

CSR performance: driven by TQM implementation, size, sector?

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Abstract

Purpose – The purpose of this paper is to consider organisational performance relating to “sustainability and inclusion” and to assess four related indicators across the manufacturing and service sectors both in absolute performance terms and by level of TQM implementation and organisational size.

Design/methodology/approach – The paper is based on two empirical studies (manufacturing and service) undertaken in North Eastern England, involving the application of a self-assessed benchmarking tool. Data were collected from 128 manufacturers and 428 service organisations where performance measures relating to “sustainability and inclusion” were considered.

Findings – The findings presented in this paper indicate the level of performance in “sustainability and inclusion”, together with the impact of size, world-class status and specific individual and aggregated TQM enablers for both sectors. Both manufacturing and service have some way to go in terms of their performance, whilst organisational size and world-class appear to influence attainment, as do certain individual and aggregated measures of business practice and internal performance.

Research limitations/implications – The paper shows that further research may involve revisiting the participating organisations to identify the extent of any improvement in their performance relating to “sustainability and inclusion”.

Practical implications – The results in this paper indicate the extent of the room for improvement within both manufacturing and service, but indicate how a greater level of TQM maturity and subsequent internal performance puts an individual organisation in a better position to a certain extent to do this.

Originality/value – The findings in the paper are based on benchmarking data, where the implementation of certain TQM practices and measures of internal business performance have been measured alongside a limited number of measures relating to CSR performance across manufacturing and service as part of a wider regional study. Providing these data together has allowed the exploration of the association between the two sets of measures.

Keywords Total quality management, Benchmarking, England

Paper type Research paper

Background to the study

The findings presented in this paper make use of benchmarking data collected as part of two major studies that involved around 300 manufacturing companies and 450 service organisations located in the North East of England respectively (Prabhu *et al.*, 2000a, b) using a tool called PILOT. PILOT represents a simplified version of the PROBE methodology that underpinned the range of “made in Europe” studies published in the late 1990s which considered best practice relating to both manufacturing and service (Hanson *et al.*, 1994, 1996, Voss *et al.*, 1997, 1998). The results that support this work refer to four specific performance measures from both North East of England studies that consider the participating organisations’

self-assessment of their performance relating to “sustainability and inclusion”. These CSR performance four indicators are:

- (1) Strategy towards corporate social responsibility.
- (2) Involvement in the local community.
- (3) Emissions and hazards.
- (4) Sustainability.

Whilst these measures are perhaps not extensive in the range of issues covered relating to corporate and social responsibility, they measure organisational performance relative to their location and community, thus considering performance criteria similar to those identified within the EFQM model in its section defined as “society and results” (EFQM, 1999). The data provided by these two studies and considered here provide an opportunity to measure the extent to which the level of TQM adoption and/or the levels of operational performance assessed using a range of individual and aggregate measures, have impacted on the corresponding levels of external business performance relating to factors defined within PILOT as “sustainability and inclusion”, which can be used as a measure of how the region’s organisations are performing with respect to Corporate Social Responsibility (CSR).

Literature review

Total Quality Management (TQM) has grown from being a strict, systematic, statistical methodology to an all-embracing philosophy of conceptual Business Excellence. The theory that underpins TQM is well documented and supported by considerable empirical evidence. Since the 1950s, practitioners and researchers have been describing the positive relationship between an organisation’s depth of deployment of TQM and the results achieved in terms of operational and financial performance. Deming (1982) and Schonberger (1986) pointed out the benefits of TQM in improving operational measures while Feigenbaum (1956, 1983) and Goldratt and Cox (1984) added the external key issues of competitive positioning, customer satisfaction and financial outcomes to the equation.

Throughout the 1990s, various descriptive literature and underpinning empirical evidence emerged that identified the key features of world-class organisations (based on their levels of adoption of TQM) and significant relationships between these and the levels of competitive results achieved and sustained by them. Smith (1995) suggested that successful companies maintained their competitive advantage through holistic management of best practice. Large-scale studies (Womack *et al.*, 1990; Womak and Jones, 1996; Hanson *et al.*, 1994; Voss and Hanson, 1993; Voss *et al.*, 1997; DTI, 1995, 1997; CBI, 1997) have categorised organisations based on the results achieved from the TQM practices that they have adopted. Hanson *et al.* (1994) proposed the hypothesis that “the adoption of best practice will lead to improved performance” and developed a conceptual world-class model that links TQM practices with operational and key business performance. Voss *et al.* (1996, 1997, 1998) tested the relationship between TQM and performance outcomes and showed that it appears to be generally valid across functions, sectors and sizes of organisations. These studies have also indicated that there is significant difference between leading (world-class) and lagging organisations attributed to depth of deployment of TQM.

The most recent empirical research into the relationship between TQM deployment and company performance has continued to support strong correlation between TQM and results. The series of studies by Hendricks and Singhal (1996, 1997, 2000, 2001) and the combined European and British Quality Foundations' joint study by the Centre of Quality Excellence at the University of Leicester (2005) have indicated that "the effective implementation of the principles of Business Excellence do make good economic sense".

Alongside the TQM philosophy, a number of organisations have developed frameworks for organisational excellence based on the principle that the enabling practice criteria relates to results achieved in operational and overall business performance. The Deming Framework, established in Japan in 1951, led to the more recent development of the two most prominent international frameworks that have become the highest known form of benchmarking methodology for TQM practices and achievement of results in modern business management. The Malcolm Baldrige National Quality Award Framework, created in 1987, is now used to assess companies for world-class levels of practice and performance results (NIST, 2002), whilst the European Foundation for Quality Management's Excellence Model was developed in 1988 and is used by organisations to benchmark and improve their practices and competitive positioning. These TQM frameworks have been continuously developed and now include altruistic issues such as: corporate social responsibility and environmental responsibility as core values and concepts (Baldrige) or as a fundamental concept (EFQM).

These issues are assessed as results criteria under the context of "stakeholders and society" and are driven from the models' enabling TQM drivers in common with other operating and key performance criteria. Within the European Quality Award, there is a section looking at "Impact on society", which considers two aspects of this process, a community's perception at how the organisation meets its expectations and how the organisation impacts upon the society in which it is located (EFQM, 1999). This impact on society is measured from the perspective of performance, not the role of any explicit or implicit enablers that support this process.

Given that the development of the various quality and excellence frameworks has resulted in the inclusion of measures relating to corporate and social responsibility alongside their more traditional measures relating to organisational practice and performance, consideration of the extent to which TQM adoption, as measured through practices implemented and results achieved, is associated with levels of social and environmental attainment external to the organisations can be measured. In the "Made in Europe 2" study, Hanson *et al.* (1996) identified the manufacturing leaders (based on the top 10 percent by score from implementing the EQA model) had an average performance score relating "impact on society" comparable with their average performance scores for people satisfaction and customer satisfaction and marginally better than that relating to business results. However, these authors identified that the bottom 10 per cent of manufacturers had a comparatively lower mean performance score relating to "impact on society", this having the joint lowest score of any of the enabler or result component measured through implementation of the model.

Moreover, Hillman and Keim (2001) have tested the relationship between shareholder value, stakeholder management and social issue participation and found evidence that, while stakeholder management may lead to improved shareholder value,

social issue participation is negatively associated with shareholder value. These findings are interesting in that they challenge the core values and concepts of the Baldrige framework and the fundamental concept that forms one of the nine criteria of the EFQM model. Furthermore, a number of studies, including Moore (2001), identified the positive association between organisational size and the social/environmental performance, size being a factor which, alongside TQM implementation, may be a potential driver of CSR performance, whilst Cottrill (1990) identified differences in social performance between organisational sectors. Shareholder value and financial performance will not be considered here, the other organisational characteristics will be assessed within the study presented.

Using empirical analysis based on the North East England regional studies, which have adopted a particular benchmarking tool, the paper wishes to identify the following:

- The level of performance in absolute terms relating to a number of measures connected to sustainability and inclusion.
- The extent to which level of performance relating to sustainability and inclusion is driven by TQM adoption and/or corresponding internal business performance.
- The particular aspects of TQM adoption that places organisations in a better position to perform regarding their sustainability and inclusion. These aspects of TQM may relate to an organisation's leadership and culture, the extent of its implementation of quality frameworks, its implementation of measurement systems or its internal levels of performance achieved.
- The extent to which the ability to exhibit a certain level of sustainability and inclusion is dependent upon organisational size.
- The extent to which differences exist between the manufacturing and service sector, as broad indicators of economic sector, with regard to the above.

Method of research and empirical analysis

The benchmarking data considered in this paper involved organisational self-assessment, with facilitator support and guidance and data analysis provided from external agencies (Robson and Yarrow, 2000), where 128 manufacturing companies and 428 service providers employed the benchmarking metric that included these additional measures. The data used scales from 1 to 5, and make use of recognisable manufacturing or service standards, representing for each variable a range of practice implementation or performance realised from the poorest levels to world-class, consistent across the various measurements included within the benchmarking tool employed.

In the analysis to be presented in the next part of the paper, an acceptable level of performance is assumed to be a benchmark score of 3, i.e. the median point on the scales adopted (values significantly lower or higher than represent poor or good respective performance). A range of parametric tests have been undertaken to determine significant differences from this mean score of 3, together with tests for differences between groups. Statistically significant differences have been reported at the 5, 1 or 0.1 percent levels of significance. Equally, correlation analysis has been used to determine the level of significant association between various individual internal measures of practice or performance and the four measures of "sustainability and

inclusion". Additionally, these internal practices or performance measures have been aggregated to provide broad indicators of TQM implementation and internal attainments, which have subsequently been tested for any significance in association with the four external performance measures, in each case, significance has been recorded at the levels indicated previously.

Differences in performance by specific sub-group (defined by TQM adoption/internal performance levels and size by number of employees) have been measured separately for manufacturing and service relating to the measures of "sustainability and inclusion". These include differences in terms of world-class status (defined by the benchmarking scores relating to business practices and business and operational performance measures) and organisational size (defined by number of employees on site). In terms of the former, four groups have been identified – Potential Winners (high practice, high performance), Promising (high practice, low performance), Vulnerable (low practice, high performance) and Room for Improvement (low practice, low performance), with the low/high cut-off index being an aggregate index of 60 percent in each case. The organisational size bands have been defined as micro (20 or fewer staff), small (21-50), medium (51-200) and large (more than 250 staff on site).

Whilst the primary aim of the two regional studies was not to focus on CSR attainment across the two sectors, by including these four measures relating to "sustainability and inclusion" within the benchmarking metric, opportunity was given to the researchers and participating organisations to assess the extent in absolute terms of CSR performance, alongside the impact of an organisation's size and the extent to which they have implemented good organisational practices and/or realised high level of internal organisational performance have influenced this external attainment.

Findings from the benchmarking survey

The findings presented here will consider the manufacturing sector, the service sector and a comparison between the two groups of organisations.

Manufacturing

Overview

The percentage of manufacturers scoring highly (i.e. 4 or 5) for each of the measures ranges between 13 and 28 percent, with the percentages scoring poorly (i.e. 1 or 2) is more typical for each measure, being between 35 and 45 percent, as suggested within Table I, with all four indicators having a mean score below 3 and apart from emissions and hazards (no significant difference) and strategy towards corporate social responsibility (5 percent level), these differences being statistically significant at the 0.1 percent level. There is consistency of performance between these measures, with significant positive association existing between each pair of variables, all at the 0.1 percent level of significance. Moreover, scores for each of the four performance measures are significantly inferior to the overall internal business performance for the sector, as seen in Table I.

| Manufacturing respondents Variable | Value (1-2 = "poor", 3 = "OK", 4-5 = "good") | | | Mean | Significance from mean score of 3 | Significant difference from overall internal performance |
|--|--|-------|---------|-------|-----------------------------------|--|
| | 1-2 (%) | 3 (%) | 4-5 (%) | | | |
| Strategy towards corporate social responsibility | 38 | 34 | 28 | 2.764 | (*) | (***) |
| Involvement in the local community | 45 | 36 | 20 | 2.528 | (***) | (***) |
| Emissions and hazards | 38 | 34 | 28 | 2.843 | | (**) |
| Sustainability | 43 | 44 | 13 | 2.484 | (***) | (***) |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level, () lower than

Table I.
Profile of manufacturing PILOT scores

Impact of world-class status

World-class status shows significant differences for each of the four performance indicators relating to "sustainability and inclusion", as indicated within Table II. For each of the measures, manufacturers defined as PW/WC have averaged at least an acceptable level of external performance, with two measures displaying a mean significantly greater than 3 (both 5 percent level). The Promising manufacturers have shown an adequate level of performance across the measures albeit based on a small number of organisations, whilst the vulnerables and those with room for improvement have scored significantly lower across the piece in statistical terms. Moreover, no significant difference exists across any of the measures between the PW/WC and promising manufacturers implying those with high levels of TQM implementation (irrespective of internal performance) are more likely to perform relatively well in terms of external CSR. The level of performance recorded for the four measures is typically inferior in statistically significant terms compared with typical levels of internal business performance and this is especially case for the winning and vulnerable manufacturers, with both groups having achieved high levels of internal performance.

| | PW/WC | Promising | Vulnerable | RFI/CDB |
|--|-------|-----------|------------|---------|
| Strategy towards corporate social responsibility | * | | (***) | (**) |
| Involvement in local community | | | (**) | (***) |
| Emissions and hazards | * | | (**) | (*) |
| Sustainability | | | (***) | (***) |
| Significant difference from overall internal performance | | | | |
| Strategy towards corporate social responsibility | (*) | | (***) | |
| Involvement in local community | (***) | | (***) | (**) |
| Emissions and hazards | | | (***) | |
| Sustainability | (***) | | (***) | (**) |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level, () lower than

Table II.
Differences in manufacturing mean scores from 3.0 by WC status and with internal performance

Impact of individual TQM enablers, internal performance and aggregated measures

Table III gives an indication of the impact of specific, individual TQM enablers and individual internal performance measures on the level of CSR attainment across the manufacturing sector. These cover the areas of Organisation and Culture, Quality Practices and Organisational Results.

From an organisation and culture perspective, there is a clear association between vision, strategy implementation and staff development and levels of external performance, whilst the level of quality practice implementation is also significantly associated. The profile relating to internal performance is less clear-cut, apart from associations involving performance relating to productivity and performance measurement and reporting.

| | Strategy towards corporate social responsibility | Involvement in local community | Emissions and hazards | Sustainability |
|---|---|-----------------------------------|--------------------------|----------------|
| <i>Organisation and culture</i> | | | | |
| Vision | ** | ** | ** | ** |
| Shared vision | *** | *** | *** | * |
| Manufacturing strategy | *** | *** | *** | *** |
| Employee involvement | ** | * | ** | ** |
| Job flexibility | | ** | | |
| Benchmarking | *** | ** | *** | *** |
| Human resource strategy | *** | ** | *** | ** |
| Skills assessments | *** | *** | *** | ** |
| Personal development needs | *** | ** | ** | * |
| Training and education | *** | *** | *** | ** |
| Customer orientation | ** | ** | * | ** |
| Problem solving | * | ** | | |
| <i>Quality practices</i> | | | | |
| Quality vision | *** | * | *** | *** |
| Quality processes | *** | ** | *** | *** |
| Suppliers | ** | *** | ** | * |
| <i>Organisational results</i> | | | | |
| Customer satisfaction | | | | * |
| Market share | | | | * |
| Employee morale | * | | | * |
| Inventory turns | | | | * |
| Cash flow | | * | * | ** |
| Return on net assets | | | | ** |
| Productivity | *** | *** | *** | ** |
| Product costs | * | ** | ** | ** |
| Performance measurement and reporting | *** | *** | *** | *** |

Table III.
Association between
manufacturing PILOT
questions and measures
of CSR

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level

Taking a holistic view on the impact of TQM implementation through aggregating the indicators into the broad areas listed above, the association between these aggregated indices and levels of performance are shown in Table IV.

The aggregated scores representing each of the three areas shows moderately strong, but highly significant association with CSR performance, with the index relating to organisation and culture showing marginally the strongest association. This would suggest both practice implementation and internal performance have a positive association with external CSR performance, although the earlier results relating to world-class status would also suggest the marginally greater impact of enablers rather than internal attainment.

Impact of size band

Organisational size clearly plays a part in explaining differences in performance across these measures, with all four measures showing significant differences across manufacturing as indicated in Table V. Medium and large organisations have attained

| | Strategy towards corporate social responsibility | Involvement in local community | Emissions and hazards | Sustainability |
|---------------------------|--|--------------------------------|-----------------------|----------------|
| <i>Aggregated indices</i> | | | | |
| Organisation and culture | 0.502 | 0.444 | 0.421 | 0.388 |
| Quality practices | 0.416 | 0.351 | 0.408 | 0.419 |
| Organisational results | 0.309 | 0.327 | 0.369 | 0.399 |
| <i>Aggregated indices</i> | | | | |
| Organisation and culture | *** | *** | *** | *** |
| Quality practices | *** | *** | *** | *** |
| Organisational results | *** | *** | *** | *** |

Table IV.
Associations between manufacturing PILOT indices and measures of CSR

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level

| | Micro | Small | Medium | Large |
|--|-------|-------|--------|-------|
| Strategy towards corporate social responsibility | (*) | (**) | | |
| Involvement in local community | (***) | (**) | | |
| Emissions and hazards | (*) | (***) | | |
| Sustainability | (**) | (***) | | |
| Significant difference from overall internal performance | | | | |
| Strategy towards corporate social responsibility | (**) | (***) | | |
| Involvement in local community | (***) | (**) | (*) | |
| Emissions and hazards | (**) | (***) | | |
| Sustainability | (***) | (***) | | (*) |

Table V.
Differences in manufacturing mean scores from 3.0 by size band and with internal performance

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level; () lower than

an acceptable level of performance across the measures, whilst the performance for their micro and small counterparts is significantly lower.

The extent of the significant difference between performance internal to the organisation and that relating to “sustainability and inclusion” becomes more apparent the smaller the manufacturer is, with limited significant differences for the medium and larger organisations.

Service

Overview

The service sector has a comparable profile to its manufacturing counterpart, with each performance measure relating to “sustainability and inclusion” having a mean score below 3, significant at the 0.1 percent level, as indicated within Table VI. The percentage of service organisations scoring highly for each of the measures ranges between 14 and 25 percent, with the percentage scoring poorly is again more typical, being between 29 and 45 percent across the four performance measures. Like the manufacturing sector, significant positive association exists between each pair of variables, all at the 0.1 percent level of significance, suggesting a similar consistency of performance level across the service sector. For each of the four measures, the level of CSR performance is significantly lower than that recorded for the overall levels of internal business performance, each at the 0.1 percent level of significance.

Impact of world-class status

World-class status highlights significant differences for each of the four performance indicators relating to “sustainability and inclusion”, as indicated within Table VII. Unlike the manufacturing sector, even the services defined as PW/WC or Promising have averaged poorly with regard to certain of these measures, whilst as earlier, the vulnerables and those with room for improvement have scored significantly lower than 3 on average for each measure. Apart from Strategy towards Corporate Social Responsibility where the PW/WC score higher (1 percent level), no significant difference exists across any of the measures between the PW/WC and Promising manufacturers, suggesting again that services with high levels of TQM implementation (irrespective of internal performance) are more likely to perform relatively well in terms of external CSR than their counterparts with poorer levels of

| Service respondents Variable | Value (1-2 = “poor”, 3 – “OK”, 4-5 = “good”) | | | Mean | Significance from mean score of 3 | Significant difference from overall internal performance |
|---|---|-------|---------|-------|---|--|
| | 1-2 (%) | 3 (%) | 4-5 (%) | | | |
| Strategy towards corporate social responsibility | 39 | 35 | 25 | 2.763 | (***) | (***) |
| Involvement in the local community | 42 | 38 | 20 | 2.601 | (***) | (***) |
| Emissions and hazards | 43 | 35 | 22 | 2.655 | (***) | (***) |
| Sustainability | 55 | 31 | 14 | 2.265 | (***) | (***) |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level; 0 lower than

Table VI.
Profile of service PILOT
scores

| | PW/WC | Promising | Vulnerable | RFI/CDB |
|--|-------|-----------|------------|---------|
| Strategy towards corporate social responsibility | | (**) | (**) | (***) |
| Involvement in local community | (**) | | (**) | |
| Emissions and hazards | | | (***) | (**) |
| Sustainability | (***) | | (***) | (***) |
| Significant difference from overall internal performance | | | | |
| Strategy towards corporate social responsibility | (***) | (*) | (***) | (***) |
| Involvement in local community | (***) | | (***) | |
| Emissions and hazards | (***) | (*) | (***) | (*) |
| Sustainability | (***) | | (***) | (**) |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level; () lower than

Table VII.
Differences in service mean scores from 3.0 by WC status and with internal performance

practice implementation. Like the manufacturing sector, the level of performance recorded for the four measures is typically inferior in statistically significant terms compared with typical levels of internal business performance and again, this is especially case for the winning and vulnerable service providers, who by definition have performed well with regard to the latter.

Impact of individual TQM enablers, internal performance and aggregated measures

Table VIII gives an indication of the impact of individual TQM enablers and internal performance indicators on the level of CSR attainment across the sector, covering Organisation and Culture, Service Quality and Delivery, Measurement of Service and Organisational Results.

Organisational practices relating to skill and job training and education, employee involvement and listening to staff appear to have the most significant levels of association with CSR performance, as do a range of practices relating to service delivery and measurement. Apart from performance relating to Strategy towards Corporate Social Responsibility, the association between internal performance and CSR performance is non-significant, suggesting again that this external attainment is enabler rather results driven from within the service organisations.

Table IX gives an indication of the association between external performance and the aggregated indices, based on the broad drivers listed above.

Clearly the most significant drivers are practices relating to organisation and culture and service measurement, which are weak to moderately strong but highly significant in association.

Impact of size band

Organisational size again explains significant differences in performance across these measures, with all four measures showing significant differences across the service sector as indicated in Table X. Medium and large organisations have attained an acceptable level of performance across the measures, whilst the performance for their micro and small counterparts is significantly lower, giving a profile which is consistent with that displayed by the manufacturers. Similar to manufacturing, the extent of the significant difference between performance internal to the organisation and that relating to “sustainability and inclusion” becomes more apparent the smaller the

| | Strategy towards corporate social responsibility | Involvement in local community | Emissions and hazards | Sustainability |
|--|--|--------------------------------|-----------------------|----------------|
| <i>Organisation and culture</i> | | | | |
| Leadership in developing service culture | * | | | |
| Shared vision and goals | *** | | * | |
| Customer orientation | | * | ** | |
| Quality values | | | ** | |
| Recognition | * | | | |
| Skill and job training and education | *** | ** | ** | *** |
| Employee involvement | *** | | | ** |
| Listening to staff | ** | | * | ** |
| Teamwork penetration | ** | | | * |
| <i>Service quality and delivery</i> | | | | |
| Problem-solving culture | *** | | ** | ** |
| Quality mindset | *** | | ** | |
| Quality procedures and framework | ** | | ** | * |
| Employee handling of service problem/failures | ** | | | |
| Use of customer complaint data | ** | | ** | |
| Workforce flexibility | ** | | * | |
| <i>Measurement of service</i> | | | | |
| Non-value-adding activities | *** | * | ** | *** |
| Vision of service quality | ** | | * | ** |
| Visibility of service standards | *** | | *** | *** |
| Benchmarks | *** | | ** | *** |
| Performance measurement and reporting | *** | * | *** | *** |
| Customer satisfaction measurement | *** | * | ** | ** |
| <i>Organisational results</i> | | | | |
| Value (quality/price) | *** | | | |
| Customer retention | * | | | |
| Level of customer satisfaction | ** | | | |
| Market share (of primary service/line of business) | * | | | |
| Cash flow | ** | | | |
| Overall productivity | ** | | | |
| Return on net assets | * | | | |
| Production costs | ** | | * | |

Table VIII.
Association between service PILOT questions and measures of CSR

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level

| | Strategy towards corporate social responsibility | Involvement in local community | Emissions and hazards | Sustainability |
|------------------------------|--|--------------------------------|-----------------------|----------------|
| <i>Aggregated indices</i> | | | | |
| Organisation and culture | 0.200 | 0.106 | 0.273 | 0.250 |
| Service quality and delivery | 0.232 | -0.011 | 0.276 | 0.249 |
| Measurement of service | 0.340 | 0.174 | 0.414 | 0.450 |
| Organisational results | 0.211 | -0.033 | 0.139 | 0.048 |
| <i>Aggregated indices</i> | | | | |
| Organisation and culture | *** | *** | *** | *** |
| Service quality and delivery | | | * | |
| Measurement of service | *** | *** | *** | *** |
| Organisational results | ** | | *** | |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level

Table IX.
Associations between service PILOT indices and measures of CSR

| | Micro | Small | Medium | Large |
|--|-------|-------|--------|-------|
| Strategy towards corporate social responsibility | (**) | (***) | | |
| Involvement in local community | (**) | (***) | | |
| Emissions and hazards | | (***) | | |
| Sustainability | (***) | (***) | | (*) |
| Significant difference from overall internal performance | | | | |
| Strategy towards corporate social responsibility | (***) | (***) | (***) | |
| Involvement in local community | (***) | (***) | (*) | |
| Emissions and hazards | (***) | (***) | (*) | |
| Sustainability | (***) | (***) | (**) | |

Notes: * Significant at 5 percent level; ** 1 percent level; *** 0.1 percent level; () lower than

Table X.
Differences in service mean scores from 3.0 by size band and with internal performance

manufacturer is, with limited significant differences only for the larger services, the rest for medium sized organisations and smaller having a significantly inferior level of attainment relative to their internal performance.

Comparisons between manufacturing and service sectors

In comparison, neither sector leads overall with respect to any of these performance measures, where no significant difference exists in the mean performance for any of the four indicators between service and manufacturing.

If equivalent sub-groups of manufacturers and service organisations are compared (i.e. PW/WC from each sector, micro vs. micro, etc.), only limited differences exist in terms of mean levels of performance.

In terms of World Class status, promising manufacturers perform better than their service counterparts with regard to Strategy towards Corporate Social Responsibility (1 percent level) and manufacturing leads amongst the PW/WC organisations in terms of Sustainability (5 percent level), whilst amongst those showing room for improvement, the service sector leads in terms of involvement in the local community (5 percent level).

Regarding organisational size, amongst micro organisations, service leads manufacturing in terms of involvement in the local community (1 percent level), whilst large manufacturers lead service in terms of emissions and hazards (5 percent level).

Implication of the results

In absolute terms, both manufacturing and service sectors within the North East of England (relative to established world-class standards) are performing typically only poorly to adequately with respect to external CSR performance, with neither sector dominating in terms of performance. Moreover, compared with the UK measures relating to EFQM implementation (Hanson *et al.*, 1996), the better organisations in terms of world-class status for the region are relatively under performing, as are the regions weaker organisations when comparison is made between the results presented in this paper and the UK attainment recorded in the 1996 study cited above. Apart from the larger organisations both in manufacturing and service, performance relating to “sustainability and inclusion” typically lags behind that relating to internal business performance and this is the case overall for each sector and also by world-class status group and organisational size, the large manufacturers and service providers apart. This suggests from the measures used in the benchmarking study, the most typical level of attainment across the region sees both its manufacturing and service organisations failing to view regional social responsibility as an appropriate objective, with no policies relating to involvement in the local community, whilst policies relating to emissions and hazards and sustainability do not extend beyond compliance with legal requirements. In short, organisations within both sectors have prioritised internal business performance over that relating to stakeholders in their closest environment.

This North East of England study does highlight the existence of a number of key associations, where an organisation’s maturity in terms of implementing TQM practices and associated values and influences (be it in manufacturing and service), and the realisation of a corresponding high level of internal organisational performance, has led to a relatively positive performance in terms of external indicators relating to “sustainability and inclusion”. To a marginally greater extent, this is enabler rather than performance driven. The analysis indicates linkage to policy setting (shared vision, quality vision) and implementation through operational and human resource strategies being deployed in levels of practice relating to organisation and culture and quality concept, significant at individual enabler and recognisably stronger at an aggregated level of implementation.

Perhaps even more clear-cut in both sectors is the association with organisational size, where the medium and large organisations are much more likely to attain at least an adequate level of performance relating to CSR, both in manufacturing and service.

In terms of implication for organisations, this would suggest a limited, but significant impact of TQM implementation on external CSR performance. Combining

these findings, this would suggest that within the region's manufacturing and service sectors, the winning organisations (in terms of TQM embedding and achieving organisational performance benefits) and those with larger numbers of employees on site are getting to the point of introducing *ad hoc* measures relating to regional social responsibility, encouraging local voluntary involvement amongst their employees and are seeking to extend performance relating to emissions and hazards and sustainability beyond legal minimums, although without fully embedding this within their relevant formal systems and processes. However, from an overall regional perspective this level of attainment from both the manufacturing and service sectors appears to be relatively low compared to that observed nationally.

We conclude that this region's organisations are becoming aware of the effect of the CSR practice and performance relationship. They appear to be at an awakening stage of CSR, mainly involving the ethical principles of avoiding harm or damage to their most immediate external stakeholders and working to legislative and regulatory requirements for economic, financial, health, safety and environmental issues.

Using the results provided by this study, we cannot conclude categorically that the region's CSR performance is driven by TQM, although the relevant levels of engagement in activities relating to the former are greater amongst those manufacturers and service providers who have higher levels of TQM adoption and who have attained better levels of internal business performance. However, approaches to CSR may be emerging in a similar way to that in which quality approaches developed towards the concept of Business Excellence. It may be following an evolutionary pattern similar to that in which "quality awareness" developed to TQM and Business Excellence. In maturing through phases from the "awakening" described above to total stakeholder nurturing and philanthropy, CSR may, in the future, establish its own place in the overall Business Excellence framework.

One limitation of the study is the data is now at least five years old; so one question arises regarding the extent, if any, to which the region's organisations have moved on in terms of their external performance. If opportunities arose, it would be useful to gauge the extent of enhancement in performance relating to CSR across both sectors as part of a longitudinal study, where manufacturing and service participants considered within this study could repeat the self-assessment to measure the extent to which their external performance as measured by these CSR-related indices has changed and moved to levels that extend beyond the *ad-hoc* or simple compliance to legal requirement.

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