SMALL BUSINESS RESPONSES TO A MAJOR ECONOMIC DOWNTURN: EMPIRICAL PERSPECTIVES FROM NEW ZEALAND AND THE UNITED KINGDOM

Key words: small firms; adaptive behaviour; economic crisis; comparative study.

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Abstract

This article analyses small firm responses to a major economic downturn, based on empirical investigation in the UK and New Zealand. Despite differences in the timing and depth of the downturn, there is remarkable similarity in the sectoral composition of small enterprises and methods of financing in reported recession-related effects and business performance during 2008–2009. While recognising that the study focused on surviving businesses, in neither country did the downturn have a consistently negative impact on small businesses and in both countries a significant minority of firms surveyed performed well. The study provides much needed evidence on small businesse responses to major economic crisis. Conceptually it demonstrates that although many small firms are vulnerable to changes in circumstances over which they have no control, they show underlying resilience and a high level of adaptability and flexibility. Longitudinal follow-up is necessary to show how the types of adaptive behaviour observed impact on business performance.

1. INTRODUCTION

This article investigates small firm responses to a major economic downturn and the factors influencing them. Although the recent financial crisis was global in extent, we can expect differences in its effects across economies depending on their relative exposure to the crisis, as well as differences in firm responses. The article focuses on two contrasting mature market economies: the United Kingdom (UK) and New Zealand (NZ). Although it may be argued that both economies have similar regulatory regimes and institutions, differences in the nature of markets may lead us to expect differences in the effects of crisis and in the related responses of small businesses.

Markets impart pressure on firms to adapt to changing circumstances or to risk decline and exit, although businesses vary in their interpretation of and responses to, market signals. At the same time, identification of particular threats and opportunities tell us nothing about how firms choose to adapt or what might be the consequences of adaptation. Businesses always have some discretion regarding the strategies that they adopt, although often the degree of choice is severely constrained by resources or circumstances (e.g. Whittington, 1989). Larger enterprises, for example, might possess greater discretion than small firms concerning strategy choice owing to their superior resource base and higher potential resilience to cope with environmental shocks. Business strategy and performance vary with resources and capabilities, owner/manager perceptions of the threats and opportunities faced (Thomas et al., 1993) and the wider organisational, market, institutional and cultural context (Clark and Mueller, 1996). Firms take strategic decisions about which goods and services to provide (and thus, which markets to enter or exit), how to produce them, set prices and attract particular kinds of customers. Although this applies in buoyant times as well as during recessions, an economic downturn is likely to make some form of response essential.

Recessions generate contradictory tendencies, with some constraining business owners in achieving their objectives, while others are enabling. They are also characterised by falling aggregate business sales and in addition, there is downward pressure on asset prices as markets for resources become less tight. This can be enabling for resource acquisition, as businesses have opportunities to acquire resources at more favourable rates. To the extent that recession increases market exit, this is also enabling for surviving firms in reducing competition. Therefore, recession presents small businesses with a major dilemma: to cut costs in order to maintain survival in the short term but at the risk of reducing their capacity to adapt adequately when recovery comes; or to maintain greater capacity, incurring higher costs in the short term in order to retain the capability to realise opportunities for long-term value creation when the upswing comes (Silberston, 1983). Both processes – constraining and enabling – may occur simultaneously but unevenly during recession periods. In this context, the article is concerned with the types of management actions taken by small firms in response to what is widely recognised as the most serious economic crisis in the world economy since the 1930s.

The rest of the article is divided into five sections. The next section provides a rationale for comparing the UK and NZ based on institutional theory. The following section provides an overview of the context for small businesses in the two countries. The article then reviews the key literature in relation to firm performance under recession conditions, presenting a conceptual framework and research questions. The data sources, sampling and survey methods used are described, followed by presentation of empirical findings with respect to business performance in 2008–2009, types of recession-related effects and firms' responses to them and the results of multivariate analysis, followed by conclusions and policy implications.

2. RATIONALE FOR COMPARING UK AND NZ BASED ON INSTITUTIONAL THEORY

An institutional approach to economic development (North, 1991) builds on conventional or neo-classical economic theory by incorporating a theory of institutions. It builds upon classic transaction costs theory (Coase, 1937), recognising that we make judgements based on imperfect information. Decision-making is influenced by local environments, in which the role of institutions is influential. In a real world of uncertainty, individual decision-makers have bounded rationality (Simon, 1997) and institutions are able to reduce uncertainty which determines the costs of transactions. Under institutional theory this determines the relative efficiency of markets:

> And because a large part of national income is devoted to transacting, institutions and specifically property rights are crucial determinants of the efficiency of markets. (North, nd: 2)

In institutional theory, a distinction is made between formal and informal institutions, which in the case of the latter include social norms and codes of behaviour that emerge over time as a result of repeated interaction. In contrast, formal institutions are created to provide rules, regulations and property rights that enable decision-makers to engage in transactions with greater certainty. In mature market economies, formal and informal institutions tend to be mutually reinforcing, although often this is not the case in many transition and developing economies. In the present study, the decision-makers are owner-managers of small businesses in their respective local environments in the UK and NZ. Institutions cannot be equated with organisations as they provide the institutional framework, rules, regulations, constraints and norms of behaviour of the environment in which transactions take place.

This provides the rationale for comparing decision-making of small businesses and their responses to the post-global financial crisis. It may be argued that the UK and NZ have a similar institutional framework. Most importantly, the NZ legal system of property rights and the rule of law, which is the basis for all transactions, have been modelled on that of the UK so for instance, the right of redress for any breach of contract is modelled on the UK’s legal and court system. In fact, both countries share the highest court of appeal for individuals undertaking civil action: the House of Lords. Hence, although the two economies are very different in size, the regulatory environment for decision-making is remarkably similar. For example, the annual World Bank *Doing Business* reports rank both countries in the top 10 nations in the world for the ease of doing business (World Bank, 2011).

Institutional theory implies that organisations such as small firms operate within a social and legal framework of socially shared norms and values. Scott (1995) has developed this concept further, viewing institutions as ‘social structures that have attained a high degree of resilience’ (1995: 33). The implication is that where two economies have similarly derived social and legal systems, it may be argued that these will influence small business behaviour and strategic decision-making similarly (Hessels and Terjessen, 2010). By contrast, if the two economies have evolved different social and institutional structures, the expectation will be that differences in human behaviour will result. The organisational infrastructure is also similar in both economies. Although there have not been the same dramatic fiscal interventions in the economy through the part-nationalisation of domestic banks as in the UK, in NZ the nature of the banking system and financial infrastructure are modelled on the so-called Anglo-American system: a transaction cost-based system rather than the more relationship-based and participative systems of Franco–German financial institutions (Berger and Udell, 2004). However, as pointed out by Berger and Udell, a relationship banking system is now more characteristic of the UK and North America, as their financial systems have moved in this direction (Berger and Udell, 2004).

3. CONTRASTING NATIONAL CONTEXTS

In this section, the UK and NZ economies are compared in terms of characteristics which have implications for the impact of the recession on small firms and their ability to respond. Despite similar institutional frameworks, differences may be identified in the size and structure of the two economies, the timing and depth of the recession and small firm financing and policy support measures.

Size and Structure of the Economies

Although the UK and NZ have similar gross domestic product (GDP) per head, situated 21st and 24th respectively in the International Monetary Fund (IMF, 2010) listings, there is a significant difference in the size of the two economies, reflected in their respective populations: 60.9 million in the UK in 2010, compared with 4.3 million in NZ (Organisation for Economic Co-operation and Development (OECD, 2010). In both countries, the business stock is heavily skewed towards smaller enterprises. In the UK, small and medium-sized enterprises (SMEs), defined as those employing fewer than 250 people, constitute 99 percent of the business stock; three-quarters of enterprises are owner-only firms, employing no others (Department for Business, Innovation and Skills, 2011). Similarly, 99 percent of NZ businesses are SMEs (Ministry of Economic Development, 2010), but in NZ SMEs are defined as employing fewer than 100 people. The small firms sector is dominated by micro-enterprises (defined as fewer than six employees), of which the majority are self-employed with no employees. Nine in 10 (90 percent) are classified as micro-enterprises and 69 percent have no employees. According to the World Bank *Doing Business* (2010) report, NZ was the best place in the world to start a business in 2010 and third for ease of doing business overall; the UK was ranked 17th and 4th respectively.

There are significant differences in the structure of the UK and NZ economies (OECD, 2007). Although both are mature market economies, NZ has maintained a strong primary sector (9.2 percent of GDP compared to an OECD average of 2 percent in 2001–2002). This influences the composition of the manufacturing sector, which contains an important food manufacturing element. Although the annual Statistics New Zealand Business Operations Survey excludes businesses employing fewer than six employees (Statistics New Zealand, 2009), it indicates that 9 percent of businesses were in agriculture, forestry and fishing or mining in 2008, with 15 percent in manufacturing. In the UK, manufacturing accounts for just 7 percent, and agriculture for 4 percent of the business stock, although inclusion of the smallest firms in the UK data helps to explain some of the difference in the contribution of manufacturing compared with NZ.

Differences in economic structure shape the nature and extent of the economy's external linkages, particularly exporting activity. Although fewer NZ businesses exported in 2008 than their UK counterparts (15 percent, compared with 20 percent: Department for Business, Innovation and Skills, 2009; Statistics New Zealand, 2009), external trade, particularly the export of primary products, is of fundamental importance to the NZ economy. In 2009, for example, one-third of total exports by value were dairy and meat products. This is important because NZ's commodity exports were not as badly hit by the global financial crisis as other sectors, partly due to the continued growth of demand in China, NZ's main trading partner for dairy products. Indeed, the country's trading partners have become increasingly focused on Pacific Rim countries, with 49 percent of exports by value in 2009 going to Australia, China Japan and the USA (OECD, 2009). In the UK, by contrast, 48 percent of exports by value in 2009 were destined for France, Germany, Ireland, the Netherlands and the USA (Department for Business, Innovation and Skills, 2010a) – all countries where demand was adversely affected by the downturn.

Effects of the Crisis

During 2008/2009, the world economy experienced its severest recession and financial crisis since the 1930s (IMF, 2010). The crisis led to the collapse, government bail-out or partial nationalisation of major financial institutions in Europe and the USA, and to major programmes of fiscal and monetary reform (HM Treasury, 2009; IMF, 2009). Even the most advanced economies experienced falling output, although the crisis was particularly keenly felt in the UK (Weale, 2009) because of the degree of dependence on the hard-hit financial services sector and the high level of household indebtedness (e.g. Cable, 2009). In addition, the UK was the last major economy to emerge from the recession, having experienced falling GDP for five consecutive quarters (Office for National Statistics, 2012): from the second quarter of 2008 through to the third quarter of 2009, a cumulative decline of approximately 6 percent. Other macroeconomic indicators reflect the decline in business activity. Unemployment rose to approximately 8 percent for the period October to December 2009. The Bank of England interest rate has remained at a record low of 0.5 percent for three years. A string of surveys highlighted the general decline in sales, employment, investment and expectations in the UK during 2008 and 2009 (British Chambers of Commerce, 2009; Confederation of British Industry, 2009; SERTeam, 2009).

Although NZ entered recession in the first quarter of 2008, this was a consequence of domestic rather than global factors. The recession in NZ resulted from domestic monetary tightening, decreasing housing market activity and temporary drought conditions, which affected agriculture and related activities (OECD, 2009). Businesses were affected by decreasing household demand, and unemployment rose from 3 percent to 6.5 percent by the third quarter of 2009. Although this is a large increase, it is modest by the standards of other OECD countries, including the UK. Positive growth of 0.2 percent in the second quarter of 2009 marked the end of a five-quarter recession which had begun in the second quarter of 2008, during which time the NZ economy had contracted by 3.3 percent. However, the depth of the recession in NZ compares favourably with other OECD countries, being placed seventh least affected out of 30 member states (The Treasury, 2010). Thus, although the recession in NZ started early, it has been one of the shallowest in mature market economies, which leads us to expect fewer and less dramatic responses on the part of NZ firms.

Small Firm Financing and the Credit Crunch

At first sight, the financial infrastructure and environment for small firm finance appear to be similar in the two countries. Both economies have an oligopolistic commercial banking structure, dominated by a small number of large banks, private sources of equity such as business angels and venture capital companies and similar publicly-funded investment schemes. Indeed, the early stage venture investment funds in NZ were modelled initially on their UK counterparts. Many NZ banks are subsidiaries of Australian banking groups which rival some of those in the UK, and indeed compete directly with UK banks through subsidiaries such as the Clydesdale Bank. It may be argued that NZ banks have been more sheltered from the impact of the credit crunch, as Australian banks did not have the same direct exposure to 'toxic assets' in North America as UK banks did. The main problem facing Australian banks has been the lack of liquidity in money markets since they are soundly capitalised, as indicated by their high credit ratings (Reserve Bank of New Zealand, 2009). Four out of the top 11 banks in the world in terms of credit ratings are based in Australia, and Australian banks provided increased funding for their NZ subsidiaries during the recession (Reserve Bank of New Zealand, 2010).

The initial impact of the credit crunch led the UK government to encourage and support greater concentration in the UK banking system, with two major groups forced into state-ownership.[1] In addition, one major group (Barclays) turned to the Middle East for additional share capital, while another (HSBC) was largely unaffected. With the onset of the credit crunch in the UK in late 2008, and closer examination of bank lending and risk policies, an expected consequence would have been a tightening credit market for small firms. However, contrary to much speculation, a survey of small firm finances suggested that in 2009, small firms that required debt finance were largely able to obtain it (Department for Business, Innovation and Skills, 2010b). Indeed, there is evidence that bank lending increased until August 2009, as firms drew down on existing credit facilities, but this appears to have contracted subsequently as firms reduced demand for credit (Business Finance Taskforce 2010).

At the same time, recession would have weakened small firm demand for risk finance as a result of retrenchment policies. The Department for Business, Innovation and Skills (2010b) survey provides some confirmation of retrenchment, with 22 percent of small businesses reporting steps to reduce dependence on external finance. For all small firms, 16 percent were offered debt finance in 2009, 5 percent were turned down for this by all sources, and the remaining 79 percent did not apply. However, there was a significant increased use of credit cards, from 28 percent of firms in 2007 to 58 percent in 2009 (Department for Business, Innovation and Skills, 2010b). One factor influencing business responses to recession is the method of financing. In NZ, often personal assets are used as collateral to secure loans: typically residential property and land (Statistics New Zealand and Ministry of Economic Development, 2005). Unfortunately, it is difficult to compare small firm financing practices in the two countries during the recession because recent data are available only for the UK (Cosh et al., 2009; Department for Business, Innovation and Skills, 2010b), and NZ data is available only for 2004 (Statistics New Zealand and Ministry of Economic Development, 2005). Despite the dearth of recent NZ studies, there are differences in small business financing compared to the UK. These include a heavier dependence on short-term bank credit, especially bank overdrafts and lower use of formal equity sources (Statistics New Zealand and Ministry of Economic Development, 2005). In addition, UK small firms used personal and business credit cards to a substantially higher degree: 55 percent of firms in 2004 according to Cosh et al. (2009), compared with just 6 percent of small enterprises in NZ in the same year (Statistics New Zealand and Ministry of Economic Development, 2005). This is a significant development in the UK, which is much less common in NZ, partly because Australian-owned banks in NZ have not made credit cards easily available.

In summary, although recession hit NZ earlier than the UK, it appears to have been shallower. In addition, the NZ banking system was less directly exposed to ‘toxic assets’ than its UK counterpart, although it faced a similar lack of liquidity in international financial markets. Significantly perhaps, small NZ firms appear more dependent on short-term credit and overdrafts, although their use of credit cards is much lower than in UK firms. Differences in economic structure and associated export linkages mean that NZ small firms may have faced a less hostile business environment during the recession.

Policy support measures

In February 2009, the New Zealand government approved a small business relief package that consisted of an expansion to the export credit scheme, extended jurisdiction for the Disputes Tribunal, which offers a low-cost mechanism for settling disputes, expansion of business advice services and a prompt payment requirement for government agencies. However, the major element of the relief package was a suite of 11 tax changes. By reducing the amount of provisional tax, dropping the underpayment penalty rate, cutting back tax filing frequency, increasing the general sales tax (GST) registration threshold and simplifying the rules around tax deductibility, the government tried to assist smaller businesses in particular with their cash flow and to reduce tax compliance costs. In the UK, the government introduced a relief package for small firms in November 2008: some of the support offered was new, while some was a repackaging of existing support. The financial help involved a system of loan guarantees and financial advice for small firms accessed through Business Link. There was also a temporary cut in the value-added tax (VAT) rate, an acceleration of capital investment projects and accelerated roll-out of broadband, credit line as well as loan guarantees (in particular for SMEs), and measures to combat unemployment (e.g. paying companies to hire and train the unemployed).

4. SMALL FIRMS AND RECESSION: A LITERATURE-BASED FRAMEWORK

Two broad sets of views regarding how small businesses are affected by recession may be identified, which we term the ‘vulnerability’ and ‘resilience’ views. In the vulnerability view, small businesses are treated as highly susceptible to external shocks, such as recessions, because of a number of size-related characteristics. These include more limited internal resources compared with larger firms, as well as a typically narrower base of customers and product lines across which to spread risk; and less bargaining power with a variety of external actors, including customers, suppliers and finance providers. They are also much more likely to cease trading than larger enterprises (Storey, 1994).

In this regard, whilst emphasising the adjustment capabilities of small manufacturing firms to external conditions, Smallbone, North and Kalantaridis (1999) pointed to time lag effects on a panel of manufacturing small firms with economic downturn in the early 1990s affecting first sales, then profitability and finally survivability as short-term responses proved insufficient to keep the business alive in the medium-term. The study also raised questions about the long-term consequences of adaptation strategies that involve cutting investment and substituting labour (sometimes personal and family) for capital.

In the resilience view, it is the flexibility and adaptability of small businesses that is emphasised, based on adjusting resource inputs, processes, prices and products, enabling them to survive, and possibly thrive, during periods of economic downturn (e.g. Reid, 2007). Davidsson, Lindmark and Olofsson (1999) investigated the effect of the 1990-93 recession on the contribution of small firms to job creation in Sweden, concluding that their role did not vary significantly at different stages of the business cycle.

A deteriorating macroeconomic environment does not necessarily lead to a decline neither in small business performance and exit nor, contrary to the pronouncements of some commentators; constrain every small business in the same way. Indeed, a US study has shown that recessions do not have an entirely negative impact on the formation and survival of new businesses (Stangler, 2009), since more than half of the companies on the 2009 Fortune 500 list began during recession or bear market periods. A Schumpeterian view of recessions would see them as periods of 'creative destruction' in which old technologies, products and industries go into terminal decline while new ones emerge (Schumpeter, 1934; Anderson and Tushman, 1991).

In analysing small firm resilience, studies demonstrate the importance of retrenchment activity (Churchill and Lewis, 1984; Michael and Robbins, 1998; DeDee and Vorhies, 1998), whilst others emphasise revenue-generation (Shama, 1993; Latham, 2009) by small firms during downturns. Recessions may stimulate activity in particular sectors, or types of business. Where customers switch to cheaper products to restrict expenditure, for example, this may boost suppliers of such goods and weaken the position of higher-priced providers. Some businesses might be willing to undertake risky investment, innovation or diversification because they perceive performance levels cannot be sustained with current practices. As a result, business performance does not map on to business size in a direct way.

Recessions impact unevenly on industries, regions and businesses and this helps to shape the diversity of experience of recession and business responses to it. Analysis should focus on the particular circumstances shaping individual firms' activities, business responses, and the variable levels of performance achieved. Size and sector are two influences on firms' adaptations and performance under recession conditions.

While it might be argued that the dichotomy between small firms' vulnerability versus resilience is simplistic, it is a useful one in the context of this research as it puts the focus on the adaptive capability of small firms. Given the volatility of markets post GFC it is important to explore the ability of small firms to respond to changes in its external environment in order to retain its competitive advantage.

5. CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS

The conceptual framework presented in Figure 1 depicts the relationship between the GFC, its effect on NZ and the UK, recession related experiences of firms and their performance. While this is only a simplified framework that does not fully account for the dynamic and complex relationships between the GFC and small firm performance, it is an attempt to explain small firm responses to a major economic downturn in two countries that have a similar institutional framework but different macroeconomic characteristics. It is an attempt of a representation of how small firms interact with their external environment i.e. the impact of the external environment on firms and how this impact triggers strategic adaptations in small firms.

INSERT FIGURE 1 ABOUT HERE

The overall aim of this research is to explore recession related effects on firms, their responses and its impact on firm performance in two contrasting market economies. More specifically this study aims to answer the following three research questions:

1. How did the recession affect small firms in NZ and the UK?

2. How did small firms in NZ and the UK respond to recessionary conditions?

3. What are the factors that drive small business performance under recessionary conditions in NZ and the UK?

6. METHODOLOGY AND SAMPLE CHARACTERISTICS

Methodology

Comparison of the effects of the downturn on small firms and firms' responses is based on data drawn from parallel mail/online surveys in the two countries, which included common questions. In both cases, the aims were to identify the effects of the 2008/9 global recession and financial crisis on small firms, drawn from a variety of sectors; examine the management actions/strategies adopted by small business owners and the consequences so far; and analyse the short- and long-term implications of such actions for business performance.

In the UK, the study was undertaken in London. It involved a combined online/mail survey conducted during March-August 2009, which generated 343 usable responses. All businesses were independent, employing fewer than 250 employees. The survey sample was drawn from lists of Workspace Group PLC[1] tenants. All independent, privately owned firms were surveyed (approximately 3000), which means that the response rate was approximately 11 per cent. The online/mail survey generated quantitative data on the perceived impacts of recession, business responses, changing patterns in the use of finance and finance-seeking behaviour, and actual and anticipated business performance.

In NZ, the survey was part of an annual national mail survey undertaken by the NZ Centre for SME Research known as the Business Measure, which is designed as a longitudinal study and uses a revolving panel[2]. Replacement was achieved from a representative sampling frame purchased from APN Infomedia, a commercial provider of business-to-business information. The 2009 survey involved 4,165 firms. There were 1,438 usable responses after excluding 297 ineligible and unreachable firms. The overall response rate was 37 per cent. The survey was carried out between October-December 2009.

Although there was a difference of approximately 6 months in the execution of the two surveys, the key questions used to make comparisons referred to the same time periods. In the case of the NZ sample recall bias is not considered a major issue due to the short recall timeframe of only six months. Delmar and Wicklund (2008) reported in a study of small firm growth that respondents were able to correctly recall sales and employment data of their firms 3 years ago.

Variables

Business Performance: Vulnerability vs resilience

Vulnerability/resilience was measured using a combination of three variables. The first variable was impact of the recession and measured whether respondents were affected by the recession (coded 1) or not (coded 0). Further, respondents were asked to compare the value of sales and profit margins in Q1, 2009 with the

[1] Workspace PLC is an industrial and commercial property provider operating mainly in London and the South East.
[2] A revolving panel is used to compensate for attrition of firms over time, feeding in replacement firms for those dropping out each year, in order to keep the size of the panel stable.

same quarter 12 months previously using a 5 point Likert scale ranging from 1=significantly higher to 5=significantly worse. The reluctance of business owners to report financial data in a postal survey led to the measurement of perceived performance as advised by Garg, Walters and Priem (2003). Responses from both variables were combined into a new growth variable. Significantly higher and higher sales was combined with significantly higher and higher profit margins and coded as 1=growth. Same, worse or significantly worse sales and profit margins was coded as 0=non-growth. From the resulting two variables – impact of the recession and growth – a matrix was constructed that guided the classification of cases into the two categories vulnerability and resilience (see Figure 2). Only those respondents that reported not being affected by the recession and had no growth were excluded from the classification.

INSERT FIGURE 2 ABOUT HERE

Experience of recession related effects

Respondents were asked to what extent their business has experienced recession related effects. Eleven different items were used to measure finance as well as non-finance related effects using a 5 point Likert scale ranging from 1=strong positive effect to 5=strong negative effect. Finance related effects included: Late payment by customers, bad debts or uncertainty over customer payments, level of cash at bank, credit periods and/or credit terms from suppliers and availability of bank loans/overdrafts. Non-finance related effects included: transport costs, costs of supplies, changing value of NZ$/GBP, energy costs, level of staff motivation, ability to recruit staff.

Adaptive strategies

Respondents were asked about actions they had taken since the start of 2008 that were designed to improve or maintain business performance. A checklist of 34 actions, under eight broad categories, were presented: changes in sales and marketing, markets, employment, products and services, finance, owner manager behaviour, production and business processes and business organisation (Table

5). Responses followed a dichotomous format using 1=action taken and 0=no action taken.

Limitations

While the two surveys vary in terms of scale and methodology, we believe that the comparative analysis still has the potential for an important contribution. International comparative studies are quite rare because of methodological challenges and limitations. However, national contexts are critically important for the understanding of small firm strategies and performance. In the current study methodological limitations are mitigated by analysing the two datasets separately and by carefully interpreting the results.

In comparing the effects of and adaptation strategies to the recession in the two countries, it is important to keep in mind that the survey results refer only to surviving businesses. Aggregate data show the effect of the crisis on business deaths. In the UK, 279,000 businesses closed in 2009, the highest number since the current series began in 2000 (ONS 2010). This represents an enterprise 'death rate' of 11.9 per cent (as a proportion of active enterprises [3] on the Inter-Departmental Business Register (IDBR) compared with the 2008 figure of 221,000 business deaths. 2009 was the first year that business deaths had outnumbered business births since the series began, 236,000, a rate of 10.1 per cent. This compares with 267,000 births in 2008, a rate of 11.5 per cent. In 2009 there was an 11.7 per cent decrease in the number of business births. Clearly, recession in the UK contributed to a decline in new business births and an increase in the number that went out of business.

The NZ business demography data (MED, 2010) shows a similar trend but with greater fluctuation given the relative size of economies. In 2009 the number of businesses that ceased to trade was not only the highest since the series began in 2001, but it was also the first time that business deaths had outnumbered business births (52,879 deaths compared to 51,796 births). In 2009 business births were down 15 per cent on 2008. Further, statistics from the NZ Insolvency

[3] An active enterprise is one that has reported employment or sales turnover during the period.

and Trustee Services (2010) shows a 100 per cent increase in the number of company liquidations from 189 companies in 2008 to 377 in 2009.

Sample Characteristics and Profile Data

The two samples which provide the survey data in the two countries are compared by firm size, sector and performance in Table 1.

INSERT TABLE 1 ABOUT HERE

In both samples the majority of firms i.e. 95.8 percent in the UK and 89.9 percent in NZ are micro in size employing less than 10 staff. The NZ sample contains slightly more small firms with 9.6 percent compared with 3.6 percent in the UK. Only a minority of firms in both samples are medium sized firms. The sector composition of the two samples is considerably different. While the NZ sample has got a stronger emphasis on manufacturing, wholesale/retail and other services, the UK sample represents more businesses operating in business, finance and professional services as well information and communication services.

INSERT TABLE 2 ABOUT HERE

Turning to the performance of surviving, surveyed businesses, despite differences in the depth and timing of the recession, and in the economic structure of the two economies, the survey results show a remarkably similar spread in business performance during 2008-9 (Table 2). In both surveys, In terms of sales, approximately a quarter of NZ small firms reported increases compared with 28 per cent of UK firms; 50 per cent experienced falling sales, compared with 51 per cent of their UK counterparts. In terms of profit margins, 19 per cent of small firms in NZ reported increases compared with 22 per cent of UK small firms; 50 per cent of firms in both countries experienced declining margins. Whilst half of small enterprises in both countries experienced deteriorating performance in 2008-9, a significant minority of firms were able to ride, or avoid the economic storm and grow. The similarity in the performance of the two national cohorts is striking. As a result the proportion of businesses that were classified as resilient or vulnerable was similar too. For both samples, 80 percent of respondents were classified as vulnerable.

INSERT TABLE 3 ABOUT HERE

7. EMPIRICAL ANALYSIS OF BUSINESS PERFORMANCE, RECESSION RELATED EFFECTS AND FIRMS' RESPONSES TO THEM

In this section, we compare the effects of the recession on small businesses and their responses in the UK and NZ. In order to facilitate comparison, the survey data are weighted according to the respective size distributions of small enterprises in the two countries, so that the results are representative of the national populations of small firms.

Experience of Recession-Related Effects

Respondents were also asked about the extent to which their business had experienced various finance and non-finance related effects since the start of 2008 (Table 4). The results highlighted some interesting differences and similarities in how the recession has impacted on NZ and UK small businesses. The shallower recession in NZ is reflected in the survey results which show that small NZ businesses were less likely to report negative finance-related effects than their UK counterparts, although the rank order was similar. Late payment appears to be a particular problem for UK small firms. With 63.4 percent it was the most commonly reported negative effect in the UK. The only finance related effect that was more pronounced for NZ small firms was negative cash at the bank effects as firms deposited less than they were drawing out. This might reflect the greater emphasis on overdrafts and short-term credit by NZ small firms. Only one in five respondents in each country reported a tightening of bank overdrafts and loans, presumably because of a high reliance on self-financing. In both countries, approximately three quarters of respondents reported being unaffected by the effects of the recession on the availability of bank overdrafts or loans. Similarly most firms in the two countries reported being unaffected by any change in credit periods or terms from suppliers.

INSERT TABLE 4 ABOUT HERE

Overall, small firms in NZ were more likely to have been affected by non-finance related effects such as rising energy, transport and supply costs. Those three effects might explain the negative cash at bank effect mentioned previously through increasing pressure on cash flow at time when demand is falling. In both countries, the range of responses is striking, emphasising the differentiated impact of recession on small firms.

Although it is the negative effects on firms that are usually highlighted, recession conditions can also provide business opportunities for some firms. In both countries positive effects were most commonly reported in relation to ease of staff recruitment and staff motivation/effort, indicating the influence of loosening labour market conditions during a period of growing unemployment and fear of redundancy.

To explore the relationship between recession related effects and business performance, Student's t-test was used to assess whether the means of the two business performance groups (i.e. resilience and vulnerability) are statistically different from each other.

For NZ, results showed that resilient firms were significantly less likely (at the 5 percent level or higher) to have experienced negative effects in relation to rising cost of supplies, late customer payments, bad debt or uncertainty over customer payments, cash at bank and the changing value of the NZ dollar. Instead, they were significantly more likely to have experienced positive effects in relation to their ability to recruit staff and the level of staff motivation. In the NZ context it seems that resilient small firms were far less affected by finance related effects of the recession. Instead they benefited from the changes to the labour market.

Similarly, resilient small firms in the UK were significantly more likely to report positive effects in relation to ease of recruitment and staff motivation indicating the influence of loosening labour market conditions. Further, they were significantly less likely to have experienced negative effects in relation of energy costs, credit periods from suppliers and level of cash at bank.

Overall the recession impacted differently on small firms in NZ and the UK reflecting some of the differences in the two markets. Not surprisingly perhaps, negative recession-related effects were more likely to be reported by vulnerable firms. By contrast, positive effects were more commonly reported by more resilient firms.

Recession-Related Responses

Both similarities and differences between countries were evident in the actions taken in response to the crisis. In both countries, the most common response was some type of change in sales and marketing practices designed to boost revenue. At the same time, there was considerable heterogeneity in the pattern of response, as NZ firms being more likely to have both increased and decreased promotional expenditure demonstrates. It has to be noted though that in NZ changes in employment practices was equally high ranked as changes in sales and marketing practices. In relation to employment practices, NZ firms appear to have placed greater emphasis on cost cutting and retrenchment compared to their UK counterparts. For small firms in the UK, however, the second most common response was to develop markets. Clearly, the development of new markets was a lower priority for NZ firms at a time of recession (ranked 4th), reflecting their lower propensity to emphasise product and market adjustments. The small size of the NZ economy combined with its distance from main export markets explains the lower percentage of firms in NZ that tried to adjust or develop markets. Changes to financial practices, however, was of higher priority for NZ firms compared to their UK counterparts which might reflect the greater downward pressure on cash held at bank felt by NZ firms. Investing personal savings, reducing debt to external sources and increasing debt financing were management actions that were more frequently taken by NZ firms. This may be partly explained by differences in the pattern of financing, with small firms in NZ relying more on personal assets to finance their businesses including residential property.

Looking at individual actions rather than broad strategies, introducing new or improved products/services and the owner/manager personally working longer hours were the most frequently adopted responses in both countries with half of the sample firms, or more, reporting such measures. In both countries changes in business organisation were the least common responses by small firms.

While firms in both countries responded with a mixture of revenue-generating and cost-cutting measures, there were clear differences in the management responses reflecting differences in the opportunity structures faced, related to the size and diversity of the two economies. As a result NZ firms were more likely to have undertaken cost-cutting and retrenchment activities. This is reflected in the higher propensity of NZ firms to reduce employment, to introduce wage/ salary freeze, to increase use of unpaid family labour, to reduce the range of products and services offered, external debt and to have sold personal assets.

INSERT TABLE 5 ABOUT HERE

Further, Chi2 - Tests were performed to explore the differences in adaptation strategies between vulnerable and resilient firms in both countries. Table 6 and 7 compare statistically significant differences (at the 5 percent level of higher) in the adaptive strategies of firms that were classified as vulnerable and resilient in the UK and NZ. In both countries the principal mode of adaptation of vulnerable firms was to cut costs. This was achieved though a wide variety of practices related to marketing, employment, finance, product/service and owner-manager behaviour. Most of the cost-cutting practices, however, were short-term adjustments rather than strategic restructuring approaches. While there was great similarity between the two countries, NZ firms seem to have placed greater emphasis on cost-cutting indicated by the wider range of actions taken. Overall this reflects the aforementioned tendency of NZ firms for 'battening down the hatches' to survive.

INSERT TABLE 6 ABOUT HERE

Similarly, Table 7 compares the adaptive strategies of firms that were classified as resilient. In both countries the principal mode of adaptation for resilient small firms was to generate revenue through three distinct strategies: Selling more to existing customers, investing in new equipment and increasing numbers employed. As such the adaptive behaviour of firms in the UK and NZ was surprisingly similar.

INSERT TABLE 7 ABOUT HERE

Overall, the connection between business performance and mode of adaptation was striking in both countries. Not only was the broad mode i.e. cost cutting or revenue generating the same, but even individual strategies were similar.

8. MULTIVARIATE ANALYSIS OF DRIVERS OF BUSINESS PERFORMANCE IN RECESSIONARY CONDITIONS

In this section, we present the results of the multivariate analysis to explore the drivers of business performance in recessionary conditions. Binary logistic regression is used to estimate the impact of recession-related effects and firm responses on performance. Business performance was used as dependent variable with resilience coded 1 and vulnerability coded 0. The independent variables that were included in the model consisted of items relating to the experience of recession-related effects and the adaptive strategies taken by the firms. For both countries, only those variables were included that had been identified in the bivariate analysis to significantly differentiate between the two performance outcomes. Further, two control variables were included, firm size and sector. Firm size was measured by number of employees in natural logarithm and sector comprises manufacturing=1, wholesale/retail=2, construction=3, business, finance and professional services=4, information and communication services=5 and other services=6.

Logistic regression uses maximum likelihood estimation which relies on large-sample asymptotic normality which means that reliability of estimates declines when there are few cases for each observed combination of independent variables. To test for adequate sample size Hosmer & Lemeshow's (1989) criteria was used that recommends a minimum of 10 cases per independent variable.

To assess model fit, Hosmer and Lemeshow's Chi-Square Test of Goodness of Fit was used together with the Model Chi-Square result of the Omnibus Tests of Model Coefficients. Classification accuracy was assessed using the hit rate - the number of correct classifications divided by sample size. The criterion used to determine classification accuracy was that the observed hit rate had to be 25 percent higher than the proportional by chance hit rate. Overall, both models were considered to adequately fit the data. Results are presented in Table 8 and 9.

Resilient small firms in NZ were less likely to have experienced negative effects from late payments by customers, bad debts or cash at bank. Particularly the levels of cash at bank was a strong predictor of resilience indicating the importance of strong cash reserves to finance activity without relying on overdraft facilities or bank loans. Reflecting the stronger financial position of these firms, resilient firms were more likely to have increased numbers employed, less likely to have reduced selling price, less likely to have reduced numbers employed and less likely to have introduced wage/salary freezes.

Results from the UK sample provides a similar picture. Resilient small firms in the UK were less likely to have experienced negative cash at bank effects. Again, cash levels was the strongest predictor in the model and the only finance-related variable that had a significant effect on the prediction of resilience. In addition, resilient firms in the UK were more likely to have experienced positive staff motivation effects emphasising the differentiated impact of the recession on small firms. To adapt to recessionary conditions, resilient firms in the UK were more likely to have sold more to existing customers, less likely to have reduced selling price and less likely to have reduced numbers employed.

9. CONCLUSIONS

The international economic and financial crisis in 2008–2009 presented major challenges to firms of all sizes, but particularly smaller firms. A combination of resource-related constraints, low bargaining power in relation to a variety of stakeholders and a tendency to rely on bank credit when external finance is used, suggests that small firms may be particularly vulnerable during periods of economic downturn and financial crisis, compared with larger enterprises that control more substantial resources.

Some countries have been affected by the crisis more deeply than others because of differences in banking systems and practices that affect the degree of exposure to international financial markets, as well as differences in economic structure and the pattern of international linkages. In this context, this article provides evidence of the effects of the recent economic and financial crisis on small firms in two economies which have similar institutional frameworks, but differences in the national context at a detailed level which may affect responses to recession-related effects. Despite differences in the timing and depth of the downturn, the sectoral mix of small enterprises and methods of financing, there is a remarkable similarity in reported performance during 2008–2009 among surviving firms. In neither country did the downturn consistently have a negative impact on survivor performance, and in both countries a significant minority performed well.

In both countries, approximately three-quarters of firms reported being unaffected by any tightening of bank credit, reflecting a reliance on self-financing. Despite these similarities, the empirical evidence points to some distinct differences between the two countries when it comes to the impact of the recession. NZ firms were less likely to report negative financial effects than UK firms, with the exception of downward pressure on cash held at the bank. NZ firms appear to be even more reliant on self-financing than their UK counterparts, which showed a higher propensity to resort to bootstrapping methods. In addition, differences were identified with respect to non-finance-related effects. Essentially, UK firms showed a higher propensity to experience currency fluctuation, whereas in NZ the rising cost of energy, transport and supplies most concerned small business owners and managers. The varying effects that the recession had on small firms in the two countries reflects the underlying differences in the structure of the two economies.

In both countries, most firms responded to the downturn with a combination of revenue-generating and cost-cutting measures. The smaller size of the domestic market in NZ and a dispersed population, combined with a lower propensity to export, may have limited firm options in terms of finding new geographic markets. However, overall there appear to be fewer differences between the two countries in terms of the types of revenue-generating actions used than in the case of cost-cutting. Essentially, NZ small firms appear to have placed greater emphasis on cost-cutting and retrenchment than their UK counterparts. This may be partly explained by differences in the pattern of financing, with NZ firms relying more on personal assets to finance their businesses. Therefore, contrasting management responses reflect differences in the opportunity structures faced, related to the size and diversity of the two economies.

The number of small firms that showed resilience in relation to their performance was surprisingly similar in the two countries, despite the differences in how the recession affected firms and their responses. The results from the multivariate analysis show that surviving and resilient firms in both countries were less likely to experience negative finance-related effects, which might be linked to a stronger financial position. Besides finance-related effects, surviving and resilient firms in the UK in particular capitalised on the opportunity provided by increased staff motivation in uncertain economic times. Further, the results showed that surviving and resilient small firms are less likely to adapt to recession conditions by cutting costs through, for example, reducing selling price or numbers employed: instead, they adapt by attempting to generate revenue. While UK firms are more likely to have increased their sales effort, NZ firms are more likely to have increased staff numbers: so investing in human capital reflecting structural differences in the two economies. The small domestic market in New Zealand makes it more difficult to increase sales, particularly in the case of highly niche-focused firms. Due to very low unemployment rates prior to the global financial crisis, NZ firms in particular struggled to find staff. With staff reductions in large firms, the changing labour market conditions have opened up recruitment opportunities for small firms.

However, no firm size (i.e. within the SME size range) or sector effects were found in either country, indicating that surviving and resilient firms can be found across different sectors and size groups. While the recession might impact unevenly on small and large firms and industries, it is the individual experiences of recession-related effects, and consequently the adaptive capability of the firm, that influence business performance. This confirms the importance of flexibility and adaptability in small businesses, which is emphasised in the resilient view. This means that small firms per se are neither vulnerable nor resilient: some are vulnerable, while others are resilient. How small firms cope with the impact of the global recession depends to a considerable extent on the strategy pursued, although strategic options are influenced by the position of the firm at the onset of recession. However, there is no ‘one-size-fits-all’ adaptation strategy. Strategies that were successful in one year might not be successful in another, and strategies that were successful for one firm might not have been for another. Finally, some strategies might be effective only in combination with others.

In comparing the effects of adaptation strategies to the recession in the two countries, it is important to keep in mind that the survey results refer only to surviving businesses. Aggregate data show the effect of the crisis on business exits. Although in both the UK and NZ the recession caused firm births to reduce and deaths to rise, this was more marked in NZ. In the UK, 279,000 businesses closed in 2009: the highest number since the current series began in 2000 (Office for National Statistics, 2010), with an enterprise ‘exit rate’ of 11.9 percent (as a proportion of active enterprises[4] on the Inter-Departmental Business Register) compared with the 2008 figure of 221,000 business exits; 2009 was the first year that business exits had outnumbered business births since the series began, 236,000, a rate of 10.1 percent. This compares with 267,000 births in 2008: a rate of 11.5 percent. In 2009 there was an 11.7 percent decrease in the number of business births. Clearly, recession contributed to a decline in new business births and an increase in the number that ceased trading.

The NZ business demography data (Ministry of Economic Development, 2010) shows a similar trend but with greater fluctuation, given the relative size of economies. In 2009 the number of businesses that ceased to trade was not only the highest since the series began in 2001, but also the first time that business exits outnumbered business births (52,879 exits compared to 51,796 births). In 2009 business births were down 15 percent on 2008. Data from the New Zealand Insolvency and Trustee Service (2010) show a 100 percent increase in company liquidations, from 189 companies in 2008 to 377 in 2009. Clearly, a comprehensive analysis of the effects of the crisis on small businesses must take into account the effects on business births and deaths as well as survivor responses.

One of the key policy measures taken by the New Zealand government to help small firms to cope with the impact of the recession was tax reform, which was aimed at reducing pressure on cash flow. The present study results suggest that measures focused on increasing financial stability are necessary short-term actions. Beyond this, a more comprehensive post-recession support package may be necessary, when rapid expansion following a period of cost-cutting and retrenchment can present new challenges, such as the risk of over-trading. Overall, the article illustrates the adaptive behaviour of small firms under recession conditions. The results are strengthened by the fact that they emerged from two contrasting economies on opposite sides of the world. However, it must noted that there are limitations associated with the cross-sectional nature of the empirical results presented, since a longitudinal dimension is required to show whether or not the strategies and management practices used to achieve adaptability in the short-term will provide a basis for medium- and longer-term survival and growth.

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Figure 1: Conceptual framework

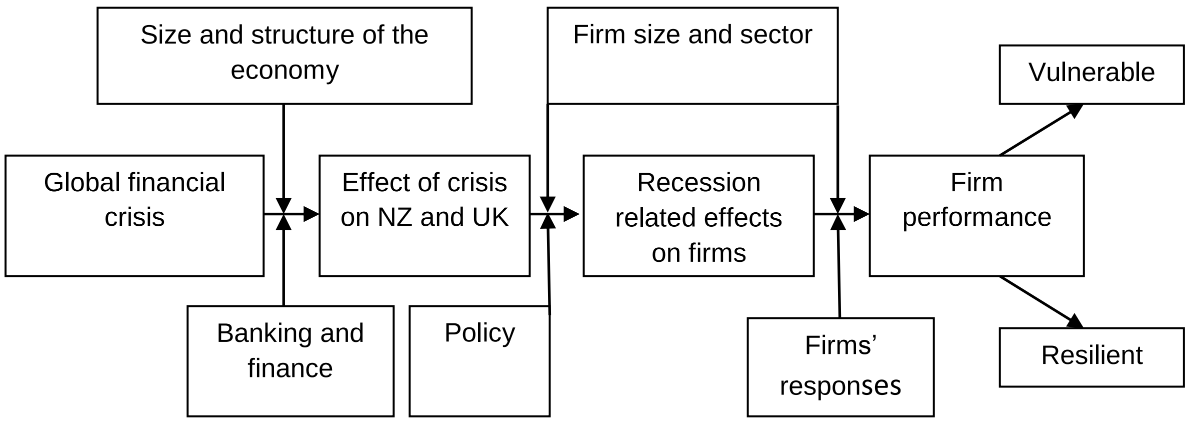

Figure 2: Classification matrix

	Affected by recession	
	Yes	No
Growth	Resilient	Resilient
No growth	Vulnerable	Excluded

Table 1: Sample Profile Data by Size and Sector

	UK No.	**UK %**	**NZ No.**	***NZ %***
Employment Size[4]				
Micro	329	95.8	1291	89.9
Small	12	3.6	139	9.6
Medium	2	0.6	8	0.6
Totals	**343**	**100**	**1438**	**100**
Sector				
Manufacturing	37	10.8	384	26.6
Wholesale/Retail	50	14.6	300	20.8
Construction	15	4.4	214	14.8
Business, finance and professional services	142	41.4	143	9.9
Information and communication services	52	15.2	56	3.9
Other services	47	13.7	289	20.0
Totals	**343**	**100**	**1386**	**100**

Note: there are 52 NZ cases missing from this table.

Table 2: Business Performance Changes Between Q1, 2008 and Q1, 2009 (% of firms)

	Value of sales		***Profit margins***	
	UK (%)	NZ (%)	UK (%)	NZ (%)
Significantly higher	11.4	8.1	7.4	5.9
Slightly higher	16.4	15.0	14.3	12.6
About the same	21.3	26.9	28.8	32.0
Slightly lower	26.1	26.8	27.8	25.8
Significantly lower	24.8	23.2	21.7	23.7
N	**335**	**1382**	**333**	**1325**

Table 3: Classification of businesses

	UK No.	UK %	NZ No.	NZ %
Resilient	51	19.9	197	19.4
Vulnerable	205	80.1	821	80.6
N	**256**	**100**	**1018**	**100**

[4] In the UK, the definitions of small firms by employee size are: Micro < 10 employees; Small 10-49 employees and Medium 50+ employees. In New Zealand the equivalent are Micro <6 employees; Small 6-49 employees and Medium 50+ employees. However, for the purpose of comparison, the New Zealand data have been reclassified into the size bands used in the UK.

Table 4: Experience of recession related effects (% of firms)

	UK (%)				***NZ (%)***			
	Positive effect	*Negative effect*	*No change*	*N*	*Positive effect*	*Negative effect*	*No change*	*N*
Finance-related effects								
Late payment by customers	3.3	63.4	33.3	334	4.0	53.6	42.5	1387
Bad debts or uncertainty over customer payments	1.0	51.5	47.4	334	3.8	45.4	50.9	1380
Level of cash at bank	6.5	47.7	45.9	334	9.0	52.3	38.7	1390
Credit periods and/or credit terms from suppliers	2.7	31.3	65.9	334	3.3	27.0	69.7	1381
Availability of bank loans/overdrafts	4.8	21.8	73.4	334	6.6	17.9	75.5	1347
Other types of effects								
Transport costs	6.4	52.3	52.3	336	6.9	58.6	34.6	1381
Costs of supplies	7.6	46.4	46.0	333	9.9	63.8	26.4	1396
Changing value of NZ$/GBP	13.5	43.8	42.7	333	9.2	33.7	57.1	1372
Energy costs	4.8	39.8	55.5	335	6.1	54.7	39.2	1387
Level of staff motivation	16.2	23.7	60.1	328	15.0	22.3	62.7	1376
Ability to recruit staff	26.3	8.7	65.0	333	15.4	10.0	74.5	1364

Table 5: Actions Taken to Increase or Maintain Business Performance Since Start-2008

Actions Taken	***NZ (%)***	***UK(%)***
(a) Changes in sales and marketing[5]	*78.7*	*82.0*
Increased sales effort	40.4	52.9
Reduced selling prices, or held price rises below inflation	25.1	27.2
Increased advertising & promotional expenditure	31.0	24.8
Reduced advertising & promotional expenditure	20.3	13.5
(b) Changes in markets	*60.8*	*76.8*
Selling to new types of customer	37.4	46.8
Selling more to existing customers	29.6	39.8
Selling in new geographic markets	11.5	26.9
(c) Changes in employment:	*78.2*	*68.8*
Reduced numbers employed	41.9	26.9
Introduced wage/salary freeze	20.0	14.7
Introduced new working practices	17.4	16.8
Increased use of external labour (e.g. sub-contractors, freelancers, agency temps, casuals etc)	14.5	20.5
Increased numbers employed	10.9	15.6
Taken greater care in recruitment of staff	15.2	12.5
Increased employee training	18.9	10.4
Increased use of unpaid family labour	14.6	6.4
Reduced employee training	2.7	2.1
(d) Changes in products and/or services offered:	*63.0*	*63.3*
Introduced new or improved products or services	53.6	57.0
Reduced the range of products/services offered	13.9	8.9
Increased use of intellectual property (e.g. patents, registered design, registered trademarks, copyright)	4.3	5.2
(e) Changes in Finance	*70.5*	*61.2*
Renegotiated the cost of supplies	20.1	25.7
Invested personal savings	27.6	20.2
Shortened payment periods from customers/creditors	10.9	16.9
Reduced debt to external sources	22.7	14.1
Extended payment periods to suppliers	13.0	12.8
Reduced investment expenditure	12.4	12.8
Increased debt financing	16.5	5.8
(f) Changes in Owner/Manager Behaviour:	*60.9*	*63.6*
Personally worked longer hours	49.8	57.8
Cancelled personal holidays	29.0	24.5
Sold personal assets to compensate for poor business performance	9.7	5.8
Other changes in owner-manager behaviour	6.6	6.4
(g) Changes in production/business processes:	*49.8*	*52.6*
Used new suppliers	32.9	32.4
Invested in new equipment	25.9	26.6
(h) Changes in business organisation:	*29.3*	*33.9*
Made changes in managerial roles/functions	22.9	29.1
Made changes in the management team	11.9	10.1
	1242	**327**

[5] Respondents were asked to report actions from a prompt list, and could indicate all, some or none from the list. Italicised figures refer to those reporting *any* of the actions within each of the nine categories.

Table 6: Comparison of strategic responses of vulnerable firms in NZ and UK

<table>
<tr><th>New Zealand</th><th>UK</th></tr>
<tr><td colspan="2">Reduced advertising expenditure</td></tr>
<tr><td colspan="2">Reduced selling prices or held selling prices below inflation</td></tr>
<tr><td colspan="2">Reduced numbers employed</td></tr>
<tr><td colspan="2">Introduced wage/salary freezes</td></tr>
<tr><td colspan="2">Reduced their investment expenditure</td></tr>
<tr><td colspan="2">Cancelled personal holidays</td></tr>
<tr><td>Reduced range of products/services offered</td><td></td></tr>
<tr><td>Increased use of unpaid family labour</td><td></td></tr>
<tr><td>Invested personal savings</td><td></td></tr>
<tr><td>Extended payment periods to suppliers</td><td></td></tr>
<tr><td>Sold personal assets</td><td></td></tr>
<tr><td>Personally worked longer hours</td><td></td></tr>
</table>

Table 7: Comparison of strategic responses of resilient firms in NZ and UK

<table>
<tr><th>New Zealand</th><th>UK</th></tr>
<tr><td colspan="2">Selling more to existing customers</td></tr>
<tr><td colspan="2">Invested in new equipment</td></tr>
<tr><td colspan="2">Increased numbers employed</td></tr>
<tr><td>Greater care in the recruitment of staff</td><td></td></tr>
</table>

Table 8: Estimation model for New Zealand

	New Zealand			
	Exp (B)	SE	Wald	*p-Value*
Reduced range of products offered	.852	.344	.216	.642
Selling more to existing customers	1.328	.218	1.686	.194
Reduced advertising expenditure	1.021	.288	.005	.941
Reduced selling price or held price below inflation	.288	.309	16.237	.000
Invested in new equipment	1.147	.232	.349	.555
Reduced numbers employed	.507	.260	6.799	.009
Increased numbers employed	4.122	.279	25.707	.000
Increased use of unpaid family labour	.872	.360	.145	.703
Introduced wage/salary freeze	.539	.305	4.120	.042
Greater care in recruitment of staff	1.249	.264	.707	.401
Invested personal savings	.784	.266	.835	.361
Reduced investment expenditure	.856	.342	.207	.649
Extended payment periods to suppliers	.835	.330	.299	.585
Sold personal assets	.847	.528	.098	.754
Worked longer hours	1.285	.230	1.187	.276
Cancelled holidays	.778	.274	.836	.360
Costs of supplies	.943	.132	.199	.655
Late payment by customers	1.561	.188	5.628	.018
Bad debts or uncertainty over customer payments	.639	.197	5.162	.023
Level of cash at bank	.619	.136	12.347	.000
Changing value of NZ$/GBP	.853	.122	1.693	.193
Ability to recruit staff	.788	.165	2.101	.147
Level of staff motivation	.911	.147	.401	.526
Sector: Manufacturing	.681	.330	1.359	.244
Sector: Retail/Wholesale	1.151	.331	.180	.671
Sector: Construction	.802	.386	.326	.568
Sector: Business, finance and professional services	1.072	.392	.031	.860
Sector: Information and communication services	.762	.596	.208	.648
Firm size	.835	.144	1.584	.208
Constant	13.555	.855	9.287	.002
-2log likelihood	616.084			
Goodness of fit[1]	4.593			
Model chi-square	189.432***			
Nagelkerke R^2	.331			
Overall hit rate (%)	84.0			
Chance hit rate (%)	63.9			

[1]Hosmall firms and Lemeshow Chi-square test
*p<0.05; **p<0.01; ***p<0.001

Table 9: Estimation model for UK

	UK			
	Exp (B)	SE	Wald	*p*-Value
Energy costs	1.063	.345	.031	.859
Credit periods and/or credit terms from suppliers	.595	.464	1.254	.263
Level of cash at bank	.317	.377	9.298	.002
Ability to recruit staff	.969	.464	.005	.946
Level of staff motivation	.335	.406	7.270	.007
Selling more to existing customers	3.315	.494	5.897	.015
Reduced advertising expenditure	.172	.950	3.421	.064
Reduced selling price or held price below inflation	.232	.722	4.096	.043
Invested in new equipment	2.532	.523	3.160	.075
Reduced numbers employed	.099	.827	7.857	.005
Increased numbers employed	2.057	.617	1.366	.243
Introduced wage/salary freeze	.417	.799	1.194	.274
Cancelled holidays	.713	.543	.387	.534
Sector: Manufacturing	.303	1.061	1.267	.260
Sector: Retail/Wholesale	2.118	.765	.962	.327
Sector: Construction	4.515	1.176	1.644	.200
Sector: Business, finance and professional services	.771	.717	.131	.717
Sector: Information and communication services	.863	.743	.039	.843
Firm size	1.228	.298	.478	.489
Constant	870.013	2.513	7.252	.007
-2log likelihood	213.603			
Goodness of fit[1]	5.199			
Model chi-square	101.226***			
Nagelkerke R^2	.547			
Overall hit rate (%)	87.1			
Chance hit rate (%)	60.00			

[1]Hosmall firms and Lemeshow Chi-square test
*p<0.05; **p<0.01; ***p<0.001