

A new perspective on local political entrepreneurship: Evidence from Portugal

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Aurora AC Teixeira

CEFUP, Faculdade de Economia, Universidade do Porto, Portugal; INESC Porto; OBEGEF

Carina Silva

Faculdade de Economia, Universidade do Porto, Portugal

Abstract

Despite the important existing contributions on public and political entrepreneurship, research on these topics is still scarce, particularly at the empirical level. Studies on political entrepreneurship have usually focused on the biography of entrepreneurial leaders and the analysis of case studies. Thus, a parameterisation of the variables and relationships that permit quantitative empirical research is in demand. The present study adds to the empirical literature on public and political entrepreneurship by proposing to examine and intersect several dimensions of political entrepreneurship at the local level: *funds, activities, infrastructure, and global*. Based on responses gathered from 108 Portuguese municipalities, we found that both individual – gender, previous occupational status, age, and managerial competencies of the mayor – and contextual conditions – accessibilities, educational endowments, and business structure of the municipalities, namely the share of medium and large firms – are key determinants of local political entrepreneurship.

Keyword

determinants, political entrepreneurship, Portugal

Introduction

Entrepreneurship is undoubtedly considered a key factor in the economic development of countries (Trettin and Welter, 2011). Central and local governments ascribe considerable and increasing importance to entrepreneurship, regarded as a crucial mechanism that can ensure the economic competitiveness of countries and

regions and their ability to grow (Huggins and Williams, 2011). The recognition that individuals, organisations, and economies need to be more entrepreneurial is clearly increasing (Takii, 2011).

Corresponding author:

Aurora AC Teixeira, Faculdade de Economia do Porto,
Rua Dr Roberto Frias, 4200-464 Porto, Portugal.

Email: ateixeira@fep.up.pt

From a more restricted perspective, entrepreneurship implies the creation of new business opportunities (Gartner, 1985). Broadening its scope slightly, the 'opportunity-based' conceptualization of entrepreneurship suggests that it involves the 'discovery and exploitation of profitable opportunities' (Shane and Venkataraman, 2000: 217).

Contrary to prevalent ideas put forward in mainstream literature, entrepreneurship is not limited to firm creation (McClough, 2008) nor is it exclusively a private sector phenomenon (Kearney et al., 2009). Entrepreneurship encompasses innovation, creativity, the establishment of new organisations or activities, or some kind of novelty. Three general characterisations of the entrepreneurial function have been identified in the literature: alertness to opportunities (Kirzner, 1973), judgmental decision making about investments under uncertainty (Knight, 1921), and product, process, and market innovation (Schumpeter, 1934). Under this conceptualisation, entrepreneurship occurs in markets, firms, universities, and (local) governments (Slaughter and Leslie, 1997). Regarding the latter, and as Klein et al. (2010: 1) correctly point out, '[g]overnment [and government action are]... becoming more entrepreneurial'. Indeed, political systems are increasingly subject to competitive pressure, raising the question of their openness to institutional innovation and their adaptability to changing environments (Hederer, 2010).

Most of the public and political entrepreneurship literature takes a Schumpeterian-Kirznerian-Knightian perspective, focusing on creative political innovations, which depend crucially on 'windows of opportunity' to modify the way public entities operate, associated with a rather uncertain context of (political) decision making. Political entrepreneurs are, in this perspective, people who change the course of a policy (Schneider and Teske, 1992;

Steyaert, 2011), i.e. disrupt 'a political, economic and organisational equilibrium through an innovation' (Secchi, 2010: 515).

Despite the important existing contributions on public and political entrepreneurship (Bartlett and Dibben, 2002; Klein et al., 2010; Ostrom, 1990; Schneider and Teske, 1992; Secchi, 2010), research on these topics is still scarce, particularly at the empirical level (Klein et al., 2010). Moreover, studies on political entrepreneurship have usually focused on the biography of entrepreneurial leaders (Doig and Hargrove, 1987; Weissart, 1991) and the analysis of case studies (Secchi, 2010; Zerbinati and Souitaris, 2005). Although Klein et al. (2010) propose a framework to analyse public entrepreneurship, they recognise the lack of a parameterisation of the variables and relationships that enable quantitative empirical research.

The present study adds to the empirical literature on public and political entrepreneurship and fills the abovementioned gap by proposing to examine and intersect several dimensions of political entrepreneurship at the local level; further, it assesses its key determinants.

Specifically, we put forward an analysis of (local) political entrepreneurship that encompasses three main dimensions: the application/obtainment of (European) funds (*funds*) (in the line of Zerbinati and Souitaris, 2005), which sustain the creation and/or recognition of windows of opportunity for institutional change in a Kirznerian sense; the possession and/or construction of infrastructure to support entrepreneurial and social activities (*infrastructure*), and support activities and services required for entrepreneurial and social activities (*activities*). These two latter dimensions include an array of activities that reflect the implementation and consolidation of innovations into lasting institutional change, which involve the identification, selection and framing of problems

and solutions, the dissemination and ‘brokering’ of ideas and the establishment of networks among distinct agents. Based on these three dimensions, we compute a ‘Global entrepreneurship index’ using the Portuguese municipalities as the relevant unit of analysis. We then assess, on the basis of econometric estimations, the (individual and contextual) determinants of local political entrepreneurship.

Our methodology introduces a novel way of combining qualitative and quantitative research approaches. The former, applied in a first stage, was required to conceptualise and implement the constructs of local political entrepreneurship (*funds, activities, infrastructure, and global*). It relied on direct contributions from a balanced panel of 16 renowned experts with relevant backgrounds in the area of study. The quantitative approach was based on a direct questionnaire to all (308) Portuguese municipal mayors and secondary/report-based information on the municipal context (financial and human resources, accessibilities, and economic conditions). The direct questionnaire aimed to gather information on the municipalities’ ‘entrepreneurial’ activities (as categorised by our experts’ panel) and on the mayors’ individual characteristics (demographic, psychological, strategic, and management competencies and skills).

Our approach explicitly contends that entrepreneurial activities at the local policy level do not rely only on particular individual attributes (Kearney et al., 2009) but rather stem from a complex symbiosis involving the (entrepreneurial character of the) mayor, the quality and availability of the local council’s resources, and the socio-economic features of the surrounding region.

It is important to acknowledge that, although constituting a novel empirical approach/methodology to the phenomenon of local political entrepreneurship, our

study presents a major drawback and, therefore, should be taken as an exploratory contribution. Specifically, the information on ‘entrepreneurial’ activities and the mayors’ characteristics was not directly observed; instead, the answers were obtained from the municipality’s team (in the case of the activities) and the mayors’ perceptions (in the case of their individual traits).

This article is organised as follows. A literature review on public and political entrepreneurship is conducted in the first section, which covers the definition of the concept and its main determinants. The second section sets out the analytical method to compute the entrepreneurship dimensions, and explains how the data was gathered and processed. The data analysis and results of the models are covered in the third section. Finally, the concluding section summarises the main results of the study.

Political entrepreneurship: A brief literature review

The concept of political entrepreneurship

The concept of political entrepreneurship is associated and often used interchangeably with that of public entrepreneurship, being considered a subcase of the latter (Schnellenbach, 2007). The tenuous distinction that can be made between these two concepts relies on the unit of analysis, where the latter is broader in scope – ‘the local community, provincial authorities, small and large voluntary associations, nation states, and the international community’ (Klein et al., 2010: 1) – than the former, which is restricted to political authorities and agents, including elected politicians, high-level officials, and leaders of established or newly-created interest groups (Schneider and Teske, 1992).

Thus, it is critical to define the concept of public entrepreneurship to fully understand

that of political entrepreneurship. The main caveat in this task is that public entrepreneurship is an imprecise concept, given the nature and difficulty of identifying public interests (Hederer, 2010).

According to Morris and Jones (1999: 74), '[p]ublic sector entrepreneurship is the process of creating value for citizens by bringing together unique combinations of public and/or private resources to exploit social opportunities'. Following this line of reasoning, private and public/political entrepreneurs share the same fundamental objective, that is, to accrue value from their advantages, capabilities, and action potential (Pitelis and Teece, 2010). In the case of private entrepreneurs, the criterion for success is economic value creation aimed at value capture (economic profit), whereas in the case of political entrepreneurs, the private benefits accrued are only indirectly linked to economic profits and may be realized in terms of popularity (for example electoral success) or some deferred reward rather than the direct, private appropriation of the created value (Kearney et al., 2009; Sheingate, 2003).

From a rather abstract standpoint, Sheingate (2003: 190) defines political entrepreneurship as a 'speculative act of creative recombination that, when successful, transforms the institutional boundaries of authority'. Aiming to achieve a more workable and concrete framework of analysis, Klein et al. (2010) argue that public (and political) entrepreneurship is manifested in four main activities: changing the institutional environment or rules of the game, establishing new public organizations, creating and managing new public resources, and taking advantage of spillovers by private action for the wider good.

We conceptualise political entrepreneurship as a process comprising the discovery of the electorate's political preferences and needs as well as of political decision makers (Schneider et al., 1995); the identification,

selection and framing of problems and solutions (Kingdon, 1984); the dissemination and 'brokering' of ideas among different social networks and epistemic communities (Campbell, 2004); the formation of coalitions on different levels (Schneider et al., 1995); the development of a political strategy through the creation and/or recognition of windows of opportunity for institutional change (Kingdon, 1984); the implementation and consolidation of innovations into lasting institutional change (Sheingate, 2003).

In this context, the political entrepreneur is an individual who takes advantage of newly discovered possibilities or policy windows to propose and implement policy solutions 'seek[ing] the disruption of an inadequate equilibrium by aiming to reach a value-based superior equilibrium' (Secchi, 2010: 515).

Determinants of (local) political entrepreneurship

Existing works on political entrepreneurship have focused mainly on the biography of entrepreneurial leaders who dealt with innovative or unexpected policy changes (Doig and Hargrove, 1987; Weissart, 1991) or the role of top government officials and of dynamic politicians (Schneider and Teske, 1992).

We share the view of Schneider and Teske (1992) and Kearney et al. (2009) who underline that political (and public) entrepreneurship, compared to private sector entrepreneurship, tends to rely on particular individual attributes to a lesser extent. Accordingly, although relevant, the personal qualities and motivations of a single individual – in the case of local political entrepreneurship, the mayor – maybe far less important than the institutional and collective forces driven by a collective desire in organisations to change, adapt, innovate, and entertain risk. Thus, the

contextual frame of organisations (specifically, municipal chambers) and the corresponding regions may be of greater relevance in explaining entrepreneurship at the local political level.

In this line of reasoning, the determinants of (public and political) entrepreneurship can be categorised into two main groups (see Table 1): individual and contextual factors.

Evidence shows that, similarly to the private sector, entrepreneurs in the public sector differ according to gender, education, job qualification, and position (Zampetakis and Moustakis, 2007). In terms of psychological traits, public/political entrepreneurs tend to be highly confident, self-motivated (Zampetakis and Moustakis, 2007) with a range of innovative ideas on how to 'make things happen' and leave their 'mark' on their organisation (Ramamurti, 1986: 143). Additionally, successful public sector entrepreneurs excel in creativity and innovation, risk-taking, power of persuasion, and opportunism (Zerbinati and Souitaris, 2005). Schneider and Teske (1992) argue that, at the political level, incumbent (political) entrepreneurs sometimes tend to employ a set of strategies to restrict the competition ('blocking' tactics), namely bureaucratic manipulation of services and control of legislation (Parker, 1991), personal contacts (Parker, 1986), constitutional rules (Oakerson and Parks, 1988), and fragmentation and diversification in the provision of local services (Schneider, 1989).

With regard to individual management skills and abilities, Zerbinati and Souitaris (2005), based on Stevenson's (1997) framework, consider four main individual behaviours that foster (political) entrepreneurship: commitment to opportunity, commitment of resources, control of resources, and management structure. 'Commitment to opportunity' is revealed in the willingness of an individual to act in a very short time-frame and implies the individual's ability to

guide and effectively change actions, such that the desired outcome is achieved and red tape is reduced – willingness to recognise the need to change and improve the services provided (Zampetakis and Moustakis, 2007). The 'commitment of resources' reflects an individual's capacity to minimise the resources committed and adopt a multi-staged commitment of those resources. 'Control of resources' refers to the ability of the promoters to use other people's resources and decide over time which resources they need to acquire. Finally, 'management structure' describes the management ability of the entrepreneurs to coordinate non-controlled resources.

With respect to the contextual determinants, the literature in the area of local political entrepreneurship (e.g. Schneider and Teske, 1992; Zampetakis and Moustakis, 2007; Zerbinati and Souitaris, 2005) has pointed out several factors that motivate the emergence of potential political entrepreneurs. These include: municipal/local budgetary aspects (allocation expenditures), fiscal (tax base and tax rate) conditions, and economic and demographic factors (population growth, racial diversity, concentration of renters, and accessibility – distance from municipality to the central city).

A strong tax base might provide municipalities with a wide range of policy options for entrepreneurs to pursue, and represents a public resource they can use in pursuing their vision of the future (Schneider and Teske, 1992). Moreover, when local taxes are higher than those of other municipalities, an opportunity may arise for entrepreneurs to promote innovations that increase the efficiency of local services, limit expenditures, or redirect patterns of growth that residents may come to associate with higher taxes (Schneider and Teske, 1992). Thus, a higher tax base and rate will increase the probability of more political entrepreneurs.

Table 1. Determinants of public and political entrepreneurship.

Determining factor group	Determining factor	Indicator/proxy	Study
Individual – demographic	Gender	Male/female	Zampetakis and Moustakis (2007)
	Education	Educational level (officials with university or college degree and without one)	
	Professional/occupational qualification and position	Supervisory or lower ranking posts, such as civil servants (may or may not be head of department)	
	Age	Age	
Individual – psychological	Work experience	No. years in civil service	Ramamurti (1986); Ramamurti (1986); Zampetakis and Moustakis (2007)
	Confidence	No. years employment in private sector	
	Self-motivation	'I create a climate and cooperative working team in my department so as to tackle challenges'	
		'I create a working atmosphere where people feel motivated to improve things'	
		'I'm keen to acquire new skills'	
Creativity and innovation(Orientation/Strategic vision)		'I spend time helping my colleagues to find ways with a view to improving our services'	Zampetakis and Moustakis (2007)
		'I'm brave enough to go ahead with new approaches when I think my colleagues would be more cautious'	
		'I paint a vivid picture of how things in my department could be in the future and what is needed for us to get there'	
		New product; new mix of old ideas or creative application of traditional approaches	
Risk			Ramamurti (1986); Zerbinati and Souitaris (2005)

(continued)

Table 1. Continued.

Determining factor group	Determining factor	Indicator/proxy	Study
Individual – strategic	Persuasion	'I motivate my colleagues to take the initiative with their own ideas, so as to improve our services'	Ramamurti (1986); Zampetakis and Moustakis (2007)
		'I encourage my colleagues to think about their work in a fresh, stimulating way'	
	Opportunism	Philosophy of reward (Creation and collection of value through political, social and professional goals)	Ramamurti (1986); Zerbinati and Souitaris (2005)
	'Blocker'		Schneider and Teske (1992)
Individual – management skills and abilities	Commitment to opportunity	'I change the direction of action quickly when the results are not being achieved'	Zampetakis and Moustakis (2007)
		'I'm efficient at getting the proposed actions through any "red tape"'	
		Action in a very short space of time (e.g. in getting a legible area of European funds and meeting tight allocation deadlines)	Zerbinati and Souitaris (2005)
	Commitment with resources	Minimization of the resources committed and adoption of a multi-staged commitment of those resources	
Contextual – fiscal	Control of resources	Ability to use other people's resources and decide on time needed to acquire necessary resources	
	Management structure	Ability to coordinate non-controlled resources	
	Tax base	Real per capita value of local real estate	Schneider and Teske (1992)
	Tax rate	Actual tax rate (local)	
Contextual – budgetary	Allocation expenditures	Per capita cost of operational services (general administration, financial administration and buildings), plus public safety services (police and fire-fighters)	

(continued)

Table 1. Continued.

Determining factor group	Determining factor	Indicator/proxy	Study
Contextual – economic	Local economic situation	Closure of local industries	Zerbinati and Souitaris (2005)
Contextual – demographic	Population growth Racial diversity Concentration of renters Distance from municipality to the centre	Rate of population growth between 1970–1980 Percentage of black people (1980 census) Percentage of renters (1980 census) Distance as the crow flies between outer boundary of the main city and the inner limits of the municipality	Schneider and Teske (1992)

Source: Compiled by the authors.

Within the types of expenditures that constitute local budgets (allocational, redistributive, and developmental), allocation expenditures are, according to Peterson (1981), the least constrained by political limits. As such, high allocation expenditures create slack resources that increase public sector opportunities for entrepreneurial profits. Entrepreneurs are thus attracted by the possibility of redeploying local budgets to achieve the policy goals they prefer.

Focusing on the local economic situation, and sustained in multi-case analyses, Zerbinati and Souitaris (2005) emphasised that opportunity-driven behaviour that is related to a new product, a new mix of old ideas or the creative application of traditional approaches might be triggered by changes in the economic conditions, namely the closing down of local industries.

Demographic conditions may reflect the relative ease with which entrepreneurs can organise the electorate into collective political action. According to Schneider and Teske (1992), an important variable affecting the ease of organising for collective action is the stake that individual citizens have in local tax and service issues. These authors postulate that municipalities with a greater concentration of renters (individuals without a location-specific investment in property) will be harder to organise than communities with a larger concentration of more firmly anchored homeowners. They further contend that rapid population growth can strain existing services, increase pressure on taxes, and mobilise local citizens who see the quality of life in the community changing. In this line of reasoning, rapid growth in a municipality would increase the likely emergence of a political entrepreneur. Likewise, growing racial heterogeneity within municipalities may create the conditions for political entrepreneurship by providing a base for new political

Table 2. Categorisation of entrepreneurial activities in municipal policy considered in the study.

1. Possession and/or construction of support infrastructure of entrepreneurial and social activities	
Stimulus for local enterprise structure	Business/industrial parks Science and technology parks Incubators Entrepreneur support office, or similar
Urban rehabilitation/regeneration	Urban rehabilitation enterprise POLIS programme. Upgrading of public urban fabric and of public and private buildings Upgrading of significant public amenities capable of stimulating the economy Creation of horizontal offices, of the one-stop shop type: Citizens' office, Office for aesthetics and tidiness of public spaces
Fostering of social and cultural cohesion	Network of social (e.g. social housing, sports facilities) and cultural facilities (e.g. museums, libraries, multi-purpose pavilions) Municipal cultural, sports and social action cooperatives
2. Activities and services supporting entrepreneurial and social activities	
Stimulus for local enterprise structure	Incubation and other services related to technology-based entrepreneurship Municipal capital funds (e.g. partnerships with IAPMEI – FINICIA) Endogenous development projects based on real estate resources (e.g. geological parks) Cooperation and provision of services for international expansion of local firms
Urban rehabilitation/regeneration	Implementation of ground-breaking models of urban land policies – building up portfolios of land originally acquired non-speculatively Urban renovation incentives (e.g. SIMs – municipal incentive systems) Classifying a monument, landscape, site as a national monument, world heritage Real estate funds
Fostering of social and cultural cohesion	Participation in agencies or groups that encourage energy efficiency, innovation, social cohesion Actions related to material infrastructure: Cycle paths, city and riverside parks, bird-watching sites, biological parks... Initiatives for spreading new information technology fibre optic, including in all schools and all social housing estate buildings, Wi-Fi coverage in towns and public spaces
Local authority and international cooperation	Belonging to international networks to study common problems (Eurocities, Jessica4C, Organisation of Historic Towns) Supra-municipal strategies for collective efficiency (e.g. creating networks of amenities and activities to enhance a territory's attraction for tourists)

(continued)

Table 2. Continued.

Initiatives to boost reputation and projection of the municipality	<p>Establishment and publicising of the municipality's strategy to citizens, with an action plan and resources for the various departments</p> <p>Computerisation of all documentation, georeferencing of information</p> <p>Projection of the city's major landmarks</p> <p>Organisation and promotion of conferences/lectures on topics of national/regional/local interest</p> <p>Livening up the municipality by means of events of a local traditional nature and festivals</p> <p>Promoting major events at an international scale</p>
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demands or by counter-mobilising existing residents to the demands of a growing racial minority population. Finally, the municipality's distance from the central city was considered by Schneider and Teske (1992) as directly correlated with a variety of economic and social conditions of local communities.

Based on the answers of 635 municipal clerks (from 140 US suburban communities) to the question, who were the local leaders that are 'alert to disequilibrium', engage in 'creative discovery' or whose 'policy proposals and political positions represented dynamic change from existing procedures', Schneider and Teske (1992) found that the most important variable affecting the emergence of an entrepreneur was the size of slack budgetary resources measured by allocational expenditures. The size of the rental population also emerged as significant but negatively related to the emergence of a political entrepreneur. In contrast, the disruptions in population growth and increasing racial diversity increased the probability of finding an entrepreneur. Finally, although a higher tax rate increased this probability, the tax base variable and distance from the centre failed to emerge as a critical determinant for local political entrepreneurship.

Methodological approach

In a first, critical stage of the research, it was essential to identify the activities/actions capable of reflecting the entrepreneurial performance of a municipality. Given the lack of studies from which such activities could be identify,¹ we decided to turn to the contribution of a set of experts with relevant knowledge, experience and recognised visibility in the sphere of regional development, entrepreneurship and innovation, to identify the entrepreneurial activities/actions of municipalities.

We set up a diversified and balanced panel of 16 renowned experts from the public and private sectors, local councils, firms, universities, and regional development agencies.² Each individual was chosen based on her/his merit/competencies regarding their spheres of expertise. They were asked to list and justify up to five activities which could reflect the entrepreneurial commitment of municipalities.³ We compiled and categorised all the responses into two main groups (see Table 2): (1) possession and/or construction of infrastructure to support entrepreneurial and social activities (*infrastructures*); and (2) support activities and services provided to entrepreneurial and social activities (*activities*).

The first group includes three dimensions of entrepreneurial behaviour – ‘stimulus for local enterprise structures’ (for example the municipality has or is in the process of acquiring facilities in terms of business/industrial parks, science and technology parks or incubators); ‘urban rehabilitation/regeneration’ (for example upgrading of key public amenities capable of stimulating the economy; creation of horizontal offices, of the one-stop shop type), and ‘fostering of social and cultural cohesion’ (for example municipal cultural, sports, and social action cooperatives). The second group encompasses, besides the aforementioned three dimensions, two additional ones – ‘local authority and international cooperation’ (for example supra-municipal strategies for collective efficiency) and ‘initiatives to boost reputation and projection of the municipality’ (for example promoting major events at an international scale).

We computed four separate proxies for local political entrepreneurship: (1) entrepreneurship of funds; (2) entrepreneurship of activities; (3) entrepreneurship of infrastructure; and (4) global entrepreneurship. Excluding the entrepreneurship of funds, all the remaining proxies were computed as binary variables, assuming value 1 when the municipality was classified as entrepreneurial in that given dimension and 0 otherwise. Specifically, in the case of the proxy for entrepreneurship of funds, the value 1 was assigned to municipalities that mention having obtained funds, 0.5 to those that indicate they had applied for funds, and 0 to the remaining cases; we then computed the variable *entrepreneurship of funds* as a weighted average using the formula:

$$\frac{1 \times \text{obtained} + 0.5 \times \text{applied}}{1.5}.$$

The variable *global entrepreneurship* is the simple arithmetic average of the three entrepreneurial dimensions: *funds*, *activities*, and *infrastructures*. The maximum value

that each proxy for municipal entrepreneurship can achieve is 1 and the minimum is 0.

In addition to the dependent variables (*funds*, *activities*, *infrastructures*, *global*), the application of the independent individual variables are detailed in Table 3 and were gathered through direct questionnaires targeting all Portuguese municipal mayors. Independent contextual proxies were gathered from secondary, documental sources.

The mayors’ responses (most specifically their degree of agreement⁵) regarding a set of statements served as the basis to determine the individual psychological, strategic, and managerial skills/competencies variables. For instance, a given mayor is classified as highly *confident* in the case she/he highly or completely agreed with 6 of the 8 statements identified in Table 3 (for example, ‘I have a great sense of responsibility’; ‘I take decisions quickly’; ‘I normally trust my judgment, even if others disagree with me’; ‘I am an optimist’). A similar computation method and reasoning was followed for the remaining individual traits (self-motivation, creativity and innovation, risk, persuasion, etc.).

The questionnaire was emailed to all 308 Portuguese municipalities, providing them with the possibility of replying by fax or email. After various efforts by email and a considerable number of phonecalls asking for the mayors’ cooperation, we received 108 complete questionnaires (35% response rate).

Practically all the respondent municipalities, over the course of the present executive team’s mandate, had applied or obtained competitive funds (most specifically, European funds) (the mean of the *funds* variable is almost 1, more precisely, 0.914 – see Table 4). About 40% of the respondent municipalities, over the course of the present executive team’s mandate, had created or were creating infrastructures, activities, and services to support entrepreneurial and social activities (the means of

Table 3. Proxies of demographic individual variables.

Determining factor group	Determining factor	Indicator/proxy
Individual – demographic	Gender	Gender (0 if female, 1 if male)
	Education	Up to first degree (1 if a graduate, 0 if not)
		Postgraduate/master's level (1 for postgraduate/masters qualification, 0 otherwise)
		Law, social sciences and services qualification – 1, 0 otherwise
		Economics, management and accounting qualification – 1, 0 otherwise
		Do you have a previous employment in this or any other municipal council prior to current position as mayor? 1 if Yes, 0 otherwise
	Age	Age
		How long have you been mayor of this municipality?
		How long have you held posts of a political nature?
		Number of firms and similar created
Individual – psychological		Number of firms and similar managed
		I have a great sense of responsibility (1 if the mayor agrees highly/completely and 0 otherwise)
		I take decisions quickly (1 if the mayor agrees highly/completely and 0 otherwise)
		I normally trust my judgment, even if others disagree with me (1 if the mayor agrees highly/completely and 0 otherwise)
		I am an optimist (1 if the mayor agrees highly/completely and 0 otherwise)
		When I have plans it's almost a given that I implement them (1 if the mayor agrees highly/completely and 0 otherwise)
		I can always achieve what I want if I make the effort (1 if the mayor agrees highly/completely and 0 otherwise)
		I have high self-esteem and self-confidence (1 if the mayor agrees highly/completely and 0 otherwise)
		I always achieve wanted to make more money than what I was earning (1 if the mayor agrees highly/completely and 0 otherwise)

(continued)

Table 3. Continued.

Determining factor group	Determining factor	Indicator/proxy
Determining factor group	Self-motivation (1 if 3 self-motivation attitudes/behaviours have a high/complete agreement; 0 otherwise)	I provide a cooperative climate and working teams in my municipal council so as to tackle challenges (1 if the mayor agrees highly/completely and 0 otherwise) I provide a working environment where people feel motivated to do better (1 if the mayor agrees highly/completely and 0 otherwise) I am keen to acquire new skills (1 if the mayor agrees highly/completely and 0 otherwise) I take the time to help my staff to find ways of improving our services (1 if the mayor agrees highly/completely and 0 otherwise) I go ahead with new approaches when I see that my colleagues might be more cautious (1 if the mayor agrees highly/completely and 0 otherwise)
	Creativity and innovation (Orientation/Strategic vision) (1 if at least 4 creativity and innovation attitudes/behaviour have a high/complete agreement; 0 otherwise)	I describe with conviction how things could be in my municipal council, in the future, and what is needed to achieve goals (1 if the mayor agrees highly/completely and 0 otherwise) I always wanted to implement an idea or innovation at council/political level (1 if the mayor agrees highly/completely and 0 otherwise) I would encourage a friend or relative to start a business (1 if the mayor agrees highly/completely and 0 otherwise) I am an imaginative and creative person (1 if the mayor agrees highly/completely and 0 otherwise) I like challenges (1 if the mayor agrees highly/completely and 0 otherwise) I think that I run considerable risks, more than most people (1 if the mayor agrees highly/completely and 0 otherwise) I would describe myself as a gambler (1 if the mayor agrees highly/completely and 0 otherwise)
	Risk (1 if at least 5 risk attitudes/behaviour have a high/complete agreement; 0 otherwise)	I am the kind of person that copes well with uncertainty (1 if the mayor agrees highly/completely and 0 otherwise) I like change (1 if the mayor agrees highly/completely and 0 otherwise) I do not give up easily (1 if the mayor agrees highly/completely and 0 otherwise)

(continued)

Table 3. Continued.

Determining factor group	Determining factor	Indicator/proxy
Individual – strategic	<i>Persuasion</i> (1 if at least 2 persuasion attitudes/behaviour have a high/complete agreement; 0 otherwise)	I encourage my staff to take initiatives, with a view to improving our services (1 if the mayor agrees highly/completely and 0 otherwise) I encourage my staff to think about their work in new and stimulating ways (1 if the mayor agrees highly/completely and 0 otherwise)
Individual – management skills and abilities	<i>Commitment to opportunity</i> (1 if 3 commit to opportunity attitudes/behaviour have a high/complete agreement; 0 otherwise)	I quickly change the action's direction when the results are not being achieved (1 if the mayor agrees highly/completely and 0 otherwise) I efficiently carry out proposed actions using current bureaucratic procedures (1 if the mayor agrees highly/completely and 0 otherwise) I operate and scrupulously comply with deadlines for strict application (1 if the mayor agrees highly/completely and 0 otherwise)
	<i>Commitment of resources</i>	I operate so as to minimize the resources committed and by adopting a multi-staged commitment of those resources (1 if the mayor agrees highly/completely and 0 otherwise)
	<i>Control of resources</i>	I make use of available resources and decide on the time needed to acquire the necessary resources (1 if the mayor agrees highly/completely and 0 otherwise)
	<i>Management structure</i> (1 if at least 3 management structure attitudes/behaviour have a high/complete agreement; 0 otherwise)	I do not start anything unless I have an action plan (1 if the mayor agrees highly/completely and 0 otherwise) I have a special talent for team management (1 if the mayor agrees highly/completely and 0 otherwise) I always wanted to lead and motivate other people (1 if the mayor agrees highly/completely and 0 otherwise)

Table 4. Mean of the dependent and independent variables.

Group	Variable	Mean
Dependent variable*	Entrepreneurship of funds	0.914
	Entrepreneurship of activities	0.413
	Entrepreneurship of infrastructure	0.396
	Global entrepreneurship	0.574
Individual – demographic*	Gender (Male = 1)	0.963
	Education	Degree (Masters = 1)
		Area of study (Economics/ Business = 1)
	Professional/occupational qualification and position	Were previously (to the present mandate) mayors (Yes = 1)
	Age	50.950
	Work experience	Years as mayor
		Years in posts of a political nature
		Number of firms and similar created
		Number of firms and similar run
		1.0
Individual –psychological*	Confidence	0.667
	Self-motivation	0.732
	Creativity and innovation	0.676
	Risk	0.500
Individual – strategic*	Persuasion	0.917
Individual – management skills and abilities*	Commitment to opportunity	0.444
	Commitment of resources	0.648
	Control of resources	0.769
	Management structure	0.537
Contextual – budgetary**	Municipality budget per inhabitant (in)	1912.6
Contextual – economic**	Purchasing power (Portugal = 100)	75.4
	Share of medium and large businesses in total companies in the municipality	0.004
Contextual – demographic**	Distance (time, in hours, that is required to travel from the centre of the municipality to the centre of the corresponding district)	0.768
	Municipality accessibilities – No. telephone accesses/100 inhabs	0.271
	Municipality share of the adult population with secondary education	0.213
	Municipality share of the adult population with tertiary education	0.038

Source: *Direct questionnaire, April 2011; **Sales Index, Marktest, reference years: 2007 and 2009.

entrepreneurship of *infrastructures* and *activities* are 0.396 and 0.413, respectively). The average index of *global* municipal entrepreneurship is 0.574 which means that around 57% of the respondent municipalities can be classified as entrepreneurially led. Regarding the independent, explanatory variables, around 96% of the

respondent mayors are male, 26% possess a Masters degree, 18% have a degree in Economics/Business, and 43% are experienced local politicians (they were mayors prior to the present executive mandate). The main psychological, strategic, and management traits of the respondent mayors are, respectively, self-motivation,

persuasion (for example able to encourage her/his staff to take initiatives), and control of resources (i.e. able to make use of available resources and make timely decisions as to the acquisition of these).

The proxies for contextual variables were not exactly the same as those considered in the existing literature (see Literature review section), mainly due to a lack of data (taxes; renters concentration, and racial diversity). In terms of budgetary conditions, we used the per capita municipality budget, whereas for economic conditions, we considered municipality purchasing power and the share of medium and large businesses located in the municipality. This latter intends to reflect the business structure of the municipality – we conjecture that municipalities characterised by smaller industrial/business basis, that is, lower shares of medium and large firms, are required to be entrepreneurially more dynamic, functioning often in this context, as Walder (1995) argues, as an ‘industrial firm’. Finally, regarding the demographic conditions, we

selected distance (time, in hours, required to travel from the centre of the municipality to the centre of the corresponding district), accessibility in terms of communication (number of telephone accesses/100 inhabs), and municipal educational endowments (i.e. the share of the adult population with secondary and tertiary/university education).⁶

On average, the respondent municipalities have relatively small endowments of human capital with only 3.8% of their adult population having a tertiary degree and 21% secondary level education. Additionally, their purchasing power is on average 25 percentage points below the national average and the share of medium and large firms is quite negligible (0.4%).

In order to assess which factors are more likely to explain the entrepreneurial behaviour of municipalities, a logistic model was employed where the dependent variable is binary (1 if the municipality has an above average entrepreneurship indicator and 0 otherwise). The specification of the logistic model is as follows:

$$\begin{aligned}
 & \log\left(\frac{\text{Prob('Above average entrepreneurship')}}{\text{Prob('Below average entrepreneurship')}}\right) \\
 &= \beta_0 + \underbrace{\beta_1 \text{Gender} + \beta_2 \text{Education} + \beta_3 \text{Occupation} + \beta_4 \text{Age} + \beta_5 \text{Work Experience}}_{\text{Individual Demographic}} \\
 &+ \underbrace{\beta_6 \text{Confidence} + \beta_7 \text{Self motivation} + \beta_8 \text{Creativity and Innovation} + \beta_9 \text{Risk}}_{\text{Individual psychological}} + \underbrace{\beta_{10} \text{Persuasion}}_{\text{Individual strategic}} \\
 &+ \underbrace{\left(\beta_{11} \text{Commitment to opportunity} + \beta_{12} \text{Commitment to resources} \right.}_{\text{Individual Management skills and abilities}} \\
 &\quad \left. + \beta_{13} \text{Control of resources} + \beta_{14} \text{Management structure} \right) \\
 &+ \underbrace{\beta_{15} \text{Expenditure per Inhabitant} + \beta_{16} \text{Accessibilities}}_{\text{Context municipality resources and accessibility}} \\
 &\quad + \underbrace{\beta_{17} \text{Secondary schooling} + \beta_{18} \text{Tertiary schooling}}_{\text{Context municipality resources and accessibility}} \\
 &+ \underbrace{\beta_{19} \text{Purchasing power} + \beta_{20} \text{Medium High firms weight}}_{\text{Context Economic}} + \varepsilon_i,
 \end{aligned}$$

ε being the random term.

When the estimate of β_i is positive/negative, it means that the odds (the ratio probability of the municipality having an above average entrepreneurship indicator to the probability of the municipality having a below average entrepreneurship indicator) increase/decrease and variable i influences positively/negatively the municipality's entrepreneurship.

Determinants of local political entrepreneurship: Empirical results

The estimates of the coefficients for the municipalities' *global*, *funds*, *activities*, and *infrastructure* entrepreneurship are given in Table 5.⁷ The models revealed a good quality of adjustment.⁸

Two key results emerge from the estimations performed. First, the determinants of local political entrepreneurship vary according to the entrepreneurship dimension considered. Indeed, whereas the individual factors (namely, the mayor's human capital, seniority, confidence, and ability to use and manage available resources) are particularly relevant in the case of support activities and services provided to entrepreneurial and social activities (*activities*), contextual variables (municipality's higher purchasing power, lower level of accessibilities, and lower share of medium and large firms) emerge as more critical for possession and/or construction of infrastructure to support entrepreneurial and social activities (*infrastructures*).

Second, both the individual (in the line of Zampetakis and Moustakis, 2007) and contextual (cf. Schneider and Teske, 1992) factors are relevant in explaining political entrepreneurship at the local level. Our estimations show that municipalities with higher levels of global entrepreneurship tend to be chaired by younger, male mayors, who efficiently use resources

committed to take advantage of a window of opportunity ('commitment of resources' – i.e. capable of minimizing the resources committed by adopting a multi-staged commitment of those resources). Municipalities whose mayors are more 'committed to opportunity', that is, who reveal high levels of willingness to act in a very short timeframe tend to reveal lower levels of global entrepreneurship. Thus, at least for the respondent sample of Portuguese municipalities, longer timeframes are required to achieve higher levels of local entrepreneurship. Regarding contextual factors, local political entrepreneurship depends critically on the citizens' intermediate (secondary) education, the (lower) weight of medium and large firms in the total municipal economy and the municipality's laggardness in terms of communication accessibilities.

Municipalities that reveal high levels of entrepreneurship in terms of *funds* tend on average to be run by mayors who, despite being newcomers to the job (they were not previously mayors) have relatively large experience as politicians, are willing to act within a relatively long timeframe and are highly self-motivated, providing the municipality's staff with a cooperative working environment. Contextual conditions fail to emerge as key explaining factors for local entrepreneurship in the *funds* dimension. In contrast, contextual conditions emerge as fundamental in explaining *activities* and *infrastructure* entrepreneurship at the local level in Portugal. Specifically, municipalities that are characterised by worse conditions in terms of accessibilities (geographical and communicational) and whose business context is characterised by a small business basis (i.e. lower share of medium and large firms), tend to present high entrepreneurial dynamics through the implementation of activities and services provided to entrepreneurial and social activities and the possession and/or construction of infrastructure to support these activities. Similarly to the

Table 5. Determinants of local political entrepreneurship (logistic estimations).

Determining factor group	Determining factor	Global entrepren.	Funds entrepren.	Activities entrepren.	Infrastructure entrepren.
Individual – demographic	Gender (Male = 1)	8.297*	2.412	6.688	26.552
	Education	–0.585	–1.653	1.787**	–0.518
	Degree (Master's = 1)	–0.557	–2.322	0.779	–0.733
	Study area (Economics = 1)	–0.615	–3.202**	–1.522*	–1.198*
	Previously been a mayor (Yes = 1)				
Individual – psychological	Professional/occupational qualification and position				
	Age	–3.504*	–3.765	5.227**	–2.476
	Work experience	0.950	–1.186	0.591	0.605
	Years as mayor	–0.594	2.233**	–0.441	–0.065
	Years in posts of a political nature	1.104	0.773	0.344	0.674
Individual – strategic	Number of firms and similar created	0.486	1.692	0.860	0.910
	Number of firms and similar run	0.681	–0.244	1.886***	0.540
	Confidence	0.850	3.405*	–1.627*	0.865
	Self-motivation	–1.041	1.905	–0.431	–0.463
	Creativity and innovation				
Individual – management skills and abilities	(Orientation/Strategic vision)				
	Risk	0.106	0.235	–0.792	–0.276
	Persuasion	0.854	–21.286	–0.137	0.509
	Commitment to opportunity	–1.985***	–2.987*	–0.841	–0.790
	Commitment of resources	1.440**	1.290	–1.084	–0.409
Contextual – budgetary	Control of resources	1.161	0.304	2.359**	2.058**
	Management structure	–0.709	–1.074	–0.487	–0.420
	Spending per inhabitant	0.889	–0.174	–1.016	0.576
	Distance	0.183	0.359	–4.243**	0.064
	Accessibilities – No. telephone accesses/100 inhabs	–10.705*	–15.184	–2.452	–9.144*
Contextual – demographic	Share of the adult population with secondary education	0.064**	0.016	–0.001	0.021
	Share of the adult population with tertiary education	–10.490	–75.498**	37.984	10.740

(continued)

Table 5. Continued.

Determining factor group	Determining factor	Global entrepren.	Funds entrepren.	Activities entrepren.	Infrastructure entrepren.
Contextual – economic situation	Purchasing power	1.749	7.815	0.878	2.978*
	Weight of medium and large businesses in total companies in the municipality	–184.756*	13.713	–267.630***	–187.221**
	Constant	–7.314	6.448	–20.970	–33.982
	N	102	102	102	102
Goodness of fit	Entrepreneurship above average	55	90	44	47
	Others	47	12	58	55
	Hosmer and Lemeshow test (p-value)	0.859	0.088	0.987	0.135
	% correct	75.5	93.1	82.4	78.4

Note: statistically significant at *** (0.001) [1%], ** (0.01) [5%], * (0.05) [10%].

funds entrepreneurship, being new to the job seems to be a pre-requisite for high entrepreneurial performance, whether at the level of activities or infrastructures. The mayor’s educational level and confidence are only relevant for local political entrepreneurship as ‘measured’ by the activities and services implemented with a view to promoting entrepreneurial and social activities.

Conclusions

Entrepreneurship-related studies have come to increasingly emphasise the dynamics of innovation and regional development (Teixeira, 2011). However, studies on local political entrepreneurship are still scarce and in demand, since entrepreneurship behaviour outside the private sphere is a reality and has been on the rise (Hederer, 2010).

The few studies that focus on public and political entrepreneurship tend to rely on qualitative, case-study approaches (Ferlie et al., 2003; Secchi, 2010; Zerbinati and Souitaris, 2005); the very few that pursue a more quantitative perspective have essentially focused on the contextual (Schneider and Teske, 1992) and individual (Zampetakis and Moustakis, 2007) factors in isolation. Moreover, these studies are mostly centred on the entrepreneurship propensity of given individuals, and not on the localities as collective entities.

The present study endeavoured to respond to the call for quantitative empirical research on local and public entrepreneurship, namely at the local level (Klein et al., 2010). It examined the factors determining political entrepreneurship at the local/municipal level in Portugal, concentrating particularly on the municipality rather than the mayor. Instead of focusing on political entrepreneurs, this study concentrated on the entrepreneurship of the municipality, which obviously requires the

simultaneous consideration of individual and contextual factors.

Based on responses gathered from 108 Portuguese municipalities, we found that both individual – gender, previous occupational status, age, work experience, and managerial competencies – and contextual – accessibilities, population educational endowments, and business structure of the municipalities – conditions are key determinants of local entrepreneurship. Specifically, the more entrepreneurial municipalities tend to be characterised by a business structure in which micro and small enterprises predominate and have a population with an intermediate level of education (secondary school) and poorer accessibilities in terms of communication. In contrast to what was found by Schneider and Teske (1992), the municipalities' budgetary conditions fail to explain local entrepreneurship regardless of the dimension considered. Moreover, at the individual level, the type and level of the mayors' education, as well as their professional experience (both in terms of private and public duties) fail to have significant importance for local political entrepreneurship. This seems to be in line with our conceptualisation of local political entrepreneurship as a complex symbiosis involving a collective dimension – mayor, executive team, quality and availability of the local resources, and the socioeconomic features of the region.

Although novel in methodological terms, the present study conveys results that are somehow tentative, particularly with regard to the explanation of the mechanisms underlying the very complex causal relationships between some of the contextual factors identified (for example municipalities' business structure) and degrees of local political entrepreneurship. Further research, both at the theoretical and empirical levels, is required to uncover and better sustain the hidden mechanisms that potentially explain local political entrepreneurship.

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Notes

1. The only exception in this regard is the study of Zerbinati and Souitaris (2005), who considered the application to European funds as an indicator of the entrepreneurial behaviour of a municipality.
2. The list of experts is detailed in Table A1 in the Appendix.
3. Data was gathered in February and March 2011. The majority of the experts were contacted by email. Three experts were interviewed personally, by phone or face-to-face.
4. Although applying for funds indicates some level of municipal entrepreneurship, we assume that obtaining the funds reveals greater entrepreneurial propensity.
5. Using a Likert scale of 1 (no agreement) up to 5 (complete agreement).
6. A municipality's public sector employment share was in a first stage considered as a potential determinant for local entrepreneurship but not included in the model given the high (positive) correlation of this variable with per capita municipality budget.
7. The correlation of the relevant variables (provided upon request from the corresponding author) shows that there are no problems of multicollinearity between the independent variables selected.
8. The percentage of correctly estimated observations is quite high (between 75% and 93%) and for the standard levels of significance, the

statistics of the Hosmer-Lameshow test accepts the null hypothesis that the models are a good representation of reality.

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Appendix

Table A1. Panel of experts.

Expert	Type of organisation	Occupation	Firm/organisation name
António Magalhães da Silva	Municipality Chambers	Mayor	Câmara Municipal de Guimarães
Hermínio Loureiro		Mayor	Câmara Municipal de Oliveira de Azeméis
Rui Rio		Mayor	Câmara Municipal do Porto
Ana Martins	Firms	CEO	Global XXI Consultores, Lda.
Bruno Teixeira		CEO	Construções Ponte do Gôve, Lda.
José Marques da Silva		CEO	Finance XXI Consulting
Raul Azevedo		CEO	WeDo Technologies

(continued)

Table A1. Continued.

Expert	Type of organisation	Occupation	Firm/organisation name
Ana Paula Dias Delgado	Firms/ Universities	CEO; Invited Professor at FEP (Universidade do Porto); Expert in Regional and Urban Development	Porto Vivo, SRU – Sociedade de Reabilitação Urbana da Baixa Portuense, S.A.; Universidade do Porto
Joaquim Borges Gouveia	Universities	Full Professor at DEGEI (Universidade de Aveiro); Expert in Innovation Management and Entrepreneurship	Universidade de Aveiro
José António Cadima Ribeiro		Full Professor at Economics and Management School (Universidade do Minho); Expert in Regional and Development Economics and Entrepreneurship	Universidade do Minho
José da Silva Costa		Full Professor at FEP (U.Porto); Expert in Economics and Regional Development	Universidade do Porto
José Manuel Mendonça		Full Professor at FEUP (U.Porto); President of INESC Porto; Expert in Innovation Management and Entrepreneurship	INESC Porto – Instituto de Engenharia de Sistemas e Computadores do Porto; Universidade do Porto
Alexandre Almeida	Local and Regional Development Organizations	Regional consultant	Programa Operacional da Região do Norte
Gisela Ferreira		Coordinator of Euro-cidade Chaves-Verín Strategic Programme	CCDR-N
M ^a José Pereira		Coordinator of Rede Empreem Douro	CCDR-N
Rui Monteiro		Team leader at Centro de Avaliação de Políticas e Estudos Regionais	CCDR-N