



SMALL BUSINESSES AND THE ENVIROMENT: TURNING OVER A NEW LEAF?

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ABSTRACT

Previous studies on the environmental practices of small and medium-sized enterprises (SMEs) in the UK and beyond have portrayed owner-managers as laggards who underplay their firm's environmental impacts and resist environmental management due to its perceived cost. Yet a new cross-sectoral survey of 220 UK SMEs suggests that this intransigent stance may be slowly changing. Responses indicate a high percentage of owner-managers actively involved in recycling, energy efficiency, responsible buying and selling, and efforts to reduce their carbon emissions. Owner-managers saw it as their responsibility to help solve environmental problems and were reportedly willing to accept the costs of tougher environmental regulations and taxation. Business owners were motivated not just by the 'push' of legislation and environmental concern but by the 'pull' of potential cost savings, new customers, higher staff retention and good publicity for their firms. The survey also found that owner-managers had resonance with the Stern Review's (2006) conclusions that the benefits of strong early action on climate change outweigh the costs, and that a transition to a low-carbon economy will bring opportunities for business growth. This indicates that SMEs may be coming round to the idea that there is a business case for sustainability, although some respondents were still skeptical of the overall profitability of environmental action. The paper argues that a possible trigger for owner-managers' increasing environmental proactiveness is the unprecedented levels of media and policy attention in the UK recently on issues such as climate change, which has heightened public concern and galvanised support for urgent environmental action. Policymakers now need to capitalise on this current mood of environmental goodwill within the business community by targeting SMEs with stricter regulatory controls (whilst maintaining high levels of implementation and enforcement), combined with market-based incentives and local infrastructure developments.

Keywords: SMEs, environmental management, owner-manager, environmental action.



INTRODUCTION

Over the last decade, the degradation of the natural environment has become a top concern of scientists, governments, business leaders and the public at large. In their latest report, the Intergovernmental Panel on Climate Change (IPCC, 2007) has concluded that there is now undeniable evidence that climate change is the result of human activities, and that urgent action must be taken to avert environmental collapse.

Commissioned by the UK government, the Stern Review (2006) stressed the dire economic as well as environmental consequences of continuing to adopt a 'business as usual' attitude towards environmental issues. This groundbreaking report on the economics of climate change made a positive case for action, asserting that "*tackling climate change is the pro-growth strategy for the longer term*". (Stern, 2006, p1-2). Stern concludes that global warming has the potential to shrink the global economy by 20%, yet taking action now could result in a mere 1% decrease in global GDP. Hitherto, the stance of many economists was to argue that the costs of mitigating climate change would outweigh the benefits to the economy. The Stern review has thus been particularly influential in dispelling complacent 'business as usual' attitudes and focusing the minds of political and business leaders on environmental issues. The outgoing Prime Minister Tony Blair has even called it, "*the most important report on the future ever published by this government*" (BBC, 26th Jan, 2007).

Since the 1990s, environmental and social responsibility has featured ever more prominently within political and business agendas, and 'corporate social responsibility' (CSR) is now a household phrase. The recent groundswell of support for urgent action to mitigate climate change has resulted in a new spate of green rhetoric from business leaders around the world, who seem increasingly willing to accept that the benefits of acting now to reduce polluting emissions may outweigh the costs to their firm in the long term. Even US businesses, known for their recalcitrance regarding green issues, seem to be turning over a new leaf; for instance, major polluters (such as America's power utilities) have recently begun to lobby for "strong" federal action to reduce carbon emissions (The Economist, June 2007).

Whilst empirical evidence suggests that larger companies are increasingly integrating environmental management into their corporate strategies, previous research has shown that small and medium-sized enterprises (SMEs) lag behind in this respect. Research on the environmental practices of SMEs (see Hillary, 2000) has portrayed small firm owner-managers as:

- Ignorant of the environmental impact of their enterprise;
- Lacking the tools and resources to tackle environmental problems;
- Resistant to voluntary action due to the perceived cost, time, and resources required to reduce environmental impacts;
- Skeptical about the business benefits of sustainability;
- Difficult to engage on anything to do with reducing their environmental impact

Nevertheless, the unprecedented levels of media coverage and policy focus on environmental issues in the wake of reports such as the Stern review and Al Gore's high-visibility 'An Inconvenient Truth' film and campaign may have encouraged small business owners to think more carefully about their environmental impacts. In the UK,



public concern about climate change has risen sharply; according to a recent poll by YouGov, 85% of the public are now convinced that global warming is actually taking place and almost as many think that it will accelerate without urgent action (The Economist, March 2007).

The publication of the government's recent climate change bill, which sets ambitious targets for reducing carbon emissions, has spurred a frenzy of green political rhetoric as the main parties try to outdo each other on 'eco-friendliness':

"It would be hard to exaggerate just how fashionable climate change has become in Britain in a short time ... This week David Cameron, the Tory leader, and Gordon Brown, the chancellor and Labour's leader-in-waiting, clashed head-on as each brandished claims to be the more ostentatiously and radically green. The spur was the publication, on March 13th, of the government's climate change bill. Britain has longed fancied itself a world leader on the matter... Indeed, climate change has become as much a political battleground as health, education or immigration" (Economist, 2007).

Corporate culture has responded to this usurge of environmental activity, and large firms are stepping up their CSR activity accordingly. For instance, major UK retailers such as Marks and Spencer and Tesco have recently introduced new policies to protect the environment and to trade more sustainably, whilst high profile companies such as Barclays Bank, HSBC, British Land PLC, and BSKyB have pledged to become 'carbon neutral'.

Nevertheless, SMEs represent such an important part of the UK economy that reform cannot succeed without the active support of their owner-managers. It is therefore critical to understand if the hitherto indifferent and intractable small firm sector is also shifting its position. The aim of this research was thus to explore how the attitudes and practices of owner-managers have changed, if at all; to identify the main barriers and drivers of environmental reform; and to explore owner-managers views on policy initiatives that might improve the environmental performance of SMEs.

LITERATURE REVIEW

The Environmental Impacts of SMEs

SMEs account for over 95 % of private sector firms in most industrialised economies (Schaper, 2002). In the UK, SMEs (employing less than 250 people) account for 99.8 % of the four million plus businesses in the private sector (SBS, 2006: Table 1). This number is set to grow due to more flexible production methods, outsourcing of large firms, and increases in franchising and self employment (Stokes and Wilson, 2006).

The vast numbers of SMEs ensure that this sector has a significant impact on the environment. A commonly quoted estimate of SME's cumulative environmental impact is that they contribute up to 70% of all global pollution (Hillary, 2000). The Marshall report (1998), estimates that SMEs in the UK are responsible for as much as 60% of industry's carbon dioxide emissions, whilst the Environment Agency (2003) estimates that UK SMEs are responsible for 60% of commercial waste, and 80% of pollution accidents. Because of this collective impact, scholars and policymakers are increasingly recognising the integral role that small firms must play in resolving environmental



problems.

Drivers and Barriers of Environmental Reform

Despite their potential to affect the environment and society, previous studies have found that small firm owners tend to be ignorant of their firm's environmental impact (Environment Agency, 2005; 2003; 2002; Hillary, 2000), and are "*difficult to reach, mobilise or engage in any improvements to do with the environment*" (Hillary, 2000; p18). Policymakers have tended to put this laggardness down to owner-managers' lack of understanding of the business benefits of environmental reform. In the UK, as regulatory standards typically target large rather than small firms, the government has placed much emphasis on the potential of market drivers to encourage the 'greening' of the SME sector. The 'business case for sustainability' is stressed in key policy documents such as the Department of Trade and Industry's 'Sustainable Development Policy' (2000), which expounds encouragingly on the opportunities arising from green consumerism, the cost benefits of efficiency gains, and the good publicity that can result from environmentally sound business practices (DTI, 2000; Revell, 2007).

The academic literature also cites numerous benefits of environmental management. For instance, Welford and Gouldson (1993) and O'Laire and Welford (1996) highlight that environmental reform can result in improved competitiveness, product quality, materials efficiency and staff commitment, along with positive pressure group and community relations, lower insurance premiums, cheaper finance and improved media coverage.

However, whilst there is no doubt that these market drivers have the potential to encourage environmental action studies show that in reality SMEs often find the market more of a barrier than a driver of environmental good practice (Revell 2007; Drake et al., 2004; Rutherford et al, 2000; Hillary, 2000). This has encouraged many owner-managers to be somewhat skeptical of the 'business case for sustainability' (Revell and Blackburn, forthcoming).

For instance, whilst cost savings from eco-efficiencies tend to be the key promise of government-funded environmental initiatives such as 'Envirowise' and 'Action Energy', the Environment Agency's latest 'Netregs' survey (2005) of 5,554 UK SMEs in 15 different sectors found that only 16% were motivated to undertake environmental measures to reduce costs. Similarly, Groundwork's survey of 300 firms (Smith and Kemp, 1998) and Baylis et al's (1998) survey of 914 firms found that only 12% and 18% of UK SMEs respectively were motivated by cost savings.

Revell's (2007) interviews with 40 SMEs in the UK's construction and restaurant industries found that respondents did not perceive the paybacks from eco-efficiency measures to be worth the investment in time and resources required to pursue them. For instance, many owner-managers felt that the extra labour involved in setting up recycling systems and ensuring employees separated waste properly would cost the firm more than the compensation gained from reduced waste fees. Moreover, the market was reportedly doing little to signal to business owners that product value could be raised or customers won or by improving their firms' environmental performance.

Similarly, Drake et al.'s (2004) interviews with 42 UK SMEs in the baking and refrigeration industries found a lack of faith in the so-called 'win-win' opportunities of environmental management, with most believing that green credentials did not sell more



products. Drake concludes that a lack of consumer demand is a key barrier for firms, and that government policy should be focused on stimulating consumers as well as businesses to embrace environmental good practice. These findings are not confined to the UK alone; McKiever and Gadenne (2005) surveyed 116 Australian SMEs and found that only 19% equated improved environmental performance with increased sales.

Hillary's (2004) review of 33 studies of environmental management systems (EMS) adoption amongst SMEs found an absence of pressure from customers as a key barrier. Other studies highlight a lack of pressure for 'greening' the supply chain, and where pressure is exerted, researchers have found that it tends to be concentrated on large first tier firms rather than trickling down to smaller firms further down the supply chain (Revell, 2007; Drake et al. 2004; Verheul, 1999; Bianchi and Noci, 1999; Merritt, 1998; Rowe and Hollingsworth 1996)

Simpson et al's (2004) cross-sectoral survey and telephone interviews with 64 UK SMEs found that 75% saw environmental measures as a cost, and 80% of respondents were against any link between environmental improvement and increased customer satisfaction. Rather than perceiving new market opportunities from green consumerism, SMEs were also more inclined to imagine markets closing to them if environmental standards became stricter. Simpson et al. concluded that there was little competitive advantage to be gained by SMEs adopting environmental good practice, as product or process differentiation could too easily be copied by competitors. Moreover, even where 'win win' opportunities were perceived, owner-managers very often lacked the strategic ability to translate their environmental actions into a competitive advantage.

Supporting this, McKiever and Gadenne (2005) note that poor levels of strategic awareness amongst SMEs has resulted in few firms incorporating environmental messages in product marketing. Bianchi and Noci (1999) report that SMEs find it difficult to publicise their environmental efforts to external stakeholders, and so typically fail to reap the benefits of an enhanced reputation from their green activities.

These studies suggest that 'win-win' outcomes from environmental management have yet to materialize for most small businesses. Instead, many researchers highlight the predominance of 'push' over 'pull' factors in motivating improvements. For instance, the Observatory of European SMEs' (2002) surveyed 7,600 SMEs in 19 countries, and found that regulation was overwhelmingly the most important driver of environmental reform. Masurel (2007) found that satisfying legislation and 'moral duty' were the key motivating forces amongst SMEs in the Dutch printing sector. Drake et al. (2004) found that regulation was not only an important driver of environmental activity but also played a wider role in shaping definitions of 'the environment' and raising owner-managers' awareness of environmental problems. They highlight that firms are reluctant to make changes involving financial risk and so prefer to wait for regulatory certainty before acting to reduce environmental impacts.

The 'Value-Action' Gap

Perez-Sanchez et al. (2003) argue that the values and attitudes of owner-managers are highly influential factors in determining whether SMEs embrace environmental good practice. Studies from all over the world show that SME owner-managers have strong altruistic feelings towards the environment, with environmental issues seen as an important issue by 80-90% of respondents (Schaper, 2002). Nevertheless, numerous



studies also highlight a significant 'value-action' gap, where the extensive barriers experienced by owner-managers mean that their generally positive environmental attitudes rarely translate into concrete action (Tilley, 1999; Schaper, 2002; Mckiever and Gadenne; 2005, Hitchens et al; 2005).

These barriers include external factors such as the aforementioned lack of market signals and stakeholder pressure for environmental reform. They also include internal barriers, such as owner-managers' perception that their firms' impact is negligible (Environment Agency, 2003, 2002; Smith and Kemp, 1998; Hillary, 1995); that environmental management is a cost burden which can result in a loss of competitiveness (Revell and Blackburn, forthcoming, Simpson et al, 2004; Rutherford et al, 2000; Smith and Kemp, 1998; Petts, 1998); that there is not enough time or money for environmental management (Revell, 2007; De Brujn and Hofman, 2001, Verheul, 1999) ; and that the responsibility for environmental reform lies with others, especially government (Vernon et al, 2003; Rutherford et al. 2000). Studies have found that owner-managers have a poor understanding of the knowledge and skills required for environmental management and a skeptical attitude to using external support.

Such barriers have encouraged a great deal of inertia towards environmental reform amongst SMEs, and where improvements are undertaken they are typically ad hoc 'end of pipe' measures rather than strategic innovations and pollution prevention measures (Schaper, 2002).

Closing the Value-Action Gap

A particular problem in reviewing published literature in a dynamic context is that it reports on research carried out some time before publication takes place. Many articles are based on studies undertaken several years before because of the lead time for peer review and publication. This is particularly important in this context, as the current media and policy focus on issues such as climate change may be having an effect on business owners.

Whilst studies in the past have highlighted a culture of environmental inaction amongst SMEs, the Environment Agency's latest 'Netregs' survey (2005) indicates that UK owner-managers are undergoing a slow improvement in their environmental practices and awareness. The report found that since their 2003 survey of over 8,000 SMEs, there has been a significant decrease in the number of firms engaged in activities that are potentially harmful to the environment, along with small increases in the number of SMEs developing an environmental policy and those adopting EMS.

The survey also found an increase in the awareness of SMEs regarding their environmental impacts, particularly amongst larger firms. Levels of awareness of environmental legislation had also increased significantly; for instance in 2005, 35% of SMEs had heard of 'Duty of Care' regulations, (which apply to all UK businesses), compared to 24% in 2003. Ten years earlier, a Groundwork report (Hillary, 1995) had found only 16% of SMEs were aware of 'Duty of Care' legislation. Simpson et al.'s (2004) cross-sectoral survey found even more encouraging results; 73% of firms were aware of environmental regulations, with 69% aware of Duty of Care regulations.

Interestingly, the Netregs (2005) report found that whilst SMEs saw the main benefit of addressing environmental issues as reduced risk of prosecution and good customer relations, the most important driver of reform was in fact owner-managers' concern for the state of the environment, with 64% of respondents claiming to be



motivated by this reason (up 10% from 2003's findings). In contrast, 23% of businesses were driven by the need to comply with regulations, and 17% by the prospect of reduced costs. Interestingly it was the smallest firms which were most likely to be motivated by environmental concern; they were also far less motivated by commercial benefits or legislative pressure.

Supporting this finding, Vernon et al.s (2003) study of micro-firms in the UK found that altruism was one of the most important drivers of environmental action. Recent studies in other countries such as the Netherlands, Northern Ireland and Canada confirm that environmental concern and 'satisfying moral duty' are highly motivating factors for SME owner-managers (Masurel, 2005; Environment Agency, 2005b, Dulipovici, 2002).

Simpson et al (2004) found that many UK SMEs were investing substantial resources into voluntarily improving their environmental performance without an expectation of return. Just over three-quarters of owner-managers saw the environment as a key business issue and just under two-thirds were proactively involved in improving their firm's environmental performance, despite the fact that the majority of respondents saw environmental measures as a cost that could not be passed on to customers.

These results suggest that moral imperatives may now be playing more of a role in spurring SMEs into action. Owner-managers may also becoming increasingly convinced that initiating the greening process now may bear fruit in future. In Simpson et al's study respondents highlighted the changing demands of important customers and perceived a possible trend for greater demands for environmental management in the future. Similarly, in McKiever and Gadenne's (2005) study, 40% of owner-managers reported that the growing trend towards 'clean and green' was beginning to have an impact on their business, and 44% felt that the trend would impact their business in the future.

The results of these recent studies indicate that something may be shifting in the SME population. It therefore seems timely to investigate whether the growing trend for 'clean and green' in the UK is now sufficiently strong to overcome the considerable barriers to environmental reform experienced by small firm owner-managers.

METHODOLOGY

The research design was quantitative with qualitative support. The principle research instrument was a questionnaire survey sent to 2,500 small firm owner-managers, all of whom were tenants of the Workspace Group in London and the South East. 220 usable responses were obtained between December 2006 and February 2007, which represents a 9% response rate. The questionnaire was structured to collect data on the following topics:



Section A – Owner-managers’ attitudes to environmental and social responsibility issues

Section B – SME current environmental practices

Section C – Drivers for environmental management

Section D – Barriers for environmental management

Section E – Proposals for change

Section F – Networks

Section G – Respondents and business profiles

To enrich the findings from the quantitative research, telephone, email and face-to-face interviews were conducted with 10 survey respondents using a semi-structured interview guide. The interviews were open-ended to encourage more detailed responses from interviewees, and were recorded and subsequently transcribed for analysis. There were five face-to-face interviews conducted in the workplace, and these were supplemented by observation of environmental practices and internal literature.

Sample

Of the 220 respondents surveyed, two thirds were micro-sized enterprise owners (headcount less than 10). 27% were defined as ‘small’ (headcount between 10-49 staff) and only 5% were medium-sized (headcount between 50 – 249 employees). Firm size was in fact slightly larger than average for London and the UK; however, this is to be expected as the sample was from those leasing space and therefore excluded those very small enterprises working from home.

The creative industries formed the largest business sector (33%). This is possibly due to the fact that this sector encompasses a wide array of activities, from film and television to architecture and computer software development. It is also a very populous sector in London. The rest of the sample included business and professional services (17%), charities and voluntary organisations (16%), wholesale and retail firms (6%), manufacturing companies (4%); construction (3%) and transport, travel and storage (2%).

Limitations of the Research

Whilst a 9% response rate presents good opportunities for analysis of the sample as a single group, its small size does present some issues of representation. The nature of the sample excluded those businesses whose owners work from home, hence micro-firms were not well represented. Moreover, as the research was London-based, there was a high percentage of business services, creative industry and non-profit enterprises, which offers potential for further bias.

However, statistical analysis suggests that neither size nor industry sector had a significant bearing on response. An ANOVA analysis was used to test whether business profile was associated with owner-managers’ attitudes and environmental practices, and the results found that, overall, neither size nor sector significantly affected the survey responses. A key exception was that larger firms were more likely to have an environmental policy.



FINDINGS

Attitudes Towards Environmental Management

In keeping with the findings of previous research, owner-managers expressed highly positive attitudes towards taking action on the environment, with just over 80% of owner-managers agreeing that environmental issues should be a very high management priority. Compared to other studies (see Vernon et al, 2003; Rutherford et al, 2000), owners were much more inclined to emphasise their own role in solving environmental problems rather than putting the onus on government to take the lead. Almost 90% of respondents disagreed that the government should be left to tackle environmental issues, and 64% thought that it was their own responsibility to solve environmental problems. Small firms describing themselves as financially 'thriving' were particularly positive about their ability to tackle environmental concerns on their own, probably because they have more resources to devote to environmental management than those that are ailing.

Respondents were also much less likely to underplay their firm's environmental impact than in previous studies, with three quarters of respondents disagreeing that their businesses were too small to have an impact. Respondents were also significantly more positive about the relative costs and benefits of environmental action, as well as the potential business opportunities arising from solutions to environmental problems. 77% and 61% of respondents respectively, agreed with the Stern Review's (2006) conclusions that a) the benefits of strong early action on climate change outweigh the costs and that b) the transition to a low-carbon economy will bring opportunities for business growth. However, there was still some ambivalence as to whether environmental measures could actually increase profits, with just over a third disagreeing and a third reportedly unsure.

Practices

The majority of respondents were proactively engaged in measures to reduce their environmental impacts, despite their equivocal stance on the profitability of environmental management. 91% and 85% of respondents respectively, claimed to be engaged in recycling and energy efficiency measures. 68% of owner-managers were adopting sustainable office practices such as minimising paper usage and 70% were involved in responsible buying and selling, such as buying fair traded and locally produced products, and/or developing products with environmental benefits. Around half of the sample were attempting to reduce carbon emissions (53%) and using environmentally-friendly products (52%).

However, only 24% of the sample had adopted EMS or written a formalised environmental policy document. This finding corroborates the Environment Agency's (2005) study which found that 25% of SMEs had written an environmental policy, and only 6% had adopted EMS. This suggests that SMEs tend to undertake environmental measures in an ad hoc, piecemeal way and lack a more strategic focus to environmental management. Moreover, like Bianchi and Noci's (1999) study, the majority of owner-managers were not communicating their environmental efforts to stakeholders and were therefore not capitalising on any goodwill that might arise from their attempts to reduce their impacts.



Drivers

Business owners were increasingly positive about the business case for sustainability, with nearly two-thirds of respondents claiming to be motivated by the potential to attract new customers, and just under three-quarters by the potential for cost savings derived from energy and resource efficiency measures. This may explain the very high numbers of respondents engaged in recycling and energy saving measures.

Previous research has indicated the predominance of 'push' over 'pull' motivations to tackle environmental issues, with regulations having the most significant potential to drive reform amongst SMEs. Whilst government policies are still clearly an important catalyst for action, this research indicates much more of a mix between potential pull and push motivations, with pull factors such as attracting customers (60%), good publicity (56%), retaining staff (56%) and breaking into new markets (55%) ranking only marginally less highly than the push factors of legislative controls and fiscal incentives (62%). The fact that the majority of SMEs felt that being environmentally responsible could attract new customers and result in good publicity makes it all the more interesting that owner-managers were not communicating their environmental practices to stakeholders in any formalised way.

Supporting other studies, subsequent interviews with survey respondents indicated that one of the most important motivators of environmental reform was owner-managers' own personal concern for the environment. Responses revealed a perception that a shift was occurring in the stance of business owners due to this heightened concern:

"Things have been changing nowadays as you can hear or see from TV regarding environmental issues - that's why there is a shift from negative to positive attitudes [amongst SMEs]. So I think sometimes [environmental action] is really down to individual belief" (restaurant owner)

"Since the beginning of the year we heard so much about climate change and we heard on TV what needs to be done. This makes a huge difference compared to last year, which I am really happy about. Let's hope that this will continue. Let's hope that people do not just talk about it for a few months and then forget about it" (food distribution company manager)

Barriers

In previous research, a significant barrier to environmentally sound business practices has been the general perception amongst SMEs that environmental management is a cost burden which can result in 'free riders' gaining competitive advantage. It is interesting to note that in this study less than half of the sample (45%) were concerned about a loss of competitiveness. Clearly SMEs may be coming round to the idea that environmental management offers potential business benefits.

However, it is equally important to note that a clear majority (63%) saw increased costs as a major barrier to further improvements and that nearly half of SMEs were still sceptical or unsure as to whether being environmentally-friendly could increase profits. Concern about rising costs were significantly correlated with environmental practices and attitudes; the higher costs were rated as a barrier, the less likely respondents were to



act to reduce impacts or to have predominantly positive attitudes. This has important connotations, as it indicates that SMEs' proactiveness may wane once the so called 'low hanging fruit' of efficiency gains have been achieved and environmental measures begin to have negative financial impacts.

Confirming previous studies, a major barrier to environmental action for some SMEs was a perceived lack of time to devote to environmental management, with 53% rating this as an obstacle. However, arguably the amount of time owner-managers are willing to spend on environmental responsibility reflects the degree to which it is considered key to the business agenda. Interestingly, whilst over 80% of respondents claimed that environmental reform should be a top management priority, more than half reported lack of staff time as a barrier to improvements. This suggests that owner-managers still find it difficult to translate good intention into action, and policymakers thus need to introduce further incentives to overcome the 'value-action' gap.

One possible incentive is to make voluntary action easier and more convenient for small firms by improving the local infrastructure. Over half the SMEs in this study (53%) reported that poor infrastructure to support environmental activity was a major barrier to reform. For instance, case study respondents mentioned that a lack of recycling facilities at their business sites had created obstacles to better waste management practices.

Another interesting finding was that only just over a third of respondents cited lack of information as a barrier, yet 57% reported that they would like more information on how to be environmentally-friendly. Clearly many owner-managers are open to receiving more information, but do not feel that this is a key reason why they have not implemented environmental measures. This suggests that there is a good case for policymakers to invest in further educational and partnering schemes with business owners to enhance their understanding of environmental management techniques. However, it also suggests that it may not be a good idea to rely on owner-managers taking the initiative for finding out about these schemes themselves, as most do not feel they lack the requisite knowledge to undertake reforms.

Encouraging Change

Respondents were generally positive about the potential role of legislation in encouraging environmental reform within the SME sector, with 60% of SMEs agreeing that regulations ensure a level playing field amongst firms, and that there should be more legislation to control the environmental impacts of all businesses. Respondents were also positive about the role of market-based measures, with 65% agreeing that eco-taxes should be used to switch businesses away from high-carbon goods and services. Moreover, 53% argued that carbon pricing schemes and trading were essential to reduce emissions.

The survey also revealed that over two-thirds of respondents were involved in local networks, (mainly trade associations or other industry bodies) and a high percentage were very positive about the potential role of these partnerships in encouraging environmental reform. 70% of respondents agreed that businesses should not act alone but together in networks to tackle environmental issues, and 67% agreed that trade associations and networks should play more of a role in helping businesses



become environmentally-friendly. This finding is in line with previous research which has highlighted the influence that trade associations and industry networks can have in encouraging environmental reform and innovation amongst SMEs (Bowen, 2002; Boleat, 1996, North et al., 1997, Hunt, 2000; Smith and Kemp, 1998).

Nevertheless, it is interesting to note that only a relatively low percentage (22.2%) of SMEs were involved with the specific organisations that promote environmental and sustainable practices in London. Owner-managers clearly prefer sector-specific networks versus generic bodies with specific environmental or social agendas.

In order to investigate the effect of environmental networks on attitudes and current practices, a Chi-Square Analysis was used. Results indicate that involvement with networks such as London Better Together, London ReMade, and WRAP affects the importance of owner-managers' current environmental practices, but not their attitudes. Although membership of these networks was relatively low, their impact on the actions of SMEs can thus be very high.

CONCLUSIONS

The findings of this research confirm the conclusions of the Environment Agency's latest survey (2005) which reports an improvement in the environmental practices and awareness of SMEs in the UK. The fact that three-quarters of respondents in this study disagreed that their firm was too small to have an environmental impact indicates a major change compared to previous studies highlighting very low levels of awareness regarding the 'ecological footprints' of SMEs.

Policymakers and environmentalists will indeed be heartened by the results, for not only were small business owners in this study showing highly positive attitudes towards environmental management, but they were beginning to take practical steps to become more environmentally responsible, with high percentages involved in recycling, energy efficiency, responsible buying and selling, and efforts to reduce their carbon emissions. Policymakers can also take heart that owner-managers were increasingly convinced that environmental problems require urgent action, and were therefore ostensibly welcoming of further policies that tackle key issues – despite the additional costs that this could impose on their business. The fact that SMEs were prepared (at least in principle) to accept these costs is all the more remarkable considering that small firm owners are usually the first to complain about the impact of government policies – particularly regulation – on their business.

Moreover, their positive reactions towards policy initiatives to reduce carbon emissions such as carbon pricing and eco-taxation suggests that the stark warnings of Stern and the scientific community regarding climate change may be having an effect. These findings lend credence to the idea that the recent upsurge in media coverage on environmental issues may have been a catalyst for a sea-change in the hearts and minds of SME owner-managers.

Policymakers may well argue that owner-managers' newfound environmental proactiveness is the result of a growing resonance with political rhetoric emphasising the business case for sustainability. The majority of SMEs in this study clearly supported Stern's (2006) assertions that 'the benefits of strong early action on climate change outweigh the costs', and that 'the transition to a low-carbon economy will bring



opportunities for business growth'. This indicates the possible influence of Stern in convincing business owners that there is indeed a business case for making environmental reforms. Certainly it appears that owner-managers are increasingly willing to accept the idea that future economic growth is predicated on long term environmental protection, and that environmental solutions may also result in business opportunities. As public concern for the environment has risen in the UK, many SMEs are clearly becoming more confident that being environmentally responsible can result in good publicity, which in turn may win customers and help to retain staff - even if owner-managers are not always good at actually communicating their environmental efforts to stakeholders. SMEs are also clearly convinced that measures such as recycling and saving energy can help to reduce costs.

However, it is evident from this research that many owner-managers are still unsure about whether environmental protection can result in increased profits, and like other studies, the majority still see cost as a potential barrier to environmental good practice. Arguably, this may be because SMEs tend to only perceive clear financial benefits from efficiency measures such as recycling and energy efficiency, and remain concerned that other environmental measures will be prohibitively costly. This has important implications in terms of what might drive the greening of SMEs in the future, and whether owner-managers will be willing to invest in more radical and comprehensive improvements once the so-called 'low hanging fruit' of efficiency gains are gone. Their ambivalent feelings about the financial benefits and cost of environmental protection also suggests that owner-managers are concerned that there may be sectoral 'winners' and 'losers' as a result of environmental change, and that environmental proactiveness may not always result in economic gains for all firms.

Arguably, SMEs' proactiveness may be as much to do with the strength of their concern for the state of the environment as to do with self-serving perceptions of the business case for sustainability. This is certainly borne out by the Environment Agency's (2005) report and other studies which have found environmental concern to be one of the most significant drivers of environmental action amongst SMEs. The fact that owner-managers are increasingly seeing it as their responsibility to help solve environmental problems may be one reason why SMEs seem more willing to bear the costs of eco-taxes and legislation to achieve environmental goals.

Despite their good intentions, the SMEs in this study tended to focus on ad hoc measures such as energy and resource efficiencies rather than strategic activities such as EMS adoption, environmental policy writing and stakeholder communication. This confirms previous studies which highlight the reactive and piecemeal nature of environmental reform within the SME sector. The fact that owner-managers are not communicating their environmental activities to stakeholders indicates that whilst they are increasingly willing to reduce environmental impacts, SMEs are weaker in the area of policy and strategy. It certainly suggests that if owner-managers were to market their efforts to improve the sustainability of their firm in a more strategic way, they may be more likely to see a direct relationship between environmental action and profitability. This fits more generally with the pattern of SMEs adopting emergent rather than deliberate strategies (Stokes and Wilson, 2006).

These findings highlight the important role that policymakers can play in encouraging more strategic and comprehensive environmental reforms amongst the SME sector. Arguably, small firms need to be targeted with a mix of policies which include:



Environmental Regulations

Tougher legislation whilst maintaining high levels of implementation and enforcement is key to ensuring the greening of the SME sector. This is particularly as policy initiatives in the UK have tended to focus on large rather than small firms, and therefore SMEs have been under comparatively less pressure to reduce their environmental impacts.

Regulatory certainty also helps to ensure that environmental management becomes more integrated into long-term business strategies. For instance, the government's new climate change bill has outlined binding five year carbon budgets in order to reach its carbon reduction targets. Set fifteen years ahead, this gives a clear indication of future public policy and thus gives business the certitude it needs to make consistent environmental investments.

Nevertheless, as Drake et al. (2004; 184) highlight, "*environmental legislation does not guarantee subsequent innovation. Regulatory compliance can become an end in itself, rather than marking a transition to ecological modernisation*". Regulation can encourage reactive rather than proactive behaviour, along with antagonistic perceptions of environmental and commercial interests, or government and business interests. Regulations thus need to be flexible enough to encourage SMEs to be innovative, to find solutions that fit the highly heterogeneous nature of their individual business contexts and to engage in compliance-plus behaviour. Along with this, full engagement between regulators and SMEs is to be encouraged as it helps business owners to understand their regulatory obligations and to find ways of reducing impacts at least cost.

Market-Based Instruments (MBIs)

MBIs such as taxes, subsidies and tradable permits have become increasingly popular policy tools for encouraging environmental change amongst producers and consumers. However, key to ensuring that MBIs are effective is to set prices high enough to incentivise a behaviour change. For instance, studies have found that the UK landfill tax has failed to be a major driver of change in SME waste management practices because owner-managers find it easier - and less costly - to pay the tax rather than change their waste practices (Revell 2007, Simpson et al, 2004). Ensuring that prices reflect the true social cost of production should thus be a major priority for policymakers, otherwise MBIs will do little to change 'business as usual' attitudes within the SME sector.

Infrastructural Developments

Another important factor in incentivising behaviour change is the ease with which environmental measures can be carried out. Improvements in the local infrastructure are a crucial factor in supporting environmental management as they can offer SMEs a convenient green alternative to current practices. For example, public transport investments can facilitate a reduction in vehicle emissions, and curb-side collection encourages higher rates of recycling.

Networks

Owner-managers' positive attitudes regarding the potential influence of local



business and environmental networks should encourage policymakers to continue to develop partnerships to support environmental management. Networks can help to build relationships between SMEs and government, and play a key role in building the kind of cooperative relationships and trust needed for collective action to solve environmental problems.

Local networks, particularly those that focus on certain aspects that interest the owner-manager (e.g. business sector; women entrepreneurs) are more likely to attract active membership than generic regional or national networks (Stokes and Wilson, 2006). This is reflected by the fact that in this study, there was a higher percentage of members in local industry bodies than in environmental networks. It is important therefore to build environmental concern and actions through existing networks rather than a set of new ones. The relatively high impact of the specialised networks on a relatively few owners indicates the importance of their contribution, which could be magnified significantly if integrated into local trade networks.

Voluntary Initiatives

Clearly there should be continuing support for information provision via environmental best practice programmes and eco-labeling schemes to make the most of owner-managers' reported willingness to take voluntary action. Whilst training and technological assistance from government can certainly help small firms, voluntary initiatives tend to be much more effective if backed up by clear environmental policies and enforcement of regulations. This research thus corroborates the findings of other studies which recommend that UK policymakers avoid a singular focus on a voluntary approach for SMEs (see Revell, 2007; Revell and Rutherford, 2003; Simpson et al, 2004; ten Brink, 2002; Rutherford et al, 2000).

Clearly, the interplay of policy tools and the dynamics of the policy mix targeting SMEs is of utmost importance in encouraging reform in such a vast and heterogeneous sector of the economy. Arguably, in order to effect radical rather than just piecemeal changes, a policy mix is needed which includes 'sticks' (such as regulation and taxes) as well as 'carrots' (such as reduced costs and new customers).

FUTURE DIRECTIONS

If the results of this study can be generalised to the wider population, it is heartening to think that environmental management is now beginning to feature more highly on the business agendas of SMEs. Although the findings obtained in this research can only be generalised for SMEs in the London area, other research has indicated that the business population of the capital city is a good barometer for the rest of the country. Examining whether these findings can be generalised to the whole of the UK and other countries is an important area for future research.

Moreover, the data for this research was collected within a short period of time and it only provides a snapshot of the attitudes and practices of SMEs regarding environmental and social responsibility. A longitudinal study can expand this view over a longer time-frame, which may help to eliminate variables that can produce anomalies in the results.



Furthermore, both qualitative and quantitative research is needed to delve deeper into the barriers and drivers of environmental reform and the dynamics between 'push' and 'pull' factors. For instance, how will current changes in public attitudes, corporate culture, market dynamics and government policy influence the environmental behaviour of SMEs in the future? Which combination of drivers and policy tools are most likely to effect change? How far can the market encourage environmental reform before further legislative and fiscal measures are needed to stimulate innovation amongst SMEs?

Finally, it would be useful to explore SME's awareness of and reactions to media and policy reports to assess their influence on firm behaviour. For instance, a longitudinal study on SME attitudes and behaviour after important publications such as the Stern review (2006) might draw insights into emerging perceptions and changing discursive practices regarding environmental issues.

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