

Factors affecting food safety compliance within small and medium-sized enterprises: implications for regulatory and enforcement strategies

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Abstract

Empirical research assessed the factors affecting compliance with food safety legislation within small and medium-sized enterprises. This showed that whilst some of the barriers identified within other research were present within food businesses (specifically time and money), there were also a number of complex, underlying issues that prevented compliance with regulatory requirements and which have implications for regulatory and enforcement policy. These barriers included the lack of trust in food safety legislation and enforcement officers; a lack of motivation in dealing with food safety legislation; and a lack of knowledge and understanding.

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1. Introduction

Small and medium-sized enterprises (SMEs) ¹ form a vital part of the economy: there are 20 million SMEs in the European Economic Area. ² The Department of Trade and Industry (DTI) estimates that there were 3.8 million SMEs in the UK at the beginning of 2002, employing around 22.7 million people, with an estimated annual turnover of £2200 billion (DTI, 2003). Within the UK's food industry, 99.8% of the hotel and restaurant sector are SMEs. 87.7% of businesses in this

sector are microbusinesses employing less than 10 staff (DTI, 2003).

SMEs have significantly different characteristics from large businesses in terms of their financial, expertise and staffing capabilities. ³ These issues affect the performance of SMEs in terms of compliance with environmental regulations and have generated substantial on-going debate about designing regulatory and enforcement strategies that optimize compliance levels (Gunningham, 2002; Hillary, 2000). However, the way in which these factors affect SME compliance in the past has been difficult to assess due to the problems in gaining access to SMEs. ⁴ This article builds upon previous work in this field by exploring the results of empirical research recently

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¹ For the purposes of this article SMEs are defined according to the European Commission's Recommendation 96/280/EEC. This definition is now incorporated into all community programmes.

² OJ C 118/5, 20.5.2003.

³ For more detailed discussions of these differences see Confederation of British Industry (1996), Gunningham (2002) and essays contained within Hillary (2000).

⁴ For example, one survey contacted 875 SMEs but received only 15 responses (Gunner, 1994).

undertaken within the area of food safety.⁵ This research provides a significant contribution to the existing field of knowledge because it evaluates the way that factors *perceived* to affect SME compliance *actually* impact upon SME behaviour and compliance levels within individual food SMEs. The issues found to affect SME behaviour and attitudes within food safety have important implications for both food safety and environmental policies in terms of regulatory and enforcement strategies.

2. UK food safety regulatory strategies

The factors affecting SME compliance with legislation impact upon the types of regulatory strategies that will be most effective in meeting food safety objectives. In the UK, the Food Safety Act 1990 (“the Act”) is the primary Act governing food safety. Its main objective is to ensure the safety of food intended for sale for human consumption. Many regulations have been made to supplement the broad provisions set out within the Act. Regulations made under section 16 of the Act deal with hygiene in food premises generally and in a range of specific food manufacturing premises. The Act and accompanying regulations are based around both prescriptive ‘command and control’ requirements and self-regulatory approaches. Prescriptive requirements set out well-defined standards with which the business proprietor is expected to comply.⁶

The second regulatory approach is that of self-regulation.⁷ A form of self-regulation has emerged, known as ‘enforced’ self-regulation whereby the government compels companies to form a set of rules tailored to the unique set of contingencies facing that company which are then approved (or rejected) by an enforcing agency. This agency monitors whether these internalised rules are being adhered to Braithwaite (1982, p. 1470). This strategy was introduced into the regulation of food safety by the concept of ‘hazard analysis’.⁸ Proprietors do not

have to document their hazard analysis, although may form part of the ‘due diligence defence’ if undertaken.⁹ The influence of the European Commission has been to move towards this self-assessment approach in recent years, including a recent recommendation to adopt HACCP principles within all food businesses.¹⁰

3. UK food safety enforcement strategies

Two broad strategies have been identified in dealing with non-compliance: ‘compliance’ and ‘deterrence’ strategies. These are defined as:

“The principal objective of a compliance law enforcement system is to secure conformity with the law by means of insuring compliance or by taking action to prevent potential law violations without the necessity to detect, process and penalize violators. The principal objective of deterrence law enforcement systems is to secure conformity with law by detecting violations of law, determining who is responsible for their violation, and penalizing violators to deter violations in the future . . .” (Reiss, 1984, pp. 23–24).

A compliance strategy is noted to result in the adoption of a more flexible, conciliatory approach available to enforcers when faced with non-compliance (Bardach & Kagan, 1982; Hawkins, 1984; Hutter, 1999). In contrast, deterrence systems are seen to necessarily involve more formal enforcement action, particularly prosecution and business closure. Most enforcement strategies adopt a mixture of the two approaches. The enforcement approach predominantly adopted within UK environmental jurisdictions (including food safety) is the compliance strategy. This is partially due to the complexity of detecting violations and the unclear links between cause and effect and the fact that enforcing officers and businesses need to have a continuing relationship, thus tending to force a more flexible approach towards enforcing regulations.

Environmental Health Practitioners (EHPs) inspect food businesses in order to assess food safety compliance. The frequency of these inspections is set out according to criteria contained within Code of Practice 9, issued under section 40 of the Act (Food Standards Agency (FSA), 2000). The majority of non-compliance is identified during the inspection¹¹ and at this point the enforcement strategy adopted by the local authority is deployed. Enforcing officers have a raft of

⁵ The results presented within this article are from a wider study undertaken for the Food Standards Agency by the authors Yapp and Fairman (2004).

⁶ For example, Chapter I, Schedule 1 of the Food Safety (General Food Hygiene) Regulations 1995 requires that “(4) Washbasins for cleaning hands must be provided with hot and cold (or appropriately mixed) running water, materials for cleaning hands and for hygienic drying. . .”.

⁷ ‘Pure’ self-regulation can be defined as “a process whereby an organized group regulates the behaviour of its members” (OECD, 1994, 7).

⁸ Regulation 4(3) of the Food Safety (General Food Hygiene) Regulations 1995 states that “A proprietor of a food business shall identify any step on the activities of the food business which is critical to ensuring food safety and ensure that adequate safety procedures are identified, implemented, maintained and reviewed . . .”. This requirement is similar to that of risk analysis requirements contained within occupational health and safety.

⁹ The due diligence defence is found within section 21 of the Food Safety Act 1990.

¹⁰ Excluding primary producers (Council of European Union 2000/0178 (COD); EC Regulation 178/2002).

¹¹ EHPs also react to complaints about food premises made by members of the public and during investigations of food poisoning outbreaks.

enforcement tools available to them. Within food safety these range from educational approaches such as advisory visits, training courses and production of guidance leaflets, through to more formal enforcement approaches such as statutory notices, prosecutions and premises closure.

The actual approach adopted in response to non-compliance generally appears to depend on the wilfulness of the violation, the likelihood of recurrence and the past behaviour of the firm (Hawkins, 1984). The behaviour and attitude of the business is an important consideration for enforcing officers and have been categorised as:

- ‘Amoral calculators’: motivated entirely by profit-seeking, and that non-compliance stems from economic calculations of costs and benefits in compliance;
- ‘Political citizens’: ordinarily inclined to comply with the law, but non-compliance stems from a principled disagreement with regulations regarded as arbitrary or unreasonable; and
- ‘Organisationally incompetent’: and non-compliance is attributed to failures of management, knowledge and systems (Kagan & Scholtz, 1984).

4. Overview of data sources

In addition to the existing literature and research about SME compliance, information about the factors influencing the SME compliance decision process was collected as part of a wider study undertaken for the Food Standards Agency (Yapp & Fairman, 2004). This research evaluated SME behaviour and compliance with food safety requirements using quantitative and qualitative methodologies. Case studies of catering premises within England and Wales formed one element of the study in which data was triangulated using multiple information sources:

- The SME compliance history held by the local authority was examined;
- A taped, semi-structured interview was undertaken within the catering premises with the SME owner or proprietor. This allowed verification of the compliance data obtained from the local authority and explored SME attitudes and behaviour towards a range of food safety issues; and
- A compliance assessment of the premises was completed by the researcher in order to establish current compliance levels and validate interview responses.

Data was analysed using a theoretical compliance-decision model adapted from work undertaken in large

food manufacturing businesses (Henson & Heasman, 1998). This model breaks the compliance process into a series of steps seen to be undertaken by the business, starting with the identification and interpretation of regulations and establishment of whether existing business operations need to be altered. Where changes are required the business has to decide how to respond to this, communicate this information to staff and implement the necessary steps. The compliance decision process is seen as a continual process, requiring evaluation and monitoring to maintain compliance. This model provided a useful analytical tool in evaluating the data obtained from SMEs, as well as highlighting differences in operation between large businesses and SMEs.

5. The barriers to compliance

Within the environmental protection field the main barriers (Fig. 1) seen to prevent regulatory compliance within SMEs include:

- Lack of money—SMEs focus on immediate survival rather than potential benefits derived over the long-term;
- Lack of time;
- Lack of experience;
- Lack of access to information. Often there is a problem with overprovision of information resulting in confusion about relevance;
- Lack of support. SMEs perceive that support is biased towards larger companies and is too generic to be useful;
- Lack of interest. SMEs focus upon business survival rather than compliance with regulations;
- Lack of knowledge. SMEs have poor awareness of the relevance of legislation. 40% of SMEs believe that an increase in environmental legislation would have no impact upon their business (Environment Agency,

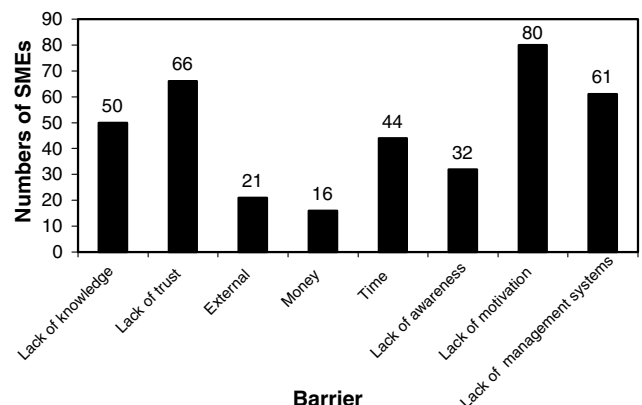


Fig. 1. Barriers to compliance.

2000a, 2000b; Gerstenfeld & Roberts, 2000; Hillary, 1995; Hutchinson & Chaston, 1995; Petts, 1999; Petts, 2000).

These findings indicate that action (including regulatory compliance) requiring the input of expertise, finance or management will be difficult to implement. Low cash flow restricts staffing provision, therefore SMEs do not have the personnel or time available to monitor changing legal requirements, interpret and implement necessary controls (Hillary, 1995). In contrast, large businesses usually employ specific staff to deal with such issues.

Studies in other areas of environmental health, for example occupational health and safety and food safety have found similar issues preventing compliance (Taylor, 2001; Wright, 1998). In particular these highlight the problems relating to the self-regulatory requirements (i.e. risk analysis and hazard analysis). Both of these are risk assessment approaches involving the identification and control of hazards within the business. Studies found that SMEs had a lack of expertise and knowledge to undertake such assessments and resulted in failure to take action.

Within the food SME case studies various barriers were seen to prevent compliance with food safety legislation. These were identified by the SME proprietor and by an independent observer, although many of the factors raised by the SME were found to be affected by other, more complex issues. In many cases more than one type of barrier was seen to be acting within each business.

5.1. Lack of knowledge

Sixty two percent of proprietors in food SMEs demonstrated a lack of knowledge throughout the compliance decision process, thus reinforcing previous work undertaken in both food safety as well as in other areas of environmental regulation.¹² In relation to hazard analysis, around 42% of proprietors did not understand what 'hazard analysis' meant, what it required them to do, how to implement it into their business or how to evaluate and monitor the steps taken. In relation to the more prescriptive elements of food safety legislation, there was a lack of understanding of both the legislation and of basic food safety principles.

Staff knowledge also prevented compliance, with proprietors blaming their own staff for the issues of non-compliance identified by EHPs. In many cases this also demonstrated the absence of formal management systems present within the business that, had they been in

place, would have identified these issues prior to the EHP inspection (see below).

5.2. Lack of trust

Previous research examining barriers to food safety compliance implies that SMEs are generally sceptical of the relevance and importance of certain legal requirements in food safety and that this may contribute to poor levels of compliance. In the food SMEs case studies, it was found that 83% of SMEs demonstrated an 'active' lack of trust in both the EHP and in legislative requirements. In using the term 'active', it is meant that this mistrust led to *actual* behavioural changes in the SME, whereby SMEs made a conscious decision not to comply with food safety legislation.

Examples of this attitude was seen across the range of different food safety requirements, including the prescriptive hygiene standards and the self-regulatory hazard analysis and temperature control requirements. Nearly two-thirds of the SMEs interviewed disagreed with requirements made by the EHP during an inspection because these were felt to be irrelevant to food hygiene. This was particularly noted where SMEs had been told to clean or maintain structural items seen to be remote from the food preparation area. For example, the Food Safety (General Food Hygiene) Regulations 1995, Chapter II, Schedule 1 requires the maintenance of floor surfaces "*in a sound condition and they must be easy to clean and, where necessary, disinfect ...*". In one SME the tiled flooring was in poor condition and the proprietors had been told to replace it. The SME had been told of the legal requirements but disagreed with the principles on which the requirements were based, commenting that "*... We have a quarry tiled floor with some cracked tiles ... Well, I don't prepare food on the floor. Does it matter that there's the odd crack in the tiles?*" (Public House).

A factor that compounded this problem was the SME's lack of trust in the EHP's enforcing the food safety legislation. There was a widespread perception that the issues raised by the EHPs were 'petty' and 'irrelevant', but necessary for EHPs to do because "*They [EHPs] have to find something, otherwise they look unprofessional*" (Fast food takeaway), and that EHPs are "*jobsworths who can't possibly leave without finding something to say because it sort of justifies their existence really*" (Public house).

EHPs were seen to act inconsistently, both within the individual business and between businesses. SMEs complained that different food safety requirements were made each time the premises was inspected, despite conditions remaining the same and the same EHP visiting. SMEs also believed that EHPs would 'forget' or fail to enforce requirements made previously and therefore failed to take action:

¹² The FSA examined the burdens of food regulations on small businesses (FSA, 2001) and Taylor examined the barriers to SMEs implementing hazard analysis documentation (2001).

“It’s probably not the same person who came last time and the chances are they won’t know. They’ll forget about it anyway. Well, no seriously, I mean, I know it sounds ridiculous, but they do. I mean, I know I had somebody who came a couple of years ago said we needed a flyscreen over all the windows . . . We didn’t have it by the time the next inspection came and they never said anything” (Bakery).

5.3. External factors

These were identified by SMEs in some areas as preventing compliance. One-fifth of SMEs cited their inability to find suitable workmen to undertake structural work and maintenance as a reason for non-compliance. Whilst the availability of builders in these areas was not examined, further probing of these SMEs indicated that limited resources were spent in locating workmen to undertake required works. SMEs were not sufficiently motivated to make sustained and concerted efforts to resolve the non-compliance after initial attempts failed because they did not perceive them to be important to the food safety of their business.

5.4. Money

Around 20% of SMEs perceived financial considerations to determine their food safety compliance, particularly in terms of investment in structure, equipment and staff training. Part of this reluctance to spend money appeared to stem from the lack of commitment to the food safety objectives underpinning the regulatory requirements. For example, SMEs were reluctant to send their staff on food hygiene training courses. The Food Safety (General Food Hygiene) Regulations 1995, Chapter X, Schedule 1 states that:

“1. The proprietor of a food business shall ensure that food handlers engaged in the food business are supervised and instructed and/or trained in food hygiene matters commensurate with their work activities . . .” (Regulation 4(2)(d)).

By way of interpretation, Industry Guides provide detailed guidance on compliance and good practice.¹³ The Catering Guide indicates that staff handling ‘high risk’ foods should receive formal training to a basic level within three months of commencing work (Department of Health, 1995). Many SMEs proprietors did not send staff on food hygiene courses because of the cost and

high staff turnover. These businesses perceived that training was not an integral part of the business operation and was therefore unnecessary, even where it was apparent that staff lacked basic food hygiene skills.

The Cabinet Office’s Better Regulation Task Force also investigated whether small businesses were unduly affected financially in complying with food safety requirements (Cabinet Office, 2000). This study found that money was not a particular barrier to compliance. Indeed, many of the requirements made by food safety legislation relate to undertaking sound hygienic practices rather than investment in costly equipment.

5.5. Time

The lack of time was seen to act as a barrier in around 54% of SMEs, particularly in dealing with self-regulatory issues. The way that time affected behaviour differed according to the level of knowledge and understanding that individual SMEs had. For example, where SMEs had a better understanding of food safety principles underpinning hazard analysis requirements, time acted as a barrier in *exceeding* the minimum standards. Those SMEs understood the concept of hazard analysis and had undertaken a hazard analysis often felt that they had insufficient time to document their practices and control procedures. Where SMEs did not have a good understanding of the principles behind the legislation, time acted as a barrier in *meeting* the minimum requirements (i.e. actually undertaking the hazard analysis).

Time has previously been shown to prevent the identification and interpretation of regulations, thereby preventing further action being taken by SMEs (Gerstenfeld & Roberts, 2000; Health & Safety Executive (HSE), 2000; FSA, 2001). However, food SMEs do not see these steps as part of their business operation, instead viewing this an issue that external agencies (predominantly the EHP during inspections) will inform the SME about. It is this reactive attitude rather than a lack of time that prevents identification and interpretation of regulations by SMEs.

5.6. Lack of awareness

One-third of SMEs demonstrated a lack of awareness of food safety problems within their business before they were raised by the EHP. Part of this arose from an inadequate knowledge of food safety requirements and principles, but also because of over-familiarity with a situation led to non-compliance being overlooked:

“When you’re working in an area solidly all the time, it’s like your own house, you know, a little bit of mess arrives and you don’t notice it and then a little bit more . . . and

¹³ Industry guides cover various subject areas, e.g. catering premises and bakeries. These have no legal force but food authorities are required to take them into consideration when enforcing food safety regulations.

someone walks in and says ‘God, your walls are dirty’. You say ‘yes, they are’ but you’ve never really noticed it” (Public house).

The absence of management systems within SMEs contributed to this problem in that regular staff meetings and monitoring systems were generally not carried out within premises. This is notably the case within micro-businesses and businesses with sole proprietors.

5.7. Lack of motivation

With the exception of one, every food SME demonstrated a lack of motivation in relation to food safety (particularly with self-regulatory issues). The level of knowledge and understanding of legislation and food safety principles within SMEs directly affected the level of motivation that SMEs had in dealing with requirements. For example, if an SME did not understand that they handled ‘high-risk’ foods, they were less motivated to implement temperature controls and hazard analysis requirements because they felt these were ‘irrelevant’ to the business operation.

Over two-thirds of SMEs had a reactive attitude towards food safety. This was seen throughout the compliance process, particularly identification, and interpretation of regulations and deciding the way in which to comply. SMEs were totally dependent upon external agencies to do this for them. The predominant source of information was the EHP during formal inspections or informal advisory visits. Other information sources used included trade associations, environmental health consultants and the FSA. Responsibility for identifying non-compliance within the business was seen as part of the EHP’s role during inspections. SMEs tended to react to non-compliance identified by the EHP at this point, rather than deal with problems as and when they became aware of them.

Part of this attitude stemmed from the perception that these issues were irrelevant to the SME’s food safety. The majority of SMEs saw that implementing legal requirements would not improve their food safety. One particular issue arising here related to temperature control. The Food Safety (Temperature Control) Regulations 1995, Regulation 4(1) requires that:

*“... no person shall keep any food – (a) which is likely to support the growth of pathogenic micro-organisms or the formation of toxins ... at or in food premises at a temperature above 8°C ...”.*¹⁴

¹⁴ It should be noted that this is a requirement for chill-holding temperatures. Other requirements exist for hot holding foods and many detailed exemptions exist to both of these requirements, although few applied to the food SMEs within the case studies.

The more experienced caterers were reluctant to use standard equipment to monitor temperatures as they believed that they could tell whether food complied or not using less conventional methods, for example *“I usually find the best test is the finger test”* (Public house). More experienced caterers were also less likely to attend food hygiene courses because they felt that food hygiene was ‘common sense’, even where they acknowledged their reliance upon EHPs for information about legal requirements:

“I don’t know what they [food hygiene courses] could tell me really about food that I don’t know. I did my Sciences and Domestic Sciences at ‘A’ level [more than 30 years ago] and we kind of covered a lot more than most people running pubs ever do about bacteria and what goes on” (Public house).

5.8. Lack of formal management systems

Only 16% of food SMEs had effective management systems in place, for example, employing a general manager to deal with food safety issues, holding regular staff meetings and having formal maintenance systems in place. These SMEs were mainly larger businesses, typically employing more than 50 staff.

The majority of SMEs therefore, did not have effective systems in place. The case histories held by the local authorities showed that many of the issues of non-compliance seen by EHPs would have been identified by the SME themselves had they had effective (and committed) management in place. For example, staff incorrectly monitoring food temperatures and poor food hygiene practices. The lack of management systems and structure has been recognised as a barrier to compliance in other areas of environmental regulation, such as the implementation of environmental management systems (Palmer & van der Vorst, 1996) and environmental protection regulations (Environment Agency, 2000a).

6. The factors motivating businesses

Table 1 summarises the main factors found to motivate improvements to SME environmental performance (Hutchinson & Hutchinson, 1995).

Petts (1999) found that businesses generally believed that compliance with environmental protection legislation was morally correct, whilst in other studies legislation and effective enforcement were seen to be the key drivers for investment in pollution prevention and control (Environment Agency, 2000a). Within occupational health and safety, a fear of loss of corporate credibility and a duty to comply with regulations were seen to motivate both SMEs and large organisations to initiate health and safety improvements (Wright, 1998).

Table 1
Drivers to environmental performance

Issue of importance to UK SMEs	% considering this an issue
Legislative requirement	55
Industrial standards compliance	48
Environmental protection	39
Insurance requirements	30
Customer pressure	29
Improve business efficiency	27
Employee pressure	22
Investor pressure	3

Data obtained from food SMEs indicated that few (9%) felt a moral duty to comply with food safety regulations. Those that wanted to prevent food poisoning were more concerned with associated publicity and potential action being taken by the EHP, rather than because of a moral obligation to avoid causing illness. SMEs tended to follow a similar reasoning within food safety as shown within Wright's work (Wright, 1998). Two-thirds of food SMEs were motivated to take action to comply with food safety requirements in order to protect their reputation and their business from potential legal action, from adverse publicity or because of consumer demand. For example, customers demanding hot food ensured that hot food temperatures were adhered to because "*customers would soon complain if it was going out, sort of, luke-warm*" (Fast food takeaway).

Three-quarters of food SMEs were motivated to comply because they felt a legal duty to comply with requirements. This was often irrespective of whether they agreed with requirements. This reinforces findings from previous work in occupational health and safety in that the need to comply with the law was the most commonly cited reason for health and safety initiatives amongst all sizes of organisation (Wright, 1998). Food SMEs were also driven by a desire to keep the EHP happy, thereby ensuring minimal contact with the enforcing agency:

"... all we do really as far as food hygiene people is to try to keep them out of here for as long as possible ... so if there's a problem, you correct the problems and then hopefully they don't come back for another 12 or 18 months" (Public house).

There was a general lack of awareness within food SMEs of the levels of formal enforcement activity within the local authority. SMEs were motivated irrespective of the actual level of activity and despite having a perception that it was either low or unknown. Within occupational health and safety there is also a perception that detection and prosecution is low (Wright, 1998).

The other effects identified in Table 1, for example industrial standards compliance and insurance requirements, were not seen within food SMEs. This

may be due to differences between food safety and environmental protection regimes, for example insurers do not incorporate food safety requirements into their policies.

7. The implications for regulatory strategies

The above discussion highlights some of the issues that need to be addressed in order to establish effective regulatory strategies. One of the most fundamental issues raised relates to the meaning of 'compliance'. Whereas food SMEs see this in terms of completing whatever work has been specified by the EHP during the formal food hygiene inspection, enforcing agencies and academics view it as a continual, evaluative process of the business operation.¹⁵ Viewing the compliance process as a on-going process raises particular problems for any type of regulatory strategy. SMEs had a reactive attitude in dealing with all stages of the compliance process, from the identification and interpretation of regulatory requirements, through to their implementation and evaluation. This attitude was reinforced by other barriers, such as the low levels of motivation, knowledge, trust and management systems seen to exist within SMEs. For example, SMEs had a poor knowledge of legislative requirements due to their low level of motivation in accessing such information. Proprietors had a reactive attitude towards dealing with food safety legislation as they relied almost entirely upon EHPs to interpret relevant requirements in a practical way for their business. For example, there is a general requirement to keep the premises "*clean and maintained in good repair and condition*".¹⁶ Many food SMEs relied upon the EHP to advise them of non-compliant areas within the premises, rather than taking any action proactively. The absence of management systems within SMEs meant that monitoring of food safety requirements tended not to be undertaken. This was a particular feature relating to temperature control, with many examples of incorrect monitoring by staff being left undetected until the formal EHP inspection. For hazard analysis requirements, few SMEs had actually reviewed the plans implemented in their business.

The low levels of motivation and reactive attitude that SMEs had in remedying non-compliance provides evidence of one of the long-standing criticisms of prescriptive regulation. It does not encourage industry to go beyond minimum standards.¹⁷ Within SMEs, it is clear that minimum standards are often only achieved

¹⁵ Henson and Heasman (1998) and French and Neighbours (1991) in the development of compliance decision model.

¹⁶ Food Safety (General Food Hygiene) Regulations 1995, Chapter I, Schedule 1 (1).

¹⁷ See for example Gunningham and Grabosky (1998, p. 37).

once non-compliance has been identified by the enforcing agency. This approach implies that SMEs see the responsibility of monitoring compliance falling to the EHP, rather than deal with them in a programmed and proactive way.

In relation to enforced self-regulation, the general level of knowledge about hazard analysis was also poor. 25% of food SMEs had not heard of the concept. Of the remaining SMEs, one-third had implemented written documentation (although only one-half of these had ever reviewed them). These SMEs had received assistance from the local authority EHP, or had employed an environmental health consultant, in order to do this. Where help had been obtained from the EHP, this was in the form of advisory visits, attending hazard analysis seminars, or detailed individual guidance tailored to the business. These were often presented in a prescriptive way as a 'checklist' of issues to be incorporated into the HACCP plan. This therefore changed the emphasis away from 'self-regulation' back to prescription and consequently increased the SME's reliance upon the EHP to meet the self-assessment requirements. It also altered the way that SMEs viewed the 'ownership' of the resulting plan. The responsibility for the hazard analysis was seen to be the enforcing officer's who had specified the issues to be incorporated into the plan, rather than that of the SME who had simply followed instructions.

One of the most important barriers identified was the lack of trust that food businesses had in food safety legislation. There was a general feeling amongst many of the SMEs that requirements were not relevant to the food safety of the business operation. This related to both prescriptive and self-regulatory elements of the legislation. The mistrust of the public in government and public policy is one that has been discussed widely within both risk assessment research¹⁸ and by social theorists such as Beck and Giddens. Whilst much of these discussions are beyond the scope of this article, one of the main emerging theories is that the public no longer implicitly trusts actions taken by government but are more likely to question the underlying scientific framework upon which policy is based (Beck, 1992, 1997).

The number of serious food scares experienced in the UK alone have all but destroyed confidence in food safety in the last 16 years.¹⁹ It is therefore imperative that food safety legislation should be based upon sound scientific analysis and evidence in order to maximise food safety and consumer confidence, whilst at the same time reduce unnecessary burdens upon businesses (Jouve, 1998). The incorporation of hazard analysis into food safety requirements is something that many SMEs would

dispute as to whether it improves their food safety. Hazard analysis consists of a risk analysis of the food safety operation of a business and comprises three elements—risk assessment, risk management and risk communication (FAO/WHO, 1995, 1997). Whilst efforts have been made to improve consistency of application,²⁰ the use of a risk analysis approach in food safety will necessarily be subjective. Hazards and risk will be interpreted differently by individuals and this can only be compounded by inadequate knowledge, expertise and management systems inherent within SMEs in the development of effective hazard analysis systems.

8. The implications for enforcement strategies

It was apparent that few, if any, food SMEs acted as 'amoral calculators'. Initially it was thought that many SMEs were acting as 'political citizens', in that they had not taken steps to comply because they disagreed with requirements made. However, whilst many SMEs felt that requirements were arbitrary and unnecessary, this was often on the basis of incomplete and poor knowledge of underlying food safety principles. SMEs with higher levels of understanding of the principles behind the legislation (for example those that had attended hazard analysis seminars or received advisory visits) had implemented more of the regulatory requirements. The majority of SMEs were therefore seen to be 'organisationally incompetent'. Non-compliance was due to failures of management, systems, trust and knowledge. This reinforces previous work, including that of a study of regulatory failures in which it was found that in order to comply with regulations businesses are required to:

- Know and understand the rules;
- Be willing to comply with them; and
- Be able to comply with the rules (OECD, 2000).

The lack of knowledge that SMEs have underpins much of the resulting attitudes that SMEs have, in particular the lack of prioritisation that is placed upon proactively dealing with food safety requirements. In such cases it is unlikely that adopting more formal enforcement approaches as an immediate response to non-compliance will lead to improvements in compliance. SMEs do not realise that they are breaking the law and often do not understand what is required of them. Affecting the reactive attitude of SMEs will be difficult, not least because most SMEs felt a duty to comply with regulations and had a generalised fear of formal enforcement activity. However, SMEs failed to relate the formal

¹⁸ See for example Hood, Rothstein, and Baldwin (2001).

¹⁹ Although there are indications that public confidence in food safety is now increasing (FSA, 2004).

²⁰ For example Codex Alimentarius and the Sanitary and Phytosanitary Agreement under the World Trade Organisation.

enforcement activity taken by EHPs in response to non-compliance within other businesses in the local authority to their own non-compliance. In addition, there was a general perception that formal enforcement activity within the local authority was low or unknown, irrespective of the actual levels of activity being undertaken. SMEs therefore did not alter their behaviour.

The widespread lack of trust in the enforcing officers that was seen within SMEs significantly affected SME behaviour. In order for SMEs to respond to, and remedy non-compliance, there needs to be a perception that action *will* be taken by the EHP if it is not remedied. Large proportions of food SMEs stated that EHPs had inconsistent approaches towards compliance which undermined the perceived food safety importance of the identified non-compliance. This was compounded by the perception that formal enforcement activity within the local authority was low or unknown, therefore requirements were unlikely to be enforced and often led to inaction. There have been considerable moves towards improving consistency within food safety including the establishment of LACOTS—a national co-ordinating body²¹, Codes of Practice issued under section 40 of the Act providing standards with which local authorities are required to comply, the establishment of the FSA, 2000 whose duties include the auditing of local authority food safety services to promote consistency of approach and the production of enforcement policies within local authorities to promote transparency of enforcement approach. These measures are all designed to improve consistency of approach within food safety services.

The perception that enforcement is inconsistent is most likely due to the flexible enforcement system in place in the UK. This issue has been raised in theoretical work as one of the drawbacks in adopting a responsive approach to regulating organisations (Ayres & Braithwaite, 1992). The use of the compliance decision model as an analytical tool within the case studies highlights the need for EHPs to adopt multiple approaches towards achieving compliance. For example, the lack of awareness and knowledge amongst SMEs about the existence and meaning of food safety legislation affects the way that the rest of the compliance process is undertaken. SMEs relied upon external agencies to advise them of the legislation relevant to their business and interpret its requirements for them. They also acted reactively by relying on the EHP to identify areas of non-compliance, rather than approaching food safety in a more proactive way. Improving the levels of knowledge and understanding within SMEs by adopting more educative approaches would improve the awareness of

food safety legislation within SMEs. This would clarify many of the links between the legislative requirements and food safety principles and improve trust in the regulations. Ensuring that requirements made by the EHP are effectively and consistently applied and followed up would also improve the current perceptions of inconsistencies of EHPs. Restricting the use of these enforcement tools would not improve compliance. However, the use of a combination of carefully selected enforcement tools throughout the compliance decision process is a vital part of an effective enforcement strategy.

9. Conclusions

This article has examined a range of factors relating to food safety compliance within SMEs. It has drawn upon existing theoretical work and empirical research carried out in environmental regulation, including recently completed research in food SMEs. The work on food SMEs explored the underlying issues that prevent compliance and the actual effect this has had upon the level of compliance within SMEs. It has shown that commonly cited barriers, such as money and time, may conceal more deep-rooted and complex attitudinal issues within SMEs, including:

- Lack of trust in food safety legislation and EHPs;
- Lack of motivation in dealing with food safety legislation; and
- Lack of knowledge and understanding.

These three issues are inter-related—SMEs generally have a poor knowledge of food safety requirements and understanding of food safety principles, this means that regulatory requirements are often seen as irrelevant to the businesses food safety and are mistrusted. In turn, SMEs do not have the motivation to implement requirements, particularly where EHPs are seen to adopt an inconsistent approach towards the SME. The reactive attitude seen within SMEs is additional evidence that SMEs do not view compliance with food safety legislation as an integral part of their business operation. Thus, money and time relates more to the lack of prioritisation that SMEs place on dealing with food safety, than to a real barrier to compliance.

The reactive approach that SMEs have in dealing with food safety requirements is another issue to consider in the move towards more self-regulatory approaches. The enforced self-regulatory requirements of hazard analysis are being most effectively implemented by local authorities adopting prescriptive checklist approaches. The structure and ethos of SMEs is not conducive to the adoption of a self-regulatory approach because of the generally poor knowledge and understanding and the absence of effective management systems within these businesses.

²¹ Local Authority Co-ordinating Body for Food and Trading Standards, now known as LACORS: Local Authority Co-ordinating Body for Regulatory Services.

In order to alter SME behaviour and attitudes the levels of understanding, motivation and trust need to be increased. Therefore a variety of approaches will need to be adopted by enforcing officers. The range of enforcement tools available to EHPs, ranging from educational through to formal enforcement, is an important and vital approach within the current food safety system. It has been shown that the process of compliance can be broken down into a series of steps, each of which have a series of barriers acting within the business. The use of these different tools at various stages of this process will act in different ways and therefore improve the overall compliance process within SMEs.

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