

Who Takes Advice? Firm Size Threshold, Competence, Concerns and Informality in a Contingency Approach

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Threshold, Competence, Concerns
and Informality in a Contingency
Approach**

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Abstract

Although they are not the only conduit for knowledge, advisers can diffuse new methods, knowledge and best practice to SMEs. Existing work suggests advice as a resource available for the small firm manager. Whether the manager takes that advice depends on the trust between owner-manager and adviser, the degree to which the owner-manager perceives themselves to need advice, the 'knowledge gap hypothesis' and the degree to which they feel able to interact with advisers and implement advice. . In this paper, we model whether a small firm manager takes advice from formal sources, including public and private suppliers. In March 2011, the researchers conducted a CATI telephone survey of 1202 SME (1-249 employees) owner-managers in England, which took 20 minutes to complete on average. The sample was designed to provide statistically robust evidence of recent use and non-use of external business support, differentiating between private sector and public sector information and advice. These might be construed as push and pull factors. Pull factors encourage the taking of advice. There are individual level influences of longer education and those who take informal advice. Informal advice acts as an indication of a willingness to take advice which acts as a stepping stone to more formal sources either public or private. By exploiting the firm size bands we show that there is a strong threshold effect. When firms employ more than ten people they are much more likely to take advice. We provide evidence for the knowledge gap hypothesis in the context of existing firms. The demand for advice is fuelled by firm's objectives to grow but here more advice was taken from the private sector, validating those advisory services that work with the private sector. The impact of the consultants raised issues of the nature of the advisory relationships from different types of advisers.

Introduction

SMEs tend to operate more informally and may be satisfied with lower performance (Cliff, 1998; Gimeno, Folta, Cooper, & Woo, 1997; Saridakis, Sen-Gupta, Edwards, & Storey, 2008; Storey, Saridakis, Sen-Gupta, Edwards, & Blackburn, 2010). However, policymakers tend to view this as a loss of potential economic output. From the government's viewpoint, advice is a mechanism to improve SME competitiveness. Although they are not the only conduit for knowledge, advisers can diffuse new methods, knowledge and best practice to SMEs (Bryson & Daniels, 1998). Moreover, governments have raised concerns over the potential market failure in business advice (Wren & Storey, 2002). Therefore governments across most OECD countries support advisory services to SME in one way or another (Mole & Bramley, 2006).

Existing work suggests advice as a resource available for the small firm manager (Bennett & Robson, 2003; Chrisman, 1999; Chrisman, McMullan, & Hall, 2005; Chrisman & McMullan, 2000, 2004; Robson & Bennett, 2000b, 2010). Whether the manager takes that advice depends on the trust between owner-manager and adviser (Bennett & Robson, 2004; Kautonen, Zolin, Kuckertz, & Viljamaa, 2010), the degree to which the owner-manager perceives themselves to need advice, the 'knowledge gap hypothesis' (Chrisman & McMullan, 2004; Johnson, Webber, & Thomas, 2007) and the degree to which they feel able to interact with advisers and implement advice (Anyadike-Danes, Bonner, & Hart, 2011; Gooderham, Tobiassen, Doving, & Nordhaug, 2004; Mole, Hart, Roper, & Saal, 2009; Scott & Irwin, 2009) and whether the manager cocoons themselves within a wall of silence (Bryson & Daniels, 1998). However, all these studies have hinted at concerns, issues and attitudes rather than attempting to compare each of these competing and complementary explanations.

In this paper, we model whether a small firm manager takes advice from formal sources, including public and private suppliers. These might be construed as push and pull factors. Pull factors encourage the taking of advice. There are individual level influences of longer education and those

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who take informal advice. Informal advice indicates a willingness to take advice and perhaps a stepping stone to more formal sources either public or private. Push factors shove the firm to take advice. By exploiting the firm size bands we show that there is a strong threshold effect. When firms employ more than ten people they are much more likely to take advice. Using a scale we model issues and capabilities, where those who face more issues and have less confidence in their capabilities. We provide evidence for the knowledge gap hypothesis in the context of existing firms. The demand for advice is fuelled by firm's objectives to grow but here more advice was taken from the private sector, validating those advisory services that work with the private sector.

In the first section that follows outlines the theory of taking advice. Then a section describes the sampling and empirical methods. The results of the logistic regressions are presented in the results section before a section discusses the implications of the results for theory.

Theory

Theory/literature review section

Types of assistance

External assistance to SMEs can take various forms and be delivered by a wide range of providers, operating within different market environments and interacting with clients in various ways (Ramsden & Bennett, 2005). A common distinction is that between informal assistance (i.e. gratis advice delivered in a more casual setting such as that provided by friends, family, and business associates) and formal assistance (i.e. delivered by private sector consultants and professional organisations, normally for payment, or government sponsored business support agencies), although Robson et al (2008) suggest that this distinction is not always clear cut, formality being a function of the situation and structure of the advice that is sought. Chrisman & McMullen (2004) distinguish between more generic codified knowledge available from business support agencies (e.g. information

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about government regulations and corporate taxation) and more tacit knowledge that is highly context dependent (e.g. strategic advice relating to alternative paths of international development). This equates with the distinction that is sometimes made in business support policy between transactional assistance (i.e. information to support the day to day operation of the business) and transformational support (i.e. strategic advice to help achieve a stepped change in the growth and development of the business) (North, Baldock, Mole, Wiseman, & Binnie, 2011). Perhaps more usefully, other writers have referred to a continuum of services with operational services that are 'objective' and independent of the relationship between the client and service provider at one end and strategic services that are 'subjective' and dependent on the relationship between client and service provider at the other (Hjalmarsson & Johansson, 2003).

Why seek external assistance?

It is generally thought that there are competitive benefits to be gained from seeking and taking-up external business assistance, placing non-users of external assistance at a possible competitive disadvantage. Bennett & Robson (2003) for example cite various leading authors on business growth and competitiveness (Penrose, 1959; Teece, 1986; Teece, Pisano, & Shuen, 1997), in arguing that external sources of advice lead to increases in strategic knowledge which can achieve competitive benefits and maximise the potential of the business. External assistance can help overcome information and knowledge gaps, which Chrisman & McMullan (2004) suggest can exist in any one of four areas: know-why; know-what; know-how; and know-who. From a resource-based theory perspective, it might be expected that these information/ knowledge gaps will be particularly evident in the smallest and youngest businesses because of their resource and skills deficiencies, although this assumption is now contested (see below) (Johnson et al., 2007). With regards to seeking transformational support, it has been argued that because of the increasing turbulence of global markets and the pace of technological change, SMEs

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are increasingly turning to the specialist expertise provided by consultants in order to make the stepped changes needed to respond to the pressures and take full advantage of new market opportunities available to them (Fincham, 1999).

Why some SMEs do not seek external assistance?

Although evidence from a series of SME surveys in the UK undertaken by the Centre for Business Research (CBR) indicates that the majority (around 95 per cent) of businesses make use of external assistance and that this has been rising over time (Bennett & Robson, 2003; Robson & Bennett, 1999), this is challenged by other evidence showing that a substantial proportion of SMEs do not seek external assistance, particularly more formal assistance (Johnson et al., 2007). For example, a recent study found that 60 per cent of SMEs did not make any use of external assistance during the three years prior to being surveyed in 2011 (North et al., 2011). Whilst some of these discrepancies between studies reflect differences in research design and methodology, they also reflect differences in the scope of what constitutes external assistance, with those studies with fewer users generally excluding informal assistance and the more routine forms of assistance associated with auditing and banking. It would therefore appear that a large proportion of SMEs do not make use of formal external assistance, despite the likely benefits of doing so.

Various explanations have been put forward as to why SME owner-managers do not seek external assistance. First, it has been argued that owner-managers make suboptimal use of the various services that are available because they have insufficient information about the availability of advice and its cost to make a rational choice. Bennett (2008) for example argues that because of their smallness and limited market power, SMEs often suffer from imperfect information, limiting owner-manager's awareness of the benefits of external assistance and resulting in an unwillingness to seek it. Second, even when owner-managers have a good awareness of the provision of information and advice, they may harbour doubts about its value and reliability. This might include concerns

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about the expense of obtaining expert advice, doubts about whether it provides good value for money, and concerns about the time that would be needed to fully implement and benefit from the advice. It could also include the situation of discouraged advisees (Scott & Irwin, 2009) who may have been put off by their own previous experience or that of business friends/associates. Third, there may be various relationship concerns, as taking advice invariably involves personal interaction between business owners and external advisors as well as task interaction (Ramsden & Bennett, 2005). These could relate to possible power imbalances and disparate 'world views' between advisors and business owners (Dyer & Ross, 2007), with some owner-managers unsure of their ability to deal with 'smart and sophisticated consultants' on equal terms. Fourth, there are moral hazard dilemmas, such as whether advisers can be trusted to provide the impartial advice that will be useful to the business. Hjalmarsson & Johansson (2003) for example have suggested that there may be an incentive for transaction-driven consultants to provide solutions, whatever the problem presented. Owner-managers may be concerned that advisers do not fully understand the needs of their business as it has been shown that advisers instinctively rely on their own risk preferences when advising business owners about alternative courses of action, rather than the risk preferences of the owners themselves (Hadar & Fischer, 2008). Moreover, some small business owners are unlikely to engage with external bodies because they value their independence and distrust 'outside' influences (Curran & Blackburn, 2000; Edwards, Sengupta, & Tsai, 2010).

Factors influencing the use of external assistance

A number of previous studies have attempted to identify the distinctive characteristics of the users and non-users of external assistance. Most of these have focused on either various characteristics of the business itself or attributes/traits of the business owners/managers, using multivariate methods to unravel the interrelationships between variables. However, comparison of their findings is made difficult by differences in the range of types of assistance covered, with some studies including both private and

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public providers, whilst others focus on a particular type of provider such as Business Link.

Business characteristics

Although resource based theory might suggest that it will be the smallest firms that make the most use of external support because of their limited internal resources, several authors have questioned this assumption. For example, Boter & Lundstrom (2005) conclude that arguments that small firms have a weak resource base and need external support does not translate into the smallest micro companies being the most intensive users of external support services. On the contrary, it might be argued that larger SMEs are likely to be more complex businesses and have a greater range of support needs (e.g. in relation to employing people, international trading, and financing) than the smallest businesses. The relationship is likely to be influenced by whether the external advice is freely available or needs to be procured through the market process, the implication being that larger SMEs will more be willing to pay for private sector assistance (Johnson et al., 2007). This is confirmed by longitudinal evidence relating to mature manufacturing SMEs showing that it was the largest firms that had the more specialised support needs and the highest propensity to use paid consultants (Smallbone, Ram, Deakins, & Baldock, 2003). More generally, Bennett & Robson (1999) found that the smallest firms made the least use of most private sector sources, with use increasing up to about 20-49 or 50-99 employees, and then either levelling off, or having an inverse U pattern. Previous evidence therefore indicates that the relationship between firm size and the use of external assistance is not as straightforward as a resource based view might suggest.

The propensity to use external assistance has been shown to be influenced by sector heterogeneity (Johnson et al., 2007), reflecting the impact of different market environments on the support needs of SMEs. For example, Bennett & Robson (2003) found that the sectors making the least use of advice were mainly from the relatively traditional sectors with more stable technologies, whereas the higher-use sectors relate to those

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experiencing technological and organisational changes (such as publishing, the media, and business services) and those affected by government regulations (e.g. food manufacture). The more complex the technology that a firm is using then more likely there is to be a gap between internal resources and resources required (Johnson et al., 2007). In Sweden, Boter and Lundstrom (2005) found that SMEs in traditional manufacturing sectors made greater use of national and regional level public provision (particularly in relation to trade and export promotion), whereas small service firms made greater use of services from private providers.

Several studies have explored the relationship between business growth and the use of external assistance. Notwithstanding questions about the direction of causality (i.e. whether growth leads to seeking advice or whether advice stimulates growth), the findings are somewhat equivocal, although once again this may reflect differences in the ways in which growth was measured and questions about it posed. As recognised by Robson and Bennett (2000a) (2000) and Johnson et al (2007), there are grounds for expecting a positive relationship between business growth and seeking external assistance as the pursuit of growth is likely to pose significant challenges to the management capability and internal resources of the firm. Using data relating to owner-manager's objectives rather than actual business performance, Johnson et al (2007) conclude that "growth orientation is a key factor that predisposes businesses to use external support", whereas Robson and Bennett (2000a) , using several business performance measures, found that "the use of external advisors has surprisingly little relationship with each of the measures of growth: where it does it is chiefly for employment growth." In fact, they found that it was the slower growth firms that had the highest level of use of various public providers of assistance (Bennett and Robson (1999). We might suggest that this lack of a clear relationship with business growth is because firms facing difficulties which may threaten their very survival are also 'pushed' into seeking outside advice. For this reason, we can expect external

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assistance to be associated with recent and anticipated changes relating to both growth and decline.

Entrepreneurial and management characteristics

There is some disagreement in the literature concerning the influence that various characteristics of the entrepreneur and the management team have on seeking external assistance and the source and type of assistance used. For example, specifically in relation to the use of Business Link services, Atherton et al (2010) did not consider the personal characteristics of owner-managers, citing previous evidence that personal characteristics had no effect (Robson et al., 2008) or only had a marginal and less significant effect than various business characteristics (Mole, Hart, Roper, & Saal, 2011). A contrary view is that held by Scott & Irwin (2009) who note that whilst there has been considerable interest in business advice, relatively few studies have focused on the influence of the personal characteristics of entrepreneurs per se. In an attempt to address this gap, their study investigates the influence of gender, ethnic and educational differentials on obtaining external advice from different sources. They argue that human capital is likely to be a key influence affecting the awareness, willingness and confidence that entrepreneurs have in accessing formal business assistance, although this is only partially supported by their evidence showing that better educated entrepreneurs (those with first or higher degrees) were more likely to use private sector professionals such as accountants and solicitors, but less likely to use informal sources and public providers.

There also appears to be some disagreement in the extant literature over whether the gender of owner-managers makes a difference as to whether or not a business seeks external assistance. On the one hand, evidence relating to the use of assistance from various public providers indicates that they are particularly favoured by women-led businesses. Scott & Irwin (2009) found that female entrepreneurs were almost twice as likely as their male counterparts to access external advice from public providers, which they attributed in part to the heightened policy emphasis upon women's

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entrepreneurship under the 1997-2010 Labour government. Mole et al (2009) also found that gender diversity proved significant in the use of Business Link assistance, with the probability of receiving assistance increasing as the female share of the partners and directors increased. On the other hand, in a study of the use of external advice by Scottish SMEs, Robson et al (2008, p.305) concluded on the basis of logistic regression analysis that the gender of the person making the key decisions in the business had no statistically significant relationship with the use of either formal or informal external advice. Rather than gender being the influencing factor, they concluded that the extent to which external advice was sought was driven by the size of the business, its sector, and the reach of its markets.

Evidence relating to whether the ethnicity of business owner-managers influences their propensity to use external assistance also tends to be inconclusive. Whereas some studies found that certain ethnic-minority led businesses (notably Black and Afro-Caribbean enterprises) were less likely to make use of business support services than other groups (Ram & Smallbone, 2002; Smallbone et al., 2003), particularly in relation to government-backed advice (Scott & Irwin, 2009), other research did not find a significant difference in the use of Business Link services once various other factors were controlled for (Mole et al., 2009).

This brief review of previous studies therefore tends to indicate a lack of consensus on the influence that a number of business and personal characteristics have on whether or not SMEs seek external assistance. As we have suggested, this may stem from the methodological idiosyncrasies of the studies as well as differences in the scope of external assistance included. Our present study attempts to provide a more comprehensive and systematic approach, not only by covering both private and public sector provision of external assistance, but also by taking account of other possible influences besides business and personal characteristics. In so doing, we have found a contingency approach to be a useful way of

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distinguishing between various types of influences that may have some bearing on whether or not SMEs seek external assistance.

A contingency framework

Essentially, contingency theory involves introducing 'environmental' moderators, which are usually exogenous to the organisations (i.e. SMEs) or actors (i.e. business owner-managers) of primary interest, into bivariate relationships to reduce the risk of making misleading inferences and permitting a better understanding of contingent relationships (Rauch, J., G.T., & M., 2009). From its origins in the management sciences., it has in recent years been applied to understanding various aspects of enterprise behaviour. For example, contingency theory has been adopted by scholars researching the relationship between entrepreneurial orientation and business performance (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2005) as its basic premise is that congruence or 'fit' among key variables is critical for obtaining optimal performance (Rauch et al., 2009). As such, it has involved identifying factors both internal (e.g. business size and age) and external (e.g. technological intensity of the industry; access to external finance) to the firm that may moderate the relationship between entrepreneurial orientation and business performance, whilst also recognising that the effect may be different in different types of business environment (e.g. distinguishing between benign and hostile environments). Similarly, Ibeh (2003) used a contingency approach in his research on export entrepreneurship, distinguishing between four sets of influences: (i) the export-entrepreneurial orientation of business owners-managers; (ii) the antecedent conditions that foster or discourage an export-entrepreneurial orientation (i.e. firm-specific characteristics and competencies and individual/decision-maker factors); (iii) the environmental variables that are exogenous to the firm or manager and moderate the relationship between export-entrepreneurial orientation and firms' export behaviour; and (iv) the outcomes of the interaction between export-entrepreneurial orientation and environmental moderators (i.e. export venture creation/involvement or non-export involvement).

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If we apply a similar contingency framework to try to improve our understanding of the factors influencing whether or not SMEs make use of external assistance, and for those that do, whether they use private or public sector providers or both, we might distinguish between the following four sets of influences:

(i) Antecedents

Here we are concerned with the possible influences of various 'internal' characteristics of the business and the entrepreneur/business owner-manager. As reviewed above, much of the existing business support literature focuses on these influences.

(a) Business characteristics:

- We might expect *younger firms* (particularly start-up and post start-up) to be in need of advice, especially where founders have little previous business experience. Previous research evidence might lead us to expect a high use of public providers in particular (Bennett & Robson, 1999).
- We might expect *larger businesses* to be in a better position to be able to draw upon the required skills and professionalism internally as resource-based theory suggests a negative relationship between advice seeking and firm size (Bennett & Robson, 2003; Johnson et al., 2007)). Alternatively, larger businesses are more likely to have to deal with a greater range of problems/issues and more likely to need to draw upon external specialist expertise. Also we might expect larger businesses to be better networked and therefore aware of sources of assistance. As mentioned previously, other evidence (Bennett & Robson, 1999) suggests that it is both the smallest and largest SMEs that make the least use of external assistance.

(b) Owner manager characteristics:

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- As others have suggested (Scott & Irwin, 2009), *human capital* is likely to be a key influence affecting the awareness, willingness and confidence that entrepreneurs have in accessing formal business assistance. We would expect better educated owner-managers to be more likely to seek out sources of advice and to be more confident to approach and engage with external advisors whereas those without qualifications or having low level qualifications are likely to be less aware of sources of advice and the benefits of using them.
- Some previous work has also shown that the *gender and ethnicity of owner-managers* can have an influence, with female entrepreneurs less likely to seek assistance from private providers and more likely to seek assistance from public providers than their male counterparts.

(ii) Management orientation

- The pursuit of business growth can be expected to stimulate SMEs to seek and make use of external assistance. Johnson et al (2007) hypothesised a positive relationship between *growth orientation* and seeking external advice, on grounds that growth and associated organisational changes are likely to provide a severe challenge to the internal resource and knowledge base of the firm, most obviously in relation to the skills and capacities of a relatively small management team.
- We might also expect *survival oriented* SMEs to seek external assistance. When threatened by their very survival, owner-managers may be more likely to turn to external assistance, although the cost of obtaining private sector advice may push them more towards seeking advice from subsidised or 'free' sources (e.g. from public providers).

(iii) Management attitudes

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The attitudes that SME owner-managers have to involving external advisors in their business are likely to vary considerably. Some see themselves as independent entrepreneurs, distrusting 'outside' influences (Curran & Blackburn, 2000) and are therefore unlikely to engage with external bodies. As discussed earlier, this is likely to include various relationship fears and doubts about the value and benefits of assistance. By contrast, other owner-managers consciously pursue external linkages and have an 'open' orientation to receiving information and advice (Edwards et al., 2010).

- A possible indicator of owner-managers' disposition to obtain formal external assistance could be their *use of informal assistance*. Arguably entrepreneurs that have drawn upon advice from friends and family and business associates will be more disposed to seek advice from more formal sources. In other words, use of informal sources may act as preparation for approaching more formal sources.
- Another influence on whether or not an owner-manager turns to external assistance will be *their confidence in their own ability* to successfully tackle the problems and challenges that the business faces. This is likely to depend on the gap they perceive existing between internal resources (staffing, skills, finance etc) and those required in order to achieve business objectives/tackle the problems faced.

(iv) Environmental moderators

It is generally accepted that the nature of a firm's operating environment will exert an important mediating effect on the decision and actions that managers take. For example, it has also been found that more hostile environmental conditions (characterised by precarious industrial settings; intense competition; and relative lack of exploitable opportunities) stimulate some firms to become more entrepreneurial (innovatory and risk taking) than do more benign environments (characterised by richness of investment and marketing opportunities)

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(Covin & Slevin, 1989; Wiklund & Shepherd, 2005; Zahra & Neubaum, 1998) & Neubaum, 1998).

- We can expect *macro-economic conditions* to have an important moderating influence on whether or not SMEs avail themselves of formal external assistance and the kind of assistance sought. Conditions of stagnant or falling market demand and financial stringency are likely to threaten the survival of firms and make it more difficult to achieve growth. This could result in an increased demand for external support compared to more favourable economic conditions. Johnson et al (2007) suggest that the propensity to use support is positively related to the extent to which businesses have experienced particular difficulties which impair their ability to prosper.
- At another level, we can expect the relationship between the use of external assistance and other factors to be mediated by the *sector/business activity* that an SME is engaged in. Previous research leads us to expect greater use of external assistance in more dynamic, technologically intensive sectors affected by rapid technological change, as well as in those sectors facing tighter regulatory environments (Bennett & Robson, 2003).

Methods

Sample

In March 2011, the researchers conducted a CATI telephone survey of 1202 SME (1-249 employees) owner-managers in England, which took 20 minutes to complete on average. The sample was designed to provide statistically robust evidence of recent use and non-use of external business support, differentiating between private sector and public sector information and advice.

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Starting from a random stratified sample from the national Experian database, quota sampling captured sufficient numbers of firms across key categories (which were not mutually exclusive). The initial business sample was 10 times the required survey target with firms sampled from five employment size bands: 1-4 employees; 5-9; 10-19; 20-49; and 50-249: half the sample being assigned equally to each band and the other half proportionally according to the business sizes in the population of existing firms, which achieved a sufficient sample of larger SMEs.

Further, non-interlocking quotas ensured the sample broadly represented the business population by industry and region, and by age of the business. Hence, the sample included the views of young and more established employer SMEs (i.e. less than three years old and more than three years old).

Finally, it is important to bear in mind the economic circumstances over the three years (2008-11) when interpreting the findings of this research regarding the use of formal business support, as this has been a difficult period for many SMEs as the UK economy recovers from the credit crunch and the recession. For example, more firms might have sought help with survival and raising finance.

Modelling approach

The modelling of the characteristics of users and non-users involve a categorical binary dependent variable, which holds the value of either 1 or 0. The logit model is a technique for modelling categorical data. Essentially these models probabilistically categorise a case as either 1 or 0, using a set of explanatory variables. The significant explanatory variables jointly determine whether a case is categorised as 1 or 0. The models themselves are tested through a chi-square statistic and a pseudo r-squared statistic indicates the proportion of the variation that the model explains. Better models can more effectively classify the data.

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In these models the partial effect depends on holding all the other variables constant. The sign of the co-efficient tells us whether the variable had a positive or negative effect (Wooldridge, 2002). To appreciate the magnitude of the effect then we must estimate it at its mean with all the other variables held constant. The sign and significance of the variables is what we discuss most often.

The Characteristics of Non-users of Business Advice

The characteristics of non users as a whole were examined through a logit model where 1 equalled non-use of any support public or private and 0 indicated that support was used. We present three models where a base model is estimated showing the impact of sector, region and firm size on the characteristics. The second model adds more behavioural variables in this case the age of the firm and the education level of the founder (NVQ). The third model adds some of the attitudes and views of the respondents. This enables us to examine the impact of introducing the variables to the overall model and the significance of the existing variables in the base model, see table 1.

The base model had a chi-squared statistic that showed it to be highly significant. It classified 60.4% of the cases correctly but the pseudo r-squared was just 2.7%. The base model involved the impact of region where those who were in the North East were more likely to use advice. There was also some sectoral effects, those firms in sectors D (manufacturing), G (wholesale and retail) , and H (hotels and restaurants¹) were all less likely to take advice.

¹ Based on SIC 2003 classification

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Table 1 The Characteristics of Non-users of Business Advice

VARIABLES	(1) noadvice	(2) noadvice	(3) noadvice
Issues scale			-0.123*** (0.0251)
Competence			0.391*** (0.115)
Objective to grow			-0.426*** (0.134)
Take informal advice			-0.594*** (0.134)
NVQ level		-0.191*** (0.0404)	-0.141*** (0.0432)
Business age 20plus		-0.154 (0.141)	-0.339** (0.154)
emp1_4	0.845*** (0.204)	0.715*** (0.215)	0.729*** (0.232)
emp5_9	0.709*** (0.229)	0.626*** (0.236)	0.603** (0.252)
emp10_19	0.363 (0.237)	0.264 (0.243)	0.139 (0.261)
emp20_49	0.499** (0.245)	0.406 (0.252)	0.345 (0.270)
Sic D	0.367* (0.191)	0.297 (0.197)	0.392* (0.211)
Sic G	0.479*** (0.153)	0.405** (0.159)	0.479*** (0.170)
Sic H	0.852*** (0.254)	0.738*** (0.257)	0.884*** (0.275)
Region North East	-0.513* (0.310)	-0.435 (0.317)	-0.484 (0.331)
Urban	0.196 (0.141)	0.229 (0.145)	0.282* (0.154)
Constant	-0.664*** (0.222)	0.0338 (0.275)	0.315 (0.358)
Observations	1,202	1,180	1,114
Log likelihood	-821.7	-807.8	-765.5
chi2	44.32	67.07	146.1
df_m	9	11	15
r2_p	0.0270	0.0415	0.0954
Correctly classified %	60.40%	61.36%	64.54%

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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Finally, in the base model is a theme that recurs throughout this modelling, firm size. There appear to be clear thresholds in the use of business advice. The largest size 50-249 is missed out from the analysis as the default category. The significance and sign of the smaller sized firms with 1-4 employees and 5-9 employees shows that the smallest firm sizes are those who are more likely to be in the non-user category. The firm size 20-49 is also significant in this base model but the 10-19 firm size is not. This tends to suggest that there is a threshold effect of when the firm becomes over 10 employees.

In model two we add the impact of the age of the business and the education of the owner-manager.. The impact of 'old business age' showed that older businesses were more likely to take some advice although in model two this is not significant. The impact of NVQ is significant. NVQ indicated the level of the owner-manager ranging from one to five. The impact was negative and significant indicating that those with longer education backgrounds were more likely to take advice, as has been noted before. The model correctly classified 61.36% and the chi-squared was highly significant increasing from 44.32 to 67.07 with the addition of two variables and the pseudo r squared explained 4.15% of the variance.

The third model incorporated four more behavioural variables: take informal advice, objective to grow, a scaled measure of issues and the degree to which the firm could cope with their concerns (competence). Taking informal advice was a categorical variable taking the value of 1 if the owner-manager was prepared to take informal advice. In this model it is there as an indication of the readiness of the owner-manager to take advice breaking the 'walls of silence' (Bryson and Daniels, 1998). So those who were willing to take advice from informal sources were also willing to take advice from more formal sources, whether public or private. The owner-managers were asked about their general objective for the business, whether to survive or grow those who chose a general objective of the business as growth were more likely to take advice again the variable was highly significant. The next two variables concerned the issues that faced

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the business and the ability of the owner-manager to deal with them. The respondents were asked whether they believed that the firm had the capability to deal with the issues that it faced. The measure took values of from nought to two, with nought indicating that the firm lacked the ability to deal with the issues; one, that the firm had the ability to deal with the issues to some extent; and two, indicating that the firm had had the ability to deal with the issues completely. Clearly, we expected that this would impact on whether a firm took business advice and this measure was positive and significant. Finally, we had a measure of the issues facing the firm. Respondents were asked a series of questions concerning the issues facing the firm, from regulation to fiancé through growth and development. These answers loaded onto the same factor in a factor analysis and therefore we constructed a scale. The factors were added together to produce an eleven item scale with a Cronbach's alpha of 0.7798. The values in the scale ranged from 1 to 11 and this scale distinguished between firms that faced many issues and those who faced few. Again, we expect that those firms that faced many issues would demand advice more than those who did not. The scale was negative and significant. The model correctly classified 66.54% and the chi-squared was highly significant increasing from 67.07 to 146.1 with the addition of four variables and the pseudo R-squared explained 9.54% of the variance.

Why firms did not take advice is dominated by the threshold effect of firm size. Some sectors are less likely to take advice. Although your educational background is significant, those firms that believe have capability to deal with their issues are less likely to take advice. Once the other factors had been introduced, the age of the owner-manager has no significant effect on taking advice. The demand for advice is fuelled by objectives to grow but there is also the willingness to listen to advice informally. There does seem to be a push factor where those firms with greater than 10 employees require advice.

Logit Regression for the use of any form of private sector or public sector advice

Having examined the characteristics of the owner-managers and firms that did not take advice we turn to those owner-managers and firms that did take advice. The major distinction as far as government is concerned is whether the sources of advice are those with or without support from the public purse. We distinguished in the survey between the advice from private sector sources and those from the public sector. It is possible that a number of firms will use sources from both the private and public sectors so there is some overlap between the two categories. In looking at the characteristics, the modelling followed the same approach as the non-users through a logit model that built from a base model and then adding more behavioural factors.

The first two models examine the use of private advice. In the base model the strong impacts are from the sector effects with G (wholesale and retail) , and H (hotels and restaurants) less likely to take advice from private sources. The second source of impact was due to the firm size with the larger sized firms being more likely to take advice from private sources. The threshold again was around the ten employee mark with significant effects from emp10-19, emp20-49 and emp50-249. Adding in the values from the more behavioural impacts in model two made little difference to this threshold, if anything it strengthened it.

The second model confirmed the results from the work on non-use. Model two showed that the demand for advice was pushed by the owner-manager reporting that they faced issues in running the business, that they felt they were less competent to deal with (Chrisman et al., 2005).

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Table 2 Logit Regression for the use of any form of private sector or public sector advice

VARIABLES	(1) private	(2) private	(3)	(4) public
Issues scale		0.0855*** (0.0255)		0.130*** (0.0284)
Competent		-0.259** (0.120)		-0.347** (0.135)
Objective growth		0.600*** (0.134)		0.138 (0.151)
Urban		-0.305** (0.155)		
Taking informal advice		0.561*** (0.136)		0.658*** (0.153)
emp5_9	0.241 (0.177)	0.306 (0.187)	0.235 (0.197)	0.332 (0.207)
emp10_19	0.578*** (0.186)	0.745*** (0.200)	0.282 (0.212)	0.437* (0.228)
emp20_49	0.485** (0.197)	0.604*** (0.209)	0.158 (0.228)	0.277 (0.244)
emp50_249	0.768*** (0.206)	0.749*** (0.218)	0.578** (0.226)	0.626*** (0.239)
Sic D			-0.610** (0.255)	-0.623** (0.273)
Sic F			-0.571** (0.267)	-0.508* (0.285)
Sic G	-0.511*** (0.165)	-0.493*** (0.173)	-0.593*** (0.217)	-0.546** (0.230)
Sic H	-0.758*** (0.278)	-0.873*** (0.291)	-1.013*** (0.339)	-1.036*** (0.352)
Sic I			-1.195*** (0.432)	-1.081** (0.443)
Sic J,K			-0.506** (0.201)	-0.373* (0.213)
reg_ne			0.918*** (0.319)	0.980*** (0.337)
Constant	-0.887*** (0.106)	-1.238*** (0.266)	-0.964*** (0.176)	-1.590*** (0.311)
Observations	1,202	1,135	1,202	1,135
Log likelihood	-735.8	-668.0	-622.4	-564.0
df_m	6	11	11	15
chi2	37.35	105.6	33.26	93.61
Pseudo r2	0.0248	0.0733	0.0260	0.0766
Correctly predicted	67.89%	68.63%	77.79%	76.83%

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

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The objective to grow pushed the firm to take advice from the private sector, and other evidence suggests that this is particularly the case for strategic advice. We found that firms in the urban areas were less likely to take advice than those in the rural areas, suggesting that private provision was not confined to urban areas. Finally, we found that the willingness to take advice from informal sources was linked to taking advice from formal sources too. The second model (2) correctly classified 68.63% and the chi-squared was highly significant increasing from 37.35 to 105.6 with the addition of five variables and the pseudo R-squared explained 7.33% of the variance.

The second set of models (3) and (4) examine the use of publicly supported advice. The base model shows strong impacts from sector effects that reports a number of sectors where advice was less likely to be taken. Again, firm size was significant but in this case the threshold seemed to be even higher with the largest firms significantly more likely to take public sector advice, although model (4) showed the 10-19 size threshold to be significant once more.

The fourth model confirmed the results from the work on non-use. Again the demand for advice from public sources was pushed by the owner-manager reporting that they faced issues in running the business, that they felt they were less competent to deal with (Chrisman et al., 2005). The objective to grow was not significant for the public sector case. But again the willingness to take advice from informal sources was linked to taking advice from the public sector suggesting that this reflected an attitude towards advice by owner-managers.

The fourth model correctly classified 76.83% and the chi-squared was highly significant increasing from 33.26 to 93.61 with the addition of four variables and the pseudo R-squared explained 7.66% of the variance.

Market Failure and Non-Users

In assessing whether there is market failure in business advice we recognise that not taking advice does not necessarily indicate the market has failed. But there are owner-managers whose situation was similar to those who took advice; they faced the same issues that those who took advice faced; they reported that they did not have the capability within the firm to deal with the issues and yet they took no advice. We created a new dependent variable where firms faced three or more issues, were not able to deal with it themselves and took no advice. There were 206 firms (17.14%) who were in this position see table 3.

Table 3 Non-users with Market Failure

Non Use Fail	Freq	Percent	Cum.
0	996	82.86	82.86
1	206	17.14	100.00
Total	1,202	100.00	

To explore the characteristics of this group, again we used a logit modelling approach, see table 4. The base model examined the regions, sector, business age and firm size. The base model (1) correctly classified 82.95% of the cases correctly with a chi-squared of 45.49. and a pseudo r² of 4.13%. The North East and Eastern regions were less likely to house non-users with issues although the significance of this was only at the 10% level. The sectors these firms were more likely to be were retailing, or hotels and restaurants. The youngest firms were more likely to be in this category also with a strong impact of the first year in business. Firm size was also important with the 5-9 category as significant and the emp 1-4 category positive but insignificant. Model (2) introduced the education level, the overall objective and the composition of the management team. The

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Table 4 Non-Users with Issues

VARIABLES	(1) Non-use fail	(2) Non-use fail	(3) Non-use fail
Concern with growth			-0.597*** (0.137)
Concern with raising finance			-0.314*** (0.0880)
Concern with cashflow			-0.273** (0.114)
Concern with new products			0.139 (0.0849)
Concern with marketing			-0.307*** (0.101)
Number of women directors		0.184** (0.0802)	0.134 (0.0817)
Objective to grow		-0.578*** (0.170)	-0.568*** (0.181)
NVQ level		-0.0825 (0.0516)	-0.0782 (0.0547)
emp1_4	0.273 (0.191)	0.183 (0.198)	0.309 (0.212)
emp5_9	0.476** (0.222)	0.474** (0.230)	0.526** (0.241)
Business age year1	0.814*** (0.208)	0.896*** (0.216)	0.571** (0.233)
Business age year2	0.490 (0.416)	0.782* (0.428)	0.443 (0.458)
Business age year3	0.487 (0.340)	0.594* (0.360)	0.326 (0.382)
Sic G	0.396** (0.184)	0.365* (0.193)	0.374* (0.205)
Sic H	0.876*** (0.266)	0.887*** (0.275)	0.921*** (0.292)
Region East	-0.484* (0.269)	-0.586** (0.285)	-0.514* (0.301)
Region North East	-0.931* (0.544)	-0.923* (0.549)	-1.079* (0.566)
Constant	-2.065*** (0.155)	-1.673*** (0.235)	0.736** (0.371)
Observations	1,202	1,157	1,157
Log likelihood	-550.6	-531.1	-531.1
chi2	45.49	63.85	181.2
df_m	9	12	17
Pseudo r2	0.0413	0.0601	0.171
lrtest			117.39
prob			0.0000
Correctly classified	82.95%	82.54%	82.97%

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

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education level was negative but insignificant, the objective to grow was negative indicating that these were more likely to emphasis survival. Greater numbers of women directors; however, were linked to membership of the non-use market failure group. Model (2) classified 82.54% of the cases correctly with a chi-squared of 63.85. and a pseudo r2 of 6.01%. In model (3) the concerns were added to the variables. Concern with developing new products was positive but not significant; however concerns with growth, raising finance, cashflow and marketing were all negatively related to being in this non-use group. Model (3) classified 82.97% of the cases correctly with a much improved chi-squared of 181.2. and a pseudo r2 of 17.1%. Overall, the conclusion is that this group were less growth-orientated, were more likely to be newly founded and more likely to be in the 5-9 employee size group. Once again this threshold around the 10 employees is supported.

Conclusions

The theme that runs through this survey is the influence of firm size thresholds on the take-up of formal advice. We confirmed the perceived knowledge gap hypothesis (Chrisman et al., 2005). We add the willingness to take advice from informal sources. What dominates the outcomes is the threshold around ten employees, which was more important than the age of the business, the region in which it was located, or the age of the owner-manager. So when a new firm reaches the threshold of ten employees it frequently searched for help. Although the evidence suggested that the concern with growth and raising finance to support growth was the catalyst, we need future research to understand this trigger more effectively.

Evidence from business demographics suggests that 70-80% of new start-up firms that last for ten years never make this threshold of ten employees where external advice becomes desirable (Anyadike-Danes et al., 2011). The threshold of ten employees is therefore an indication of success but a harbinger of new challenges. This group of firms contribute importantly to the growth of the economy. That a similar group of firms approaching the threshold were discouraged from taking external advice, is therefore

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worrying. A more in-depth approach to understanding the motives of these firms is therefore warranted.

The data was a cross-sectional study which would have benefitted from more longitudinal follow-up. Especially since our claims that there are thresholds it would be useful to return to companies that approached these thresholds.

Nonetheless, the understanding of advice is considered as a solution to a perceived problem (Richter & Niewiem, 2009). Owner-managers may be taking advice because the threshold of ten employees allows a time where the first managers may be hired. And significant productivity differences have been associated with firm size thresholds (Van Biesebroeck, 2005). Some have even seen the hiring of external advice as a kind of perk of getting to a particular position (Alvesson, Kärremann, Sturdy, & Handley, 2009).

It may also be tempting to suggest that the north-east region had solved the market failures within management consulting more effectively than other areas, since fewer non-users of external support with issues were indicated in that region. Again more investigation seems warranted here.

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