



The psychological costs of owning and managing an SME: Linking job stressors, occupational loneliness, entrepreneurial orientation, and burnout[☆]



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ABSTRACT

The aim of this study was to gain a deeper understanding of occupational stress in small-to-medium enterprise (SMEs) owner-managers by delving further into individual and contextual factors that make them vulnerable to burnout. From a relational perspective, the authors propose that job stressors related to SME management can predict burnout through the feeling of occupational loneliness, and that this indirect relationship is moderated by the entrepreneurial orientation of the owner-manager. The proposed moderated mediation model was supported by multiwave data collected from 377 owner-managers in France as well as its invariance across business size. The results showed that the conditional indirect effect of loneliness was stronger and significant when entrepreneurial orientation is low, but weaker and not significant when entrepreneurial orientation is high. This finding provides a starting point for further investigations of burnout in SME owner-managers, and more specifically, the complex pathways by which job stressors are related to burnout.

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1. Introduction

Although the research has long suggested that owner-managers of small- and medium-sized enterprises (SMEs) are at risk for occupational stress (Akande, 1994; Boyd & Gumpert, 1983; Cocker, Martin, Scott, Venn, & Sanderson, 2013; Gumpert & Boyd, 1984; Johnson, 1995), only a few empirical studies have focused on psychological strain such as burnout (Shepherd, Marchisio, Morrish, Deacon, & Miles, 2010; Tetrick, Slack, Sinclair, & Da Silva, 2000; Wincent & Örtqvist, 2009). Unlike psychological fatigue, a non-specific symptom, burnout is an affective strain reaction to chronic work-related stress (Maslach, 1982). Across the different conceptualizations of burnout, the exhaustion component is generally considered the hallmark of burnout (Halbesleben & Bowler, 2007).

Burnout can be characterized as a state of physical, emotional, and mental exhaustion (Pines & Aronson, 1988; Schaufeli & Greenglass, 2001). Burnout is a significant concern because it has been associated with substantial costs for individuals (e.g., somatic complaints, cardiovascular and musculoskeletal diseases) and organizations (e.g., lower job satisfaction and performance, reduced creativity and innovation) (Demerouti, Bakker, & Leiter, 2014; Halbesleben & Buckley, 2004; Shirom, 2003). Although burnout is one of the foremost psychological health problems in the workplace (Schaufeli, 2003), little information is available on SME owner-managers.

This scientific neglect is surprising, because occupational features common to SMEs (e.g., multiple roles, long work hours, burden of responsibilities) can put SME owner-managers at high risk for burnout. For them weakened psychological health would hinder their capacity to decide and act, and would ultimately affect their ability to make the firm competitive and sustainable. This is problematic in that SMEs act as a driving force for economic growth, innovation, and job creation. Furthermore, SMEs make up a large percentage of enterprises worldwide. For instance, SMEs¹ have

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¹ The upper bound for the number of employees to qualify a firm as an SME varies by country. The most common threshold is 250 employees, used by the European Union, whereas the United States sets the threshold at 500. Regardless of the

recently been estimated to account for 99.8% of all enterprises in France (Eurostat, 2011), 99.9% in the United Kingdom (Department of Business Innovation & Skills, 2010), 99.2% in Australia (Australian Bureau of Statistics, 2010), 99.8% in Canada (Industry Canada, 2013), and 99.7% in the United States (U.S. Census Bureau, 2010). Given this predominant role of SME owner-managers in the global economy, we believe that it is time to improve our understanding of burnout determinants in this occupational group.

1.1. What makes SME owner-managers at risk for burnout?

Compared to managers of large enterprises, Ang (1991) proposed that SME owner-managers not only had less diversified physical, financial, and intellectual capital, they also tended to invest in a single asset: the firm. This kind of investment can be reflected in the time they devote to their job. Thirty years ago, Boyd and Gumpert (1983) suggested that 60% of SME owner-managers worked more than 50 h a week, with 25% working over 60 h. More recently, similar numbers were reported by Torres (2012), who also noted that 60% of owner-managers took three weeks' vacation or less per year and 10% took no vacation at all. Although working excessive hours is not unique to SME owner-managers, the fact remains that excessive workload and pressure are recognized as prime correlates of burnout (Lee & Ashforth, 1996). The ability to make sound decisions on a diversity of issues (financial, commercial) is determinant not only for the firm's success, but also for the financial security of employees and sometimes family members (Cocker, Martin, Scott, Venn, & Sanderson, 2013). This decision-making responsibility combined with the generally centralized strategic management (Covin & Slevin, 1989; Miller, 1983) that is also typical of SME owner-managers create work pressure, making them vulnerable to burnout.

To our knowledge, only four studies to date have looked specifically at burnout in owner-managers (Ben Tahar, 2014; Shepherd et al., 2010; Tetrick et al., 2000; Wincent & Örtqvist, 2009). These authors found positive associations between burnout and generic role stressors (e.g., role overload, ambiguity, conflict). Whereas these studies, and extant literature, provide valuable insights into burnout determinants in owner-managers, some theoretical and empirical gaps remain in our understanding of the psychological

mechanisms involve as well as the complex pathways by which these mechanisms may contribute to burnout.

In an attempt to fill this gap and offer new direction for theory and research, this study adopts a relational approach that is inherent but not unique to the owner-manager function in SMEs: feeling of occupational loneliness (Boyd & Gumpert, 1983; Gumpert & Boyd, 1984). Drawing on the literature on interpersonal relations (Baumeister & Leary, 1995; Deci & Ryan, 2000), which suggests that a sense of connectedness is essential for psychological well-being, we propose that the feeling of loneliness constitutes an important psychological mechanism to explain how job stressors related to SME management contribute to burnout in owner-managers. In order to more thoroughly investigate this issue, we examine whether the entrepreneurial orientation—which can be viewed in terms of the owner-manager's endeavor for innovativeness, risk taking, and proactiveness (Covin & Slevin, 1988)—is a boundary condition that allows determining when the feeling of loneliness makes owner-managers more (or less) at risk for burnout. Fig. 1 depicts our theoretical proposition, where the proposed moderated mediation model explains the relationships by which job stressors, occupational loneliness, and entrepreneurial orientation predict burnout in SME owner-managers.

1.2. Theoretical background and hypotheses

1.2.1. Job stressors and burnout

The stressor-strain perspective constitutes one of the main theoretical foundations for explaining the negative effect of job stressors on psychological functioning and well-being (Podsakoff, LePine, & LePine, 2007). This rests primarily on the premise that workers' perceptions of the environment determine their individual psychological experience of it, and the generally held belief that the presence of job stressors that exceed workers' capacities to adapt result in ill-being (LePine, LePine, & Jackson, 2004). Even though stressor types and the ways that they are expressed vary across occupations, they are broadly termed job stressors. Without going into the nature of specific problems that employees and managers are liable to encounter, meta-analyses have revealed that a number of job-related stressors (e.g., work pressure, role problems) are consistently positively associated with burnout (e.g., Crawford, LePine, & Rich, 2010; Örtqvist & Wincent, 2006; Lee & Ashforth, 1996). Because these stressors are appraised as constraints, barriers, or obstacles to personal growth, learning, and goal attainment, they contribute to burnout (Crawford et al., 2010). In the entrepreneurial

threshold used, SMEs account for over 95% of enterprises in all OECD countries, with a predominance of enterprises with fewer than 10 employees (over 50% for all countries, except for Japan, Ireland, and Korea) (OECD, 2011).

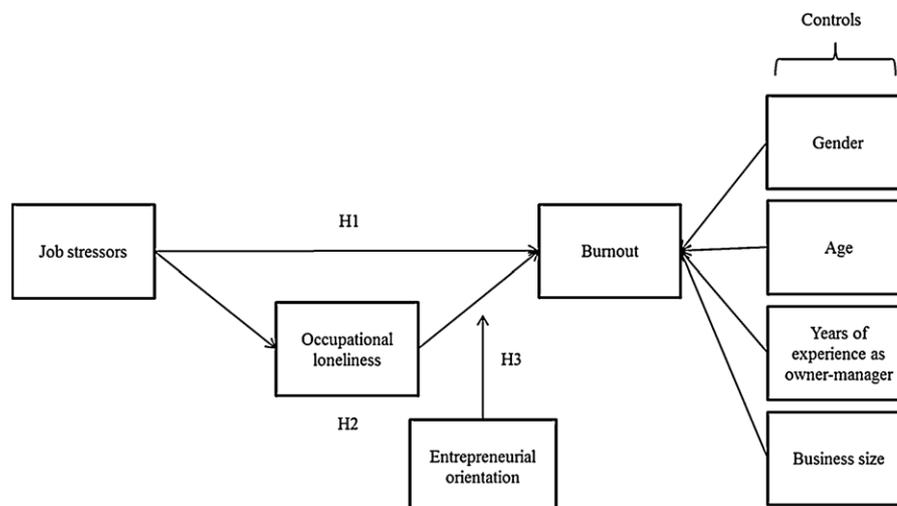


Fig. 1. Proposed Moderated Mediation Model.

sector, [Torres & Lechat \(2012\)](#) identified five main job stressors related to SME management that fostered job stress in owner-managers, including issues of human resources management, sales, finances, supplies, and administration. These issues are perceived as threatening because they have the potential to prevent the achievement of personal, professional and corporate objectives and jeopardize the firm itself. Based on this conceptualization and the above-presented theoretical rationale, we propose the following hypothesis:

Hypothesis 1. Job stressors related to SME management are positively associated with burnout in owner-managers.

1.2.2. *The mediating role of occupational loneliness*

To obtain a more comprehensive understanding of burnout in owner-managers, we further propose that job stressors lead to burnout through a feeling of occupational loneliness. This prediction is based on the theory and research on interpersonal relationships ([Baumeister & Leary, 1995](#)), which suggest that the need for connectedness is a basic ingredient for psychological growth and well-being. Despite consistent empirical evidence supporting the beneficial effects of connectedness, the research on the workplace has been relatively silent about the potential pathogenic effects of frustrating this need.

The perception of loneliness, which can be considered as the opposite of feeling connected, reflects “an individual’s subjective perception of deficiencies in his or her social relationships” ([Russell, Cutrona, Rose, & Yurko, 1984, p. 1313](#)). According to [Weiss \(1973\)](#), “Loneliness is caused not by being alone but by being without some definite needed relationship or set of relationships” (p.17). For owner-managers, who usually have frequent contacts with a range of stakeholders, loneliness (also termed social-isolation loneliness; [Russell et al., 1984; Weiss, 1973](#)) stems more from a lack of connectedness with others than from a lack of social contacts. In fact, [Gumpert and Boyd’s \(1984\)](#) study in 210 SME owners showed a high prevalence of loneliness, with over half the participants reporting that they frequently felt lonely.

Considering that owner-managers of SMEs invest heavily in their work and hold a decision-making position, it is arguable that loneliness is a response to exposure to job stressors. And given that the presence of many SME management problems would be undesirable (and potentially harmful for the firm), these stressors could foster a form of interpersonal detachment—presumably as a way to cope with stressors ([Maslach, Schaufeli, & Leiter, 2001](#)). In the short term, this type of detachment might be considered adaptive. It could be viewed as a self-protective strategy, in the sense that owner-managers would like to protect themselves from criticisms of their management skills, or it could be viewed as an other-oriented strategy, in the sense that they are trying to defend the interests of their employees or shareholders. However, over time, this response to job stressors may result in psychological costs such as burnout.

This reasoning is consistent with the Conservation of Resources Theory (COR; [Hobfoll & Freedy, 1989](#)), which describes burnout as a process of resource loss. COR Theory is based on the premise “that people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources” ([Hobfoll, 1989](#)). The continued loss or threatened loss of resources, particularly after a great deal of resource investment in work, as in the case of SME owner-managers, is said to lead to burnout ([Hobfoll, 2001](#)). When owner-managers must cope with job stressors, their interpersonal detachment can take the form of professional isolation as a means to protect their resources.

Self-Determination Theory (SDT; [Deci & Ryan, 2000](#)) also supports this contention, in that interpersonal detachment would deprive owner-managers of one of the basic psychological needs:

the feeling of being connected to others ([Baumeister & Leary, 1995](#)). More specifically, SDT proposes that the environmental factors that place pressure on individuals hinder the satisfaction of their basic psychological needs (autonomy, competence, and connectedness), which could generate emotional, cognitive, and behavioral costs ([Gagné & Deci, 2005](#)). This proposition has been supported across a variety of life contexts (e.g., job, sport, education). In the workplace, [Van den Broeck, Vansteenkiste, de Witte, and Lens \(2008\)](#) showed that job stressors (workload, emotional and physical demands, and work-home interference) predict burnout through lack of satisfaction of the basic psychological needs. [Fernet, Austin, Trépanier, and Dussault \(2013\)](#) obtained similar findings in terms of role overload, role ambiguity, and lack of job control and social support. Although these studies suggest that basic psychological needs explain how job stressors contribute to burnout, more research is needed to understand the potential pathogenic effects of frustrating basic psychological needs. Only one study to our knowledge has looked at the need for connectedness in managers. [Stevenson and Bauer \(2010\)](#) found that occupational loneliness acted as a mediator between role overload and burnout in school principals. In line with the theory, the above-presented rationale, and the available empirical studies, we propose the following hypothesis:

Hypothesis 2. Job stressors related to SME management predict burnout in owner-managers through occupational loneliness.

1.2.3. *The moderating role of entrepreneurial orientation*

According to [Spector \(1982\)](#), the stress reaction depends largely on the individual capacity to adapt, and more particularly, on the perception of control over the environment (see also [Karasek, 1979](#)). The notion of control is generally viewed in terms of characteristics, both individual (e.g., locus of control, self-efficacy, self-esteem) and organizational (e.g., job autonomy, participation in decision-making). Whereas the research on burnout focuses mainly on salaried employees (versus owners or executives), it generally places the emphasis on task characteristics (e.g., task autonomy). However, considering owner-manager’s unique position and influence as the firm’s chief cognizer and decision maker ([Calori, Johnson, & Sarnin, 1984](#)), it appeared important to delve further into this issue by examining a strategic decision-making characteristic: the entrepreneurial orientation.

The entrepreneurial orientation refers the firm’s entrepreneurial strategy-making processes ([Lumpkin & Dess, 1996](#)), and it characterizes the extent to which the top managers are inclined to be proactive (e.g., by adopting an opportunity-seeking, forward-looking attitude, and by anticipating future needs); innovative (e.g., to act creatively, introduce new products, services, and processes); and risk-taking (e.g., to act audaciously, explore new territories, attempt untried solutions, borrow ideas liberally, invest significantly in uncertain environments) ([Covin & Slevin, 1988; Miller, 1983](#)).

Although entrepreneurial orientation is often viewed in terms of firm-level behaviors, this concept is based on self-reports by individuals, mostly small business owners ([Khedhaouria, Gurău, & Torrès, 2015; Krauss, Frese, Friedrich, & Unger, 2005](#)). This leads some scholars to argue in favor of the usefulness of this strategic posture at the individual level (e.g., [Joardar & Wu, 2011](#)). Consistent with the upper echelons perspective ([Hambrick & Mason, 1984](#)), owner-managers exert important influences on the action, activities, and processes of their firm. As organization’s leaders, they are largely responsible for planning, setting, implementing and directing the firm’s strategic orientation. Accordingly, the owner-managers’ values, tendencies, and behaviors would be embedded in the entrepreneurial orientation of their firm ([Joardar & Wu, 2011](#)). Some studies provide support for this contention revealing that the firm’s strategic posture is shaped by CEO’s leadership styles

and individual characteristics (e.g., self-esteem, emotional stability, core self-evaluation; Cao, Simsek, & Jansen, 2015). Thus, we consider entrepreneurial orientation as an individual level concept of the firm's owner-manager.

Although empirical evidence has suggested that entrepreneurial orientation influences firm's ability to compete, adapt, and perform (Rauch, Wiklund, Lumpkin, & Frese, 2009), no study to our knowledge has examined its potential role in the psychological state of owner-managers. Drawing on the upper echelons perspective (Hambrick & Mason, 1984), we argue that the adaptive propensity that is inherent in the entrepreneurial orientation (innovativeness, proactiveness, and risk taking) may not only enables the firm to grow and perform, but also influences the psychological state of owner-managers. This proposal is based on the principle of behavioral plasticity (Brockner, 1988; see also Pierce & Gardner, 2004), which suggests that individuals with lower adaptive capacity (e.g., they have low self-esteem, low self-efficacy, or low autonomous motivation) are more emotionally responsive to events and situations than individuals with high adaptive capacity.

With respect to burnout, a study by Fernet, Gagné, and Austin (2010) showed that employees who exhibited suboptimal motivational orientation (i.e., they were more controllingly than autonomously motivated) were more sensitive to the quality of their interpersonal relations with their colleagues, and were more at risk for burnout. By extension, we propose that the affective state of owner-managers who exhibit a strong entrepreneurial orientation would be less strongly influenced or determined by situational factors, because they would be less sensitive to the workplace relational environment. On the other hand, the affective state of owner-managers who exhibit low entrepreneurial orientation (also termed conservative; Covin & Slevin, 1988) would be strongly influenced and determined by the relational environment, as they would be more sensitive and more liable to react negatively. In line with this rationale, we propose the following hypothesis:

Hypothesis 3. The entrepreneurial orientation moderates the indirect effect of job stressors on burnout through occupational loneliness, such that the mediated relationship is stronger under low compared to high entrepreneurial orientation.

1.2.4. The present study

This study responds to repeated calls to improve the understanding of occupational stress in SME owner-managers (Boyd & Gumpert, 1983; Buttner, 1992; Cocker et al., 2013) by probing more deeply into burnout as a strain reaction. Our theoretical proposition makes a significant contribution to the knowledge. First, we depart from generic conceptualizations (e.g., role overload, conflict, ambiguity) that are commonly used to examine job stressors, as these would appear to have limited utility for assessing stress sources in a specific occupation (Kasl, 1987). Given the nature of the owner-manager function, we focus instead on issues of human resources management (e.g., layoffs, conflicts with one or more employees), sales (e.g., loss of a market or contract), finance (e.g., financial losses, banking issues), supplies (e.g., supplier problems), and administration (e.g., problems with a partner).

Second, as suggested by Maslach et al. (2001), instead of considering the individual and contextual correlates of burnout separately, we assess them simultaneously. That is, we examine the feeling of occupational loneliness as a psychological mechanism that explains the relationship between the job stressor and burnout in owner-managers concurrently with their entrepreneurial orientation considered as an adaptive resource that can strengthen or weaken this indirect effect. In addition to studying the complex pathways by which job stressors are related to burnout, we consider entrepreneurial orientation in order to open up new and more

effective avenues for determining adaptive propensity, not only for the firm, but also the owner-manager.

Third, we account for owner-managers of SMEs and VSEs (very small enterprises) in order to increase the confidence of the robustness of the hypothesized relationships. The research so far on entrepreneurship tends not to differentiate between SMEs and VSEs, which suggests a linear development process such that VSEs would inevitably grow to become SMEs over time (Marchesnay, 2003).

2. Method

2.1. Participants and procedure

This multiwave study was conducted in SME owner-managers in urban France, outside the agricultural sector. To be eligible, participants had to be an owner-manager (not a subordinate in the legal sense or affiliated to a social protection system for unsalaried workers) and employing from 3 to 250 salaried workers. We randomly selected a total of 500 owner-managers belonging to a business network comprising 3500 members. Of the 500 owner-managers invited to participate, 377 completed a short phone questionnaire (response rate = 75%) addressing certain health and firm parameters.

In order to minimize common variance bias, data were collected by phone at four different times over an eight-month period (Podsakoff, MacKenzie, & Podsakoff, 2012). Sociodemographic data (gender, age, years of experience as owner-manager, firm size) and entrepreneurial orientation were initially collected (T1). Thereafter, participants responded to scales designed to assess job stressors related to SME management (T2), loneliness (T3), and burnout (T4). Participants were mostly men (82.8%) with a mean age of 44.6 years ($SD = 7.71$). Average experience as owner-manager was 11.36 years ($SD = 8.14$), and 47% of participants had 10 or fewer employees (referred to as VSEs in France). Of the participants, 91% worked at least 5 days per week, for an average daily workload of 10.11 h ($SD = 1.76$).

2.2. Measures

2.2.1. Role stressors

Job stressors related to SME management were assessed using five items developed by Torres and Lechat (2012). On a five-point scale ranging from 1 (*not at all*) to 5 (*enormously*), participants were asked to indicate the extent to which they had experienced problems in the last month related to finances, sales, and administration, as well as problems with employees and suppliers. A sample item is, "During the last month, did you have problems with your suppliers?" The coefficient alpha was 0.90.

2.2.2. Entrepreneurial orientation

Entrepreneurial orientation was assessed using the 9-item scale developed by Covin and Slevin (1989). Following Engelen, Gupta, Strenger, and Brettel (2015), we used a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) instead of the forced-item statements. A sample item is, "My business is always first to introduce new products and services or operating technologies into the market sector" (innovation). In line with most studies on entrepreneurial orientation, we combined innovativeness, proactiveness, and risk taking into a single factor (see Rauch et al., 2009). The coefficient alpha was 0.76.

2.2.3. Occupational loneliness

The feeling of occupational loneliness was assessed with a single item. On a five-point scale ranging from 1 (*very connected*) to 5 (*very isolated*), participants were asked to indicate how they felt during

Table 1

Means, standard deviations, and correlations between variables.

	M	SD	1	2	3	4	5	6	7	8
1. Gender	1.17	0.38	–							
2. Age	44.57	7.71	–0.00	–						
3. Years of experience	11.36	8.14	–0.06	0.64**	–					
4. Business size	1.55	0.50	–0.23**	–0.04	0.02	–				
5. Job stressors	1.60	0.57	0.02	–0.01	–0.11*	0.05	–			
6. Occupational loneliness	2.88	1.16	–0.04	–0.02	0.04	0.08	0.23**	–		
7. Entrepreneurial orientation	4.51	0.97	–0.04	0.03	–0.01	0.01	0.07	–0.05	–	
8. Burnout	2.66	0.93	–0.10	–0.17**	–0.05	0.03	0.28**	0.33**	–0.14*	–

Note: Gender (1 = men, 2 = women); business size (1 = VSE's, 2 = SME's).

* $p < 0.05$.

** $p < 0.01$.

the last month in their role as owner-manager. This measure is similar to other single-item, self-labeling measures of loneliness used in previous studies (e.g., Stephens, Alpass, Towers, & Stevenson, 2011; Stickley et al., 2013).

2.2.4. Burnout

The French version (Lourel, Gueguen, & Mouda, 2007) of the Burnout Measure, Short Version (BMS; Malach-Pines, 2005) was used to assess burnout. This scale contains 10 items addressing the frequency of experiencing symptoms of emotional, mental, and physical exhaustion. Participants indicated the extent to which the items (e.g., tired, trapped, helpless) corresponded to how they felt about their work, rated on a seven-point scale from 1 (*never*) to 7 (*always*). The coefficient alpha was 0.86.

2.2.5. Control variables

Although largely overlooked in the research on burnout in SME owner-managers, a number of variables that could account for sources of variation in burnout were considered: age, gender, years of experience as owner-manager, business size (very small enterprises – VSEs vs. small- and medium-sized enterprises – SMEs).

2.3. Statistical analyses

To test the proposed model, we followed the approach put forward by Preacher, Rucker, and Hayes (2007) (see also Edwards & Lambert, 2007). We proposed a second-stage moderated mediation model in which the indirect effect of loneliness between job stressors and burnout was moderated by entrepreneurial orientation. The model was tested with path analysis using *Mplus* (Muthén & Muthén, 2012). Prior to the data analysis, variables were mean-centered to reduce multicollinearity. All models were tested with maximum likelihood estimation using robust standard errors (MLR estimation). The goodness-of-fit was assessed using four indices: the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residuals (SRMR). Values above 0.90 and 0.95 for the CFI and TLI indicate a satisfactory and excellent fit, respectively (Hoyle, 1995), and values of 0.08 or less for the RMSEA and SRMR are deemed acceptable (Browne & Cudeck, 1993). We used bootstrap procedures to test the significance of the indirect effect. To do so, we drew 1000 random samples with replacement from the original sample in order to construct bias-corrected confidence intervals (Edwards & Lambert, 2007). Finally, we performed a multi-group comparison analysis between owner-managers of SMEs and VSEs to test for model invariance across business size.

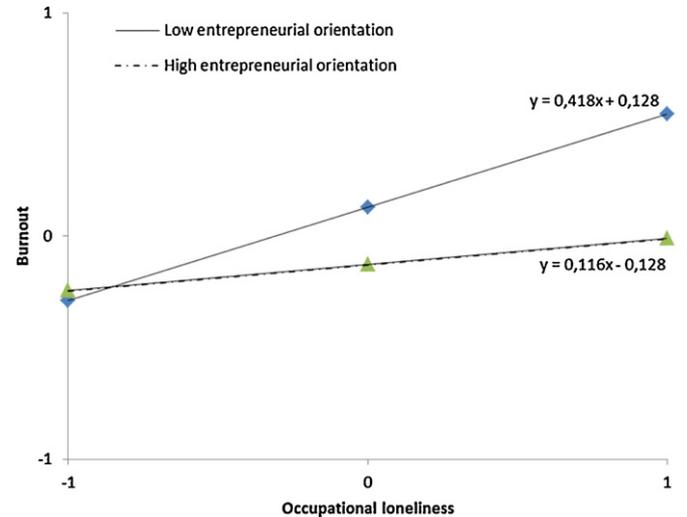


Fig. 2. Conditional indirect effects of occupational loneliness at low and high levels of entrepreneurial orientation.

3. Results

3.1. Preliminary analysis

Means, standard deviations, and correlations are presented in Table 1. An examination of the correlations showed preliminary support for hypotheses 1 and 2: job stressors were positively related to occupational loneliness ($r = 0.23$, $p < 0.01$) and burnout ($r = 0.28$, $p < 0.01$) and loneliness was positively related to burnout ($r = 0.33$, $p < 0.01$). With respect to the control variables, age was negatively related to burnout ($r = -0.17$, $p < 0.01$), indicating that younger owner-managers reported higher burnout than older owner-managers.

3.2. Main analysis

The proposed moderated mediation model provided an excellent fit to the data ($\chi^2(6) = 6.761$, CFI = 0.991, TLI = 0.979, RMSEA = 0.018 [CI = 0.000, 0.071]). Results are summarized in Table 2. Controlling for age, gender, years of experience as owner-manager, and business size, the results provide support for Hypothesis 1, showing a positive relationship between job stressors and burnout. In support of Hypothesis 2, loneliness has a partial indirect effect on the relationship between job stressors and burnout. Consistent with Hypothesis 3, the significant interaction between loneliness and entrepreneurial orientation indicates that the partial indirect effect of job stressors on burnout through loneliness is moderated by entrepreneurial orientation. Fig. 2 shows

Table 2
Results for the proposed moderated mediation model.

	Coefficients	Standard Error	95% Confidence interval
Job stressors and loneliness	0.23**	0.05	
Burnout predictors			
Gender	0.22	0.15	
Age	-0.24**	0.07	
Years of experience	0.13	0.07	
Business size	0.01	0.11	
Job stressors	0.26**	0.06	
Occupational loneliness	0.27**	0.05	
Entrepreneurial orientation	-0.13 [†]	0.05	
Occupational loneliness × Entrepreneurial orientation	-0.15**	0.06	
Conditional indirect effect of loneliness			
High entrepreneurial orientation	0.03	0.02	-0.006/0.073
Low entrepreneurial orientation	0.10**	0.03	0.046/0.149

[†] p < 0.05.

** p < 0.01.

this partial indirect effect at low and high levels of entrepreneurial orientation.

Table 2 presents the results of the bootstrapping procedures, including the estimates and standard errors of the conditional indirect effect for loneliness across levels of entrepreneurial orientation for the entire sample. The conditional indirect effect of loneliness is stronger and significant when entrepreneurial orientation is low (0.10 [CI=0.046, 0.149]), but was weaker and not significant when entrepreneurial orientation is high (0.03 [CI= -0.006, 0.073]). Supplementary analyses indicated that the conditional indirect effect of loneliness holds for each entrepreneurial orientation dimension. Results from three separate models (one for each dimension) showed that the conditional indirect effect of loneliness is stronger when innovativeness (0.09 [CI=0.040, 0.137]), proactiveness (0.09 [CI=0.043, 0.146]), or risk taking (0.08 [CI=0.039, 0.136]) are low, but weaker when innovativeness (0.04 [CI=0.007, 0.085]), proactiveness (0.03 [CI=0.003, 0.086]), or risk taking (0.03 [CI=0.000, 0.082]) are high.

We performed a multi-group comparison analysis between owner-managers of SMEs and VSEs to test for model invariance across business size, again controlling for age, gender, and years of experience as owner-manager. The results provided support for path invariance. Compared to the constraint model ($\chi^2(18) = 13.210$, CFI=1.00, TLI=1.08, RMSEA=0.000 [CI=0.000, 0.045]), the model with no invariance constraints ($\chi^2(10) = 10.772$, CFI=0.991, TLI=0.976, RMSEA=0.021 [CI=0.000, 0.085]) did not provide a significantly improved fit ($\Delta\chi^2(8) = 2.438$; *n.s.*). This suggests that the same processes are at play in predicting burnout among owner-managers of SMEs and VSEs.

3.3. Alternative model

Although we proposed that the indirect effect of job stressors on burnout through occupational loneliness is moderated by entrepreneurial orientation, we could envisage alternate structures that also have merit. For example, loneliness might mediate the interactive effect of job stressors and entrepreneurial orientation on burnout. We tested a mediated moderation model accordingly. The results failed to provide support for this alternative model. Although the fit to the data ($\chi^2(5) = 5.328$, CFI=0.996, TLI=0.987, RMSEA=0.013 [CI=0.000, 0.074]) was satisfactory, the moderating effect of entrepreneurial orientation in relation to job stressors was not significant for either loneliness ($\beta = 0.06$; *n.s.*) or burnout ($\beta = 0.03$; *n.s.*). We therefore concluded that our data provided stronger support for the proposed moderated mediation model.

4. Discussion

The aim of this study was to gain a deeper understanding of stress in SME owner-managers by delving further into individual and contextual factors that make them vulnerable to burnout. The results show that job stressors related to SME management predict burnout in owner-managers through a feeling of occupational loneliness, and that this indirect relationship is moderated by the entrepreneurial orientation. These findings make a significant contribution to the research on burnout in general and on SME owner-managers in particular.

4.1. Theoretical contributions

The psychological health of SME owner-managers has occupied a blind spot in the research on entrepreneurship (Torres, 2012). Our results begin to fill this gap by highlighting the relevance and need to conduct further studies in order to demystify certain issues surrounding burnout. Whereas the burnout research focuses mainly on salaried employees, our study is one of the first to look at the affective state of owner-managers. The results advance the knowledge of burnout in SME owner-managers by assessing job stressors that are inherent to their function rather than generic measures (e.g., role overload, ambiguity). In future studies, other antecedents could be considered, such as external environmental factors. In accordance with studies that have shown that diverse external environmental factors (e.g., munificence, dynamism, and complexity) are related to adaptive capacity and firm performance (Rosenbusch, Rauch, & Bausch, 2013), it is possible that these factors act on the adaptive capacity and psychological health of owner-managers. Given that burnout is associated with a number of individual and organizational costs, future studies could also attempt to identify its role and effects on owner-managers' management capacities (e.g., business and leadership practices, decision making) and firm performance.

A main contribution of this study is the identification of occupational loneliness as a psychological mechanism to explain the relationship between job stressors and burnout. Recognized as a correlate of stress in SME owner-managers (Boyd & Gumpert, 1983; Gumpert & Boyd, 1984), the role of loneliness has been largely ignored to date. Our results indicate that occupational loneliness in owner-managers may stem from certain SME management problems and contribute to psychological health issues. These findings support the proposition that connectedness is an essential ingredient for psychological health (Baumeister & Leary, 1995; Deci & Ryan, 2000), and at the same time they explain how job stressors inherent to SME management can foster feelings of occu-

pational loneliness in owner-managers. Whereas these results tend to support one of the early premises of burnout theory, that this psychological reaction is rooted in the workplace relational environment (Maslach, 1982), it would also be instructive to explore the role of other basic needs (e.g., autonomy and competence) (Deci & Ryan, 2000). Considering that the multiple responsibilities of owner-managers could also chip away at their feelings of competence and autonomy, this would allow exploring the contribution of other basic needs and identifying additional pathways by which job stressors related to SME management and other environmental factors may contribute to burnout.

This study also sheds new light on the pathways by which loneliness contributes to burnout, highlighting the need to concurrently examine the contribution of contextual and individual factors. The results indicate that not only does occupational loneliness constitute a relevant psychological mechanism, its relationship with burnout varies according to the entrepreneurial orientation. More specifically, the results show that SME (and VSE) owner-managers who are less proactive, innovative, or risk-taking react more negatively to loneliness and are at greater risk for burnout. These findings concur with Brockner's (1988) notion of behavioral plasticity.

An original contribution of this study to the burnout literature is the consideration of entrepreneurial orientation as an adaptive factor for owner-managers. Our results show that the entrepreneurial strategic posture determines reactivity to the workplace relational environment and acts on psychological state. In this sense, the entrepreneurial orientation constitutes a significant resource that influences not only the firm's adaptive capacity (Covin & Slevin, 1989; Lumpkin & Dess, 1996), but also owner-manager's adaptive capacity. Whereas the research tends to show that the positive aspects of entrepreneurial orientation—proactivity, risk taking, and innovativeness—contribute to the firm's growth and performance (e.g., Rauch, Wiklund, Lumpkin, & Frese, 2009), our results reveal that it is not so much these aspects but instead a lack of same that threatens the owner-manager's psychological health. In other words, in conditions of low entrepreneurial orientation, owner-managers are more sensitive and reactive to occupational loneliness. This can be explained by the idea that a low entrepreneurial posture tends to reflect a conservative management style characterized by the centralization of power and entrepreneurial efforts made mainly by the upper management (Covin & Slevin, 1989; Miller, 1983). In such situation, occupational loneliness may translate into social capital shortage, which prevents the owner-manager from making interpersonal connections and accessing information (Adler & Kwon, 2002). This, in turn, would hinder management capacity and foster burnout symptoms. While enhancing the understanding of burnout in SME owner-managers, our theoretical perspective and empirical results underscore the need to extend the analysis of entrepreneurial orientation to consider it as an adaptive resource liable to influence the attitudes and behaviors of organizational actors.

4.2. Limitations

This study includes limitations that should be mentioned. First, the measure used to assess occupational loneliness is a single-item indicator. Although the use of single self-labeling to assess loneliness is common practice, as it correlates strongly with multi-item scales (Jones, Carpenter, & Quintana, 1985), it would be preferable to replicate our results with scales designed to more finely assess psychometric properties (e.g., construct validity). Second, although we used a multiwave data collection method, the data are cross-sectional, which does not allow causal inferences. Even though the research generally supports the proposed sequence (Zapf, Dormann, & Frese, 1996), it is difficult to unambiguously

demonstrate the direction of the relationships in non-experimental studies. However, it would be useful to explore, in larger samples, potentially inverse and reciprocal relationships. It is plausible that experiencing job stressors, loneliness, and burnout would be mutually reinforcing over time. Third, all data were collected from a single source, which raises the possibility of common variance bias. As mentioned above, the multiwave method used can partially minimize this bias (Podsakoff et al., 2012). The observed moderating effect limits this possibility, given that the presence of common variance would probably not strengthen the relationship between loneliness and burnout solely for participants who reported low entrepreneurial orientation. To address this concern, we also performed a CFA model that included an additional method factor related to all items, as recommended by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to estimate the proportion of shared method variance in the model. Results showed that the method factor accounted for only 11% of the total variance, which is in the range of 11% to 25%. This is considered characteristic of a model that is not biased by method variance (Lance, Dawson, Birkelbach, & Hoffman, 2010; Podsakoff et al. (2003); Williams, Cote, & Buckley, 1989). Fourth, with respect to the generalizability of results, this study was conducted in a sample of SMEs operating in France. Further studies are needed to enlarge the understanding of burnout in SME owner-managers, for instance, by investigating whether cultural differences might affect some of the relationships observed here, and whether the model applies equally to CEOs of large firms.

4.3. Managerial implications and conclusion

Despite these limitations, this study offers meaningful insights into how burnout can be prevented or mitigated in owner-managers. Our results underscore the stress potential of SME management problems. These job stressors involving a range of stakeholders, either internally (e.g., employees, administrative staff) or externally (e.g., customers, suppliers, financial agencies) are directly and indirectly related (through the feeling of loneliness) to burnout. In a workaday world where owner-managers generally neglect their health (Torres, 2012), they would benefit by learning how to recognize function-related sources of stress and by gaining an awareness of the associated psychological costs. If occupational loneliness is a hidden cost of management, then owner-managers could attempt to strengthen their interpersonal resources, including establishing social connectedness with peers. In addition to being an invaluable strategic resource (Geletkanycz, Boyd, & Finkelstein, 2001), this type of support can have the side-effect of lessening the feeling of loneliness. Because our results reveal that younger owner-managers are more at risk for burnout, business networking, coaching and mentoring would provide promising alternative approaches to address this issue.

Our results also suggest that entrepreneurial orientation plays a significant role in the sensitivity of owner-managers to the relational environment and their reactivity to burnout. Unlike personality traits, which are dispositional and stable over time and situations, orientations are culturally conditioned and influenced by the environment (Thomas & Mueller, 2000). As an adaptive resource, entrepreneurial orientation would be somewhat malleable, and therefore open to change and development. Accordingly, SME owner-managers should cultivate an entrepreneurial orientation because it provides a unique competitive advantage, fostering not only firm performance (Rauch et al., 2009) but also their health capital. Whereas the research on entrepreneurial orientation militates in favor of contingency approaches (Lawrence & Lorsch, 1967), by which the firm's strategic posture should be aligned with environmental needs and demands, our results suggest that a conservative orientation hinders the adaptive capacities of owner-managers of both SMEs and VSEs. In this case, it would

appear critical to find ways to prevent and/or manage feelings of loneliness in owner-managers in order to defend against burnout.

To conclude, we hope that we have drawn greater attention to the psychological health, and particularly burnout, of SME owner-managers. This study constitutes a first tentative step in the understanding of the relational context of burnout in SME owner-managers by examining the role of occupational loneliness in conjunction with entrepreneurial orientation. Based on an in-depth analysis of individual adaptation to the workplace, our findings can serve as a springboard to a better understanding of how SME owner-managers can develop and apply a strategic posture in order to improve not only the growth and performance of their firm but their own health as well.

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