



The intrapreneur and innovation in creative firms

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Abstract

This article analyses how the intrapreneur's demographic characteristics and personal values influence innovation performance in small creative firms. We demonstrate that the intrapreneur's previous experience in developing and commercializing creative products and services, together with an entrepreneurial value system (EVS), constitute characteristics that positively affect a firm's innovation performance. This article makes two main contributions. First, research on factors that stimulate innovation in small creative firms is scarce. Second, the article applies a cognitive approach integrating demographic characteristics and personal values, aspects that are rarely jointly explored in entrepreneurship research.

Keywords

demographic characteristics, intrapreneur, personal values, innovation, small creative firms

Introduction

Today, intangible and symbolic goods are becoming increasingly important and the creative industry has acquired a special significance in the world of business (Castells, 1996; Wong et al., 2006). The increased consumption of culture, which is related both to the marketization of culture and culturalization of the market, together with the development of government policies that support the growth of this industry due to its positive contribution to a country's economy, are good reasons for studying what are now called 'creative firms' (Ellmeier, 2003; Hesmondhalgh, 2002; Hesmondhalgh and Pratt, 2005; Lee et al., 2004; Wong et al., 2006).

Jeffcut and Pratt (2002) suggest that, in existing research on the creative industry, much attention has focused on the macro-level; however, there is a need for a better understanding of what occurs

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at the micro-level and especially for analysing particular variables which influence the performance of creative firms (Mellander, 2010). In this sense, one question that has been widely neglected concerns the degree and determinants of innovation in the creative industry largely as much research assumes that creative firms are by definition, inherently innovative. As a result, scholars have given little, if any, regard to variations in the degree of innovation (Andari et al., 2007; Cooke and Schwartz, 2007; Organisation for Economic Co-operation and Development (OECD), 2006; Sunley et al., 2008). Recent reports and studies show that the creative industry can be considered as an economic growth driver and that innovation in the creative industry has significant implications for national and regional innovation systems (Bakhshi et al., 2008; Davis et al., 2009; Müller et al., 2009; Potts and Morrison, 2008). Consequently, it is vital to understand why some creative firms are more innovative than others and what determines innovation performance (Andari et al., 2007; Sunley et al., 2008). Responding to this claim, a number of studies do analyse the role of innovation in the creative industry in more detail, using both standard measurements commonly applied in industrial sectors (Bakhshi et al., 2008; Miles and Green, 2008; Müller et al., 2009; Perretti and Negro, 2007; Sunley et al., 2008; Wilkinson, 2007) plus specific measurements relevant to the creative industry such as soft, artistic and hidden innovation (Bakhshi and Throsby, 2009; Castañer and Campos, 2002; Davis et al., 2009; Miles and Green, 2008; Stoneman, 2007, 2009). However, the factors that determine innovation performance in creative firms remain somewhat unclear.

Miles and Green (2008) state that, as many creative firms are micro-businesses, a complete understanding of innovation performance in the creative industry requires information about these smaller firms. Furthermore, it is noted that in the context of small creative firms, innovation performance is closely linked to the role played by the owner-entrepreneur (Castañer and Campos, 2002; Malem, 2008; Strandgaard et al., 2006). In particular, the competitive advantage that a firm holds in the creative industry is directly related to the creative and innovative capacities of its entrepreneur. In most creative firms, in addition to being the founder of the business, the entrepreneur is the person who manages; they represent the firm's core resource and, as its leader, enjoy a high degree of decision-making authority. Thus, the entrepreneur in such is very influential in stimulating and promoting innovation (Yamada and Yamashita, 2006). Within the corporate environment, such activity is described as 'intrapreneurship' (Bosma et al., 2010); that is an entrepreneur acting within an existing organization who assumes active responsibility for generating all types of innovation and particularly for introducing new products, processes and services in order to enable the company to grow and obtain profits (Menzel et al., 2007). In this study, we propose that the degree of innovation achieved by a creative firm depends significantly on the intrapreneur or intrapreneurial team, who are the architects, supporters and developers of the firm's creative capabilities (Department for Culture, Media and Sport (DCMS), 1998; Napier and Nilsson, 2006).

In spite of its relevance, the impact of intrapreneurs on their firms' innovation performance is still not well understood theoretically because the literature remains sparse (Davidsson, 2005; Koellinger, 2008; Koppel, 2007; McMullen et al., 2007). However, there is a growing interest in explaining the relationship between corporate entrepreneurship and innovation and within particular case, in explaining how the intrapreneur's profile affects the firm's innovation performance (Gapp and Fisher, 2007; McFadzean et al., 2005; Menzel et al., 2007). This article is framed within this analysis, combining a corporate entrepreneurship approach with upper echelon theory the effect that demographic characteristics and personal values of the intrapreneur exert on the innovation performance of small creative firms.

The article makes several contributions. First, it responds to calls for more research into the organization, management and governance of companies operating in creative fields, and particularly to the call for analysis of innovation in small creative firms. This latter topic reflects an emergent trend within creative industry research (Davis et al., 2009; Jeffcutt and Pratt, 2002; Lawrence and Phillips, 2002; Miles and Green, 2008; Müeller et al., 2009; Perretti and Negro, 2007; Stoneman, 2009; Strandgaard et al., 2006). Second, the article utilizes a cognitive approach that integrates demographic characteristics and personal values in order to analyse the effects of the profile of intrapreneurs on firms' performance. Within entrepreneurship research, few studies integrate these two theoretical approaches (Entrialgo, 2002; Vyakarnam and Handelberg, 2005), although recently scholars have claimed that this type of research must be conducted (Boohene et al., 2008) and remains rare in the context of the creative industries.

The article is structured as follows. Following this introduction, drawing upon a cognitive approach there is an analysis, of the manner in which the intrapreneur's demographic characteristics and personal values influence the innovation performance of the firm. The hypotheses put forward in this research are included here. The next section describes the methodology and the results obtained from the empirical research are presented. In the final section, conclusions are offered.

The intrapreneur and the firm's innovation performance: A cognitive approach

Unlike the independent entrepreneur who creates a new company, the intrapreneur acts within an existing organizational context and focuses basically on the generation of new areas of business; that is, the intrapreneur drives the search for new opportunities that could lead to the development of new products, markets or technologies (Antoncic and Hisrich, 2003; Covin and Miles, 2007; Covin and Slevin, 1991; Gapp and Fisher, 2007; Kuratko et al., 2005; Menzel et al., 2007; Miles and Covin, 2002; Srivastava and Lee, 2005).

It is argued that while intrapreneurship is rooted in entrepreneurship (Amo and Kolvereid, 2005; Molina and Callahan, 2009), there are several differences between the two concepts. Molina and Callahan (2009) consider three key differences. First, intrapreneurs make risky decisions using the resources of the company in which they operate, while entrepreneurs make risky decisions using their own resources. Second, intrapreneurship takes place among employees from within an organization, whereas entrepreneurship mainly tends to be externally focused. Third, entrepreneurs prefer to develop tacit knowledge in new organizations, while intrapreneurs work within organizations that already have their own policies, language, procedures and bureaucracy (Antoncic and Hisrich, 2001; Molina and Callahan, 2009; Morris et al., 2008). Therefore, the key difference is in the context in which entrepreneurs and intrapreneurs carry out their activities; the intrapreneur recognizes opportunities and develops innovations from within an existing hierarchy.

The creative industry is fragmented; it comprises a large number of small enterprises and a small number of large enterprises (Bakhshi and Throsby, 2009; Jones et al., 2004). Therefore, most companies are characterized as small or micro-companies, which means that the role of initiator of change and innovation customarily resides in the figure of the manager. So, according to the definition used here, the intrapreneur may be represented by the leading manager of the company who is responsible for introducing and producing new products, processes and services to expand profit. In other words, the top manager in small and micro creative firms can play the role

of intrapreneur because this person has the ultimate responsibility for the organization's innovation performance (Covin and Miles, 2007; Guth and Ginsberg, 1990; Kuratko et al., 1990; McAdam et al., 2010; McFadzean et al., 2005; Srivastava and Lee, 2005). In this sense, some authors state that the ability to recognize opportunities is critical to innovation, and that this ability often arises from managers and experienced intrapreneurs rather than organizational activities and practices (Gapp and Fisher, 2007; Westhead et al., 2009). This assertion is even more applicable in the case of micro and small companies. Escribá-Esteve et al. (2008) state that in small enterprises, the lack of resources and administration systems, which help large companies in their decision-making processes, causes them to rely more on the abilities and initiatives of their managers. Thus, we argue that these two figures – managers and intrapreneurs – can coincide in small creative firms.

Very little has been published in the literature analysing the influence that the intrapreneur has on the innovation performance of the company (Srivastava and Lee, 2005), and in the creative industry, published research has been developed only recently (Vyakarnam and Handelberg, 2005). Koellinger (2008) states that one of the fundamental questions that researchers need to answer is: 'what are the factors that make some intrapreneurs more innovative than others' Most of the studies published have centred on analysing intrapreneurial traits and the individual characteristics that affect intrapreneurs' creativity, their propensity to take risks and their need for achievement and locus of control; these studies focus on factors very similar to those analysed in the area of the independent entrepreneur (Baum et al., 2001; Keh et al., 2002). However, the research centred on intrapreneurial traits has had only limited success in explaining the behaviour and perceptions of intrapreneurs (Keh et al., 2002; West, 2007). Due to these limitations, a cognitively oriented approach has been recently introduced in the corporate entrepreneurship field (Baron, 2004; Busenitz et al., 2003; Keh et al., 2002; Palich and Bagby, 1995). In this research, we adopt a cognitive perspective that considers the demographic profile and personal values of intrapreneurs in order to explain their perceptions and behaviours and, consequently, the innovation performance of the creative firms that they manage.

In general terms, the aim of the cognitive approach is to answer the following question: what perceptual or cognitive factors encourage some intrapreneurs, rather than others, to adopt behaviours which discover and exploit particular opportunities within an organization (Cools and Van den Broeck, 2008)? The observation that some firms are capable of renewing themselves and innovating in their sectors, while others are not, suggests that there are certain crucial components in the behaviours and cognitive characteristics of managers that lead them to act differently in changing contexts or new situations (Papadakis and Barwise, 2002; Wiersema and Bantel, 1992). More specifically, the cognitive bases or mental models of the individuals who manage a company could be influential in either facilitating or limiting the evolution and the innovation of that company. Managers' cognitive bases allow them to analyse events and information, provide them with a view of where they stand relative to what is happening and give them support in solving potential problems in the decision-making processes.

Hambrick and Mason (1984) proposed a model of how a manager's cognitive base influences the perceptual processes underlying decision-making, basing this reasoning on the development of upper echelon theory. As a first premise, this theory states that top managers exert a fundamental influence on strategic choice in their organizations and, hence, on their outcomes (Finkelstein and Hambrick, 1990; Hambrick and Mason, 1984; Wiersema and Bantel, 1992). This first premise is founded on studies by Cyert and March (1963) and March and Simon (1958), who argued that complex decisions are largely the outcome of behavioural factors

rather than a mechanical quest for economic optimization (Hambrick and Mason, 1984). A second premise of the upper echelon theory is that, if strategic choices have a large behavioural component, they reflect the decision-maker's cognitive base and values. As Hambrick and Mason state, 'the manager's eventual perception of the situation combines with his/her values to provide the basis for strategic choice' (1984: 195). This theory argues that a manager's demographic characteristics (such as age, education, organizational tenure and functional background) and psychological characteristics – particularly the individual's personal values – have an impact on organizational outcomes because both are key variables in the way that the manager makes strategic choices.

Because psychological characteristics are difficult to measure, most research conducted within upper echelon theory has been based on the more observable characteristics of senior managers (i.e. the demographic characteristics), which have been taken as a surrogate for the cognitive bases of these managers (Hambrick and Mason, 1984; Wiersema and Bantel, 1992). This association between cognitive bases and demography is thought to be reasonable, considering that an individual's cognitive base evolves from their experiences in occupational and social contexts, generational life experiences and so forth (Hambrick and Mason, 1984; Wiersema and Bantel, 1992). However, within the critical stream of upper echelon theory, some authors call for the inclusion of psychological variables, particularly values (Priem et al., 1999; Vyakarnam and Handelberg, 2005). Because personal values represent the attributes of an individual that are essentially different from observable demographic variables (Hambrick and Mason, 1984), the two measurements together ought to enrich an analysis of intrapreneurs' cognitive bases. Although the upper echelon approach constitutes a theory that has been used successfully to explain the strategic decisions and behaviours of a company's CEO and top management team, in this research, as has been previously argued, we believe that the upper echelon theory may be equally valid for explaining the behaviour of the intrapreneur and its relationship to innovation.

Finally, some observations are required regarding the causality that appears to be established in the study as a result of accepting the premises inherent in upper echelon theory. As mentioned previously, Hambrick and Mason (1984) state that organizational outcomes can be partially predicted from managerial characteristics. However, the observer can expect managerial characteristics to be determined by previous organizational actions, organizational performance and the industry environment. In agreement with Hambrick and Mason (1984), these reflections on causality should not invalidate the argument that the characteristics of managers can influence strategic choices and therefore, also influence the results obtained. These points and reflections on causality demonstrate that the concurrence of particular characteristics of a company's executives is not a random process, and that when it comes to interpreting the company's performance, the effects of the company's industry, its strategic decisions and its previous results should be taken into account. In this study, an attempt has been made to consider the effects of the creative industry.

Demographic characteristics of the intrapreneur

From upper echelon theory it has been argued that certain demographic characteristics of those who manage and make decisions in companies are linked to their propensity to take risks and behave in creative and innovative ways. Specifically, the characteristics of intrapreneurs that determine their orientation toward innovation are organizational tenure, functional background,

educational level and age (Bantel and Jackson, 1989; Barkema and Chvyrkov, 2007; Daellenbach et al., 1999; Kor, 2006; Krishnan et al., 2006; Lynskey, 2004; Lyon and Ferrier, 2002; Rapp and Hao 2008). Each of these characteristics is discussed in more detail below.

Organizational tenure

The conventional argument drawn from upper echelon theory is that long-tenured executives represent a source of complacency in the organization (Boeker, 1997; Goll et al., 2008; Srivastava and Lee, 2005). Long organizational tenure is associated with a passive approach to decision-making and resistance to changes in the firm's strategy (Bantel and Jackson, 1989; Boeker, 1997; Kor, 2006; Wiersema and Bantel, 1992). Similarly, when found in the intrapreneur with long organizational tenure, this resistance to change implies a reduced willingness to take risks which can affect the company's performance (Entrialgo, 2002; Kor, 2006).

As Kor (2006) states, in the early years of a company's development, the intrapreneur becomes more knowledgeable about the firm's resources and develops a cognitive framework about its opportunities and what its strategy should be. Subsequently, the success of particular strategies encourages the intrapreneur to consolidate those particular strategic decisions and policies thus, reinforcing leaving them. This would tend to inhibit the intrapreneur from making further decisions that could be risky (but innovative) for the company.

From the arguments presented, we propose a first hypothesis:

H1: The intrapreneur's organizational tenure is negatively associated with the innovation performance achieved by the small creative firm.

Functional background

Drawing on upper echelon theory, it has been argued that managers' functional backgrounds can influence their propensity for innovation (Daellenbach et al., 1999; Hayes and Abernathy, 1980; Hegarty and Hoffman, 1990). However, empirical research has not shown conclusive results regarding how manager's differing backgrounds affect their inclination toward innovation in such a way that results vary with the industrial sector (Daellenbach et al., 1999; Hayes and Abernathy, 1980; Hegarty and Hoffman, 1990; Schoenecker et al., 1995). Within the context of the creative industry, a premise holds that creative intrapreneurs experience a strong dissonance in the management of their businesses. This dissonance arises because managing creativity (the generation of new ideas) and managing innovation (the successful exploitation of new ideas) may involve some conflicting management behaviours for the creative intrapreneur. In this sense, while creativity focuses attention within the dimension of production and is essentially an individual act, innovation focuses attention on consumption or market demand and requires interaction with other agents and stakeholders (Wilson and Stokes, 2005). The challenge, then, is to manage both the production and consumption of the creative product successfully, which requires not only knowledge and skills specific to the industry, but also a range of transferable managerial, financial, marketing, negotiation and presentation skills (Carey and Naudin, 2006; Wilson and Stokes, 2005). Therefore, some authors consider that in order to improve the innovation performance of their companies, intrapreneurs in the creative industry must be able to coordinate and leverage creative and business skills (Caves, 2000; Lampel et al., 2000; Malem, 2008; Perretti and Negro, 2007; Wilson and Stokes, 2005). As Lampel et al. state:

[I]ntrapreneurs must reconcile expression of artistic values with the economics of mass entertainment; they must analyze and address existing demand while at the same time using their imagination to extend and transform the market; they must balance the advantages of vertically integrating diverse activities under one roof, against the need to maintain creative vitality through flexible specialization; and finally, they must build creative systems to support and market cultural products but not allow the system to suppress individual inspiration, which is ultimately at the root of creating value in cultural industries. (2000: 263)

Although research on the backgrounds or qualifications needed in the creative industry is scarce, and non-existent regarding their impact on innovation performance, some empirical evidence supports the argument that both creative and business backgrounds are relevant for creative intrapreneurs. In this sense, Chaston (2008) found that those creative intrapreneurs exhibiting a financial or business orientation obtained higher organizational performance than those exhibiting only a creative orientation. In her study on fashion designers, Malem (2008) concluded that those designers with a strong business perspective and a high creative or artistic endeavour had the higher rates of survival. Finally, recent research shows that lack of business skills, poorly targeted business support and lack of leadership and management skills are significant limiting factors for success in the creative industry (DCMS, 2006).

From these arguments, it can be derived that in order to improve the innovation performance of their companies, creative intrapreneurs must possess both creative and business backgrounds. A creative background will provide them with the raw material and intrinsic motivation required to produce creative outputs, whereas a business background will provide the intrapreneur with the necessary skills (marketing, financial, negotiation, resource management, etc.) to translate creative products into innovation performance.

All these arguments lead to the following hypothesis:

H2: The intrapreneur's background in both creative activities and business management is positively associated with the innovation performance achieved by the small creative firm.

Educational level

The upper echelon perspective suggests that the manager's educational level is reflected in their abilities and skills (Boeker, 1997; Goll et al., 2008; Srivastava and Lee, 2005; Wiersema and Bantel, 1992). Previous studies have reported a positive relationship between a manager's educational level and their receptivity to innovation (Bantel and Jackson, 1989; Becker, 1970; Escribá-Estevez et al., 2008; Kimberly and Evanisko, 1981; Wally and Becerra, 2001).

The main argument for establishing this positive relationship rests on the premise that a higher level of education is associated with a higher degree of cognitive complexity (Thompson et al., 2010). Ginsberg (1990) argues that cognitive complexity is associated with a capacity to confront uncertain environments and to make decisions to stimulate renewal and change in an organization. Ginsberg claims that cognitive complexity can be inferred from educational level. Therefore, a more highly educated intrapreneur would be capable of:

- a greater awareness of the need for innovation and change (Bantel and Jackson, 1989; Wiersema and Bantel, 1992);
- processing more information faster;

- discriminating among a wider variety of stimuli (Wiersema and Bantel, 1992); and
- analysing more complex problems, with numerous dimensions, more rigorously (Herrmann and Datta, 2005).

From the arguments put forward, we derive the following hypothesis:

H3: The intrapreneur's educational level is positively associated with the innovation performance achieved by the small creative firm.

Age

Within upper echelon theory, there are studies that analyse the relationship between managers' ages and innovation and change in companies (Bantel and Jackson, 1989; Grimm and Smith, 1991; Hambrick and Mason, 1984; Wiersema and Bantel, 1992). In this theory, it has been argued that individuals' ages influence their perspectives and strategic choices. In general, upper echelon theory proposes different reasons to expect younger managers to bring better cognitive resources to the decision-making task (Bantel and Jackson, 1989). First, cognitive abilities (learning, reasoning and memory abilities) diminish with age (Bantel and Jackson, 1989). Second, personal preferences, motivations and attitudes develop in such a way that flexibility decreases, and rigidity and resistance to change increase as people age (Hambrick and Mason, 1984; Wiersema and Bantel, 1992). From this reasoning, it can be inferred that security acquires greater significance as a manager's age increases. Younger managers tend to be more risk-oriented (Hambrick and Mason, 1984; Wiersema and Bantel, 1992). Goll et al. (2008) argue that younger managers may have less commitment to the status quo and therefore may be more willing to undertake novel and unprecedented strategies. Hence, it is generally accepted that as people grow older, they become less flexible with regard to change and take fewer risks (Grimm and Smith, 1991). According to these arguments, we derive the following hypothesis:

H4: The intrapreneur's age is negatively associated with the innovation performance achieved by the small creative firm.

Personal values of the intrapreneur

The study of values has never been the province of any one particular domain of theory. Personal values are referred to as broad attitudes (McGuire, 1969), conceptions of the desirable (Kluckhohn, 1951), beliefs about desirable or undesirable ways of behaving or desirable end-states (Feather, 1995), and cognitive constructs that explain individual preferences (Renner, 2003). Despite this apparent lack of consensus on what is understood by values, it does appear that there is unanimity on certain aspects of the topic (Batson and Powell, 2003; Hithin and Piliavin, 2004). Two of these aspects are especially relevant for this study. The first is the observation that personal values guide individuals in the assessment and selection of behaviours and events, leading several academics to suggest that the behaviour of corporate actors is essentially the result of their personal values (Fritzsche and Oz, 2007; Hemingway, 2005; Nevins et al., 2006). The second significant aspect is related to the structure of values. The number of particular values that an individual possesses is relatively limited, and each value has its own degree of importance. The importance attributed to each value constitutes the individual's system or structure of values, and it is the system as a whole what really influences the individual's behaviour (Feather, 1995; Schwartz,

1994). Thus, although many of us may share the same values, we differ in the way that they are structured.

Given that it is the system of values what affects an individual's actions, in the literature on entrepreneurship different typologies of values can be found (Barringer and Ireland, 2008; Boohene et al., 2008; Kotey and Meredith, 1997; Sadler-Smith et al., 2003). The most common typology distinguishes between the entrepreneurial value system (EVS) and the conservative value system (Barringer and Ireland, 2008). Intrapreneurs with a strong weighting in EVS place a high value on ambition, achievement, reliability, responsibility, hard work, optimism, aggressiveness and creativity, among others. In contrast, intrapreneurs with a conservative value systems – that is, with a low weighting in EVS – exhibit conservative personal values such as equality, affection, compassion and social protection; are reactive rather than proactive in strategic orientation; and tend to produce lower business results in the short term.

Therefore, those individuals who possess a high weighting in EVS tend to scan their environment actively, constantly seeking new ideas for solving problems, and tend to be aggressive in searching for growth opportunities for the business. Essentially, they oppose the status quo and strive to change it in the process of promoting their vision. Chell et al. (1991) and Morris (1998) point out that this proactive behaviour implies a willingness to embrace new opportunities, to take responsibility for effecting creative change and to do whatever is needed to move an idea through to implementation. Other authors state that innovation and orientation toward change are a significant part of EVS.

Research findings support the link between EVS and an entrepreneur's enthusiasm for innovation and creativity in their decision-making. In this respect, Kotey and Meredith (1997) found a positive relationship between the entrepreneur highly weighted in EVS and the formulation of strategies that help firms differentiate their products from competitors and extend and transform markets in innovative ways. In their research, Sadler-Smith et al. (2003) found that entrepreneurial values were significantly related to certain aspects of managerial behaviour, such as identifying consumer needs, spotting opportunities and identifying problems and opportunities in products and services (Kenny and Reedy, 2006).

Based on theses arguments, we propose the following:

H5: The intrapreneur's EVS is positively associated with the innovation performance achieved by the small creative firm.

Method

The population for this study was selected from the SABI database (System for the Analysis of Balance Sheets of Iberian Companies) of 2005. The selection of a population using a standard industrial classification was not appropriate, due to the diversity of sectors and firms included in the creative industry (Potts et al., 2008). For this reason, we tried to identify small creative firms (fewer than 50 employees) through the activities that they undertake. An extensive list of keywords (for example, 'cultural', 'creative', etc.) was introduced as a filter in the field for 'activity'. A specialist in cultural management supervised both the choice of keywords and the final selection of companies that carried out activities in the creative field. The final population comprised of 396 companies.

Prior to conducting the survey process, the person that best embodied the figure of the intrapreneur in the companies within the population was identified. For this, enquiries were made by telephone, identifying the intrapreneur as a possible founder of the company who currently holds a position of senior management responsibility (e.g. as a director) and who has launched new projects or new business initiatives (new products, services, processes, etc.).

The questionnaire explored the type of creative firm, demographic characteristics and personal values of the intrapreneur and the firm's innovation performance. To confirm the content validity of the parts of the questionnaire not previously validated, a panel of eight experts was formed, comprising two academic experts, three cultural intrapreneurs and three cultural management practitioners. In the first phase, the experts were asked to make recommendations that they considered appropriate. Once the recommendations had been incorporated, in the second phase all the experts were brought together to discuss the validity of the instrument of measurement to be utilized until a consensus view was reached. The suggestions made jointly by the panel were incorporated in the final version of the questionnaire. Based on this questionnaire, a specialist firm conducted a telephone interview with each of the creative firm intrapreneurs identified. Eighty valid questionnaires were obtained, representing a response rate of 20 percent.

Measures

Demographic characteristics. Eleven items designed to obtain information about the intrapreneur's demographic characteristics were included in the questionnaire. Age and organizational tenure were measured by asking the intrapreneur's age and the length of time that they had been working in the company. Educational level was measured by five categories, ranging from 'primary studies' to 'post-university' level. Regarding the intrapreneur's functional background, creative background was measured through one item asking the extent to which the intrapreneur possessed knowledge, experience and/or training in productive activities or services typical of the creative industry. To assess business background, two items were included asking the extent to which the intrapreneur possessed knowledge, experience and/or training in commercial areas such as marketing and distribution, and in economic areas such as finance and management. Responses were obtained according to a five-point Likert scale (where 1 = 'strongly disagree' and 5 = 'strongly agree'). To obtain a single index for business background, the mean of commercial and economic experience was calculated.

Entrepreneurial value system. A five-point Likert scale (ranging from 1 = 'not at all important' to 5 = 'extremely important') was used to measure EVS. Respondents were asked to indicate the level of importance that they attach to each personal value that forms part of the EVS. These personal values, as proposed by Kotey and Meredith (1997), are: persistence, hard work, ambition, creativity, risk-taking and optimism, which were labelled as entrepreneurial. The mean of the six items was calculated ($\alpha = 0.664$).

Innovation performance. Innovation performance in the creative industry has been measured through different approaches. One way is to apply concepts used to measure innovation in manufacturing or other industries – technological innovation – often relying on the methodological recommendations laid down in the OECD (2006) and OECD and Eurostat *Oslo Manual* (1997; Müller et al., 2009). Given that innovation patterns in the creative industry have features in common with those described for other industries, standard measurement of innovation can be applied in the creative industry (Miles and Green, 2008). The use of this measurement benefits from a high level of comparability with innovation data from other sectors and thus, allows evaluation of the creative industry's innovation performance compared with other industries (Müller et al., 2009). Following these arguments, and given that the OECD's definition has played a central role in the innovation research literature, in this study innovation performance was measured using five items: the extent to which the firm has introduced new or improved creative products or services to the market (two items); the extent to which the firm has utilized new processes and technologies (two items); and the extent to which the firm has created new markets (one item). Responses were

obtained according to a five-point Likert scale (where 1 = 'not at all', to 5 = 'to a great extent'). In order to obtain a single index, the mean of the five items was calculated ($\alpha = 0.860$).

Control variables

Research has demonstrated that a company's size may be linked to having a stronger or weaker tendency toward innovation (Bantel and Jackson, 1989; Cohen and Mowery, 1984; Gabrielsson, 2007). Some researchers have found that an increase in the size of the organization adds complexity to the structure and allocation of resources, and leads to more formalized control and planning systems (Quinn and Cameron, 1983). Others consider that an increase in the size of the organization increases the resources available for innovation activities (Nord and Tucker, 1987). However, some argue that small organizations are more innovative because they are more flexible, are better able to adapt and have less difficulty in accepting and implementing changes (Damanpour, 1991). Although we analysed a sample of companies with 50 or fewer employees in this study, the difference in size between a micro company with between two and five employees, and a small business with up to 50 employees, may affect how innovative the company is; therefore, this difference ought to be taken into account. Hence we consider it appropriate to control for the effect of firm size, (Perretti and Negro, 2007), this variable was measured by the logarithm of the number of employees.

Another variable that may influence innovation is the type of product offered by the firm; that is, whether the firm offers services or tangible goods. On this point, some authors suggest that in comparison with tangible goods, the specific characteristics of a service supplier make innovation a more complicated process (Johne and Storey, 1998). When designing and developing a new service product, an iterative process is recommended rather than the linear process often advocated for tangible products. One result of this greater complexity may be that companies that offer services put less effort into innovating than manufacturers (Akamavi, 2005). To control for the type of product offered by the firm, a dummy variable was created ('1' when the firm offers a tangible creative product, and '0' when it offers a creative service).

Results

Table 1 reports the means, standard deviations and correlations between all the variables. The statistical technique used to test the hypotheses is multiple regression analysis and the results are summarized in Table 2.

Model 1 is the test for the control variables. Firm size and the type of product that the firm offers contribute to a R^2 of 0.114 ($p < 0.01$). The type of product positively affects innovation ($p < 0.01$), whereas the firm size is not significant.

Model 2 tests H1 to H4, the impact of the intrapreneur's demographic characteristics on innovation. Together, these variables contribute to a R^2 of 0.332 ($p < 0.001$). Results show that organizational tenure, business background, age and educational level all have a negative influence on innovation ($p < 0.05$ in all cases), whereas creative background has a positive effect ($p < 0.05$). From these results, it can be considered that H1 and H4 are fully supported, H2 is only partially supported and H3 is not supported.

Model 3 is a test of the effect that the intrapreneur's personal values have on innovation (H5). Personal values contribute to a R^2 of 0.200 ($p < 0.01$). The results show that the intrapreneur's personal values influence the dependent variable in a positive way ($p < 0.01$), providing support for H5.

Model 4 is the full model, incorporating the intrapreneur's demographic characteristics and personal values. This model is highly significant at the $p < 0.001$ level, and together the independent

Table 1. Mean, Standard Deviation and Correlations between Dependent, Independent and Control Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Firm size	9.42	9.35	1								
2. Product type	0.19	0.30	.170	1							
3. Tenure	16.91	17.16	.161	-.076	1						
4. Creative background	4.29	0.71	-.238*	.031	-.061	1					
5. Business background	2.89	1.05	-.157	-.126	-.069	-.463**	1				
6. Educational level	4.68	0.65	.094	.241*	.081	.366**	-.215	1			
7. Age	31.93	7.82	-.359**	-.028	-.069	.515**	-.216	.296**	1		
8. EVS	4.22	0.43	-.199	-.131	-.041	.179	.162	.102	-.046	1	
9. Innovation performance	3.75	0.97	.129	.329**	-.234*	.166	-.289**	-.090	-.150	.229*	1

N = 80; **p*<0.1; ***p*<0.05; ****p*<0.01

Table 2. Results of Regression Analysis

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-.313	.949	-.445	.407	1.601
Firm size	.075	.068	.129	.125	-.169
Product type	.317**	.311**	.347**	.355***	-.130
Tenure		-.220*		-.214*	-.018
Creative background		.263*		.146	.344*
Business background		-.235*		-.320**	.251 ⁺
Educational level		-.225*		-.281*	.163
Age		-.252*		-.156	-.283*
EVS			.300**	.339**	
<i>R</i> ²	0.114	0.332	0.200	0.426	0.183
<i>F</i>	4.953**	5.121***	6.322**	6.590***	2.307*

N = 80; **p*<0.1; ***p*<0.05; ****p*<0.01; *****p*<0.001

variables explain 42.6 percent of the variance. The results for this model show that when all the independent variables are included, organizational tenure, business background, educational level and personal values all impact on innovation performance, although the level of significance varies. However, creative background and age are not significant variables when personal values are included in the model.

The fact that the effect of some of the demographic characteristics on innovation performance ceases to be significant when the personal values of the intrapreneur are introduced in the model may indicate that interrelationships among these variables exist which have not been taken into account (Baron and Kenny, 1986). In other words, as suggested in the literature, it is possible that the personal values of the intrapreneur are affected to a certain extent by the individual's demographic characteristics (Kilduff et al., 2000), and that this may be the reason why variables such as background or age cease to have a significant effect on the innovation performance.

With the aim of analysing in greater depth this possible relationship between personal values and demographic characteristics, even though this was not proposed in our hypotheses, we derived Model 5. In this model, the dependent variable is the intrapreneur's personal values, and the independent variables are the demographic characteristics. As can be observed, the intrapreneur's demographic characteristics contribute to a R^2 of 0.183 ($p < 0.05$). Results for this model show that personal values are positively affected by creative background ($p < 0.05$) and business background ($p < 0.1$), and negatively affected by the intrapreneur's age ($p < 0.05$). Therefore, it can be concluded that the intrapreneur's personal values are influenced by their demographic characteristics.

Discussion and conclusion

The degree and determinants of innovation in the creative industry has been largely neglected with in the literature (Miles and Green, 2008); only very recently has the role of innovation been analysed in more detail (Perretti and Negro, 2007; Stoneman, 2007; 2009). However, studies have been focused mainly on the macro-level, so there is still a need to understand what occurs at the micro-level (Jeffcut and Pratt, 2002), and more specifically, to understand the role played by intrapreneurs in determining a firm's innovation performance (Miles and Green, 2008; Mellander, 2010). Therefore, this study constitutes an important contribution to this literature as it analyses, from a cognitive approach, the influence of the intrapreneur's demographic characteristics and personal values on the innovation performance of creative firms.

Regarding demographic characteristics, results demonstrate that the intrapreneur's age is negatively related to both entrepreneurial values and the firm's innovation performance. These findings lead us to conclude, following the conventional argument drawn from the upper echelon theory, that as age increases, flexibility decreases, resistance to change rises and values such as security become more relevant. As a result, the intrapreneur will tend to adopt more conservative strategies, which will translate into lower innovation performance. These arguments have been confirmed in studies carried out in manufacturing industries (Bantel and Jackson, 1989; Wiersema and Bantel, 1992). Equally, within the entrepreneurship literature a number of studies have shown the negative effect of entrepreneurs' age on small firms' performance. Thus, Alasadi and Abdelrahim (2008) demonstrated that a positive relationship exists between younger ages and performance in small business. Kangasharju (2000) found that firms run by owner-managers aged from 30 to 34 present higher growth probability than those run by older owner-managers.

The results obtained for the intrapreneur's organizational tenure are similar to those obtained for age. The argument put forward is that longer organizational tenure leads to commitment to the status quo, reduces information processing and increases risk aversion and rigidity (Srivastava and Lee, 2005). Vyakarnam and Handelberg (1999) point out that eventually, long-tenured entrepreneurs would become less adaptive and innovative. Studies carried out in the context of manufacturing industries have found that short organizational tenure is positively related to strategic change (Wiersema and Bantel, 1992) and to openness in strategic planning (Bantel, 1993).

Our findings show that the effect of intrapreneurs' age and organizational tenure in the creative industry, characterized by an environment of rapidly changing consumer tastes and uncertainty, is similar to that existing in other industrial settings, with analogous ratios of change and uncertainty. In this sense, Lampel et al. (2000) state that environmental conditions in the creative industry – i.e. high levels of ambiguity and dynamism – are common in other industries, and it is possible that there is an entrepreneurial profile that is more appropriate in order to maximize innovation in those settings.

Regarding functional background, the results show that the intrapreneur's creative background positively influences innovation performance, while contrary to expectation, business background

hinders it. In order to interpret these findings, it is important to take into account the distinctive features of the creative industry with respect to other industries. Producers in the creative industry are confronted with two problems: demand patterns that are highly unpredictable, and production processes that are difficult to monitor and control. This situation complicates decision-making processes enormously for the intrapreneur, and so increases the risk inherent in major decisions. Therefore, a deep knowledge of the industry becomes an intangible resource that constitutes high added value in the creative industry. As Malem (2008) states, innovation in the creative industry depends less on engineering and technological factors and much more on intangible factors such as aesthetics, imagination and taste – close relatives of artistic creativity. Codified knowledge can be useful for tackling problems, but ultimately it is of limited value. Tacit knowledge is more important in the creative industry, and talent and creativity are the resources that are crucial to success (Jones and DeFillipi, 1996; Miller and Shamsie, 1996). Accordingly, creative background becomes a highly important value for innovation in these companies.

At the same time, due to these distinctive features of the creative industry, standard managerial practices such as financial management, marketing and so forth that are useful in other industries may not constitute an essential element for a product's novelty and success in the creative industry (Robins, 1993; Saundry, 1998; Stearns et al., 1987). Comparisons with other industries tend to be unhelpful, and general business practices often fail to understand the differences (DCMS, 2006). As Rae (2004) states, the application of orthodox business theories developed in other sectors cannot be assumed to be accepted by creative entrepreneurs or to be valid in creative firms. Thus, if the business background of the intrapreneur has not been developed in the context of the creative industry, it may be unhelpful, or even detrimental, because it may prevent the intrapreneur from adopting more flexible ways of managing and using emergent, less-structured organizational forms for the company.

Moreover, a number of creative intrapreneurs experience significant tensions between their creative endeavours and the day-to-day concerns of running a business; tensions that they felt impede their creativity (DCMS, 2006). This assertion implicitly suggests that there may be a trade-off between creative and business backgrounds in such a way that those intrapreneurs whose professional career has been linked mainly to managerial activities may be compelled to devote less time to creative activities and, as a result, the innovation performance of their firms could decrease. In order to test this possible explanation to our findings, we carried out two further analyses. First, we checked whether those intrapreneurs with higher scores in business background presented lower scores in creative background. In order to do so, we divided the sample into two subsamples: intrapreneurs with a business background higher than the mean, and intrapreneurs with a business background lower than the mean. Then we carried out a *t*-test of equality of means for independent samples regarding the creative background. The results showed that significant differences exist between the two subsamples in such a way that those intrapreneurs with higher scores in business background presented on average lower scores in creative background ($t = -4.799, p = 0.000$).

Second, we created a new variable consisting of the ratio: business/creative background, and calculated its correlation with innovation performance. The results showed a negative and significant correlation between the two ($0.299, p < 0.01$), which implies that the higher the intrapreneur's business background with respect to their creative background, the lower the innovation performance of the creative firm. So, we conclude that the negative effect of the intrapreneur's business background on innovation performance may be a matter of balance. As Malem (2008) states, those creative intrapreneurs with a strong business perspective may not survive, as their practical needs may overpower the creative needs of the business. Thus, the problem is in finding the appropriate balance.

With respect to educational level, evidence from a variety of sources shows that the creative industry is more graduate-rich than any other sector, and that further and higher education are key providers of creative talent for the industry (Carey and Naudin, 2006; DCMS, 2003; Raffo et al., 2000). This has been confirmed in our sample, in which most intrapreneurs (77.5%) possess higher education. However, the results of this research also show that the higher the educational level of the intrapreneur, the lower the innovation performance of the creative firm. The explanation for this finding can be justified, because it is possible that formal education systems present certain limitations in their capacity to transmit the competencies needed to drive creative firms toward the achievement of innovation performance, which requires a balance between creative and business skills specific to the industry (as has been argued previously in the discussion about functional background). According to this argument, Raffo et al. (2000) point out that some higher education courses seem to be too generalist and not detailed enough, providing few opportunities, experiences and understanding of how micro and small businesses in the creative industry operate. Authors such as Ropke (1998) have suggested that higher education can actually make graduates less entrepreneurial by developing analytical and theoretical skills to the detriment of more lateral thinking abilities (DCMS, 2006). Similarly, Lampel et al. (2000) argue that the high degree of specialization inherent in high educational levels may restrict creativity and the capacity to develop new products. Thus, the debate must focus on which learning programmes are the most appropriate for the development of the potential entrepreneur and intrapreneur within the creative industry.

Regarding the second set of factors analysed, EVS, the results show that the intrapreneur's EVS also plays a very important role in their tendency to seek innovation. Our findings have shown that values such as persistence, hard work, ambition, creativity, risk-taking and optimism affect the orientation of managers toward the development of innovations in an organization. Other researchers have confirmed this (Heunks, 1998; Kenny and Reedy, 2006). Kotey and Meredith (1997) conducted an empirical investigation of the relationship between entrepreneurs' personal values and the strategies they adopt in their business. In their study of small furniture manufacturers, they found that entrepreneurial personal values such as ambition, creativity and hard work were endorsed by owners who adopt a proactive strategic orientation. Heunks (1998) analysed the relationship between the entrepreneur's values and attitudes and innovation: the results demonstrated that values such as flexibility and propensity to take risks have an effect on innovation.

The results of this study lead us to suggest some recommendations in order to improve innovation performance in creative firms. First, the fact that in the creative industry it is necessary to integrate artistic values and individual inspiration of intrapreneurs with mass entertainment and creative systems cannot be ignored. This is the reason why intrapreneurs in the creative industry are little understood by policymakers, and why educational policy fails to prepare them for success in this field. The mix of creative and business skills has to be learned from experience in addition to educational institutions (Rae, 2004). Accordingly, providers of further and higher education need to develop genuine links into the creative industry through authentic outreach work and the placement of prospective entrepreneurs with mentors in the industry.

Second, the figure of the intrapreneur or entrepreneur in the creative industry is confusing. Although self-employment is an extended practice, the creation and development of creative firms respond in many cases to necessity factors rather than a real intention or inclination toward starting a business or innovating. Factors such as poorly salaried work or the existence of a strong need for self-fulfilment and independence can be factors leading to high self-employment in the creative industry (Blackwell and Harvey, 1999; DCMS, 2003). Consequently, it is not enough for higher education to focus simply on developing creative and business skills. These

programmes must prepare students specifically for entrepreneurial activity. It is vital that courses also help students develop their abilities to identify opportunities, link creative ideas with commercial know-how, and provide a grounding in the realities of freelance work and an understanding of how to manage and develop their own career portfolios and expectations (DCMS, 2003). In this sense, Carey and Naudim (2006) recognize the need for education and learning about entrepreneurship in order to develop in arts students the entrepreneurial framework and vision needed in the creative industry, rather than maintain the search for self-employment as the only alternative to projecting the acquired capacities. In summary, we consider it necessary to promote an innovative and entrepreneurial culture among students within the creative field, with the aim of developing the values needed to ensure the existence of intrapreneurs with the ability to innovate.

Future research could be enriched by considering the following. First, it would be interesting to address the way that the variables analysed in this study have an influence on so-called 'soft' innovation. Although our research, in line with previous studies, has measured innovation in the creative industry using traditional measurements of the industrial sector – 'technological' innovation based on OECD guidelines – it would be interesting for future research to take into account new measurements of innovation of aesthetic as well as of a functional nature. In this sense, robust measures of innovation in the creative industry will help to guide and improve innovation policy in this particular industry (Miles and Green, 2008).

In addition, a more nuanced measurement of the intrapreneur's background will help to understand better the nature of the intrapreneur in the creative industry. As stated earlier, tacit knowledge from personal experience in the creative industry is a key factor of success. In order to obtain a better understanding of the impact of business background on innovation performance, it is necessary to take into account not only the level of knowledge and experience in business management, but also the context in which it has been developed or acquired. Other factors related to the functional background which can influence innovation performance and success are the intrapreneur's orientation or interest in creative or business activities, and the time that they devote to both kinds of activities. Consideration of these factors will provide a more accurate picture of the influence of the intrapreneur's cognitive approach on innovation performance.

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