Enhancing corporate entrepreneurship: an empirical test of Stevenson’s conceptualisation of entrepreneurial management

Kamal Sakhdari*
Faculty of Entrepreneurship,
Department of Corporate Entrepreneurship,
University of Tehran,
16th Street, North Kargar Avenue,
Tehran 1439813141, Iran
Email: kasakhdari@ut.ac.ir
*Corresponding author

Jahangir Yadollahi Farsi
Faculty of Entrepreneurship,
Department of New Venture,
University of Tehran,
16th Street, North Kargar Avenue,
Tehran 1439813141, Iran
Email: jfarsi@ut.ac.ir

Abstract: Although Stevenson’s conceptualisation of opportunity-based entrepreneurial management is widely utilised and cited, less theoretical and empirical attention has been given to this framework in relation to corporate entrepreneurship (corporate entrepreneurial outputs), reflecting a firm’s intensity of engagement in innovation in products and services, venturing activities and strategic renewal. We hypothesised the impact of the sub-dimensions of entrepreneurial management on corporate entrepreneurship. Our observation of 298 firms providing products and services to the mining industry of Australia and Iran indicates that the underlying dimensions differently affect corporate entrepreneurship. The results also provide useful insights into the boundary conditions of Stevenson’s notion of opportunity-based management style.

Keywords: corporate entrepreneurship; entrepreneurial management; mining industry; survey.

Biographical notes: Kamal Sakhdari received PhD in business and entrepreneurship from the Queensland University of Technology (QUT), Australia. He is an Assistant Professor at the Faculty of Entrepreneurship, University of Tehran, Iran. His research interests include corporate entrepreneurship, innovation management, institutional theory and international business. He is a member of the Australian Centre for Entrepreneurship Research (ACE) at the QUT Business School, where he received PhD (2011–2014).

Jahangir Yadollahi Farsi is an Associate Professor of entrepreneurship at the Faculty of Entrepreneurship, University of Tehran, Iran. His research interests include international entrepreneurship, opportunity recognition and exploitation and commercialisation.

1 Introduction

Stevenson and his colleagues introduced *Entrepreneurial Management* as a useful conceptualisation of a firm’s managerial approach with regard to stimulating entrepreneurial outputs (Stevenson, 1983; Stevenson and Jarillo, 1990). They posit that certain managerial practices can better facilitate entrepreneurial activities within established companies. In his seminal article, Stevenson (1983) argues that an opportunity-based (vs. administrative) managerial approach should better enhance a firm’s engagement in corporate entrepreneurial outputs such as innovations in products/services and markets. Entrepreneurial management is a construct similar to entrepreneurial orientation (Lumpkin and Dess, 1996) yet represents different dimensions of a firm’s strategic posture. In particular, entrepreneurial management more clearly and directly links a firm’s managerial approach to the pursuit of opportunities (Brown et al., 2001), which is assumed to be the heart of contemporary entrepreneurship research (cf. Davidsson, 2015; Shepherd et al., 2015; Short et al., 2010).

Connecting a firm’s entrepreneurial approach to the concept of opportunity is an interesting aspect of Stevenson’s conceptualisation that is widely used and cited in the literature of entrepreneurship and corporate entrepreneurship (Bradley et al., 2011; Bruining et al., 2013; Gartner and Baker, 2010). This conceptualisation is more consistent with the contemporary definition of entrepreneurship as the nexus of opportunity and actors (Shane, 2012). In a recent review of entrepreneurship orientation, Covin and Miller (2014, p.13) argue that ‘opportunity orientation’ is a neglected aspect in the entrepreneurial orientation construct although it is the essence of all entrepreneurial processes and activities leading to new entry (cf. Davidsson, 2015). This orientation is well reflected in Stevensons’s notion of entrepreneurial management, aiming to provide a framework for understanding a management approach emphasising opportunity recognition and exploitation (Brown et al., 2001).

Yet, “surprisingly few papers have critically examined or developed Stevenson’s work” (Gartner and Baker, 2010, p.1; Naldi et al., 2015). In particular, little attention has been given to corporate entrepreneurship, reflecting the market results of a firm’s managerial practices, as operationalised by the sum of innovation, venturing and strategic renewal activities (Simsek, 2007; Yuan et al., 2017; Zahra, 1996). Corporate entrepreneurship represents a firm’s intensity of engagement in entrepreneurial outputs.
Empirical test of Stevenson’s conceptualisation of entrepreneurial management

(Burgers and Covin, 2014; Simsek and Heavey, 2011), realising when a firm undertakes the 'new entry' (Lumpkin and Dess, 1996) or 'emergency-based' activities (Covin and Miller, 2014; Davidson et al., 2016) such as developing new products and services and entering new markets. Wales et al. (2015) have lately called future research for theoretically and empirically separating the corporate entrepreneurial outputs from managerial approaches stimulating them to have a better understanding of factors promoting the level of entrepreneurial activities in companies (Muhos, 2015; Valaei et al., 2016). In this vein, this paper investigates how the subdimensions of a firm’s entrepreneurial management can enhance corporate entrepreneurship.

This research makes at least two important contributions to the literature. First, it extends the growing body of literature examining different impacts of entrepreneurial management (cf. Bradley et al., 2011; Naldi et al., 2015) by empirically testing Stevenson’s conceptualisation in relation to corporate entrepreneurship in two different contexts of Australia and Iran. In particular, we heed calls to distinguish corporate entrepreneurial outputs or product-market innovations from strategic postures stimulating them (Simsek and Heavey, 2011; Wales et al., 2015). Second, we contribute to the corporate entrepreneurship literature by examining the underlying aspects of entrepreneurial management promoting corporate entrepreneurial activities. This can also provide valuable insights for managers aiming to enhance their corporate entrepreneurship by determining the managerial practices boosting the level of corporate entrepreneurial outputs.

2 Theoretical background and hypotheses

Corporate entrepreneurship reflects a firm’s intensity of engagement in entrepreneurial activities (Simsek, 2007; Zahra, 1996). It entails the sum of innovation, venturing and strategic renewal activities within established firms (Burgers and Covin, 2014; Simsek and Heavey, 2011). Innovation concerns the development of new products and services. Venturing refers to the birth of new businesses within existing companies through expanding operations in current or new markets. Firms tend to create new ventures when opportunities in new markets are not attainable with current resources and structures, or they put out of the purview of their current base businesses such as entering new technological spaces or areas (Teng, 2007; Verbeke et al., 2007). Strategic renewal means the redefinition of the scope of a business or significant changes in its competitive strategy, leading to new positions in the market (Sharma and Chrisman, 1999; Zahra, 1996).

Corporate entrepreneurship has been used both as a single metaconstruct (Burgers and Covin, 2014; Heavey and Simsek, 2013; Ling et al., 2008; Simsek, 2007; Simsek and Heavey, 2011; Simsek et al., 2009) and as individual components (Yiu and Lau, 2008; Yiu et al., 2007; Zahra et al., 2000) in the literature (for a more recent review of this construct please see Sakhdari, 2016). Yet, the more recent dominant approach has utilised corporate entrepreneurship as metaconstruct composing the dimensions of innovation, business venturing and strategic renewal. The logic behind this conceptualisation is that the main dimensions (innovation, venturing and renewal) are complementary and
mutually supportive. For example, renewing the competitive approach may enhance the benefits of venturing activities, and new product development may make strategic renewal activities more beneficial (Heavey et al., 2009; Simsek, 2007; Simsek and Heavey, 2011; Simsek et al., 2007). As such, “treating individual components of corporate entrepreneurship as independent ignores their potential complementarity” (Simsek and Heavey, 2011, p.83).

It is also worth noting that corporate entrepreneurship encompasses the actual entrepreneurial outputs or market results and differs from constructs such as entrepreneurial orientation or entrepreneurial management which are “predispositions of firms with respect to their strategy-making processes, practices, and activities” that stimulate corporate entrepreneurship (Dess and Lumpkin, 2005; Simsek and Heavey, 2011, p.83). Indeed, ‘new entry’ (Lumpkin and Dess, 1996; Wales et al., 2015) or ‘emergence-related’ activities (Covin and Miller, 2014) such as innovation and business formation (such as venturing), providing customers with new options/choices (Davidsson, 2016), are considered as the ‘essential act of entrepreneurship’ (Lumpkin and Dess, 1996, p.136) and organisational factors such as management styles, culture and structure are mechanisms that can lead to these market results.

Scholars argue that some specific managerial practices/approaches better promote corporate entrepreneurial outputs (Dess and Lumpkin, 1996; Stevenson and Jarillo, 1990). Stevenson and his colleagues conceptually contrast two opposite kinds of managerial approach. The first approach is entrepreneurial management which is opportunity driven and directed by emerging opportunities in the environment. The second approach is administrative, guided by the optimal use of controlled resources (Stevenson, 1983; Stevenson and Gumpert, 1985; Stevenson and Jarillo, 1990). They attempt to develop a framework for understanding managerial approaches emphasising opportunity recognition and exploitation (Brown et al., 2001). In this approach, entrepreneurship is defined as “a process by which individuals – either on their own or inside organisations – pursue opportunities without regard to the resources they currently control” (Stevenson and Jarillo, 1990, p. 23). In his first model, Stevenson (1983) conceptualised six subdimensions of entrepreneurial management. Two other dimensions of growth orientation (Stevenson and Jarillo-Mossi, 1986) and culture (Stevenson and Jarillo, 1990) were added in his later papers. Brown et al. (2001) empirically validate six subdimensions determining the extent to which a company displays an entrepreneurial approach vs. administrative approach. These dimensions are growth orientation, strategic orientation, resource orientation, reward philosophy, management structure and entrepreneurial culture. Stevenson’s (1983) conceptual dimensions and Brown et al.’s (2001) empirical dimensions of entrepreneurial management are summarised in Table 1.

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial approach</td>
<td>Conceptual dimension</td>
</tr>
<tr>
<td>Driven by perception of opportunity</td>
<td>Strategic orientation</td>
</tr>
<tr>
<td>Revolutionary with short duration</td>
<td>Commitment to opportunity</td>
</tr>
<tr>
<td>Administrative approach</td>
<td>Driven by controlled resources</td>
</tr>
<tr>
<td>Evolutionary with long duration</td>
<td>Strategic Orientation</td>
</tr>
</tbody>
</table>
Stevenson and his colleagues propose that entrepreneurial management as an opportunity-based management style can better stimulate corporate entrepreneurial outputs such as innovation, venturing and strategic renewal activities. Yet, this proposition has been less validated through empirical studies. In the remainder of this section, we argue how the subdimensions of entrepreneurial management can affect a firm’s engagement in corporate entrepreneurship. Our theoretical framework is presented in Figure 1.

**Figure 1** Research framework

**Strategic orientation** refers to factors driving the creation of strategy in firms. At one end of the continuum, companies with more entrepreneurial approach are opportunity driven and their perception of the opportunities in the environment drives their strategy. As such, almost any opportunity can be relevant to the company, and they actively and rapidly pursue the recognised opportunities. At the other extreme, administrative firms are resource driven and consider resources as their starting point and try to efficiently utilise their resources. Thus, only opportunities related to the current resources are relevant to them, and their commitment to opportunities is slow, but longer compared
with opportunity-driven firms. We expect opportunity-based firms to have more engagement in corporate entrepreneurship because entrepreneurial outputs mainly rely on firms efforts to recognise and pursue new opportunities (Ren and Guo, 2011). For example, venturing activities require firms to go beyond the purview of their current business (Burgelman, 1983). On the other hand, as administrative companies focus more on their current situation and while defining their strategy, they “will not try to leap far beyond current situation” (Stevenson, 1983, p.4). This limits administrative firms from pursuing new opportunities underlying corporate entrepreneurial outputs. Thus, the following hypothesis can be developed:

**Hypothesis 1:** An opportunity-driven strategic orientation positively affects corporate entrepreneurship.

**Growth orientation** refers to a company’s intended pace or speed of growth. Firms with an entrepreneurial approach prefer rapid growth by looking beyond controlled resources and acting based on available opportunities for growth. In contrast, administrative companies desire slower growth at a steady pace so as not to unsettle the company or run the accumulated resources at risk (Brown et al., 2001). It is predicted that companies with an entrepreneurial growth orientation to have higher levels of corporate entrepreneurship because growth can be achieved via entrepreneurial outputs (Zahra, 1993). Davidsson et al. (2006) argue that entrepreneurship is an increasingly valid path for firms to grow, and research shows that there is a positive link between corporate entrepreneurship and a firm’s growth (Yiu and Lau, 2008; Zahra, 1991). As such, firms with higher levels of entrepreneurial growth do their best in realising entrepreneurial outputs. This is also consistent with the bricolage theory suggesting that entrepreneurs desiring and attempting to achieve something realise their ideas (Baker and Nelson, 2005). It follows then that:

**Hypothesis 2:** An entrepreneurial growth orientation positively affects corporate entrepreneurship.

**Resource orientation** concerns the commitment and control of resources. Firms with a more entrepreneurial approach attempt to reduce their resource commitment through investing in a multistage manner and using others’ resources. On the other hand, administrative firms invest in a single-stage manner after thorough analysis. Firms with entrepreneurial resource orientations prefer to utilise others’ resources such as financial capital, intellectual capital, skills, and competencies through subcontracting, outsourcing or renting; conservative companies would rather control resources by the ownership or employment of the resources required. It is expected to have higher levels of corporate entrepreneurship with an entrepreneurial resource orientation. Adopting an entrepreneurial approach allows firms to be flexible in changing their directions and pursuing new entrepreneurial opportunities (Bradley et al., 2011; Brown et al., 2001). Moreover, they can better fill their resource gaps for realising entrepreneurial outputs using others’ resources (Teng, 2007). Sakhdari and Farsi (2016), for example, indicate that firms with more business ties have better corporate entrepreneurship. Thus, it is predicted that:

**Hypothesis 3:** An entrepreneurial resource orientation positively affects corporate entrepreneurship.
Empirical test of Stevenson’s conceptualisation of entrepreneurial management

Management structure reflects the desired degree of structural organicity. Firms with a more entrepreneurial approach have organic and flat structures composed of multiple informal networks to enable employees to freely seek opportunities. On the other hand, administrative firms possess mechanistic structures with a formalised hierarchy and clearly defined authority lines, routines, responsibilities and systems for measuring efficiency (Brown et al., 2001). It is predicted to have better corporate entrepreneurship in firms with an entrepreneurial structure. This structure allows employees to freely locate and pursue opportunities (Stevenson, 1983). In an organic structure, people have flexibility for attending to broader knowledge (Van Den Bosch et al., 1999). It also facilitates identifying relevant external knowledge in a timely and efficient manner (Foss et al., 2013) and has high potential for rapid distribution of knowledge across the company (Anderson et al., 2009; Burns and Stalker, 1961). This can provide more options and ideas for corporate entrepreneurial outputs. Recently, Kuratko et al. (2014) suggest flexible organisational boundaries, facilitating the flow of information between the firm and its environment and also between the departments, as an important internal environment for corporate entrepreneurship. It follows then that:

Hypothesis 4: An entrepreneurial management structure positively affects corporate entrepreneurship.

Reward philosophy refers to how companies compensate their employees’ efforts. Because the main focus of firms with an entrepreneurial approach is value creation through seeking and exploiting opportunities, compensations and promotions in these companies are based on the success of individuals or teams in adding value to the firm. As such, in these firms, compensation is value driven and performance based. On the other hand, administrative firms compensate their employees based on their position in the hierarchy, their responsibilities, the amount of controlled resources and seniority, and in case of success, they are even promoted to higher positions with more resources under their control (Brown et al., 2001; Stevenson, 1983). It is expected that companies with an entrepreneurial reward system to have higher levels of corporate entrepreneurial outputs. Sharing value added in a firm with involved people is more likely to motivate them to pursue value-creating activities such as entrepreneurial outputs. One of the main challenges for employees to undertake entrepreneurial behaviour is the risk of such activities (Shimizu, 2012). Tying rewards to entrepreneurial outcomes may assist in changing the risk acceptance of employees (Hayton, 2005; Schmelter et al., 2010). This is aligned with the expectancy theory (Vroom, 1964) proposing that people take action when they believe that the accomplishment of goals results in their desirable reward. Thus, the following hypothesis can be developed:

Hypothesis 5: An entrepreneurial reward philosophy positively affects corporate entrepreneurship.

Culture can be defined as a “pattern of shared values and beliefs that help individuals understand organizational functioning and that provide norms for behaviour in the organization” (Deshpande and Webster, 1989, p.4). Companies with an entrepreneurial culture repeatedly encourage and promote new ideas, creativity, experimentation and broad search for opportunities because opportunities are considered as the starting point in these companies. As such, a work environment full of new ideas is created in these companies. Indeed, a context filled with required resources and information, autonomy and risk-taking encourages and enables employees to develop new knowledge and
capabilities underlying corporate entrepreneurship (Sakhdari and Bidakhavidi, 2016; Zahra et al., 2009; Zahra, 2015). Conversely, as administrative companies focus on the optimal use of controlled resources, search for opportunities is restricted by resources and only ideas related to increasing efficiency would be encouraged. As such, a work environment with just enough ideas, or a lack of ideas, is generated by administrative companies (Brown et al., 2001). Thus, it is logical to expect those companies with an entrepreneurial culture to have better entrepreneurship.

_Hypothesis 6: An entrepreneurial culture positively affects corporate entrepreneurship._

### 3 Sample and data collection

The sample comprises supplier companies providing products and services to the Iranian and Australian mining industries, the so-called mining, equipment, technology and service (METS) firms. These firms have mainly undertaken the duty of innovation in the mining sector that is essentially exploitation driven (Bartos, 2007; Tedesco and Haseltine, 2010). The METS sector cuts across a range of traditional industry classification codes. However, our pretests and interviews indicated that firms identify whether or not they are part of this sector. The main criterion is the provision of products and services specifically to the mining industry. The distinctiveness of this sector is further supported by a number of publicly available databases aiming to bring together METS firms with customers or business partners. As we elaborate later, we combined these databases to create the research sample. Based on information on the databases, an introductory letter sent to the firms and follow-up telephone contacts, we ensured that the firms fulfilled the criterion.

Both Iran and Australia are among the world’s mineral-richest countries and have large mining industries. Selecting two distinct institutional contexts can reduce the risk of random test and enable us to investigate the boundary conditions and generalisability of the findings (Hubbard et al., 1998; Zahra, 2007). We also focused on a single industry to confine the extraneous variation of heterogeneous industry factors (Davidsson, 2008; Wales et al., 2013). A single industry may limit the potential for generalising the results; however, it is beneficial in restricting the impact of uncontrolled variables. Davidsson (2008) has lately argued the heterogeneity problem as one of the main challenges of entrepreneurship research. He contends that there are a large number of potentially heterogeneous factors explaining the variance of a dependent variable, yet they all cannot be included in the model because of statistical and methodological restrictions. Davidsson (2008) suggests that one effective way to mitigate the heterogeneity problem is to narrow the research study to a more homogenous context such as a single industry. It is particularly the case with this research in which data were collected from two different institutional contexts increasing the vulnerability of the data to the effect of uncontrolled factors.
A variety of publicly available databases were used to create a data set with the population of METS firms in Australia and Iran. Each database added unique entries as well as overlapped with other databases, enhancing validity and reducing biases arising from a single source of information. This resulted in an initial sampling population of 2097 Australian and 800 Iranian firms. Removing those firms that did not exist anymore, were not contactable or were not a METS firm resulted in a revised sampling population of 1689 Australian and 598 Iranian firms. A questionnaire was administered to senior executives of all these firms. A total of 205 completed Australian questionnaires (12% response rate) and 126 Iranian questionnaires (21% response rate) were returned. This is consistent with the 10–12% typical response rate experienced in studies targeting top executives (Hambrick et al., 1993). Further investigation led to the removal of 33 microfirms reducing the final sample to 298 organisations. Although corporate entrepreneurship has been extensively studied in small-, medium- and large-sized enterprises, we deemed the constructs less meaningful in microfirms consisting of less than five employees. The final sample for Australia and Iran, respectively, consisted of firms providing consulting services (19 and 2%), contracting (16 and 19%), equipment manufacturing (25 and 64%), supplies and consumables (29 and 13%) and support and services (11 and 3%).

The survey was pretested and modified based on feedback from panels of academics, practitioners and consultants in the mining industries in both countries. We followed the back-translation procedure outlined by Brislin (1970) to translate the instrument to Farsi. Data were collected from mid-2012 to early 2013. Following Dillman’s (2000) recommendations, we sent a letter endorsed by the university and an industry association, promised a management report upon completing the survey and followed up by telephone. In some cases, trained members of the research group were sent to firms to meet top administrators, explain the project and determine a date for collecting the completed questionnaires (cf. Luk et al., 2008). To further induce participation, respondents were offered the opportunity to complete an electronic or hardcopy version. We separated the collection of independent and dependent variables across two informants in Iran to minimise potential common method bias (Podsakoff et al., 2003). We received completed questionnaires from 126 matched pairs. We compared early and late respondents (identified as those returning the survey after the second reminder) (cf. Simsek et al., 2007) in terms of size and key variables in the model. No statistically significant differences were detected, suggesting that non-response bias is not a concern in our study.

4 Measures

4.1 Corporate entrepreneurship

Corporate entrepreneurship was measured with 15 items based on Zahra (1996). We modelled corporate entrepreneurship as a metaconstruct comprising a firm’s innovation, venturing and renewal activities as it better captures synergies between factors (Simsek and Heavey, 2011). The results of the confirmative factor analysis for assessing the measurement validity suggested a reasonably good model fit ($\chi^2$ (86) = 232.343, $n = 298$, $p < 0.001$, $\chi^2$/df = 2.70; SRMR = 0.066; RMSEA = 0.076; CFI = 0.905; GFI = 0.908).
This model outperforms the first-order model \( \Delta \chi^2 (4) = 154.968, p < 0.001 \). The coefficient alpha for the overall scale was 0.83.

### 4.2 Entrepreneurial management

We used the scale from Brown et al. (2001) to measure strategic orientation (three items, \( \alpha = 0.75 \)), growth orientation (two items, \( \alpha = 0.63 \)), resource orientation (four items, \( \alpha = 0.66 \)), management structure (five items, \( \alpha = 0.81 \)) and entrepreneurial culture (three items, \( \alpha = 0.69 \)), which combined to make up the measure for entrepreneurial management. In the original scale, the reliability of the reward philosophy dimension has proved problematic (Bradley et al., 2011; Brown et al., 2001). As such, we used four items from Balkin and Gomez-Mejia (1990) to address the possible issues with the reward philosophy dimension. These items measure how much a company’s reward system is based on performance or value creation, consistent with the conceptualisation of reward philosophy in earlier studies of entrepreneurial management (cf. Brown et al., 2001; Naldi et al., 2015). All dimensions were measured on a seven-point semantic differential scale, contrasting an entrepreneurial with an administrative approach. Respondents were asked to determine, for each pair of the opposite statements in which position in the continuum best described their managerial practices.

The results of the confirmatory factor analysis for measuring the measurement validity suggested a reasonably good model fit \( \chi^2 (120) = 286.036, n = 298, p < 0.001, \chi^2/df = 2.39; \) SRMR = 0.064; RMSEA = 0.068; CFI = 0.90; GFI = 0.902). All factor loadings were highly significant \( p < 0.001 \), except for one item related to reward philosophy and two related to resource orientation which were dropped from the analysis.

### 4.3 Control variables

To control for possible confounding effects and extraneous variation, a number of variables were included in this study as control variables. Firm size is an important factor in explaining firm behaviour as larger companies may have more resources but less flexibility for corporate entrepreneurial activities (Burgers and Covin, 2014). We used dummy variables consistent with the Australian Bureau of Statistics’ categorisation of small-, medium-, and large-sized firms in terms of the number of full-time employees. Environmental dynamism may influence corporate entrepreneurial activities and a firm’s knowledge needs (Simsek et al., 2007). As such, environmental dynamism, capturing the rate of changes in the competitive environment, was controlled through a four-item scale \( \alpha = 0.68 \) used in the literature (Jansen et al., 2005). Finally, additional institutional and industry effects were controlled by using one dummy variable for institutional context, in which Iran served as the reference group, and five industry dummy variables: consulting services, contracting, support and services, supplies and consumables and equipment and manufacturer.
5 Measurement validity tests

Apart from adopting the measures from the literature for increasing concept validity (DeVellis, 2003) and using confirmative factor analysis for examining discriminant and convergent validity (Bagozzi et al., 1991), the following steps were taken to minimise concerns about the common method bias and testing the measurement validity. To mitigate the common method bias in Iran, two respondents were asked to complete the survey instrument: one for the dependent variable and one for the independent variables (Podsakoff et al., 2003). We followed the partial correlation procedure proposed by Lindell and Whitney (2001) to assess the presence of common method bias in the data. We added an unrelated item to the instrument as a marker variable. Based on Waldman et al. (2004), we included the marker variable “our suppliers are becoming more unpredictable” in our survey instrument. We measured the marker on the same scale as our main variables and hid it among those items to maximise the chance of detecting common method bias. The partial correlation coefficients of all the original correlations remained significant while controlling for the marker variable, suggesting that common method bias is not of major concern regarding our results. Harman’s single factor test was also conducted to test the presence of the common method bias among the whole sample. As multiple factors emerged from the solution, and the first factor did not account for the majority of the explained variance (it was less than 20%), it was considered that common method bias should not be a major concern in this research (Podsakoff and Organ, 1986).

6 Results

Hierarchical regression analysis was used to test the hypotheses (Cohen et al., 2003). Table 2 presents the means, standard deviations and correlations for the variables in this study. Because the correlations between each pair of the variables are all below the suggested cut off of 0.70 (Tabachnick and Fidell, 1996), and the calculated variance inflation factor for each regression equation is well below the recommended level of 10, it was expected that multicollinearity should not bias the results. Table 3 also shows regression results for corporate entrepreneurship. Model 1 tested the relationship between the control variables and corporate entrepreneurship. This model contained one of the two size dummies, as medium was used as the reference group and four of the five industry dummies because manufacturing was considered as the reference group. The subdimensions of entrepreneurial management also entered as main effects in Model 2, controlling the effect of each dimension. Model 2 in Table 3 indicates the results of the hypothesised relationships. As shown in this model, growth orientation (β = 0.191, \( p < 0.05 \)), resource orientation (β = 0.154, \( p < 0.05 \)) and entrepreneurial culture (β = 0.258, \( p < 0.001 \)) positively impact corporate entrepreneurship, providing support for Hypotheses 2, 3, and 6. The data, however, do not support other hypotheses.
## Table 2
Means, standard deviations and correlations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Corporate</td>
<td>3.43</td>
<td>0.55</td>
<td>(0.82)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>entrepreneurial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Growth</td>
<td>3.91</td>
<td>1.79</td>
<td>0.14* (0.64)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Strategic</td>
<td>4.30</td>
<td>1.54</td>
<td>0.12*</td>
<td>-0.40*** (0.75)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Resource</td>
<td>3.65</td>
<td>1.53</td>
<td>0.12*</td>
<td>0.30***</td>
<td>-0.17*** (0.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Management</td>
<td>3.98</td>
<td>1.30</td>
<td>-0.10</td>
<td>-0.28***</td>
<td>0.33***</td>
<td>-0.13* (0.82)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Reward system</td>
<td>4.48</td>
<td>1.40</td>
<td>0.04</td>
<td>-0.47***</td>
<td>0.54***</td>
<td>-0.22***</td>
<td>0.38*** (0.68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Organizational</td>
<td>4.96</td>
<td>1.15</td>
<td>0.32**</td>
<td>0.14*</td>
<td>-0.04</td>
<td>0.06</td>
<td>-0.15***</td>
<td>0.04 (0.70)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Institutional</td>
<td>0.57</td>
<td>0.49</td>
<td>0.04</td>
<td>-0.37***</td>
<td>0.31***</td>
<td>-0.43***</td>
<td>0.31***</td>
<td>0.43***</td>
<td>-0.12*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Dynamism</td>
<td>3.55</td>
<td>0.64</td>
<td>0.19***</td>
<td>0.04</td>
<td>0.01</td>
<td>0.02</td>
<td>-0.06</td>
<td>0.01</td>
<td>0.19***</td>
<td>0.05 (0.68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Support and</td>
<td>0.07</td>
<td>0.26</td>
<td>0.10</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.08</td>
<td>-0.01</td>
<td>0.10</td>
<td>0.09</td>
<td>0.14*</td>
<td>0.08</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Supplies</td>
<td>0.22</td>
<td>0.41</td>
<td>0.06</td>
<td>-0.03</td>
<td>0.01</td>
<td>-1.14*</td>
<td>-0.009</td>
<td>0.03</td>
<td>-0.06</td>
<td>0.19**</td>
<td>-0.04</td>
<td>-0.15**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Contracting</td>
<td>0.17</td>
<td>0.37</td>
<td>-0.03</td>
<td>0.04</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.06</td>
<td>-0.01</td>
<td>0.07</td>
<td>-0.04</td>
<td>-0.002</td>
<td>-0.13*</td>
<td>-0.24**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Consulting</td>
<td>0.11</td>
<td>0.32</td>
<td>-0.06</td>
<td>-0.07</td>
<td>0.05</td>
<td>-0.07</td>
<td>0.15***</td>
<td>0.05</td>
<td>-0.14**</td>
<td>0.27**</td>
<td>-0.12*</td>
<td>-3.10</td>
<td>-0.19**</td>
<td>-0.16**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Manufacturing</td>
<td>0.41</td>
<td>0.49</td>
<td>-0.04</td>
<td>0.06</td>
<td>-0.06</td>
<td>0.22***</td>
<td>-0.03</td>
<td>-0.11*</td>
<td>0.04</td>
<td>-0.38**</td>
<td>0.07</td>
<td>-0.24**</td>
<td>0.44**</td>
<td>-0.30**</td>
<td>-0.30**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Small</td>
<td>0.40</td>
<td>0.49</td>
<td>-0.03</td>
<td>0.008</td>
<td>-0.04</td>
<td>0.15***</td>
<td>0.01</td>
<td>-0.05</td>
<td>-0.01</td>
<td>-0.12*</td>
<td>-0.08</td>
<td>0.12*</td>
<td>-0.04</td>
<td>0.008</td>
<td>-0.002</td>
<td>-0.03</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>16. Medium</td>
<td>0.51</td>
<td>0.50</td>
<td>-0.05</td>
<td>0.05</td>
<td>0.03</td>
<td>0.07</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.03</td>
<td>0.02</td>
<td>0.12*</td>
<td>-3.06</td>
<td>0.03</td>
<td>-0.07</td>
<td>-0.08</td>
<td>0.11</td>
<td>-0.83**</td>
<td>-</td>
</tr>
<tr>
<td>17. Large</td>
<td>0.08</td>
<td>0.28</td>
<td>0.14*</td>
<td>-0.07</td>
<td>0.13*</td>
<td>-0.13*</td>
<td>-0.001</td>
<td>0.15***</td>
<td>0.02</td>
<td>0.26**</td>
<td>-0.05</td>
<td>-3.08</td>
<td>0.007</td>
<td>0.11</td>
<td>0.14*</td>
<td>-0.13*</td>
<td>-0.25**</td>
<td>-0.31**</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (two tailed); **Correlation is significant at the 0.01 level (two tailed); ***Correlation is significant at the 0.001 level (two tailed).

N = 298. Numbers in parentheses on the diagonal are Cronbach’s coefficient alphas of the composite scales.
Table 3 Regression results for corporate entrepreneurial performance

<table>
<thead>
<tr>
<th>Control variables</th>
<th>Model 1 (CE sum^1)</th>
<th>Model 2 (CE sum)</th>
<th>Model 3 (Innovation)</th>
<th>Model 4 (Venturing)</th>
<th>Model 5 (Renewal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry dummies^a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consulting</td>
<td>−0.040</td>
<td>−0.014</td>
<td>−0.052</td>
<td>0.074</td>
<td>−0.106</td>
</tr>
<tr>
<td></td>
<td>(0.112)</td>
<td>(0.105)</td>
<td>(0.155)</td>
<td>(0.130)</td>
<td>(0.130)</td>
</tr>
<tr>
<td>Contracting</td>
<td>−0.027</td>
<td>−0.043</td>
<td>−0.008</td>
<td>−0.064</td>
<td>−0.013</td>
</tr>
<tr>
<td></td>
<td>(0.091)</td>
<td>(0.083)</td>
<td>(0.126)</td>
<td>(0.105)</td>
<td>(0.106)</td>
</tr>
<tr>
<td>Supplies and consumables</td>
<td>0.080</td>
<td>0.087</td>
<td>0.001</td>
<td>0.086</td>
<td>0.119</td>
</tr>
<tr>
<td></td>
<td>(0.087)</td>
<td>(0.082)</td>
<td>(0.121)</td>
<td>(0.101)</td>
<td>(0.101)</td>
</tr>
<tr>
<td>Support and service</td>
<td>0.114</td>
<td>0.076</td>
<td>0.089</td>
<td>0.057</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>(0.128)</td>
<td>(0.121)</td>
<td>(0.179)</td>
<td>(0.150)</td>
<td>(0.150)</td>
</tr>
<tr>
<td>Organisational size dummies^b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>0.021</td>
<td>0.012</td>
<td>0.049</td>
<td>−0.011</td>
<td>−0.005</td>
</tr>
<tr>
<td></td>
<td>(0.067)</td>
<td>(0.063)</td>
<td>(0.093)</td>
<td>(0.078)</td>
<td>(0.078)</td>
</tr>
<tr>
<td>Large</td>
<td>0.182**</td>
<td>0.141**</td>
<td>0.065</td>
<td>0.136*</td>
<td>0.125*</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.112)</td>
<td>(0.166)</td>
<td>(0.139)</td>
<td>(0.139)</td>
</tr>
<tr>
<td>Environmental dynamism</td>
<td>0.192**</td>
<td>0.149**</td>
<td>0.103</td>
<td>0.139*</td>
<td>0.099</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.046)</td>
<td>(0.069)</td>
<td>(0.057)</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Institutional context^c</td>
<td>−0.016</td>
<td>0.115</td>
<td>0.040</td>
<td>0.013</td>
<td>0.286***</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.081)</td>
<td>(0.119)</td>
<td>(0.10)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic orientation</td>
<td>0.047</td>
<td>0.063</td>
<td>0.099</td>
<td>−0.101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.035)</td>
<td>(0.029)</td>
<td>(0.030)</td>
<td></td>
</tr>
<tr>
<td>Growth orientation</td>
<td>0.191**</td>
<td>0.263***</td>
<td>0.148*</td>
<td>0.021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.035)</td>
<td>(0.025)</td>
<td>(0.025)</td>
<td></td>
</tr>
<tr>
<td>Resource orientation</td>
<td>0.154**</td>
<td>0.019</td>
<td>0.146*</td>
<td>0.204**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.032)</td>
<td>(0.027)</td>
<td>(0.027)</td>
<td></td>
</tr>
<tr>
<td>Management structure</td>
<td>−0.077</td>
<td>0.104</td>
<td>0.076</td>
<td>0.122</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
<td>(0.041)</td>
<td>(0.034)</td>
<td>(0.034)</td>
<td></td>
</tr>
<tr>
<td>Reward philosophy</td>
<td>0.122</td>
<td>−0.041</td>
<td>−0.104</td>
<td>−0.009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td>(0.037)</td>
<td>(0.031)</td>
<td>(0.032)</td>
<td></td>
</tr>
<tr>
<td>Organisational culture</td>
<td>0.25***</td>
<td>0.280***</td>
<td>0.177**</td>
<td>0.161**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.039)</td>
<td>(0.033)</td>
<td>(0.033)</td>
<td></td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.057***</td>
<td>0.183***</td>
<td>0.163***</td>
<td>0.112***</td>
<td>0.142***</td>
</tr>
</tbody>
</table>

***p < 0.001, **p < 0.01, *p < 0.05; ^aManufacturing served as reference group in regression analyses; ^bMedium size served as reference group in regression analyses; ^cIran served as the respective reference group; ^dCorporate entrepreneurial performance (the sum of innovation, venturing and renewal).

N = 298. Standardized regression coefficients are displayed in the table; standard errors in parentheses.
6.1 Post hoc analysis and robustness tests

Given the statistically significant correlations between the underlying dimensions of entrepreneurial management and institutional context, we also checked the two-way interaction effect of entrepreneurial management subdimensions and institutional context on corporate entrepreneurship. The results showed that the variance explained by the two-way interaction effect was non-significant in all cases, except for organisational culture \((p < 0.05)\) and resource orientation \((p < 0.10)\). The results indicate that an entrepreneurial culture has stronger effect in Australia than Iran, and entrepreneurial resource orientation holds stronger impact in Iran. Moreover, we investigated the impact of entrepreneurial management dimensions on the sub-dimensions of corporate entrepreneurship, entailing innovation, venturing and strategic renewal, to ensure that the results are not driven by innovation items, and also to check the broader aspects of corporate entrepreneurial outputs such as venturing and renewal activities. As shown in Models 3, 4, and 5 in Table 3, the results are almost the same as the metaconstruct of corporate entrepreneurship. Yet, the findings show that an entrepreneurial resource orientation has a statistically significant influence on venturing and renewal activities but not innovation.

7 Discussion

The main purpose of this study was to investigate the impact of a firm’s entrepreneurial management on corporate entrepreneurship. Although Stevenson’s conceptualisation of entrepreneurial management has been widely addressed and cited, it has not been empirically validated in relation to corporate entrepreneurial outputs. Accordingly, this research was conducted to test how an entrepreneurial management approach may enhance a firm’s engagement in corporate entrepreneurship.

The data indicate that firms with entrepreneurial growth and resource orientations and an entrepreneurial culture have better corporate entrepreneurship. This means that firms desiring to grow as fast and big as possible have better corporate entrepreneurial outputs. As a path to growth for firms is through innovative and entrepreneurial activities (Zahra, 1993; Zahra and Covin, 1995), firms with an entrepreneurial growth orientation should more attempt to realise corporate entrepreneurial outputs. Furthermore, the findings support that firms attempting to use external resources and invest in an incremental manner have better performance in entrepreneurial outputs. This is consistent with Stevenson’s argument that such firms have more flexibility to pursue new and emerging opportunities and can pursue multiple opportunities using others’ resources.

These results support Stevenson’s proposition that some managerial practices can better stimulate corporate entrepreneurship. Apart from the empirical validation for Stevenson’s theory, the findings contribute to the growing body of knowledge investigating organisational outputs of entrepreneurial management (cf. Bradley et al., 2011; Bruining et al., 2013; Naldi et al., 2015). For example, Bradley et al. (2011) have lately argued that entrepreneurial management is connected with the growth of firms. Our results indicate that corporate entrepreneurial outputs such as innovation in products and services, and venturing can be a mechanism explaining this connection.

The data, however, do not support the relationship between the other dimensions of entrepreneurial management and corporate entrepreneurship, namely strategic orientation, reward philosophy and management structure. Stevenson’s theory has been
Empirical test of Stevenson’s conceptualisation of entrepreneurial management

Stevenson’s conceptualisation of entrepreneurial management has been criticised for undervaluing the role of resources while pursuing entrepreneurial activities (Baker and Nelson, 2005; Naldi et al., 2015). Stevenson and Jarillo (1990, p.23) contend that entrepreneurship is pursuing opportunities “without regard to resources currently controlled”. In contrast, the resource-based view suggests that the imperfectness of the strategic factor market and the lack of mobility of strategic factors may restrict firms to proceed to their entrepreneurial purposes (Spanos and Lioukas, 2001). Accordingly, this view suggests that opportunities should match current resources (Hill and Birkimshaw, 2012; Keil et al., 2008).

The non-supported results for the strategic orientation dimension, which are much related to the pursuit of opportunities without regard to controlled resources, can be due to undervaluing the role of resources when defining strategies in Stevenson’s conceptualisation. It might also be due to the context of mining industry which is mainly an exploitation-driven context, and clients in this sector are quite risk averse (Bartos, 2007), which may affect suppliers’ approaches and decisions to pursue opportunities that are more related to their existing resources. The same speculation can be used for the other non-supported dimensions. It appears that research designs with a qualitative approach can better shed light on the effectiveness of these management practices for corporate entrepreneurship.

The stronger impact of entrepreneurial culture in Australia or resource orientation in Iran also implies that Stevenson’s notion may be context specific. For example, the scarcity of resources in developing countries (Shinkle and McCann, 2014) may make the contention of pursuing opportunities regardless of resources currently controlled (Stevenson and Jarillo, 1990) more important in such countries. Our post hoc analysis also indicates that an entrepreneurial resource orientation has stronger impact on venturing and strategic renewal activities (than innovation). Such entrepreneurial outputs mainly result from the pursuit of opportunities outside the current purview of a firm’s core businesses (Burgelman, 1983) and the change of a firm’s business scope (Zahra, 1996), respectively, which are more consistent with the entrepreneurial resource orientation theorised by Stevenson. This implies that different dimensions of entrepreneurial management may differently affect entrepreneurial outputs in different contexts. It can be a compelling path for future research to further investigate these links with more complex models and in-depth case studies.

The findings also have a number of managerial implications. Managers aiming to enhance corporate entrepreneurial outputs should adopt an entrepreneurial approach for seeking and pursuing entrepreneurial opportunities. In particular, high growth orientation and the use of external resources for filling their resource gaps seem to enhance corporate entrepreneurial outputs. Moreover, managers should promote an entrepreneurial culture valuing creativity, risk-taking and experimentation to boost their corporate entrepreneurial outputs. Overall, our data provide valuable insights into the validity of Stevenson’s notion of opportunity-based management style in promoting corporate entrepreneurial outputs.

8 Limitations and future research

We recognise that this research has limitations, providing paths for future research. First, the statistically significant correlation between subdimensions of entrepreneurial management and institutional context suggests that the effectiveness of entrepreneurial
management for entrepreneurial outputs can be subject to the firm’s intuitional context. This resonates recent calls for contextualisation of research on entrepreneurship (Zahra and Wright, 2011; Zahra et al., 2014). Future research can investigate entrepreneurial management in more details in different institutional contexts and theorise how and why a firm’s institutional context affects the usefulness of entrepreneurial management for entrepreneurial outputs. Moreover, the statistically non-significant and weak relationships between some dimensions of entrepreneurial management and corporate entrepreneurship may signal that like entrepreneurial orientation, contingency or even configurational models (Wiklund and Shepherd, 2005; Engelen et al., 2015) can better explain the entrepreneurial management-organisational outputs link, which can be an interesting path for future research. Finally, the novel context of the mining industry has delivered many great insights, but it may not be generalisable to other industry contexts. Future studies can extend this research by testing our model in other industries to better examine the generalisability of the results.

Overall, this study is one of the very first to empirically investigate the relationship between a firm’s entrepreneurial management and corporate entrepreneurship in different institutional contexts, and more understanding of these connections wait for future research.

References
Empirical test of Stevenson’s conceptualisation of entrepreneurial management


Empirical test of Stevenson’s conceptualisation of entrepreneurial management


