be resolved if employers tackle skills matters from the community angle – building their business and skills via the community. There are two implications from this. First, the level of skills and skill supply can be leveraged through the ‘supply’ route, e.g. local colleges. Second, training in this instance becomes an effective tool for attracting and nurturing local talents. The two can work together to produce a synergetic effort.

It is often difficult to talk of company ‘vision’ and ‘mission’ because these concepts can be quite abstract. However, we have been impressed in every case study how they can readily identify the link between their business strategic plan and how training forms an important support to achieving these goals. Therefore, in every case study in this report, training is not a routine matter that is seen as an ‘extra’ but, instead, training is a strategic tool as a result of a series of important business decisions. The lesson here is that much public policy effort has been placed on the ‘value’ of training in itself. However, highlighting the strategic links that training can have helps to make a clearer business case for investment in skills.

The above point brings us to a somewhat unexpected finding of this research. The ‘good practice’ in our case studies often reflects a sustained and well thought-out training strategy. As training is carried out systematically to impact on every section of the operation, the cost of training gradually becomes an integral part of the operation. Over time, as training becomes more effective, the actual outlay in ‘training’ may go down. This paradox forms what we might call a ‘smart skills investment’ strategy. The situation moves from one of using training as part of a ‘fire fighting’ activity, needing quick solutions to arising problems, to one of a more strategic and long-term use of skills development within a clear and integrated framework. This is a lesson that we have not seen highlighted in any other research.

Overall, this research has demonstrated that by building training and skills development into business systems and daily practice, it becomes an effective and impactful way to avoid business problems, raise standards and increase competitive advantage.