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# How Buzz Reduces Uncertainty for New Firm Founders

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## Abstract

To whom should potential new firm founders turn to for advice? This article identifies buzz as a mechanism to transfer the knowledge of who to turn to for advice. Previous work on buzz has linked it with clusters or compared local buzz with international pipelines of information. The interaction between place and business advice was examined in surveys of 599 new firm founders in England and 381 new firm founders in Catalonia (Spain). Our models exploit the denominator from a heteroskedastic probit to capture the local variation in uncertainty. We show empirically how buzz can add to collective institutions outside of clusters. Our findings show that buzz influences the taking of advice and the uncertainty surrounding advice. Besides, there were strong impacts from policy on the take-up of advice in Catalonia, but it did not change the variations in uncertainty.

**JEL classification** L26, M13

**Keywords:** Business Advice, Buzz, New Firm Founders, Start-up Businesses

## 1. Introduction

The mechanisms through which entrepreneurial knowledge is transferred are poorly understood (Beaudry and Schiffauerova 2009, Desrochers and Leppälä 2010, Puja 2010, Huber 2012, Doloreux and Shearmur 2012). One mechanism to transfer knowledge is ‘buzz’<sup>1</sup>, which describes the interactive hubbub of face-to-face knowledge exchange within networks that are spatially bound (Storper and Venables 2004, Bathelt, Malmberg and Maskell 2004, Kloosterman 2008, Breschi and Lissoni 2009, Ibrahim, Fallah and Reilly 2009). This article examines the impact of buzz on the process of starting a business (Alvarez and Barney 2007). More precisely, the paper examines the impact of buzz (and policies) on the take-up and variation of advice in particular, the article identifies face-to-face networks and buzz as a mechanism to transfer the knowledge of who to turn to for advice before starting a business.

As the sound of many face-to-face contacts within a spatially bound context, buzz makes the localized links between firm managers important as exchanges of information (Storper and Venables 2004, Bathelt et al. 2004). This requirement for face-to-face links has been a strong argument for the clustering of industries. Against the clustering argument, others have pointed to pipelines that connect local buzz with global communities of practice (Faulconbridge 2010). In addition, it is argued that science and technology-based industries thrive with access to global pipelines and without local buzz (Bathelt 2005, Asheim, Coenen and Vang 2007, Moodysson 2008).

We analyze buzz through the case of face-to-face interaction in business advice to new firm founders. Business advice is subject to information asymmetries<sup>2</sup> and the outcomes from that advice are seen highly uncertain and difficult to value (Wren and Storey 2002, Storey 2003). In this respect, the screening aspect of buzz referred to by Storper and Venables (2004) may be important. Since, new firm founders were not in any particular cluster and neither were there pipelines to global advisory services; business advice to new firm founders is a good example to study buzz without clusters and pipelines.

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<sup>1</sup> Hereafter, we dispense with the single quotation marks around ‘buzz’

<sup>2</sup> Information asymmetries are deviations from the perfectly competitive market because one party to a transaction has relevant information that the other(s) do not

The interaction between place and business advice was examined in both England and Catalonia (Spain). Our study was based in England and Catalonia (Spain) for three reasons. First, both countries were in the European Union making them comparable in terms of shared supra-national governance. However, within the EU they have been identified as the extreme poles of regulation with England lightly regulated and Catalonia (Spain) heavily regulated (Capelleras et al. 2008). Third, rural Catalonia is an area that has been previously identified as having buzz (Lafuente, Vaillant and Rialp 2007). In England, three counties that had very different rates of new firm formation were sampled. In Catalonia, we exploit the rural/urban contrast because rural Catalonia is known for its buzz (Lafuente et al. 2007). This dataset has both registered and non-registered firms in these sub-regions (Capelleras et al. 2008).

Our contribution is twofold. First, we show empirically a mechanism that links buzz to collective institutions outside of clusters. Our findings show that buzz influences both the taking of advice and the uncertainty surrounding advice. The likelihood of taking advice varied immensely between localities in the English sample. Our interpretation is that advice was sought in the medium and high start-up areas but that there was greater variability and therefore greater uncertainty in the locality with low firm formation. As expected, the renowned buzz in rural Catalonia (Lafuente et al. 2007) reduced the uncertainty from taking advice. While our focus was on the impact of place and buzz, there were strong impacts from policy on the take-up of advice in Catalonia, but policy did not change the variations or uncertainty. Secondly, our contribution is methodological. Our models exploit the denominator from a heteroskedastic probit to capture the local variation in uncertainty (Alvarez and Brehm 1997). This model copes with the heteroskedastic variation by placing the source of the variation in the denominator. Normally heteroskedasticity is thought of as a problem, but in this case, it can serve to show how the impact of advice varies. The model therefore links place and the provision of advice in terms of both average take-up of advice but also the variation in its take-up.

Our paper is structured as follows: A literature review outlines business advice and discusses the hypotheses. The paper then describes the modeling. It then describes the data sources. The results section follows which shows heteroskedastic probit models for both the English

and Catalan cases. Finally, we discuss the study's contributions, and its implications.

## **2. Conceptual Background and Literature Review**

The interest in buzz reflects the continuing importance of the urban economy within a globalizing world (Storper and Venables 2004, Bathelt et al. 2004). The urban economy is spatially-bound through the requirement for face-to-face (F2F) interaction that brings together highly-skilled people, firms and organizations within high-cost cities (Storper and Venables 2004). The sound of large numbers exchanging F2F information that flows through social networks is buzz. Buzz combines efficient F2F communication, membership of in-groups and the solution of co-ordination problems (Storper and Venables 2004). Once buzz is created, it can be self-reinforcing (Currid and Williams 2010). F2F interaction is powerful because it can translate tacit knowledge (Gertler 2003, Storper and Venables 2004, Breschi and Lissoni 2009). Transfers of tacit knowledge require a cycle of interruption, repair feedback and learning that is only possible in F2F interaction (Nohria and Eccles 1992), which is particularly desirable in the early stages of planning a project (Storper and Venables 2004). The archetypical situation where buzz is considered important is the transfer of tacit knowledge in knowledge intensive business services and/or symbolic knowledge-creating industries (Asheim et al. 2007). In these creative industries, connections and links matter to transfer tacit knowledge.

However, recent evidence has challenged whether information gathering is the reason that knowledge-based firms cluster (Huber 2012, Doloreux and Shearmur 2012). Local buzz has been contrasted with pipelines that connect local buzz with global communities of practice based upon shared values and vocabularies (Amin and Cohendet 2004, Faulconbridge 2010). Science and technology-based industries are said to thrive by transferring information along global pipelines without local buzz (Bathelt 2005, Asheim et al. 2007, Moodysson 2008). Consequently, the recent questioning of buzz has suggested that the hypothesized mechanisms that give rise to buzz have not been empirically demonstrated, particularly in the context where pipelines were not present and there was little clustering. Our research explored the influence of 'buzz' in the context of the knowledge intensive business advisory

services.

There are different types of advice, which varies according to its context, the substance and the advice-giver. Advice may be obtained informally through social occasions or chance meetings or it can be obtained from a formal meeting with your accountant or through a government sponsored programme. The type of knowledge that is exchanged may be technical, such as being concerned with tax planning, or it may be strategic, concerned with how to enter a market (Hjalmarsson and Johansson 2003). Sometimes advice may be on the generic nature of starting a business, or it may be specific to particular industries (Mole 2002). The advice giver also differs, from friends through to formal consultants of various kinds. The importance attributed to this advice also fluctuates, for example, entrepreneurs put greater weight on informal, social contacts prior to starting their business and more weight on professionals afterwards (Ozgen and Baron , Greene, Mole and Storey 2008).

In the literature business advice has been defined in many ways. Bennett and Robson (Bennett and Robson) talk about knowledge: they claim “intensive external advice seeks to increase either the knowledge base or the skills of the management/staff of a firm” (Bennett and Robson 2004: 472).. They also suggest that advice requires the “use of tacit knowledge” (Bennett and Robson 2004: 472). Similarly other researchers have assessed programmes and talked about guided preparation which they define as: “the research, planning and other activities that an entrepreneur engages in prior to start-up, with the assistance of an outside adviser” (Chrisman, McMullan and Hall 2005: 770) and where the “value of outside assistance comes primarily from enhancing knowledge” (Rotger, Gørtz and Storey 2012: 507). The literature emphasizes knowledge from one source, whereas in this paper we seek to discuss a range of advice; however, we do not distinguish between advice and information. In this paper, advice<sup>3</sup> is defined as receiving knowledge from a face-to-face interaction taken prior to starting the business.

It is worth highlighting what advice has in common. Although advice is not a single, undifferentiated phenomenon, nevertheless advice has many commonalities. First, the

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<sup>3</sup>Our dependent variable was the response to the question did the new firm founder received face-to-face (F2F) advice from a list of up to 33 sources from accountants to charitable organizations.



advisory process involves a recognition that help is needed to solve a pressing problem from outside (Markham 1997, Chrisman and McMullan 2004). Second, advice is facilitated by trust (Ram 1999, Ram and Smallbone 2002, Bennett and Robson 2004) even to the point where clients will accept 'poorer' advice from trusted advisers (Kautonen et al. 2010). Third, because advice transfers tacit knowledge it is facilitated through face-to-face interaction (Chrisman et al. 2005). However, the often-unique nature of the problem that requires advice requires a reflective response (Cope 2003, Ciampa 2006, Jones et al. 2008). Given these commonalities, and because advisers can give general as well as specialist advice, it is sensible to examine the take-up of advice as a single construct.

Of course, advice is only one source of knowledge for the new firm founder. Founders have many sources of knowledge that precede the intention to found a business<sup>4</sup>. It is clear that the prior experience of new firm founders makes a difference to the survival and growth outcomes. Some researchers point to large firms who act as incubators giving potential new firm founders experience in the industry (Cooper 1985, Cooper and Park 2008, West and Noel 2009). Research in Silicon Valley showed that new firm founders used knowledge gained in their previous employment to develop organization templates (Baron, Hannan and Burton 1999, Baron, Hannan and Burton 2001). Evidence from the US shows that higher educated business owners have higher growth rates (Cooper, GimenoGascon and Woo 1994). Further evidence gathered in The Netherlands links the number of years that an entrepreneur had previously earned a salary (as opposed to a wage) with the subsequent performance of the new firm (Schutjens and Wever 2000). Thus, not all the insights or knowledge possessed by the new firm founder is the result of advice, even if social sources of information are important (Ozgen and Baron 2007)

### **Hypotheses Development**

Pre-start advice is but one of a number of mechanisms associated with the persistence of new firm formation rates<sup>5</sup> (Stuart and Sorenson 2003). Some of them include regional

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<sup>4</sup> Most researchers accept that there is a period of thinking time or incubation of an idea that precedes a founding event, although counter examples are possible Baker, T., A. S. Miner & D. T. Eesley (2003) Improvising Firms: Bricolage, Account Giving and Improvisational Competencies in the Founding Process *Research Policy*, 32, 255-276..

<sup>5</sup> New firms are founded for a number of reasons. The rational choice approach suggests that new firms are

characteristics such as the level of education, industry structure and market size, which are 'sticky' factors that change over the long term. These factors make up a 'production milieu' consisting of the network of relationships specific to that region (Chinitz 1961, Johansson and Wigren 1996, Andersson and Koster 2011). In addition, there are cultural aspects of entrepreneurship linked to localities with high new firm formation (Saxenian 1994, Troilo 2010). For example, the high turnover of VC deals in Silicon Valley led lawyers to structure an off-the-shelf agreement, which facilitated new entrepreneurs to gain VC finance (Suchman, Steward and Westfall 2001). Keeble et al (1999) found similar support mechanisms in Cambridge, which they labeled as 'institutional thickness'.

Support in the local environment is critical for the new firm founder for three reasons (Romanelli and Schoonhoven 2001). First, new ventures are especially dependent upon the environment for resources (Begley, Tan and Schoch 2005, Mole and Mole 2010). Local banks and institutions provide finance (Kim, Aldrich and Keister 2006). Second, ideas for venture creation are derived in the immediate environment where people live and work (Aldrich and Wiedenmayer 1993), Moreover, existing entrepreneurs can provide role models for future entrepreneurs (Blanchflower and Oswald 1998, Aldrich 1998). Third, As has been noted, in the early stages of business development, entrepreneurs rely on informal networks of friends, family and social contacts in the local area (Birley, Cromie and Myers 1991, Greene et al. 2008). Most business advice is sourced locally (Bennett and Smith 2002) and is tacit in nature (Chrisman et al. 2005). This third aspect involves exchanges of F2F information through social networks in the early stages of planning a project (Storper and Venables 2004). Thus, buzz and the institutional support may reinforce high rates of new firm formation (Bennett, Robson and Bratton 2001, Bennett and Smith 2002, Anyadike-Danes and Hart 2006, Greene et al. 2008). *Our first hypothesis is that places with greater start-up*

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founded because their owners expect greater utility from setting up in business, compared with their other labour market choices, and this greater utility is the result of an inferred entrepreneurial ability Jovanovic, B. (1982) Selection and the Evolution of Industry. *Econometrica*, 50, 649-670, Evans, D. & B. Jovanovic (1989) An Estimated Model of Entrepreneurial Choice under Liquidity Constraints. *Journal of Political Economy*, 97, 808-827. A great deal of work has gone into the motivation for new founders which vary from dissatisfaction with their existing position through to a strong preference for the autonomy and achievement motivation Dubini, P. (1989) The Influence of Motivations and Environment on Business Start-ups: Some Hints for Public Policies. *Journal of Business Venturing*, 4, 11-26. The latter have been characterized as opportunity versus necessity entrepreneurs.

*rates will have a greater take-up of advice.*

The second hypothesis focuses on the impact of place on the uncertainty surrounding business advice. If more advice is taken in those areas with greater start-up rates, then more matches between sellers of advice and buyers will be made; yet this take-up of advice may represent either the greater supply of advice or increased demand for advice.

At the same time, a debate surrounds the nature of market failure in business advice. The argument suggests that advice can only really be valued retrospectively. Since it is difficult to value, there is an inherent risk in seeking out advice in case it provides no benefit. With asymmetric information in favor of the sellers or advisers, the expected benefits of advice are reduced by an amount to reflect the potentially uncertain outcomes, see 'the market for lemons' (Akerlof 1970). Following the argument, less advice is taken in consequence (Wren and Storey 2002, Hjalmarsson and Johansson 2003). Bennett (2008) disagrees with this argument but the academic consensus suggests overall there is some market failure in the market for advice. The argument for market failure focuses on the demand for business advice because it is the impact of uncertainty on market demand that causes the problem. Assuming the diagnosis is correct; solving the market failure requires action on the demand side to reduce uncertainty.

A classic way that entrepreneurs, or any economic agents, deal with uncertainty is through social networks, (Uzzi 1997, Jack 2005) and the sound of lots of face-to-face information flowing through social networks is buzz (Storper and Venables 2004). However, F2F contact is costly, it emphasises proximity and therefore the importance of place (Storper and Venables 2004). Consequently, new firm founders need to locate in the right place to take advantage of buzz. Storper and Venables (2004) suggested that buzz and F2F contact was especially important in new technologies because developing them requires higher proportions of tacit knowledge within a fluid environment; hence, proximity is important in the production of new technology based firms (NTBFs) and these firms cluster.

Given that buzz is information flowing through social networks, creating F2F interaction and transferring tacit knowledge - including both know-what and know-who (Phillips 2002); then

social networks and buzz will be the source of know-who information to reduce the uncertainty in taking advice. Therefore, uncertainty will be reduced in those places that have buzz. *Our second hypothesis is that the effect of buzz is to reduce uncertainty surrounding business advice.*

## Policies

If buzz is a phenomenon based on social capital, an alternative way to foster advice concerning new firm foundings is through government interventions (Chrisman et al. 2005). The study compares business advice across two countries, which are within a wider institutional context<sup>6</sup>. OECD countries organise advice to entrepreneurs with diverse rationales and dissimilar objectives targeted at various particular groups (Mole and Bramley 2006). Generally, these choices reflect what is most salient to the public and policymakers at that moment in time (Kingdon 1995).

A targeted policy objective from the government or regional authorities is expected to be reflected in an increasing share of firms taking advice (Schneider and Veugelers 2010). Fischer and Reuber (2003) suggested that policy makers favour the take-up of (public) advice not only to provide support which they perceive as valuable for entrepreneurs but also for targeted policy reasons in the sense that they may provide politically valuable evidence of economic development. Similarly, Bennett (2008) argued that governments or their agents tend to adopt targets for public policy rather than for business policy.

For instance, both the national and regional governments in Spain have developed policies that included advice to encourage those who were previously unemployed to start their own business, and similar policies have been tried elsewhere (Greene, Mole and Storey 2004). Although recent evidence has questioned the effectiveness of target driven interventions (Smallbone 1997, Priest 1999, Bennett and Robson 2003, Chrisman et al. 2005, Mole et al. 2011, Smallbone and Massey 2012), the UK experience shows that when the targeted 'enterprise initiative' was introduced and promoted, it boosted the take-up of

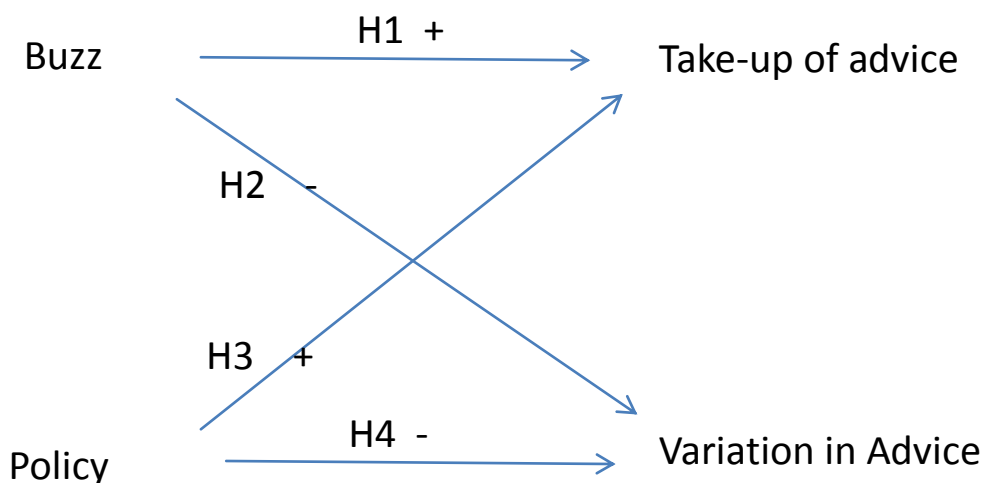
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<sup>6</sup> Primarily this concerns differences in attitudes and policy between England and Catalonia. For example, more individualized attitudes to entrepreneurship may mean that advice is more highly valued; yet more individualized attitudes might breed an atmosphere of mis-trust.

advice dramatically (Bennett 2008). Our third and fourth hypotheses concern the impact of policy. They reflect the same two aspects of advice: take-up and variation. *First, (H3) that targeted policy will increase the take up of advice; and second, (H4) that targeted policy will reduce the variation in the take-up of advice.*

Figure 1 collates the four hypotheses in a ‘causal structure’. Buzz is positively related to the take-up of advice in H1. Buzz is negatively related to the variation in taking advice in H2. Targeted policy is positively related to the take-up of advice in H3. Finally, targeted policy is negatively related to the variation in taking advice in H4.

Figure 1: The Causal Structure



### 3. Econometric model

In testing our hypotheses, we need to evaluate the different impacts of buzz and policy salience on the take up of advice. A probit model consistently estimates a binary dependent variable (Wooldridge 2002) but it does not account for heteroskedasticity. To account for this a heteroskedastic probit model was used where the source of the variance was identified and the model used the variance in the denominator.

The heteroskedastic probit is written from the form:

$$Pr(y_i = 1) = \frac{\exp(\mu + x_i\beta)}{1 + \exp(\mu + x_i\beta)}$$

In this approach, we are interested in the impact of x on y but also the impact of z on the variability of y (Alvarez and Brehm 1997). Keele and Park tested the heteroskedastic probit model's robustness using Monte Carlo simulations (Keele and Park 2004, Keele and Park 2006). These confirm that the heteroskedastic probit model does overcome heteroskedasticity in the data.

Following their investigation, Keele and Park (2004, 2006) made three recommendations. First, sample sizes of greater than 250 are required for the model's co-efficients to be well estimated. Our samples are comfortably above this. Second, Keele and Park (2004) suggested that the heteroskedastic probit model works more efficiently with limited numbers of variables in the variance group. Since, we were concerned about group heteroskedasticity, place enters the models in the variance; hence, our models have only one variable in the variance component for Catalonia, and two for England. Third, Keele and Park (2004, 2006) recommend that researchers compare the outcomes from the heteroskedastic probit and a probit model when constructing models (Keele and Park 2006). This we have done, although the results are not presented here, they are available upon request from the authors. Thus, we are confident that our models conform to good practice.

We ran heteroskedastic probit models to predict the likelihood of receiving formal pre-start F2F business advice, our dependent variable, from a list of up to 33 sources of advice from accountants, solicitors, through to publicly supported advisory services (1 = yes, 0 = no) for both the English and Spanish samples respectively.

The explanatory variables include binary variables indicating location of the new business (i.e. the three English counties and the two Spanish counties). we included two variables measuring prior knowledge whether respondents had a university degree and had previously founded a business (all 1 = yes, 0 = no) because advice is linked to prior knowledge (Chrisman et al. 2005, Chrisman and McMullan 2004, Lambrecht and Pirnay 2005, Fiet 2007, Scott and Irwin 2009) For policy salience, we focused on unemployment.

Prior unemployment status was coded as 1 if the firm founder was unemployed prior to creating the venture (0 otherwise). The role of banks in the advisory process are accounted through a set of variables measuring the initial sources of financial capital for the business: personal savings, bank finance, friends and family, or finance from public sources (Cassar 2004).

A number of control variables were included; first, we controlled for the age and gender of respondents. Four dummy variables represented the industry sector of the new business (manufacturing, construction, trade, business activities where other services is the reference category). Firm size has been linked to the use of external advice services (Robson and Bennett 2000) hence; we included the number of persons working in the firm. Another likely determinant for using external advice is the legal status of the firm so we took into account whether the company was limited (1 = yes, 0 = otherwise). Finally, since the business plan may be part of the advisory process, and therefore subject to endogeneity bias, we controlled for this through a measure of business plan which was instrumented, derived from variables that were uncorrelated with business advice (Wooldridge 2002).

#### **4. Data**

The paper draws on studies into new firms founded in England in the 1990s (Greene et al. 2008) replicated in the Catalan region of Spain (Capelleras et al. 2008). The English study was conducted in three English counties, Buckinghamshire, Shropshire and Tees Valley. The three counties reflected high, medium and low firm entry rates from official statistics and included a county close to London where buzz had been identified previously (Keeble and Nachum 2002). A benefit of the approach was its success in sampling new firms that were not registered for VAT and therefore were not covered in UK official statistics (Capelleras et al. 2008, Greene et al. 2008, Greene et al. 2004).

The English study was replicated in 2003 in two territorial units within the Spanish region of Catalonia. Anoia and Valles Occidental were selected because they had comparable

economic characteristics to the English counties by national standards<sup>7</sup>. The territorial units (*comarcas*) were previously considered appropriate for constructing datasets of start-up firms in Spain (Costa 1998, Arauzo and Manjon 2004) and have been the main site of reference for new ventures (Giner and Santa Maria 2002). The population of Anoia and Valles Occidental was approximately 200,000 and 790,000 in 2004, respectively. By comparison, the inhabitants of Tees Valley numbered 640,000 in the same year. Buckinghamshire had 480,000 inhabitants, and Shropshire had 440,000. Differences between the Catalan territorial units and the English ones reflected national differences. Therefore, the Catalan areas had a lower GDP per head than the English areas and the unemployment rate was higher in the Catalan areas than in the English counties.

The Catalan sample also had a further benefit because of the characteristics of rural Catalonia. Previous research has shown rural Catalonia to be significantly more entrepreneurial than other rural areas in Spain, which was linked to F2F interaction with existing entrepreneurs (Lafuente et al. 2007). Previous work suggests that rural areas with high level of entrepreneurship can attract creative talent (McGranahan, Wojan and Lambert 2011). This suggests that rural Catalonia may indeed have buzz. Hence, the fact that a rural area with buzz results in impacts that we would expect in urban areas is a good test of the theory.

Neither England nor Catalonia boasts a single, comprehensive and publicly available list of new firms. Publicly available lists of limited companies exclude numerous small start-ups. Consequently, in England potential new firms were identified through comparisons of the telephone directory<sup>8</sup>, excluding retail outlets. A list of new firms was derived by comparing national (BT) telephone directories for 2000 with those from 1995. Those firms in the directories for 2000, but not present in 1995, were considered to be potential new firms to the area. For the Catalan firms the population frame was derived from three different sources: a list of new firms based on local tax payments, new firms in the Chambers of

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<sup>7</sup> Valles Occidental is a highly urbanised area, whereas Anoia was considered a rural area in terms of population density.

<sup>8</sup> At the time BT telephone directories were comprehensive reflecting its very recent monopoly provision of telephone services.



Commerce and Industry directory and a commercial database that was based on the Official Register of Enterprises. These lists were crosschecked to detect overlaps between the three databases. This gave the population frame of potential new firms.

Having derived a list of potential new firms, identical procedures were used in the two countries. Researchers contacted businesses by phone in order to determine whether they were wholly new independent firms, that is, *de novo* ventures. The study excluded firms that moved in to the area, subsidiaries, affiliates and firms created for reducing tax burdens. Face-to-face interviews were then conducted with new firm founders; therefore, the researcher was certain these were “real” businesses. This approach covered a higher proportion of real businesses than those covered by official statistics, which has made a significant difference to outcomes (Capelleras et al. 2008).

The questionnaire was designed in English and translated for the Spanish study. The Spanish questionnaire was tested through a series of extended interviews. It took around an hour to complete and was administered at the normal place of work of the respondent. The response rate in England was 74%. In the Catalan areas, the response rate was 54%. To check the sample’s representativeness, response bias tests were conducted (Ucbasaran, Wright and Westhead 2003). Chi-square tests showed no statistical significant differences in terms of firm age, geography, or industry sector between those who participated in the study and those that did not. Therefore, we suggest that the interviewed owner-managers were broadly representative of the new, *de novo* businesses.

### **Common Method Bias**

Overwhelmingly, owner-managers responded to the study. These were of interest to business advisory services since the owner-managers were those key agents within the business who were able to make strategic decisions. Hence, they were usually the only people in the position to respond to the questions. In addition, since the dataset consists of a number of variables that are outside of the specific issues here, we applied the one factor test to confirm that common method variance was not a serious threat to the data

(Podsakoff and Organ 1986).

**Table 1 Descriptive statistics: England**

	Mean	Std. Dev.	Min	Max
Business advice	.881	.324	0	1
Gender (male)	.775	.418	0	1
Founder's age	43.49	9.80	21	70
Education (university degree)	.181	.385	0	1
Previously unemployed	.228	.420	0	1
Entrepreneurial experience	.351	.478	0	1
Formal written business plan	.563	.496	0	1
Personal savings	.785	.411	0	1
Bank finance	.265	.442	0	1
Finance from family/friends	.174	.379	0	1
Finance from public organizations	.154	.362	0	1
Place: Buckinghamshire	.243	.429	0	1
Place: Shropshire	.243	.429	0	1
Sector: manufacturing	.180	.385	0	1
Sector: construction	.089	.284	0	1
Sector: trade	.146	.354	0	1
Sector: business activities	.262	.440	0	1
Legal status: limited company	.356	.479	0	1
Firm age	4.28	2.44	0	11
Firm size	6.07	9.96	1	109

The descriptive statistics are shown in tables 1 and 2. There were some differences between the two samples. In Catalonia, we find that the mean for taking advice is 79.79%, whereas 88.1% of the English respondents took advice. Males dominated both samples and the average age is about 38 in Catalonia and 43 in England. As we might have expected, the proportion who received bank finance in Catalonia was 42% whereas for the English samples it was 26%.

**Table 2 Descriptive statistics: Catalonia**

	Mean	Std. Dev.	Min	Max
Business advice	.798	.402	0	1
Gender: male	.672	.470	0	1
Founder's age	37.83	9.89	17	73
Education: university degree	.255	.436	0	1
Previously unemployed	.239	.427	0	1
Entrepreneurial experience	.373	.484	0	1
Formal written business plan	.383	.487	0	1

Personal savings	.777	.417	0	1
Bank finance	.428	.495	0	1
Finance from family/friends	.121	.326	0	1
Finance from public organizations	.050	.218	0	1
Place: urban county	.478	.500	0	1
Sector: manufacturing	.226	.419	0	1
Sector: construction	.118	.323	0	1
Sector: trade	.257	.438	0	1
Sector: business activities	.160	.367	0	1
Legal status: limited company	.630	.483	0	1
Firm age	5.04	2.03	1	13
Firm size	5.17	4.63	1	34

The correlation matrix for variables included in tables 1 and 2 is in the Appendix at the end of the paper. Although several correlation coefficients are found to be significant, coefficients are low enough to conclude that multicollinearity would not affect our results. Hence, neither multicollinearity nor common method bias, see above, were deemed to threaten the validity of our results.

## 5. Results

Our analysis begins with the English sample in Table 3, which shows the receipt of formal F2F business advice before starting the business.

**Table 3 Heteroskedastic Probit model results on business advice: England**

	Coef.	Std. Err.	z	P> z
Gender (male)	.117	.123	0.95	0.342
Founder's age	-.011	.005	-2.04	0.041
Education (university degree)	.312	.169	1.84	0.065
Previously unemployed	.099	.147	0.68	0.499
Entrepreneurial experience	-.159	.107	-1.49	0.137
Formal written business plan	.345	.153	2.25	0.025
Personal savings	-.332	.177	-1.88	0.061
Bank finance	-.154	.176	-0.88	0.381
Finance from family/friends	.349	.202	1.73	0.084
Finance from public organizations	.239	.302	0.79	0.428
Place: Buckinghamshire	.951	.225	4.22	0.000
Place: Shropshire	1.071	.241	4.45	0.000
Sector: manufacturing	.211	.179	1.18	0.237
Sector: construction	-.123	.195	-0.67	0.506

Sector: trade	-0.107	.166	-0.64	0.519
Sector: business activities	-0.132	.141	-0.94	0.349
Legal status: limited company	.051	.189	0.43	0.669
Firm age	.025	.021	1.19	0.232
Firm size	.001	.006	0.18	0.859
Constant	1.349	.352	3.83	0.000
<b>lnsigma2 - Denominator</b>				
Place: Buckinghamshire	-0.775	.191	-4.07	0.000
Place: Shropshire	-0.948	.220	-4.31	0.000
N	599			
Log likelihood	-177.828			
Wald chi2(17)	42.94			
Prob> chi2	0.0005			
Wald test of Insigma2 chi2(2)	29.22			
Prob> chi2	0.0000			

Place dominates the analysis. The English sample shows a strong significance of the variance suggesting that the data is heteroskedastic. This is shown in the Insigma2 statistic at the bottom of the table and the co-efficients in the denominator are shown in the two rows below the bold Insigma2 – denominator sub-heading in the table. The negative co-efficients in the denominator for Buckinghamshire and Shropshire demonstrated that the areas with the greater wealth had a less uncertain environment. The analysis also showed that the entrepreneurs were more likely to take advice in both counties with medium or high firm formation rates. Both H1 and H2 were supported. In addition, younger entrepreneurs were more likely to take advice. Linked to taking advice was having a degree and the ‘instrumented’ business plan variable (Wooldridge 2002). Those who financed their business from personal savings were less likely to take advice.

**Table 4 Heteroskedastic Probit model results on business advice: Catalonia**

	Coef.	Std. Err.	z	P> z
Gender (male)	.358	.332	1.80	0.281
Founder's age	.008	.016	0.52	0.600
Education (university degree)	-.511	.379	-1.35	0.177
Previously unemployed	1.248	.503	2.48	0.013
Entrepreneurial experience	-.911	.332	-2.75	0.006
Personal savings	-.488	.412	1.19	0.236
Bank finance	1.584	.429	3.69	0.000
Finance from family/friends	-.406	.416	-0.97	0.330
Finance from public organizations	1.595	1.956	0.82	0.415

Sector: manufacturing	-.681	.496	-1.37	0.169
Sector: construction	-.470	.520	-0.90	0.366
Sector: trade	.342	.457	0.75	0.455
Sector: business activities	.141	.506	0.28	0.781
Legal status: limited company	.375	.319	1.17	0.240
Firm size	.132	.064	2.08	0.038
Constant	-.191	.937	-0.20	0.838
<b>lnsigma2 - Denominator</b>				
Place: urban county	1.299	.255	4.10	0.000
N	381			
Log likelihood	-150.519			
Wald chi2(15)	26.83			
Prob> chi2	0.0301			
Wald test of Insigma2 chi2(1)	28.59			
Prob> chi2	0.0000			

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We find no impact for place on the take-up of advice in the Catalan region thus for the Catalan sample we can reject H1. The Catalan sample provides further evidence for the main finding of the article that there are differences in the uncertainty surrounding advice from place to place. The Wald statistics strongly suggests that the data is heteroskedastic. Reflecting the buzz associated with rural Catalonia, greater variation was found in the urban areas compared with the rural locality (Lafuente et al. 2007). This may be related to the relatively high entrepreneurial activity levels in Catalonia, compared to those in Catalan urban areas and the rest of rural areas in Spain (Lafuente et al. 2007).

The co-efficients provided support for the targeted policy in the Catalan sample; we cannot reject H3. Those who were previously unemployed before start-up were more likely to take advice, reflecting the Spanish programs at national and regional level that provide support to the previously unemployed to help them to create businesses. Those who used bank finance were more likely to use advice, as were those who head a larger firm. However, those with entrepreneurial experience were less likely to take advice. However, we can reject H4. Targeted, supportive public institutions may have ameliorated the symptoms of market failure, but not the uncertainty surrounding advice.

There was mixed support for the perceived knowledge gap as a reason to take advice (Chrisman et al. 2005). Both samples showed impacts from the entrepreneur's characteristics that were consistent with the knowledge gap hypothesis (Chrisman et al. 2005). In Catalonia, entrepreneurial experience reduced the likelihood of taking advice. In England, founding a firm at a younger age increased the likelihood of taking advice. However, education was negatively related to taking advice in Catalonia, whilst the impact of education in England was positive but only significant at the 10% level.

Both samples showed significant influences from the financing of the business. In Catalonia, a high proportion of start-ups obtained bank finance and this was compounded with a greater propensity to receive advice. Our evidence points to more 'supportive institutions' in Catalonia, particularly around finance for start-ups.

## **6. Conclusions and extensions**

This article found evidence for the role of buzz in enabling new firms to gain information about local advice, reducing asymmetric information, and therefore market failure. In the English sample, taking advice was strongly influenced by locality. Our interpretation is that advice was sought in the medium and high start-up areas and that the locality with low firm formation had an associated high uncertainty. The renowned buzz in rural Catalonia (Lafuente et al. 2007) reduced the uncertainty from taking advice.

This paper adds evidence of a mechanism where knowledge transfers create Jacobs externalities that aid new firm formation (Jacobs 1969, Desrochers and Leppälä 2010). We show F2F contact is especially important in the early stage of almost any new firm, extending the focus and impact of buzz from within intra-industry connections to a wider set of actors outside of the impact of clusters on new firm formation (Delgado, Porter and Stern 2010).

In England, the most striking county is the poorest which had the fewest start-ups, fewer

entrepreneurs taking advice and high levels of uncertainty. The paper shows a strong impact of context on the knowledge of agents. Thus, where the new founder locates is a strong structural indicator, of interest to those concerned with structure and agency in entrepreneurship (Mole and Mole 2010). The choice to seek advice is driven, therefore, not simply by the rational decision to obtain perceived knowledge but it is taken within a geographic, policy and institutional context suggesting strong institutional impacts within the firm level. These influences of advice within locations are consistent with the 'knowledge spillover' theory of entrepreneurship (Audretsch and Keilbach 2007) because agents that have made past investments in 'entrepreneurial capital' have supported institutions and consequently, there are greater qualities of advice available. In Audretsch and Keilbach (2007) knowledge spills over when an individual leaves an R&D intensive organization and starts up an entrepreneurial venture. The knowledge spills over from the organization, which in effect incubates the entrepreneurial venture; however, knowledge is not transferred but remains in the individual. In contrast, our knowledge is transferred knowingly from one individual to another through F2F encounters. Advice itself is not spilled over, but the previous investments in advisory services have left an 'institutional thickness' that is arguably a market externality (Keeble et al. 1999, Jaffe, Trajtenberg and Fogarty 2000). We have found a significant impact of targeted policy in Catalonia. Therefore, the targeting of policy, within a supportive institutional environment, may mitigate these effects, but not the uncertainty surrounding advice in Catalonia. Earlier in the paper, it was argued that uncertainty impacted on the demand side of the market for business advice. Our finding that the impact of policy was on the take-up of advice (H3) but not the uncertainty (H4) might suggest that the policy effect is on the supply of advice. Further investigation is warranted.

In England, the link between advice, possessing a degree and having formal business plans showed the use of advice by 'better businesses' (Mole et al. 2008, Mole et al. 2009). These businesses may be better able to absorb the information and put it to the use of developing their business (Cohen and Levinthal 1990, Zahra and George 2002). This is consistent with the view that potential entrepreneurs should search systematically (Fiet 2007). However, the negative relationship between previous business experience and taking advice suggests

repeat entrepreneurs do not consistently practice systematic search.

In terms of research design, the distances between places in Catalonia were shorter. In England, there were regional differences between north and south, whereas in Catalonia the differences were between rural and urban areas. Nevertheless, both regions demonstrated significant variations between locations. For future research, it would be useful to be able to delineate the location aspect in similar ways. Whilst we have no doubt that the variations between places are present, it would be more useful to be able to compare across the regions to examine more fully the entrepreneurial capital hypothesis.

To pinpoint the reasons why potential entrepreneurs did not take advice at the individual unit of analysis, it would have been useful to have some knowledge of their social capital (Fiet 2007); however, our analysis was at a county level. In addition, to explain advice using social capital appears tautological.

The nature of the variation in outcomes between places is a clear interest for future work. Alvarez and Brehm (1997) used aspects of their study to distinguish between ambivalence towards policy and uncertainty surrounding policy. The differences between ambivalence and uncertainty in taking advice would be worth examining. The uncertainty argument suggests market failure (Storey 2003) whereas the ambivalence suggests some concerns about the process of receiving advice from outsiders. Future research might disentangle these two effects.



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## Appendix

### Correlation matrix: England

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
1	Business advice	1																					
2	Manufacturing	.056	1																				
3	Construction	.010	-.146*	1																			
4	Trade	-.030	-.194*	-.129*	1																		
5	Business activities	.027	-.280*	-.186*	-.247*	1																	
6	Limited company	.086*	.036	.076	-.052	.255*	1																
7	Firm age	.021	-.071	.041	.020	.037	.031	1															
8	Gender: male	.040	.043	.100*	.104*	.100*	.200*	.037	1														
9	Founder's age	-.049	.002	.055	-.102*	.094*	.095*	.188*	.036	1													
10	University degree	.093*	0.032	-.043	-.088*	.169*	.124*	.032	.051	.091*	1												
11	Unemployed	.068	.010	.063	.007	.034	-.051	.036	.051	.007	.015	1											
12	Entrepr. experience	-.130*	.033	.067	-.048	-.023	.026	-.015*	.023	.133*	-.028	-.060	1										
13	Business plan (instrumented)	.127*	-.031	.079	-.050	-.031	-.022	-.092*	-.032	-.065	.004	.264*	-.103*	1									
14	Firm size	.003	-.016	.055	.110*	.066	.206*	.043	.079*	.023	-.003	-.080*	.009	.049	1								
15	Personal savings	-.108*	.012	-.002	-.004	0.001	.030	-.034	.008	.052	.003	.030	.003	-.068	-.022	1							
16	Bank finance	.063	-.007	-.046	.008	-.035	.017	.012	-.007	-.136*	-.025	.064	-.068	.536*	.009*	-.110*	1						
17	Family/friends	.077	-.027	-.038	.026	-.110*	-.101*	.004	-.078	-.149*	-.028	-.025	-.044	.022	-.030	-.100*	.051	1					
18	Public organizations	.088*	-.015	.039	-.026	-.073	-.122*	-.076	-.079*	-.144*	-.062	.067	-.081*	.639*	-.077	-.047	.076	.086*	1				
19	Buckinghamshire	.115*	-.020	.049	-.021	.134*	.107*	.103*	.063	.195*	.126*	.036	.026	-.114*	-.031	-.100*	-.068	-.081*	-.190	1			
20	Shropshire	.139*	.076	-.005	-.023	.088*	.190*	-.033	.018	.087*	.075	-.034	.101*	-.134*	-.013	-.013	-.052	-.032	-.148*	-.321*	1		

\*Correlation is significant at the 0.05 level.



### Correlation matrix: Catalonia

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Business advice	1																		
2	Place	-0.22*	1																	
3	Manufacturing	0.08	-0.04	1																
4	Construction	-0.10	-0.04	-0.20*	1															
5	Trade	0.06	0.00	-0.32*	-0.21*	1														
6	Business activities	-0.05	0.05	-0.24*	-0.16*	-0.26*	1													
7	Limited company	0.11*	0.28*	0.10*	-0.14*	0.00	0.05	1												
8	Firm age	0.04	-0.07	0.17*	-0.05	-0.05	-0.02	0.03	1											
9	Gender: male	-0.02	0.04	0.06	0.08	0.07	0.01	0.03	0.06	1										
10	Founder's age	-0.05	0.04	0.12*	-0.10	0.01	-0.01	0.11*	0.06	0.18*	1									
11	University degree	-0.04	0.08	-0.10	-0.10*	-0.16*	0.25*	0.10	-0.02	-0.08	-0.10*	1								
12	Unemployed	0.08	-0.01	0.10	-0.03	-0.05	-0.04	-0.18*	0.03	-0.15*	0.03	-0.04	1							
13	Entrepr. experience	-0.10	-0.07	0.06	-0.05	0.04	0.02	0.13*	-0.02	0.23*	0.26*	-0.03	-0.23*	1						
14	Business plan	0.18*	0.09	-0.06	-0.14*	0.05	0.11*	0.06	-0.06	-0.01	-0.18*	0.22*	-0.02	-0.18*	1					
15	Firm size	0.12*	0.15*	0.17*	0.03	-0.14*	-0.06	0.39*	0.02	-0.01	-0.06	0.11*	-0.16*	0.02	0.09	1				
16	Personal savings	-0.08	0.01	-0.06	0.08	-0.06	0.06	-0.02	-0.07	0.00	0.01	0.15*	0.02	-0.01	-0.04	0.01	1			
17	Bank finance	0.28*	-0.14*	0.05	-0.14*	0.06	-0.03	0.06	-0.03	0.05	-0.14*	0.01	-0.04	-0.05	0.30*	0.13*	-0.25*	1		
18	Family/friends	0.03	-0.08	0.01	-0.04	-0.05	-0.03	0.00	-0.10	-0.14*	-0.23*	-0.01	0.02	-0.05	0.01	-0.06	-0.03	0.05	1	
19	Public organizations	0.08	-0.12*	-0.12*	-0.01	0.03	0.03	-0.20*	-0.05	-0.02	-0.14*	0.09	0.04	-0.05	0.22*	-0.06	0.01	0.17*	0.10	1

\*Correlation is significant at the 0.05 level.