Key determinants of entrepreneurial activity: Evidence from Scotland.

Introduction

There is little agreement amongst academics concerning who is an entrepreneur and what constitutes entrepreneurial activity, whilst some see the entrepreneur as the person who starts a business others have offered very different definitions of entrepreneurial activity

However there is widespread agreement amongst academics, governments and all stakeholders that, however you define entrepreneurship, it plays an important role in economic growth and the prosperity of countries (Wennekers and Thurik, 1999; Audretsch and Keilbach, 2004a; Lee *et al.*, 2004; Valliere and Peterson, 2009; Audretsch *et al.*, 2010; Brown and Mason, 2012).

In terms of the Scottish economy there are 332,720 Small and Medium-sized Enterprises (SMEs) operating in Scotland, providing an estimated 1.1 million jobs. SMEs account for 99.3% of all private sector enterprises and for 54.8% of private sector employment and 37.9% of private sector turnover (www.scotland.gov.uk)

The aim of this paper is to consider evidence from local government officials who have reasonability for encouraging and supporting entrepreneurial behaviour in Scotland.

Literature Review

In order to understand the issues that are likely to affect entrepreneurial activity in Scotland a review of empirical literature had been conducted and the number of key themes to inform the data collection process have been identified: Local demand conditions, unemployment, role models, culture, human capital, agglomeration and access to finance have been identified as the key factors are likely to be effect the level of entrepreneurial activities in Scotland. Due to the limited space, there literature review is presented as a tables of key authors in each

section and an indication if the study found the particular factor to be a positive or negative determinant of entrepreneurial behaviour (See table one)

Methods

39 Senior Economic development officers[i] were interviewed from the 32 administrative regions in Scotland (a minimum of on per region), A one page interview schedule was provided to all interviewees for consistency, all officials were asked the same set of questions (evaluated here using a Likert scale) before the interviews were allowed to develop in an unstructured way. All of the council officials were also asked to identify the **"the key determinants of continuing entrepreneurial activity are in Scotland'.**

There are a number of limitations some of which are caused by the methods employed by study and other that are specific to the format of this paper, which being an extended abstract does not allow for the full result from the study to be presented.

In more general terms the paper is limited by the choice of methods that, whilst attempting for a high degree or reliability have had to sacrifice validity in this process. There are also issues around the sample size and how respondents understand key terms.

Results and analysis

As we can see from table 2, results from the Likert scale questions put to the interviewees broadly support the findings from the literature review.

Local demand and access to finance seem to have unconditional support in the empirical literature as being a positive influence on the level of entrepreneurship and are amongst the four factors that were identified most strongly by the respondents to the questionnaire (77 and 92 % of respondents agreed or strongly agreed that they were important to entrepreneurship in Scotland). They also received the strongest level of support when the interviewees were

asked what they thought was the biggest single issues around entrepreneurship behaviour in Scotland, fourteen respondents identified access to finance or a similar concept (lack of finance, access to personal wealth) and the same number of respondents identified a factor that would be classified as local demand.

The influence of **unemployment** stands out as only 46% of the respondents agreed or strongly agreed that unemployment has a negative influence on the level entrepreneurial activity in Scotland, whilst 36% of respondents disagreed or strongly disagreed that unemployment was a negative influence the level of entrepreneurial behaviour in Scotland. The results are similar to what came out of review of the literature, with a (roughly) similar number of studies suggesting that unemployment has a negative impact on the level of entrepreneurial activity as suggesting it is a positive influence, as people are pushed in to self-employment. During the semi-structured interviews unemployment was regularly discussed as both a negative and positive influence on entrepreneurial activity and was only cite once as the most important issue that influenced entrepreneurial activity in Scotland.

The benefits of **agglomeration** are widely highlight in the literature and respondents were asked '**do you believe the current government policy of implementing enterprise zones are a good way of generating economic agglomeration given the benefits associated with agglomeration and entrepreneurial activity?'.** Table 1 shows that 17 local authority representatives (45%) either agreed or strongly agreed that enterprise zones are a good way of generating agglomeration benefits.

6 respondents (16%) disagreed or strongly disagreed that the new enterprise zone policy was a good way of stimulating the benefits of agglomeration. The second largest group of respondents, 15 (39%), expressed the opinion that they did not know whether enterprise zones would be an effective policy. 1 respondent chose not to answer the question on the

grounds that it was a politically sensitive issue. The data collected demonstrate that there are mixed opinions regarding the current policy on enterprise zones and its associated benefits with continuing entrepreneurial activity. Although it has to be accepted that the question asked was about a certain method for encouraging agglomeration and not agglomeration benefits in general.

Culture

The interviews were asked if they agreed that Scotland has a lower rate of Entrepreneurial activity than the rest of the UK and 31 (79%) of the interviewees agreed or strongly agreed that this was the case, the quote below summarises well the general responses expressed by respondents when explaining why they believed Scotland has low rates of entrepreneurial activity:

"I think there is [a low rate], and it's for the reasons that I mentioned a while back about determinants and I think the local cultural and historical situation in the economy. You can't ignore that, it plays a huge…and it has a huge legacy affect." [Head of Economic Development].

As with literature review, our finding suggest that the culture can have a strong effect on the level of entrepreneurial activity in a country and in the case of Scotland, this would appear to be a negative influence.

Human capital

Policy makers were asked **'how important do you believe education is in terms of continuing entrepreneurial activity'**. Table 2 shows that 24 local authority representatives (61%) either agreed or strongly agreed that human capital is an important determinant of continuing entrepreneurial activity. 11 respondents (29%) disagreed or strongly disagreed that level of human capital was important with 4 respondents (10%) expressing that they did

not know whether human capital was an important determinant of continuing entrepreneurial activity.

However, interview responses also highlighted that there is an element of variation about how much emphasis some of the respondents placed on human capital with some respondents suggesting that levels of human capital are more likely to be important for growing businesses and the industrial sector in which a firm operates. For example one respondent commented:

"It depends on the sector. If it's a high-tech sector then education is absolutely fundamental. If it is window cleaners or delivery or gardening companies…there are lots of very good small businesses in those sorts of sectors, but if it's relatively low skilled work then I don't think education plays much of a role. When things become more complex, when you're VAT registered, when you need to buy-in specialist advice and that sort of thing, then having a better grasp of business fundamentals is probably a lot more important". [Head of Economic Development and Planning]

Role models

When respondents were asked **'how important are role models for growing small firms'** it was unsurprising that almost all respondents believed that role models were important and have a positive impact on continuing entrepreneurial activity, with Table 2 highlighting that 38 respondents (98%) either agreed or strongly agreed that role models are important.

For example one respondent commented;

"if you can't identify with somebody who runs a business and see that as a positive thing, then actually the chances of it ever happening to you are that much less, I think that sense of somebody who actually inspires people is absolutely fundamental, and I think it's important to get a wide range of different types of background who do it". [Economic Development Officer]

Another respondent commented *"role models are extremely important. I do wish we could do more on the role model front. I think it's very, very important for all different categories of entrepreneurship"*. [Senior Development Officer].

Conclusion

The findings from the primary data collected broadly supports the findings from the secondary data discussed in the literature review. Access to finance and local demand conditions are identified consistently in the literature as having a significant influence on the level of entrepreneurial behaviour and the participant in our interview agree that these two factors play a key role in the level entrepreneurial behaviour in Scotland.

A particular emphasis was placed by respondents on the impact of role models and that where a lack of role models exist or where people are not exposed to other entrepreneurs, a culture develops, that is less conducive to entrepreneurial activity. The influence of role models is a factor that is difficult to isolate in empirical studies but it can often be linked in with cultural issues around the number of firms and the network effects. However it would appear that it identified by our respondents as being very important and it is an area that would benefit from greater research and also an area were government can look to play to shape entrepreneurial behaviour in the future. Therefore, the responses provided by respondents as summarised in Table 2 corroborate the empirical results and demonstrate entrepreneurship is determined by a range of different factors including: the historical development of the Scottish economy, the structure of the economy, path dependency, population demographics, role models, demand and supply factors, the business environment and culture.

Table 1: Summary of relevant literature

Local demand	Bartik, 1989 (+); Reynolds, 1994 (+); Reynolds et al., 1994 (+); Keeble and Walker, 1994 (+); Garofoli, 1994 (+); Audretsch and Fritsch, 1994 (+); Davidsson et al., 1994 (+); Guesnier, 1994 (+) Spilling, 1996 (+); Armington and Acs, 2002; (+); Lee et al., 2004 (+); Okamuro and Kobayashi, 2006 (+); Tamasy and Le Heron, 2008 (+)
Policy and Cultural factors (including the influence of roles models).	Keeble and Walker, 1994 (+/-); Reynolds et al., 1994 (-/+); Ashcroft et al., 1991(+); Nystrom, 2008 (-); Bjornskov and Foss, 2008(-); Okamuro and Kobayashi, 2006 (-); Audretsch *et al*, 2010 (+)
Human Capital	Reynolds et al., 1994(+); Fritsch, 1992(+); Keeble and Walker, 1994(+); Audretsch and Fritsch, 1994(-); Garofoli, 1994(-); Garofoli, 1992(-); Whittington, 1984(-); Armington and Acs, 2002 (+); Acs and Armington, 2004(+); Lee et al.,2004(+)
Unemployment	Storey, 1991(+); Davidsson et al., 1994(-); Guesnier, 1994(+) Garofoli, 1994(-); Audretsch and Fritsch, 1994(-); Evans and Leyton, 1990(+); Keeble and Walker, 1994 (+); Audretsch et al., 2010 (-); Audretsch, 1993(-); Ritsila and Tervo, 2002 (+)
Access to Finance	Whittington, 1984 (+); Davidsson et al., 1994 (+); Guesnier, 1994(+); Ashcroft et al., 1991(+); Fritsch, 1992 (+); Spilling, 1996 (+); Keeble and Walker, 1994(+); Reynolds, 1994 (+);Robson, 1998(+); Garofoli, 1994(+); Sutaria and Hicks, 2004(+)
Agglomeration	Cross, 1981(+); Reynolds et al., 1994(+); Garofoli, 1992(+); Garofoli, 1994 Spilling, 1996(+); Verheul et al., 2009(+); Arauzo-Carod and Viladecans-Marsal, 2009 (+); Tamasy and Le Heron, 2008 (-)

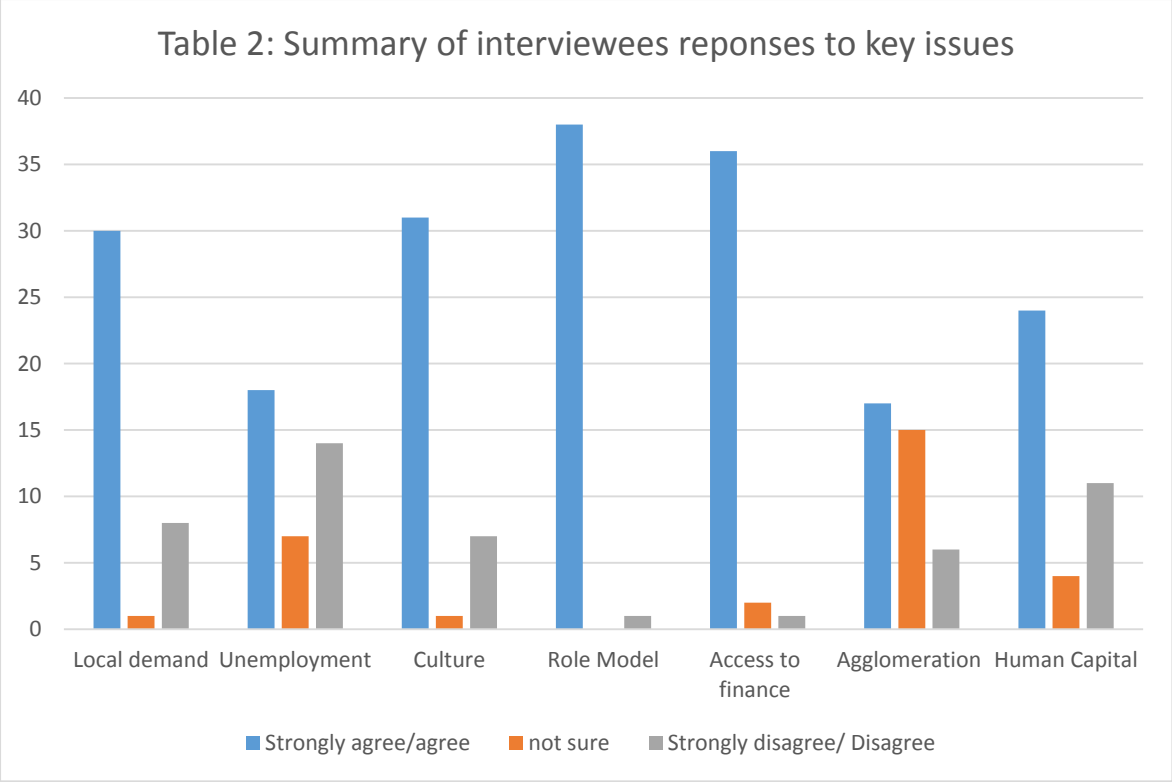
Table 2: Summary of interviewees reponses to key issues
40
35
30
25
20
15
10
5
0
Local demand
Unemployment
Culture
Role Model
Access to finance
Agglomeration
Human Capital
Strongly agree/agree
not sure
Strongly disagree/ Disagree

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[i] These were typical Principle or Senior Economic Development Officers.