



Creative milieu and firm location: An empirical appraisal*

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This paper focuses on the creative industries – those industries that produce and commercialise creative goods and services – and the role played by the existing spatial distribution and agglomeration economies of these kinds of activities in their location decisions. Our main statistical source is the Register of Manufacturing Establishments of Catalonia (REIC), which has plant-level microdata on the location of new plants. We use count data models to show that location determinants are quite similar in both creative and non-creative industries and that both industries are positively influenced by the specialisation level of creative industries. Moreover, our results provide evidence that an unobserved ‘creative milieu’ has a considerable impact on attracting firms.

Policy Recommendations

Policies promoting firm entry should favour the spatial clustering of creative workers by encouraging the development of creative activities that a municipality has some tradition in.

Introduction

The study of the location determinants of manufacturing firms has become much more attractive to researchers in recent years and there has been a considerable increase in publications in this area (see Arauzo-Carod et al., 2010, for a review of the empirical literature). However, although location issues are receiving more attention, scholars have hardly focused on the creative industries (CIs). CIs are a set of

knowledge-based activities that have their origin in individual creativity, skill and talent and which have the potential for wealth and job creation through generation and exploitation of intellectual property (DCMS, 2001). They include the following activities: Advertising, Architecture, Arts and Antique Markets, Crafts, Design, Designer Fashion, Film, Interactive

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Leisure Software, Music, Television and Radio, Performing Arts, Publishing and Software.

These industries are also believed to enhance the image and prestige of their host areas, which more readily attract new investors and creative workers (Florida, 2002). Moreover, the entry of creative firms should lead the diversification and competitiveness of local economies (De Propris, 2013; Scott, 2004). For these reasons, many scholars have attempted to link creative environments with economic growth but, unfortunately, few of them have been able to fully capture their effect without being susceptible to endogenous causation.

In this paper, we aim to shed light on the relationship between creative environments and economic growth and provide empirical evidence for the effects that creative environments have on the location decisions of firms. Specifically, this paper addresses three research questions: (1) Are the determinants of the location decisions for creative and non-creative firms substantially different? (2) Is the specialisation in creative sectors a driving force for the location of firms in a municipality? (3) Does an unobservable 'creative milieu' that favours the agglomeration of bohemians increase the entry of firms?

The empirical application will focus on Catalan municipalities and use data from the Register of Manufacturing Establishments of Catalonia (REIC) (Registre d'Establiments Industrials de Catalunya), which contains plant-level microdata

on the location of new manufacturing plants for the period 2002–2007. We use a dataset about the local characteristics of Catalan municipalities taken from Trullén and Boix (2005), and we also rely on such other sources as the Catalan Statistical Institute (IDESCAT, 2001) and the Catalan Cartographical Institute.

Using count data models (CDMs), our main results show that creative and non-creative firms share similar location factors and they are both positively influenced by the specialisation level of the CIs in municipalities. However, taking neighbouring effects into account, we find that this effect is more spatially limited for creative and fashion firms, whereas for non-creative firms and all firms it seems to be more

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geographically spread.

Moreover, our results suggest that an unobservable 'creative milieu' has a considerable impact on the formation of new firms.

The main text

In order to analyse the determinants of the location decisions of firms and their relationship with CIs specialisation, we estimated the number of new and relocated establishments in a municipality as a function of the specific local characteristics (educational level including information about technical studies and graduates, job density, ratio of number of jobs per population, percentage of service employment, percentage of manufacturing employment, percentage of small firms, percentage of employment in high-knowledge services, specialization index in creative industries, specialization index in fashion industries, 'creative milieu' residual, distance to the provincial capital, a county capital dummy, and a seaside dummy).

In order to test our second hypothesis about the effects of an unobservable 'creative milieu' on the location decision of firms, we follow Wojan et al. (2007). Concretely, a two-step procedure is applied: first, we estimate what explains the location of bohemians at municipality level (in terms of the following local characteristics; college population, income, foreign population, a 'gay' index, heritage, population density, commuting levels and population growth).

The residual of previous regression contains all the unobserved effects associated with unobserved factors and white noise. The degree to which these unobserved effects can capture a 'creative milieu' depends on the explanatory power of the model and on the appropriate specification of the previous equation. In the second step, the approximation of an unobserved 'creative milieu' can be included in the main equation as an additional explanatory

We demonstrate that traditional factors (i.e. agglomeration, accessibility, labour market, etc.) account for location decisions, along with other factors such as a creative atmosphere.

variable. Then if this variable is positive and significant, the hypothesis of a common unobserved factor (i.e. a 'creative milieu') that

Whereas for non-creative firms and all firms, the presence of specialised pools of creative workers in nearby municipalities has a positive and highly significant effect on the entry of new firms, creative and fashion firms seem to be only affected by specialisation in CIs at a local level.

attracts both bohemians and firms can be accepted.

Finally, in order to account for spatial dependence, we use a spatial neighbour matrix (W) to determine the spatially lagged counterparts of some of the independent variables. The results for the first model show that for all firms and non-creative firms, all the explanatory variables are significant. More specifically, job density, as a proxy of agglomeration economies, acts positively; longer distances to provincial capitals reduces entries while seaside and county capital municipalities

increase entries; manufacturing and service workforce shares increase entries, but SME shares reduces them, which shows that these firms do not favour start-ups (see Arauzo-Carod and Manjón-Antolín, 2012). Educational characteristics have opposite effects because technical studies are positive for firm location, while higher educational levels are negative, as is shown by many other analyses (see Arauzo-Carod and Manjón-Antolín, 2004; Arauzo-Carod and Viladecans, 2009, among others). Finally, the results show that specialisation in CIs is significant for all firms and non-creative firms, which support our hypothesis that municipalities specialized in CIs are more likely to attract new businesses.

The locational patterns of creative firms are quite similar. In terms of territorial characteristics, creative firms are attracted to areas that have high job densities, are located at the seaside and are county capitals, as it may be easier to exchange ideas and find large consumer markets prone to the concentration of creative workers and firms. Location of these firms is favoured by specialisation in manufacturing activities explained in terms of local related variety that benefits from inter-sectorial and transversal synergies (Lazzeretti et al., 2012).

Policy Implications

Since it has been largely demonstrated by empirical literature that CIs play a positive role in attracting new firms, policies promoting firm entry should favour the spatial clustering of creative workers by encouraging the development of creative activities that a

The results show that an unobservable 'creative milieu' has a positive impact on nearly all kinds of entries (all firms, non-creative and creative). This positive association can be confirmed for all firms and non-creative firms, and for creative firms only in the sample of all municipalities. We demonstrate that traditional factors (i.e. agglomeration, accessibility, labour market, etc.) account for location decisions along with other factors such as a creative atmosphere (Mustered and Murie, 2010; Murphy et al., 2014; Wojan et al., 2007). Consequently, we confirm our hypothesis about the important role played by 'creative milieu' in attracting firms. This result supports the claim that an unobservable 'creative milieu' – capturing the local identity, social and cultural interaction, allure, and other intangible components – has a great capacity to encourage entrepreneurship at municipality level. At the same time, but, our results suggest that the relevance of an unobservable 'creative milieu' can only be strongly confirmed for all and non-creative firms, as their impact is significant for both metro and non-metro subsamples. Then, for CIs, agglomeration economies partially seem to swamp effects arising from 'creative milieu'.

municipality has some tradition in (e.g. by supporting existing creative firms, assisting creative start-ups, strengthening creative business networks and marketing the city's image). This is, to reinforce existent local sources of competitiveness.

In addition to previous actions, local authorities pursuing a diversified economy strategy should encourage social and cultural interaction that can lead to a particular 'creative milieu' that can give them comparative advantages once traditional location factors have been satisfied. Still, bearing in mind that in the near future about 70% of the world's population will be concentrated in larger cities, such policies should

adapt to metro and non-metro municipalities characteristics. In this sense, for non-metro municipalities, these strategies should focus on preserving and emphasising those factors defining their quality of life, while for metro municipalities strategies should be directed towards the creation and development of facilities that will increase accessibility to networking and cultural experiences.

Conclusions

This article makes three main contributions to the literature on the location determinants of CIs: first, we analyse the location determinants of CIs from a wider territorial perspective (i.e. most of research in this area is limited to case studies) in order to get an overview of general location determinants; second, we analyse whether specialisation in CIs favours the location

of all types of firm and find that it does; third, we explore whether there is an unobserved 'creative milieu' that favours the location of new firms and find that there is and that it plays an important role in the location decisions of all kinds of firms (except for fashion ones), although much work still remains to be done on this point.

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