# Compliance in the Supply Chain: Implications of Sarbanes-Oxley for UK Businesses

*Jean Anne Stewart*[1], *Marc Day*[2], *Carole Print*[3] *and Giampiero Favato*[4]

*The key aims of this research are to not only estimate the current number of UK companies that have to be Sarbanes-Oxley compliant, but also how that number will grow over the coming decades, particularly given the impact of the supply chain. This study also examines UK organizations that will need to comply with Sarbanes-Oxley as a cost of doing business, raising capital or for general corporate governance best practice. The number of Sarbanes-Oxley compliant companies in the UK could be between 45,000-60,000 over the next 10 years. Sarbanes-Oxley compliance could become an international standard of quality in corporate financial disclosures, a sort of ISO-9000 certification of management and reporting transparency. Companies adopting Sarbanes-Oxley may pay a price now, but will exploit an enviable competitive position in the future, making them preferred partners of large corporations, which must comply with Sarbanes-Oxley.*

## Introduction

Most recent research and press reports on Sarbanes-Oxley have focused on large, dual-listed companies as well as on UK-based subsidiaries of US companies that have to comply with the regulation. Often, these companies have big compliance budgets and have been at the vanguard of Sarbanes-Oxley compliance in the UK. The key aims of this paper are to not only estimate the current number of UK companies that have to be Sarbanes-Oxley compliant, but also how that number will grow over the coming decades, particularly given the impact of the supply chain. The wider impact of Sarbanes-Oxley through the supply chain is a key issue, that many UK businesses will have to deal with, many of whom will not have realized the implications to date given their status as partners or suppliers of compliant companies. These supplier companies will need to reengineer their internal processes to provide data to meet the compliant companies' Sarbanes-Oxley reporting requirements. This paper also examines UK organizations that will need to comply with Sarbanes-Oxley as a cost of doing business, raising capital or for general corporate governance best practice. The focus of this study is on UK companies, employing between 50 and 1,000+ people.

1 Director, Henley Facilitation Forum, Henley Management College, Greenlands, UK. E-mail: Jean-Anne.Stewart@henleymc.ac.uk

2 Associate Professor of Operations Management, Henley Management College, Greenlands, UK. E-mail: Marc.Day@henleymc.ac.uk

3 Associate Professor of Accounting, Henley Management College, Greenlands, UK. E-mail: Carole.Print@henleymc.ac.uk

4 Director, Henley Centre for Value Improvement (HCVI), Henley Management College, Greenlands, UK. He is the corresponding author. E-mail: Giampiero.Favato@henleymc.ac.uk

## Background to the Research

The Sarbanes-Oxley Act was implemented as a direct result of serious financial misconduct by business leaders in the late 1990s and early 2000s, that hurt both large and small investors. In retrospect, much of the abuse that occurred was simply forgetting or ignoring basic ethics and common sense. So to whom does Sarbanes-Oxley apply? Any company whose securities are registered are required to file reports under Section 15(d) of the Exchange Act. In essence, this means any publicly traded company. The key to this report documentation is that the Act does not provide a definition of 'relevant' or 'material' and each company must determine what is relevant or appropriate material based on each circumstance. An important element of Sarbanes-Oxley will be how it affects businesses not now under its umbrella, namely, smaller and medium-sized businesses and supplier organizations that are not publicly held, yet seriously seeking to grow. These companies typically are growing large or fast enough to be interested in equity injections that require outside audits, yet remain too small to afford the fees of large accounting or consulting firms. Institutional investors are themselves required to provide relevant, accurate and timely disclosures as a prerequisite for financing third party investments. Consequently, the Sarbanes-Oxley requirements are becoming relevant to second tier companies' ability to finance growth investment strategies.

When a second tier company matures, they might have the option to finance their next stage of growth with equity, through an Initial Public stock Offering (IPO). Compliance to Sarbanes-Oxley is a prerequisite to be listed in the stock market. Lack of compliance implies delays and incremental risks that can jeopardize the entire IPO process and drastically reduce the value of the equity offered for sale.

Mergers and acquisitions provide second tier companies with an alternative access to capital markets. Compliance to Sarbanes-Oxley for such companies can be even more dramatic than those choosing the IPO option, resulting in the making or breaking of the deal.

In order to maintain Sarbanes-Oxley compliance, larger public firms with suppliers, partners and clients among smaller and non-publicly traded ones will need to ensure that their partners' practices will not impact their own Sarbanes-Oxley ratings. In short, major corporations will be ensuring that their smaller business partners pay attention to how they collect, verify, protect and utilize their data in Sarbanes-Oxley-like ways.

Sarbanes-Oxley's Sections 401a (listing of off-balance transactions), 404 (internal audit) and 409 (reporting) will impact Supply Chain Management (SCM).

The first wave of preparation for Sarbanes-Oxley compliance is now completed, with the US and foreign companies listed in US filings being made. Due to the extraterritoriality nature of the Sarbanes-Oxley Act, all foreign companies listed on a US stock exchange with 500 or more US-based shareholders must be compliant. There are 113 UK companies listed on the New York Stock Exchange (NYSE) and National Association of Securities Dealers Automated Quotation (NASDAQ), including British Telecom (BT), Shell, British Petroleum (BP), Hongkong Shanghai Banking Corporation (HSBC) and Glaxo-Smith

Kline (GSK). These companies currently face compliance costs of millions of pounds (Engel, 2006).

The rapidly increasing agency costs associated with dual listing in US could result in major UK companies delisting from either the NYSE or NASDAQ. An example of this would be Lastminute.com, which delisted from the NASDAQ, in August 2004 (Borden, 2005).

## Overview of Methodology

One of the objectives of this research was to calculate the diffusion of Sarbanes-Oxley among the UK industries. The starting point (first wave) was determined by a legal constraint, which is the mandatory compliance to Sarbanes-Oxley. The impacted companies were the UK companies (113) dual listed in the UK and US stock exchange and the UK subsidiaries fully owned by US corporations (approx. 5,000, source: SEC + FAME database). The challenge was to estimate the magnitude of the diffusion of Sarbanes-Oxley in UK, driven by its early adoption by a selected number of companies. This excluded a mandatory, legal requirement, which would have accelerated the diffusion. To calculate the impact of a single phenomenon on the universe, the generally accepted methodology is borrowed from physics which is called the Fermi method. The methodology chosen was to apply to the universe of UK companies, the same distribution coefficient repeatedly.

The distribution coefficient chosen was derived from Pareto's law (20% of the subjects determine 80% of the outcome), and is the most frequently observed in management studies when the object of research is related to corporate performance. This started from the total number of VAT registrations in UK (source: NOMIS, 2005) as a proxy of the universe of UK companies—1.853,210 and then:

- Subtracted education, healthcare and public administration (Sarbanes-Oxley does not apply) to get the total number of companies potentially impacted by Sarbanes-Oxley—1,683,510;
- Assumed that only 20% of those would have a size (annual turnover, representing 80% of total UK turnover) relevant to Sarbanes-Oxley, and the number was 336,702; and
- Estimated that 20% of those companies would adopt Sarbanes-Oxley, driven by competitive advantage rather than mandatory requirement. The number is 67,340.

This number represented the upper limit of the estimate in 2017 (10 years ahead and rounded to 60,000+ in the text). By building in a 25% error in the estimate to establish the lower limit, this results in the estimate (45,000).

To establish the mid range distribution (second wave), this assumes that 20% of the lower limit of the universe estimate (45,000) would be the early adopters (9,000) and by adding this estimate to the number of companies with mandated compliance to Sarbanes-Oxley in the first wave (5,113), this results in the total of 14,113 for the second wave.

To check this estimate, the distribution is considered from a different perspective. Given the number of companies in the first wave (5,113), assume that two major UK suppliers of those companies would adopt Sarbanes-Oxley in the first wave (approx. 10,000 additional companies), and in the third wave additional two (30,000) or three (45,000) suppliers will adopt Sarbanes-Oxley. The distribution obtained looking at this progressive adoption in the supply chain provides the following estimates:

- First wave: 5,000;
- Second wave: original 5,000 + additional 10,000 (total 15,000); and
- Third wave: 15, 000 of second wave + additional 30,000 or 45,000 companies (total ranging between 45,000 and 60,000+).

Both methodologies converge. The outcomes were validated by management consensus, exposing the outcomes to the managers interviewed, academic and financial experts.

Eight telephone interviews were conducted to better understand the impact of Sarbanes-Oxley on processes, systems and business structure of UK companies. The executives interviewed occupied a leading position in their relative organizations, mostly in management and finance. Data was obtained from five UK-based companies and three subsidiaries of American multinational corporations. The following industries were represented—IT; Telecoms; Consulting; Healthcare Insurance; Pharmaceuticals; Communications; and FMCG. The size of the organizations ranged from 50-1,200 employees, generating annual revenues in the range of £0.5-350 mn. All businesses were experiencing a rapid growth.

Three respondents were from organizations that are compliant with Sarbanes-Oxley requirements, as foreign subsidiaries of corporations listed in US (one in the NYSE, two in the NASDAQ). In these cases, the impact on processes was modest, as the companies already had strong reporting systems in place. The additional challenge for one of the respondents was the additional level of documentation required by Sarbanes-Oxley and the appointment of a compliance officer directly reporting to the auditing department in the US headquarters. A consulting firm was hired to validate the documentation and auditing policies to Sarbanes-Oxley requirements. The larger company appointed a Compliance Director. There were also significant training programs for directors and managers to communicate the implications of Sarbanes-Oxley compliance internally.

## Discussion of Outcomes

This research project has revealed that there is no clear source of information relating to UK companies that are currently compliant to Sarbanes-Oxley, but it is generally perceived that Sarbanes-Oxley compliance is the domain of only a handful of the largest listed companies in the UK, while smaller companies are either not affected or actively avoid a business strategy that will require Sarbanes-Oxley compliance. However, the research for this study indicates that there are a significant number of companies in the UK that are already directly affected by Sarbanes-Oxley.

The data provided (Table 1) has been based on estimates derived from secondary data, and it is not clear whether all the 'first wave' companies are currently compliant or are still in the process of becoming compliant, but it is clear that the number of companies currently compliant with Sarbanes-Oxley in the UK is sizeable. The implications of Sarbanes-Oxley on the supply chain, and as a more ubiquitous component of doing business, in coming years are significant for UK Plc.

**Table 1: Estimated Number of UK Companies Compliant to Sarbanes-Oxley by 2017**

| | When | Estimated Number of UK Companies | Source of Data |
|---|---|---|---|
| First Wave | 2007 | 5,113 | 113 Dual-listed companies (Timesonline) Approx 5,000 subsidiaries (SEC + FAME company search) |
| Second Wave | 2009-2011 | 14,113 | UK resident listed companies (FTSE and AIM) + key suppliers |
| Third Wave | 2012-2017 | 45,000-60,000+ | Henley estimate based on 3% to 5% of businesses as suppliers of listed companies |

The limited academic literature available depicts Sarbanes-Oxley as an economic constraint, where Sarbanes-Oxley is perceived as a collection of descriptive accounting rules that negatively impact the management processes of the firm. However, this study indicates that early implementation of Sarbanes-Oxley compliance, although challenging at the beginning, could actually deliver competitive advantage.

The research has focused on long-term strategic implications related to Sarbanes-Oxley compliance. For instance, start-up and rapidly expanding companies might be slowed down in their growth by the adoption of a stringent set of accounting rules. It could be argued that the focus of start-ups should be on identifying an innovative business model and on creating a sustainable competitive advantage.

On the other hand, an early implementation of the Sarbanes-Oxley process, whilst being painful at the beginning, creates a culture of transparency that could cement competitive advantage. The adoption of Sarbanes-Oxley by a company, at an early stage in its growth, could incorporate financial literacy in their business model, without compromising the low-cost competitive advantage. In addition to simply being a drain on resources for organizations the currently must comply, Sarbanes-Oxley requirements also affect large companies in other ways. Sarbanes-Oxley is becoming an industry standard, with domestic companies operating in multiple geographies facing many of the same reporting expectations as those that are Sarbanes-Oxley compliant by necessity of their listing status. Any organization looking forward to trade with the US, for example, must seriously consider Sarbanes-Oxley compliance as an essential part of growing their business. As a finance director of a £300 mn turnover healthcare insurance company said in the interviews for this study:

"We are currently only operating in UK and Ireland and growing the business to be a broadly based healthcare provider. We chose not to be Sarbanes-Oxley compliant…. We have taken a strategic decision not to operate in the US or have a partnership with a US company, for the next 3-5 years. This strategy will be evaluated over the next few years, but Sarbanes-Oxley (and the cost of compliance) will be one aspect of the strategic decision-making process."

Access to innovation through mergers or acquisitions can be another driver of Sarbanes-Oxley compliance for large companies. Many large technological companies, for example, have adopted an acquisition strategy to access technological innovation to complement their own research and development activities. Companies that could potentially merge or be bought by these companies could be much less attractive, if not compliant with the Sarbanes-Oxley compliant systems and processes of the acquirer. The same argument applies in merger-hungry industries such as financial services where large multinationals look to acquire new products or customers as well as growing their existing base organically.

A similar trend has been noticed in the life science industry. Big pharmaceutical corporations are more reluctant to acquire biotech companies, whose accounts can be perceived as a liability in Sarbanes-Oxley terms. The prevailing strategy now is risk-sharing, co-developing promising products by sharing development risks as well as future returns with the originator of the medicine or compound.

This trend is changing the 'life expectancy' of start-up companies, who are now supposed to wait longer for the first stream of positive cash flow to be generated. This extended life of the start-up provides two additional reasons to start complying with Sarbanes-Oxley as early as possible:

- To access a second or third round of financing, the accounts must be compliant with Sarbanes-Oxley regulations; and
- To eventually become a partner, or simply to supply raw material to larger companies, necessarily compliant to Sarbanes-Oxley.

Smaller companies are naturally more interested in innovation than compliance. The Henley experience with innovation advisors is that they are struggling with business process basics, showing low interest in marketing and accounting practices. Their agenda is how to acquire customers, rather than how to comply with procedures.

In summary, analysis of literature and experience of UK companies suggests that the biotech, high-tech, IT, manufacturing and financial services sectors are most likely to be impacted by Sarbanes-Oxley compliance, especially those that are part of larger global supply chains (supplier ecosystems) and those looking for investment in their businesses. UK-based companies with UK customers and no desire to grow beyond the UK market are the least likely to be affected, although many will find this position seriously limiting the potential growth of the business.

Globalization adds complexity and risks to supply chain processes, which corporate executives must take into account when analyzing their operations and addressing investors (Tarantino, 2003).

The proliferation of financial and operational data shared between multiple parties in all types of business transaction means that the impact of Sarbanes-Oxley is not just felt through supply chains of material goods. Services industries, where supply chains are concerned with the transfer of knowledge and skills (and the supporting financial transactions for those services) are also affected in just the same way.

The more outsourced and dispersed the supply chain, the more difficult it becomes to establish and audit process controls. Therefore, working with trading partners (suppliers, carriers, logistics service providers, customers) that share a similar commitment to security and financial integrity is imperative. In other words, due diligence is more critical than ever. The goal for businesses today is to minimize risk, improve visibility, and enhance reliability in the supply chain, factors that directly impact financial performance and the ability to comply with Sarbanes-Oxley.

Although Sarbanes-Oxley applies only to publicly traded companies on US exchanges and their subsidiaries, it would be a mistake for other listed companies, and even private or public sector organizations involved in the supply chains of compliant companies to remain at the *status quo*. The risks and consequences associated with poorly understood and poorly controlled supply chain processes apply to every company regardless of ownership.

Sarbanes-Oxley can be ultimately perceived as a source of competitive advantage. Leading thinkers in the area of supply chain management are taking an opportunistic view of Sarbanes-Oxley, as an unique opportunity to streamline business processes and achieve supply management excellence.

Sarbanes-Oxley compliance could be seen, in the future, as a prerequisite of financial reporting quality, a parallel to ISO-9000 for management transparency. Firms adopting Sarbanes-Oxley can pay a price now, but will soon exploit an enviable competitive position, making them preferred partners of large corporations, which must comply with Sarbanes-Oxley (Giles, 2005).

A limiting constraint on the positive impact of compliance is Return on Information (RI), measured as the effort (monetary or organizational) paid by each company to comply. There must be a balance between the effort paid to get information and the use of it. Management must see the RI to drive the business. This is the domain of IT, the support of a user-friendly, reliable, value-priced platform can be the discriminating factor pushing Sarbanes-Oxley compliance down through the supply chains of large, compliant companies.

For the thousands of companies that will be affected by Sarbanes-Oxley over the next few years, the compliance and documentation process will be time-consuming. However, it is imperative to build the Sarbanes-Oxley culture into the fabric of an organization and make compliance easy. This is a major opportunity for the use of IT systems—user-friendly, possibly inexpensive solutions allowing companies of all sizes to reduce the initial cost of implementation. British Airways paid a very high cost to adopt Enterprise Resource Planning and support the implementation of financial control processes (Gonzalez, 2004). Subsequently, in April 2007, British Airways announced its intention to delist from the NYSE because of the burden of compliance. Some large businesses will absorb the costs of compliance. As the compliance director of a large pharmaceutical company said in interviews for this study: "The main challenges were the integration of these new requirements with our existing regulatory, industry and ethical conduct requirements. This created an increased level of complexity and documentation. We addressed this by adopting an ERP system to integrate all functions, appointing a Compliance Director, conducting an internal compliance audit and extensive training on Sarbanes-Oxley for all directors and managers."

However, many companies, from small to large, will have to choose IT platforms that enable a simpler, but still adequate level of compliance. As a director, of a UK company acquired by a US listed company, says in his interview: "The company did not adopt a new IT infrastructure but focused on establishing a common baseline, harmonizing different IT tools. In the future, we will be looking for scalable systems and procedures to sustain the organic growth of the business." Simplicity, scalability and flexibility of IT systems will be essential to ensure rapid and cost-effective compliance through audited workflow and data management. This is especially important, given the comments of one interviewee that the current management mantra for Sarbanes-Oxley compliance is "When in doubt, keep everything". In general, the introduction of Sarbanes-Oxley did not require any change to the existing IT infrastructure. One of the subsidiaries was using a fully integrated Enterprise Resource Planning (ERP) solution, involving human resources, accounting, financial planning, manufacturing, marketing and the supply chain.

In these cases, there was no plan to restructure current IT resources. The platform would be re-evaluated to secure compliance for a growing business.

According to the respondents, the first year of Sarbanes-Oxley implementation was the most painful. Interestingly, the effort became gradually more manageable in subsequent years. Sarbanes-Oxley requirements actually reduced the documentation effort required for external auditing at year-end.

The remaining respondents, managing UK-based companies, were aware of Sarbanes-Oxley, although their accounting systems were not compliant with its requirements. They all offered interesting and different perspectives to the analysis.

Sarbanes-Oxley had impacted the telecom company from the supply side. Two of its suppliers, American providers of broadband services, following the implementation of Sarbanes-Oxley, demanded stricter collection time (from 8-4 weeks). There was now no tolerance for late payments and direct debit arrangements which created a business pain associated with the provision of increased working capital for such a small firm.

In another case, a healthcare insurance company took the strategic decision to operate only in UK and Ireland to avoid an uncontrolled expansion of their already immense cost to secure compliance with the Financial Services Authority and other corporate governance requirements (estimated to exceed £1 mn per year). The strategic decision was not exclusively driven by Sarbanes-Oxley compliance, but the cost of compliance would be one factor under consideration before any change in strategy, such as planning to expand their operations to US or to establish a partnership with an American company.

One of the most interesting perspectives was the one provided by a consulting company, which saw in Sarbanes-Oxley an exciting opportunity to generate additional revenues. According to this executive, 75% of IT or high-tech purchasing decisions are made by individuals at the director's level and above, who are all very sensitive to Sarbanes-Oxley liabilities and transparency of processes. The consulting firm developed a program, called 'Executive Engagement' to train sales people to effectively close corporate sales, selling value to executives in a Sarbanes-Oxley compliant environment. The consulting company intends to fully capitalize upon the opportunity to generate incremental revenues by extending their training program offerings. Sarbanes-Oxley is perceived as an expansion opportunity.

Another respondent, a senior project executive, related his personal experience with Sarbanes-Oxley compliance to a case of implementation of governance guidelines in a company which filed for Chapter 11 (bankruptcy), underwent a turn around and was subsequently acquired. The Chapter 11 filing was due to huge accounting irregularities. An immediate alignment to Sarbanes-Oxley was required. In order to expedite the process, rather than replacing the audit and control system, it was decided to realign all business processes (R&D, manufacturing, sales, marketing) and put in place relevant policies and procedures, leading to monthly internal audits to demonstrate compliance to Sarbanes-Oxley. Rather than adopting a new IT infrastructure, the company focused on establishing a common baseline, harmonizing different IT tools.

All respondents for this research recognized the need for a simple, reliable, harmonized IT infrastructure to collect data and provide information vital to secure management compliance to Sarbanes-Oxley.

The following excerpts are taken from interviews Henley undertook with UK companies affected by Sarbanes-Oxley in various ways. Some must be compliant, others have avoided compliance deliberately while some others are finding that they have to be compliant because of the needs of their compliant partners and suppliers.

### Case Study 1 (Telecom/Video Communications, Managing Director, Annual Revenue £1.2 mn)

"Two of our suppliers are Sarbanes-Oxley compliant and now demand stricter payment collection time, reduced from 8-4 weeks. There is no tolerance for late payments or direct debit, so this has enforced us to increase our working capital and ensure effective invoice processing. We are currently selling via an integrated solutions distribution channel, so this is limiting the effect of Sarbanes-Oxley on us directly, at the moment."

### Case Study 2 (Sales Training/Consultancy, Chairman, £0.5 mn)

"We see Sarbanes-Oxley as an opportunity. 75% of IT/High-Tech purchasing decisions are made by Directors and above, who are very sensitive to Sarbanes-Oxley liability and transparency process. We have developed a sales training program to train sales staff to effectively close corporate sales, selling value to executives in a Sarbanes-Oxley environment of compliance and documentation. We have developed this training program, as we see it is an expansion opportunity for our training and consultancy services."

### Case Study 3 (Subsidiary of US Owned Company, Financial Director, £35 mn)

"The first year of Sarbanes-Oxley compliance implementation was the most painful, but the effort gradually became more manageable. We had strong control procedures in place before Sarbanes-Oxley, but experienced additional challenges with documentation and internal audit of integrity of all business processes (not in place before). We had to document all this for employees training. In addition, we appointed an internal auditor (compliance officer) who reported directly to US HQ auditors and we hired a consultancy company to validate all the documentation/auditing policies' compliance to Sarbanes-Oxley requirements. We did not need any changes to our IT platform, but will be reevaluating all IT systems as our operation gets bigger, to secure compliance. We are in a stage of aggressive growth in the UK."

### Case Study 4 (Multinational Independent Software Vendor (ISV) Acquired by US Software Group, Project Executive, £1.5 bn Revenue of US Software Group)

"Due to accounting irregularities, the ISV filed for Chapter 11 and as part of its turnaround and prior to acquisition, it had to undergo Sarbanes-Oxley compliance. A full auditing and documentation process needed to be put in place. This involved integration of diverse processes (R&D, manufacturing, sales and marketing). Policies and procedures were implemented, leading to monthly internal auditing to demonstrate Sarbanes-Oxley compliance. The company did not adopt a new IT infrastructure but focused on establishing a common baseline, harmonizing different IT tools (e.g., MS Project). In the future, we will be looking for scalable systems and procedures to sustain the organic growth of the business."

### Case Study 5 (Subsidiary of US Soft Drinks Company, Financial Director, £350 mn)

"We have been compliant with Sarbanes-Oxley in the UK, as our parent company is US listed. There were only minor reporting and documentation issues for us. We have had ERP systems in place for years since before Sarbanes-Oxley, with a strong internal control culture. HR, planning, supply chain and manufacturing are fully integrated in ERP. I am currently setting up the company subsidiary in South Africa and will have to ensure this is Sarbanes-Oxley compliant."

### Case Study 6 (Healthcare Services/Insurance, Financial Director, £300 mn)

"We are currently only operating in UK and Ireland and growing the business to be a broadly based healthcare provider. We chose not to be Sarbanes-Oxley compliant and have already invested a large amount to secure compliance with Financial Services Authority (FSA) of UK and Corporate Governance regulations. We have taken a strategic decision not to operate in the US or have partnership with a US company, for the next 3-5 years. This strategy will be evaluated over the next few years, but Sarbanes-Oxley (and the cost of compliance) will be one aspect of the strategic decision-making process."

### Case Study 7 (Pharmaceutical, Compliance Director, £250 mn)

"We are currently in a period of growth driven by innovative research products in selected therapeutic areas. As a subsidiary of a US company, we must be compliant with Sarbanes-Oxley. The main challenges were the integration of these new requirements with our existing regulatory, industry and ethical conduct requirements. This created an increased level of complexity and documentation. We addressed this by adopting an ERP system to integrate all functions, appointing a Compliance Director, conducting an internal compliance audit and extensive training on Sarbanes-Oxley for all directors and managers. We also created a whistle-blowing protection program to ensure anonymity of people reporting malpractice. We have an ongoing process and continuous improvement of systems to align different corporate procedures to Sarbanes-Oxley."

### Case Study 8 (Compliance Consulting Company, Practice Director, £15 mn)

"We supply consultancy to corporations on Sarbanes-Oxley, Six Sigma compliance, sharing best practices and best policies. We see the business continuity issue where management report any issue affecting the business, and the data storage issue of information 'traceability'. We also work on disaster recovery, where all IT systems used to maintain documentation, might be lost. We have addressed Sarbanes-Oxley by ensuring that the IT infrastructure fully complies with Article 404 of Sarbanes-Oxley, and by aligning the auditing process. In future, we would like to see a better definition of the information required for compliance, as the current managerial interpretation of the documentation workload is 'when in doubt, keep everything'. Lastly, it is very important to ensure vertical financial integration of IT systems and audit data."

## Conclusion

Globalization adds complexity and risks to supply chain processes, which corporate executives must take into account while analyzing their operations and addressing investors.

The more outsourced and dispersed the supply chain, the more difficult it becomes to establish and audit process controls. Therefore, working with trading partners (suppliers, carriers, logistics service providers, customers) who share a similar commitment to security and financial integrity is imperative. In other words, due diligence is more critical than ever. The goal is to minimize risk, improve visibility, and enhance reliability. These factors directly impact financial performance and the ability to comply with Sarbanes-Oxley.

Finally, although Sarbanes-Oxley applies only to publicly traded companies, it would be a mistake for private companies to ignore the implications. The risks and consequences associated with poorly understood and poorly controlled supply chain processes apply to every company, regardless of ownership.

Sarbanes-Oxley like ISO-9000 is shifting from being a technical constraint to a competitive advantage. ISO-9000 standards are a series of specifications on quality system management and quality assurance that apply to processes rather than product standards, with a primary goal to ensure consistent product quality for registered organizations, through third party-audited quality system management and quality assurance activities. Internal benefits of ISO certification have been associated with improved internal operations (removal of errors), and external benefits that are associated with increased demand for a registered company's products and services.

Two decades after their introduction in 1987, the number of companies that have registered to adhere to ISO certification has rapidly increased and it is almost essential for suppliers in large global supply chains (Mumma *et al*., 2002).

Sarbanes-Oxley, like ISO-9000, applies to reporting processes rather than to accounting specifications. The demand for transparency in financial transactions is continuously growing, supported by the new EU regulations concerning banking and finance.

This study has highlighted many opportunities and challenges for UK organizations and it is interesting to note the words of one of its creators (former Senator Oxley) commenting on the impact of Sarbanes-Oxley on US corporate economy (Taub, 2007):

"If you look at total market cap on July 30, 2002, for public companies and today, it is pretty hard to argue that Sarbanes-Oxley has been a detriment to growth and prosperity. It has provided a certain degree of comfort to the investing public and the confidence level in the investing public has been restored. Markets are more transparent. Accountability is built into the process. A lot of people overlook the requirement that insider deals must be reported in 48 hours. This provision is interesting in the light of the backdating scandal. Virtually all cases took place before 2002. Before that, they had up to 90 days to report (stock trades). I think the transparency will preclude nefarious activity. The statute does get credit for this." ⌘

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