



Leadership & Organization Development Journal

The effect of transformational leadership on corporate entrepreneurship in Tunisian SMEs

Fayçal Boukamcha,

Article information:

To cite this document:

Fayçal Boukamcha, (2019) "The effect of transformational leadership on corporate entrepreneurship in Tunisian SMEs", Leadership & Organization Development Journal, <https://doi.org/10.1108/LODJ-07-2018-0262>

Permanent link to this document:

<https://doi.org/10.1108/LODJ-07-2018-0262>

Downloaded on: 03 April 2019, At: 13:45 (PT)

References: this document contains references to 62 other documents.

To copy this document: permissions@emeraldinsight.com

Access to this document was granted through an Emerald subscription provided by emerald-srm:122143 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

The effect of transformational leadership on corporate entrepreneurship in Tunisian SMEs

The effect of transformational leadership

Fayçal Boukamcha

Institute of Higher Commercial Studies of Sousse, Sousse, Tunisia

Received 17 July 2018
Revised 18 November 2018
5 December 2018
Accepted 17 January 2019

Abstract

Purpose – The purpose of this paper is to investigate whether transformational leadership matters in promoting corporate entrepreneurship in Tunisian small and medium-sized enterprises (SMEs). It has been argued that transformational leadership is a multidimensional construct which is composed of intellectual stimulation, idealized influence, inspirational motivation and individual consideration. Corporate entrepreneurship is also a multidimensional construct composed of new business venturing, innovativeness, self-renewal and proactiveness. Hence, it has been hypothesized that transformational leadership positively and directly influences corporate entrepreneurship.

Design/methodology/approach – A hypothetico-deductive and quantitative approach was adopted to test the suggested research model. A 2 × 2 survey was conducted on a random sample of a set of Tunisian SMEs' workers. Data analysis was performed using the structural equation modeling.

Findings – The results highlight the relatively relevance of transformational leadership's components in triggering the corporate entrepreneurship's patterns.

Originality/value – The author reports on the importance of transformational leadership in the corporate entrepreneurship development in the Tunisian business context. The paper should be of interest to readers in the areas of management and entrepreneurship. This work seems to be relevant to the extent that few works have highlighted the association between the components of both transformational leadership and corporate entrepreneurship. The findings seem interesting insofar as they show mainly the important effect of the intellectual stimulation and the inspirational motivation, triggered by transformational leaders, on workers' innovativeness, proactiveness and new business venturing.

Keywords Leadership, Model, Structural equation modelling, Corporate entrepreneurship, Small- and medium-sized enterprises

Paper type Research paper

Introduction

In accordance with the world economic evolutions and the fluctuating business environment based on rapid technological changes and globalization (Sharmaa *et al.*, 2012), firms have become compelled to bring internal transformation (Beh and Shafique, 2016) to enhance their performance and competitiveness. In Tunisia, a nation characterized by the domination of the small- and medium-sized enterprises (SMEs), incentive governmental policies, since 2008, have been obviously directed toward the establishment of free trade areas in manufactured goods (Gherib and Berger-Douce, 2012). This orientation has led Tunisian SMEs to a more vulnerability, and consequently, to extensively upgrade their technologies, procedures, products quality and workers' skills. The new economic approach has also led organizations to a new entrepreneurial spirit, which has become, therefore, a prominent source of value creation, wealth (Boukamcha, 2015) and a substantial factor of organizational development (Antoncic, 2007). Krueger *et al.* (2000) defined entrepreneurship as a way of thinking and a mindset that emphasizes opportunities over threats in a business. Rae and Carswell (2001, p. 150) admitted, in this vein, that entrepreneurship is “a process of identifying opportunities for creating or releasing value and of forming ventures which bring together resources to exploit those opportunities.” Otherwise, different types of entrepreneurship can be distinguished from which corporate entrepreneurship seems to be



the most salient one (Toledano *et al.*, 2010). Antoncic and Hisrich (2001) emphasized, in this respect, that corporate entrepreneurship is beneficial for enterprises' revitalization and performance. A wide range of research studies conceptualize corporate entrepreneurship as an entrepreneurial orientation and a set of activities inside existing organizations that aims to initiate and implement innovative systems and practices (Baruah and Ward, 2014; Serinkan *et al.*, 2013; Moriano *et al.*, 2011; Toledano *et al.*, 2010).

The organizational literature has been focusing on corporate entrepreneurship as a managerial innovative process that may enhance the global enterprises' strategies (Baruah and Ward, 2014; Serinkan *et al.*, 2013; Antoncic and Hisrich, 2001; Krueger *et al.*, 2000). Nonetheless and to the best of our knowledge, few studies have focused on corporate entrepreneurship as a social and a collective process (Soriano and Urbano, 2010; Gartner *et al.*, 1992). Indeed, corporate entrepreneurship is treated as an enactment process that is mainly interactive. This idea suggests the implication of a leader and subordinates in the corporate entrepreneurship's process (Serinkan *et al.*, 2013). Following this rationale, researchers advanced the claim that leadership is a key feature of enterprises' management, a crucial pattern for the corporate entrepreneurship's development and an issue of practical significance (Baruah and Ward, 2014; Serinkan *et al.*, 2013; Gherib and Berger-Douce, 2012; Moriano *et al.*, 2011). In fact, leaders are responsible for creating the necessary conditions to incentivize their subordinates' attitudes and behaviors leading to collective entrepreneurship (Lounsbury, 1998). Given this debate, the relationship between leadership and corporate entrepreneurship is still unclear and ambiguous. In this research, we will try to narrow this gap and bring more insight on the role of leadership in the corporate entrepreneurship's development in Tunisian SMEs.

We will devote the first part of this paper to the literature review, hypothesis and model formulation. The second part will be interested in methodology, analysis and results. In the third part, we will discuss the findings and conclude by implications, limitations and future research.

Literature review

Corporate entrepreneurship

During the last two decades, corporate entrepreneurship has gained increasing prominence, in both academic and professional spheres. A growing cohort of researchers highlighted the importance of corporate entrepreneurship in economic development (Soriano and Urbano, 2010; Antoncic and Hisrich, 2001). According to Beh and Shafique (2016), corporate entrepreneurship seeks to attain a viable competitiveness by incentivising innovation inside organizations. Corporate entrepreneurship has no common definition, being referred to very different ways according to the underlying theoretical references. It has been conceptualized as an entrepreneurial orientation (Moriano *et al.*, 2011) and a set of activities that an organization undertakes to enhance its product innovation, risk-taking and proactive response to environmental forces (Sinha and Srivastava, 2015; Miller, 1983 in Soriano and Urbano, 2010). Corporate entrepreneurship has been also named intrapreneurship, collective entrepreneurship, corporate venturing and internal corporate entrepreneurship (Serinkan *et al.*, 2013; Menzel *et al.*, 2007) which underlines the innovation process within an organization by undertaking new businesses and taking several opportunities (Baruah and Ward, 2014):

It refers to a process that goes on inside an existing firm, regardless of its size, and leads not only to new business ventures but also to other innovative activities and orientations such as development of new products, services, technologies, administrative techniques, strategies, and competitive postures. (Antoncic and Hisrich, 2001)

In this vein, corporate entrepreneurship distinguishes itself from entrepreneurship in the sense that the process of innovation is carried out within the context of existing organizations

(Comeche and Loras, 2010). Hence, Soriano and Urbano (2009) have considered corporate entrepreneurship as the ability to successfully collaborate into organizations to create new activities. Organizations can range from small ventures to multinational corporations (Moriano *et al.*, 2011). Corporate entrepreneurship is therefore viewed as a common and a collective action directed toward a professional objective achievement. Accordingly, corporate entrepreneurship is about knowledge and intelligence capitalization and sharing, involving leaders and subordinates. In this sense, corporate entrepreneurs are smart innovators who come up with new business ideas, new products, new business models, take full advantage of opportunities and transform them to profit (Baruah and Ward, 2014; Menzel *et al.*, 2007). In the same vein, Baruah and Ward (2014) viewed corporate entrepreneurship as an activity-oriented concept that takes the organization into new projects. It involves networking behaviors, taking initiative, charge and championing directed toward organizational improvement (Moriano *et al.*, 2011). Researchers (Beh and Shafique, 2016; Moriano *et al.*, 2011; Antoncic and Hisrich, 2001) admit that corporate entrepreneurship is a multidimensional concept composed of four main dimensions:

- (1) New business venturing: it refers to pursuing and entering new businesses related to the firm's current products or markets (Antoncic and Hisrich, 2001). It is the establishment of new activities in existing enterprises by transforming the firm's products for existing markets or creating new markets for existing products (Beh and Shafique, 2016).
- (2) Innovativeness: it refers to the creation of new products, services and technologies (Beh and Shafique, 2016; Antoncic and Hisrich, 2001). It is also viewed as the development of new production process and introducing new distinct and unique products in existing or new markets (Beh and Shafique, 2016).
- (3) Self-renewal: it emphasizes strategy reformulation, reorganization and organizational change (Antoncic and Hisrich, 2001). Ozdemirci (2011) defined self-renewal as an organizational transformation based on renewing ideas and a strategic change that includes a business concept redefinition and innovation. Leaders encourage followers to think with a generative and exploratory manner (Jung *et al.*, 2003) in order to move away from a failed status quo (Chen *et al.*, 2014; Moriano *et al.*, 2011).
- (4) Proactiveness: it reflects top management orientation in pursuing enhanced competitiveness and it includes initiative, risk-taking, competitive aggressiveness and boldness. It is viewed by researchers (Eyal and Kark, 2004; Covin and Slevin, 1991) as the inclination to shape the environment rather than undergoing its influence.

Leadership styles

The theory of leadership, initially advocated by Burns (1978) and later developed by researchers in management (Bass, 1999; Bryman *et al.*, 1996; Bass and Avolio, 1994), is a theoretical framework that can explain workers' motivation toward their jobs leading them to take initiatives, to innovate, to think out of the box and eventually launch new activities inside their organizations. The theory conceptualizes leadership as a complex concept covering a set of behaviors, attitudes and actions directed toward influencing and motivating subordinates in order to achieve specifically identified and desired objectives (Franco and Gonalo Matos, 2015; Yukl, 2012; Cyert, 2006; Vardiman *et al.*, 2006). Leadership is also viewed as a process that entails influence and occurs within a group and involves goals achievement and a shared vision (Cummings *et al.*, 2009; Shortell and Kaluzny, 2006). Hughbank and Horn (2013) defined leadership as the action of convincing others to perform something in a certain context that leads to a positive and a successful organizational

outcome. It is “a process that influences others to understand and agree on what needs to be done and how it can be done effectively” (Franco and Gonalo Matos, 2015). Leadership was argued to be an important pattern in management to the extent that it determines the organizational culture and personality (Menzel *et al.*, 2007). In this respect, the leaders’ goal is to make changes in their professional arena while using the available entrepreneurial resources to attain efficiency and innovativeness (Sinha and Srivastava, 2015).

The latest research studies depicted several leadership styles. A leadership style is defined as a relatively stable tendency of behavior that is manifested by a leader at a workplace (Eagly and Johannesen-Schmidt, 2001). A leadership style is also consisting of two broad and independent behavior dimensions: the one is a production-task-oriented, the other is focusing on employees and relations (Sellgren *et al.*, 2006). Three main leadership styles are distinguished: transformational, transactional and passive-avoidant leadership (Cummings *et al.*, 2009; Sellgren *et al.*, 2006; Bass and Avolio, 1994; Bass, 1999).

Transactional leadership refers to the relationship of exchange between leaders and subordinates in responding to their own interests (Bass, 1999; Bass and Avolio, 1994). A transactional leader is therefore focusing on structure, role expectations and possibilities to reward the staff for their effort (Sellgren *et al.*, 2006). Such a leader manages by explaining to subordinates responsibilities, controlling their work, rewarding them and correcting them for failing to meet objectives (Eagly and Johannesen-Schmidt, 2001). Transactional leadership involves an exchange system of rewards between leaders and followers to complete an assigned purpose (Hughbank and Horn, 2013; Bass, 1985). Nevertheless, transactional leaders do not neither tolerate failures nor appreciate innovation outside the firm’s interest, which may inhibit the creation of ideal platform to innovate as a corporate entrepreneur (Baruah and Ward, 2014). Researchers (Eyal and Kark, 2004; Spreitzer *et al.*, 1999; Quinn, 1988) point out that transactional leaders try to comply with rules and procedures and rate high for monitoring behavior.

Passive-avoidant leadership is mainly marked by a failure to take responsibility for managing (Eagly and Johannesen-Schmidt, 2001). Passive-avoidant leaders react only when the problem becomes serious and often avoid making decisions to predict and resolve it (Cummings *et al.*, 2009; Avolio *et al.*, 1999; Bass, 1985). Researchers (Eyal and Kark, 2004; Avolio *et al.*, 1999; Bass and Avolio, 1994) emphasize that passive-avoidant leadership is based on two main features: laissez-faire leadership which refers to a behavior of a passive indifference to tasks and to subordinates; and management by exception which is based on contingent punishments and other corrective actions when faced with performance problems. Accordingly and to tie with the Eyal and Kark’s (2004) work, we argue that passive-avoidant leaders are not likely to inspire ideas, innovation, creativity or change, but they tend to be conservative and passive.

On the basis of the theory of Bass (1985), Men (2014) defined transformational leadership as a leader inspiring his subordinates to adopt the organizational vision as if they were their own and focus their energy toward the achievement of common goals. This leadership style is based on listening, openness, feedback, participation, communication and relationship (Men, 2014). Transformational leaders behave democratically and allow subordinates to participate in decision making (Eagly and Johannesen-Schmidt, 2001). They share with followers basic emotions (e.g. fear, surprise and sadness) as well as the inclusion of ideals and moral values like justice and liberty. They also attempt to understand followers’ needs, stimulate followers to achieve goals and are flexible in working toward the desired outcomes (Yang, 2007). Hence, transformational leadership is characterized by four main components (Cummings *et al.*, 2009; Bass and Avolio, 2004; Avolio *et al.*, 1999) which are as follows:

- (1) Idealized influence: it is about leaders who should be charismatic, admirable and convincing for their subordinates. Leaders should also have the sense of loyalty, trust and respect toward their followers (Beh and Shafique, 2016). They manage to exercise great power on their subordinates who see their leaders as unique and exemplary people (Franco and Gonalo Matos, 2015).

- (2) Inspirational motivation: it concerns the articulation of inspiring vision. Vision can be defined as the expression of an idealized picture of the future of the organization using its values and culture (Rafferty and Griffin, 2004). Leaders should conceive a vision on how to accomplish the assigned purpose and inspire followers to efficiently achieve that purpose (Hughbank and Horn, 2013). They define and explain the organizational missions to subordinates and enhance their willingness to transcend their self-interests for the benefit of the company (Jung *et al.*, 2003). Accordingly, leaders develop relationships with subordinates via interactive communication and values sharing which leads to great motivational, enthusiastic and optimistic levels (Franco and Gonalo Matos, 2015). They use emotion-laden appeals to arouse workers' motivation and implication (Rafferty and Griffin, 2004).
- (3) Intellectual stimulation: it refers to enhancing employees' interest in and awareness of organizational problems (Rafferty and Griffin, 2004), to encouraging creativity, innovation and resolution of difficult issues (Beh and Shafique, 2016) and to using knowledge, expertise and intelligence. Leaders boost subordinates to think "out of the box," to generate new ideas, to challenge their own values, traditions, beliefs (Jung *et al.*, 2003), to make questions, reformulate and solve issues in new innovative and creative ways (Avolio and Bass, 2002). Leaders do not criticize workers' mistakes publicly and they boost them to be far from dogmatism (Franco and Gonalo Matos, 2015).
- (4) Individual consideration: this component ties in with attending and supporting individual needs. It is also called supportive leadership (Rafferty and Griffin, 2004). Leaders should pay attention to the requirements of his employees and assist their personal development and satisfaction (Beh and Shafique, 2016). They try to establish personal relationships with workers through mentoring, feedback and effective communication (Beh and Shafique, 2016). That is, transformational leaders create the opportunity that let subordinates express themselves, develop their skills and reach their personal fulfillments (Franco and Gonalo Matos, 2015).

Fueled by the interest in studying the role of leadership styles in the organizational development, we have chosen only transformational leadership as a key feature in the corporate entrepreneurship's process. In this vein, it has been argued that transformational leadership is a relationship-oriented construct that is rich of empirical evidence of its positive influence on employees' attitudes and behaviors (Men, 2014).

As with leadership, corporate entrepreneurship is viewed as an interactive activity that requires staff's relationships (Hackman, 1987). It has been argued, in this regard, that transformational leadership is a substantial predictor of the corporate entrepreneurship's development into organizations (Men, 2014; Moriano *et al.*, 2011; Menzel *et al.*, 2007; Yang, 2007). Indeed, transformational leaders are seen as idealistic and play an innovating role to the extent that they investigate the external environment (Yang, 2007) and develop an intrapreneurial spirit inside their organizations. Eyal and Kark (2004) argued in this vein that transformational leaders tend to exhibit radical entrepreneurial strategies based on high proactivity and innovativeness. In a study conducted on a group of engineers, Menzel *et al.* (2007) pointed out that in order to encourage engineers to take initiative as corporate entrepreneurs, it comes down to top managers to encourage creativity, autonomy, communication and making strategies. Furthermore, leaders support corporate entrepreneurship by facilitating and championing innovative ideas and providing resources that employees need to take corporate entrepreneurial actions (Moriano *et al.*, 2011). Eagly and Johannesen-Schmidt (2001) emphasized in the same vein that transformational leaders innovate, even when the organization they lead is generally successful, by mentoring and empowering followers. They encourage subordinates to

develop their full potential in new projects inside organizations (Eagly and Johannesen-Schmidt, 2001) and seek to empower them by sharing power and delegate significant authority to them (Men, 2014). Transformational leaders provide support to their organizations' professional in terms of training, trusting and rewarding of venture activities which enhance a corporate entrepreneurial culture among workers (Antoncic and Hisrich, 2001). Eyal and Kark (2004) argued that transformational leadership is associated with proactiveness and innovativeness as two components of corporate entrepreneurship. The work of Franco and Gonçalo Matos (2015) emphasizes that transformational leaders are proactive to the extent that they initiate activities and exert efforts to achieve the group and the organization's development and performance. Jung *et al.* (2003) advocated that transformational leaders articulate a vision that emphasizes long-term business outcomes and direct workers' efforts toward innovative and self-renewing activities. The authors add that such leaders try to bring closer the employees' values and identities to their organization's culture and identity, which is likely to enhance their internal motivation toward creating new activities and projects.

According to this debate, we suggest the following hypothesis:

H1. Transformational leadership has a positive and a direct effect on corporate entrepreneurship.

Methodology

On the basis of the literature review, a research model was designed (Figure 1). An empirical approach was then adopted in order to test the model. In this respect, a measurement specification, a pilot study and a data collection procedure were implemented.

Measurement specification

To assess the mobilized constructs, five measurement scales were selected from the literature. Scale specification was performed on the basis of their previously proved psychometric qualities and their suitability to the context of this study. All the retained scales are five-point Likert scales (1: strongly disagree and 5: strongly agree, see Appendix):

- Transformational leadership: as previously mentioned, transformational leadership is composed of four dimensions: idealized influence, inspirational motivation, intellectual stimulation and individual consideration (Bass and Avolio, 2004). Accordingly, the multifactor leadership questionnaire (MLQ) developed by Bass and Avolio (2004) was selected to measure transformational leadership. More particularly, the latest version of the MLQ (Form 5X) developed by Avolio *et al.* (1999) was used. Only 12 items were therefore adopted to measure the four mentioned dimensions (three items per dimension). This scale's form is the most exhaustively validated and commonly employed measure for the types of leadership under consideration.

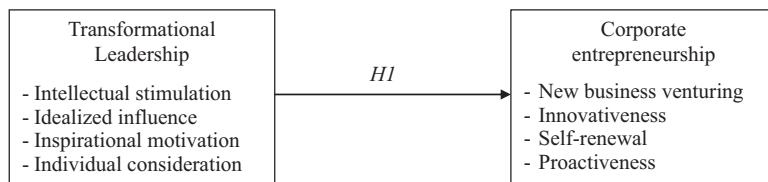


Figure 1.
The research model

- Corporate entrepreneurship: corporate entrepreneurship was conceptualized as a multidimensional construct composed of new business venturing, innovativeness, self-renewal and proactiveness (Zahra, 1993). In this respect, two measurement scales were combined: corporate entrepreneurship scale and ENTRESALE. New business venturing (5 items), a part of innovativeness (11 items) and self-renewal (13 items) were measured by items from the corporate entrepreneurship scale (Zahra, 1993). The second part of innovativeness (three items) and proactiveness (five items) was assessed by items from the ENTRESALE (Knight, 1997; Covin and Slevin, 1989; Miller and Friesen, 1978; Khandwalla, 1977).
- Control variable: to control for inter-rater variability resulting from demographics, gender was specified as a control variable.

Pilot study

A pilot study was performed to test the scales psychometric qualities and its factor structure. A random sample of 60 participants (40 workers and 20 leaders) was built at four Tunisian SMEs. An exploratory factor analysis was conducted using SPSS 22. A principal component analysis (PCA) is performed in this regard in order to reduce the initial variables (or items) in a reduced number of factors (Benraiss, 2004), to check the psychometric quality of the selected scales and their suitability with the theoretical defended factor structure. Hence, through a purification stage, all the transformational leadership scale's related items were kept without any modification. In the same vein, the new business venturing's items belonging to the corporate entrepreneurship scale, as well as, the proactiveness' items were kept unchangeable. Nevertheless, three items were purified from the innovativeness subscale and three other items were eliminated from the self-renewal subscale because of their low fitness. Hence, the analysis provided acceptable levels of Kaiser–Meyer–Olkin (KMO) indicator (> 0.6) and Bartlett's sphericity test ($\chi^2 > 0$, $p = 0.000$). The transformational leadership and the corporate entrepreneurship scales were, each of them, composed of four main factors with good reliability levels (> 0.75 according to Nunnally and Bernstein, 1994).

Data collection

To collect data, a random sample comprising a set of SMEs' leaders and subordinates was created. The random sampling method let researchers build a sample composed of individuals chosen entirely by chance. Each individual is selected with the same probability of being chosen at any stage during the data collection process. This method is unbiased surveying technique and it is suitable for the road safety context because all the drivers are concerned by the research. The sample was composed of two groups, leaders vs subordinates, that were requested to answer two different questionnaires. The first questionnaire was dedicated to leaders in order to assess their transformational leadership tendency. The second questionnaire was devoted to subordinates to measure their corporate entrepreneurial inclination. Two subgroups of each staff's category were also built: male vs female. Two surveys were conducted in ten Tunisian SMEs operating in the industrial sector. We considered a leader as anyone who is managing a group of workers at a department or an enterprise. Participants were asked to read the questionnaires, to think about their contents and to answer the questions separately to avoid group influence-related bias. The surveys were conducted face to face. After data collection, questionnaires with missing data and extreme responses were eliminated from the analysis to avoid potential problems with data normality as well as deviation.

Sampling and differential effect of entrepreneurial training

The data collection let us build a sample of 56 leaders and 230 subordinates which can be described as follow:

(1) leaders:

- gender: male (57 percent), women (43 percent);
- age: (71 percent are between 30 and 50 years old); and
- education: university graduates (100 percent).

(2) subordinates:

- gender: male (47 percent), women (53 percent);
- age: (67 percent are between 25 and 40 years old); and
- education: university graduates (55 percent); undergraduate (45 percent).

A paired-sample student *t*-test was performed to compare means between the participants' responses of each professional category: male vs female. One-way ANOVA was then performed to assess the differential effect of gender on leaders and subordinates' responses. The findings (Tables I and II) show that gender had an obvious differential effect on the leaders and subordinates' points of view through a satisfactory mean difference between men's and women's responses, significant student *t* (> 1.96) thresholds and acceptable *F* (> 2) indicator's values.

Table I.
Means comparison

	<i>M</i>	Male SD	<i>n</i>	<i>M</i>	Female SD	<i>n</i>	Means difference
<i>Leaders</i>							
Intellectual stimulation	3.89	1.03	32	4.21	1.04	24	0.32
Idealized influence	3.56			3.81			0.25
Inspirational motivation	4.22			3.96			0.26
Individual consideration	3.95			4.12			0.17
<i>Subordinates</i>							
New business venturing	3.99		108	3.41		122	0.58
Innovativeness	3.14			3.22			0.08
Self-renewal	2.98			3.13			0.15
Proactiveness	4.06			3.75			0.31

Table II.
Student *t*-test
and ANOVA

	<i>t</i>	df	Sig.	<i>F</i>	Sig.
<i>Leaders</i>					
Intellectual stimulation	5.232	229	0.000	20.152	0.000
Idealized influence	4.869	229	0.000	17.513	0.000
Inspirational motivation	6.657	229	0.000	32.569	0.000
Individual consideration	5.691	229	0.000	24.308	0.000
<i>Subordinates</i>					
New business venturing	5.899	229	0.000	27.259	0.000
Innovativeness	3.852	229	0.000	12.324	0.002
Self-renewal	3.746	229	0.000	11.362	0.001
Proactiveness	6.120	229	0.000	30.567	0.000

Analysis

The collected data were analyzed in two steps:

- (1) an exploratory factor analysis was performed to test the reliability of the measurement scales and their factor structures; and
- (2) a confirmatory factor analysis was conducted to assess the measurement model using the structural equation modeling and following Anderson and Gerbing's (1988) recommendations.

The maximum likelihood estimation using the AMOS 18 software was implemented. Then, the hypothesized relationship was explored. To minimize the multicollinearity effects of the transformational leadership's dimensions and to ensure more credibility to the statistic indicators, the raw scores of the intellectual stimulation, the idealized influence, inspirational motivation and individual consideration statements were centered.

Exploratory factor analysis

According to factor analysis, the KMO indicator and the Bartlett sphericity test were satisfactory. A PCA was undertaken and allowed to keep the same items of the transformational leadership's scale as used in the pilot study. Nevertheless, one item was purified from each of the new business venturing and proactiveness' subscales. Furthermore, two more items were eliminated from each of the innovativeness and self-renewal's subscales. The Kaiser criterion was respected to extract factors (only the factors with an Eigen value greater than 1 should be selected). The findings show the same dimensional factor structure as the one in the pilot study for all the scales. Yet, the findings show good levels of the total explained variances and acceptable levels of measurement reliability. The results of the exploratory factor analysis are shown in Table III.

Assessment of normality

Data normality was tested through the "skewness" and "kurtosis" tests of asymmetry and concentration. The Mardia coefficient and the critical ratios (skewness/standard error; kurtosis/standard error) were also calculated. The findings show a problem of normality for some measurement scales. To overcome the data deviation, the bootstrap procedure with 1,000 iterations was applied. According to Felsenstein (1985), the purpose of the bootstrap method is to infer the variability in data distribution by a resampling procedure to provide an estimate close to the actual data distribution. Otherwise, the bootstrap procedure cannot be applied if the Bollen and Stine (1992) bootstrap method was not implemented. The bootstrap procedure of Bollen and Stine (1992) is used to fix standard errors and fitness statistical bias that may occur in the absence of multinormal data (Tang, 2011;

Factors	KMO	χ^2	df	<i>p</i>	Total explained variance (%)	Reliability α
<i>Transformational leadership</i>						
Intellectual stimulation	0.721	185.269	15	0.000	75.142	0.892
Idealized influence						0.831
Inspirational motivation						0.789
Individual consideration						0.845
<i>Corporate entrepreneurship</i>						
New business venturing	0.689	136.257	9	0.000	67.562	0.872
Innovativeness						0.689
Self-renewal						0.678
Proactiveness						0.861

Table III.
Principal component
analysis and
measurement reliability

Stevanovic, 2009; Enders, 2005). Aryani (2009) argued that the bootstrap procedure of Bollen-Stine calculates a modified χ^2 index, which will be compared with the initial level of χ^2 . A new significance adjusted value (*p*-value) is released, which should be greater than 0.05 in order to apply the bootstrap procedure (Felsenstein, 1985). Finally, the findings showed that *p*-value is greater than 0.05 which allowed us implementing the bootstrap procedure and having a better data fit.

Convergent validity

To test the convergent validity, the fit indexes were calculated. The findings (Table IV) show satisfactory thresholds which indicated a good convergent validity for all the measurement models. Indeed, the RMSEA levels were less than 0.1 for all the measurement models. The GFI, NFI and CFI indicators values were greater than 0.9, the NFI and TLI indexes exceeded 0.80. In addition, the RMR was less than 0.1, and the CMIN was significant ($p < 0.001$) and reflected a good explanatory power for all the estimated models. Similarly, the normalized χ^2 (CMIN/df) was less than 5 for all the estimated models. Yet, the loadings (Table V) were acceptable for all the factor-related items (> 0.5). In addition, the findings showed good Joreskog Rhô levels for all the measurement models. The convergent validity Rhô (Rhô_{pv}) values were also satisfactory. Therefore, these findings confirm the good convergent validity for all measurement models.

Discriminant validity

The transformational leadership and the corporate entrepreneurship are measured by multidimensional scales. It seems therefore important to assess the discriminate validities of these scales' related factors. At first, correlations between factors of each construct were calculated, and then, χ^2 differences (free models vs nested models) were also estimated. The findings (Tables VI–IX) show that all the leadership's related factors are distinct having a low correlation' level (< 0.5) and a high χ^2 difference for each pair of factors. Hence, all the corporate entrepreneurship's related factors are distinct. Nevertheless, the findings depict a relatively high correlation between innovativeness and self-renewal ($0.432 < 0.5$) with a relatively low χ^2 difference (10,896). This seems intriguing, however, the correlation value is still lower than the required standard threshold and the χ^2 difference is still positive which let confirm the discriminate validity of the two factors.

The structural model evaluation

To assess the structural model, the fit indexes were calculated. The main findings are shown in Table X. Accordingly, the structural model is retained in terms of the satisfactory fit indexes values. Indeed, RMSEA is about 0.067 (< 0.1), the GFI level is 0.919 (> 0.9), the AGFI is likewise equal to 0.883 (> 0.8). Thus, the RMR value is 0.048 (< 0.1). Yet, the NFI and TLI are greater than 0.80 (0.918 and 0.882, respectively) and the CFI value is about 0.936 (> 0.9).

Table IV.
The measurement models fit indexes

	RMSEA	GFI	AGFI	RMR	NFI	TLI	CFI	CMIN	df	<i>p</i>	CMIN/df
Intellectual stimulation	0.043	0.946	0.896	0.036	0.939	0.894	0.944	25.534	7	0.000	3.647
Idealized influence	0.036	0.952	0.899	0.023	0.946	0.898	0.953	19.562	6	0.000	3.260
Inspirational motivation	0.054	0.912	0.875	0.041	0.911	0.876	0.922	33.568	8	0.000	4.196
Individual consideration	0.029	0.981	0.912	0.019	0.979	0.926	0.978	15.321	6	0.000	2.553
New business venturing	0.038	0.962	0.902	0.028	0.956	0.898	0.953	21.358	5	0.000	4.271
Innovativeness	0.061	0.911	0.861	0.052	0.912	0.865	0.913	41.256	9	0.000	4.584
Self-renewal	0.067	0.902	0.846	0.057	0.900	0.859	0.910	45.637	10	0.000	4.563
Proactiveness	0.041	0.939	0.881	0.031	0.934	0.888	0.929	23.251	7	0.000	3.321

Factor	Items	Loading	Joreskog Rhô	Rhô ρ_{vc}	The effect of transformational leadership
Intellectual stimulation	Ideal1	0.831	0.921	0.856	
	Ideal2	0.812			
	Ideal3	0.799			
Idealized influence	Inspir1	0.846	0.883	0.831	
	Inspir2	0.803			
	Inspir3	0.768			
Inspirational motivation	Intellect1	0.761	0.841	0.805	
	Intellect1	0.825			
	Intellect1	0.723			
Individual consideration	Indiv1	0.862	0.933	0.868	
	Indiv2	0.796			
	Indiv3	0.879			
New business venturing	Bus-vent1	0.859	0.972	0.913	
	Bus-vent2	0.821			
	Bus-vent3	0.834			
	Bus-vent4	0.802			
Innovativeness	Innov1	0.743	0.870	0.846	
	Innov2	0.639			
	Innov3	0.589			
	Innov4	0.786			
	Innov5	0.813			
	Innov6	0.739			
Self-renewal	Selfrenew1	0.642	0.886	0.871	
	Selfrenew2	0.589			
	Selfrenew3	0.754			
	Selfrenew4	0.681			
	Selfrenew5	0.693			
	Selfrenew6	0.723			
	Selfrenew7	0.705			
	Selfrenew8	0.761			
Proactiveness	Proact1	0.896	0.960	0.899	
	Proact2	0.768			
	Proact3	0.799			
	Proact4	0.863			

Table V.
Loading, Joreskog Rhô
and Rhô ρ_{vc}

	Intellectual stimulation	Idealized influence	Inspirational motivation	Individual consideration	Table VI. Correlation matrix between leadership's models
Intellectual stimulation	–	0.056	0.359	0.216	
Idealized influence	0.056	–	0.123	0.232	
Inspirational motivation	0.359	0.123	–	0.311	
Individual consideration	0.216	0.232	0.311	–	

	New business venturing	Innovativeness	Self-renewal	Proactiveness	Table VII. Correlation matrix between corporate entrepreneurship's models
New business venturing	–	0.351	0.273	0.121	
Innovativeness	0.351	–	0.432	0.023	
Self-renewal	0.273	0.432	–	0.144	
Proactiveness	0.121	0.023	0.144	–	

LODJ

	Free model			Nested model			χ^2 difference
	χ^2	df	<i>p</i>	χ^2	df	<i>p</i>	
Intellectual stimulation							
Idealized influence	89.236	19	0.000	286.324	20	0.000	197.088
Intellectual stimulation							
Inspirational motivation	123.561	15	0.000	261.036	16	0.000	137.475
Intellectual stimulation							
Individual consideration	99.268	16	0.000	169.367	17	0.000	70.099
Idealized influence							
Inspirational motivation	86.215	15	0.000	203.871	16	0.000	117.656
Idealized influence							
Individual consideration	113.561	17	0.000	230.159	18	0.000	116.598
Inspirational motivation							
Individual consideration	119.257	17	0.000	245.125	18	0.000	125.868

Table VIII.
 χ^2 difference of leadership's models

	Free model			Nested model			χ^2 differences
	χ^2	df	<i>p</i>	χ^2	df	<i>p</i>	
New business venturing							
Innovativeness	125.367	21	0.000	263.256	22	0.000	137.889
New business venturing							
Self-renewal	121.256	19	0.000	282.631	20	0.000	161.375
New business venturing							
Proactiveness	98.651	17	0.000	166.215	18	0.000	67.564
Innovativeness							
Self-renewal	159.361	27	0.000	170.257	28	0.000	10.896
Innovativeness							
Proactiveness	114.216	18	0.000	289.326	19	0.000	175.11
Self-renewal							
Proactiveness	123.358	20	0.000	262.265	21	0.000	138.907

Table IX.
 χ^2 differences of corporate entrepreneurship's models

Table X. The structural model fit indexes	RMSEA	GFI	AGFI	RMR	NFI	TLI	CFI	CMIN	df	<i>p</i>	CMIN/DF
		0.067	0.919	0.883	0.048	0.918	0.882	0.936	45.257	11	0.000

Table X.
The structural model fit indexes

In addition, the CMIN is significant (45.257; df = 11; $p = 0.000$) with a positive satisfactory value. Similarly, the normalized χ^2 (CMIN/DF) is less than the maximum accepted threshold ($4.114 < 5$).

Furthermore, the test of hypotheses is shown in Table XI. The findings partially validate *H1*. Indeed, transformational leadership positively affects corporate entrepreneurship to a certain extent. The findings highlight that intellectual stimulation

Table XI. The test of hypothesis matrix	New business venturing	Innovativeness	Self-renewal	Proactiveness
	Intellectual stimulation	0.359	0.568	0.499
Idealized influence	0.233	0.125	0.521	0.149
Inspirational motivation	0.473	0.648	0.324	0.572
Individual consideration	0.241	0.496	0.511	0.089

positively influences innovativeness and self-renewal through relatively acceptable levels of standardized regression coefficient ($\beta = 0.568$ and $\beta = 0.499$, respectively). Unfortunately, intellectual stimulation does not have an impact neither on new business venturing ($\beta = 0.359$) nor proactiveness ($\beta = 0.302$). As for idealized influence, the findings depict a relevant impact only on the self-renewal factor ($\beta = 0.521$), while no effect has been detected on new business venturing ($\beta = 0.233$), innovativeness ($\beta = 0.125$) and proactiveness ($\beta = 0.149$). Otherwise, the findings show that inspirational motivation has significant effects on new business venturing ($\beta = 0.473$), innovativeness ($\beta = 0.648$) and proactiveness ($\beta = 0.572$). However, inspirational motivation has no effect on self-renewal ($\beta = 0.324$). Finally, individual consideration has only significant effects on self-renewal ($\beta = 0.511$) and innovativeness ($\beta = 0.496$), but has no effects on new business venturing ($\beta = 0.241$) and proactiveness ($\beta = 0.089$).

Discussion

This paper tries to understand the effect of the transformational leadership on corporate entrepreneurship in Tunisian SMEs. According to the literature review, transformational leadership appears as a fundamental predictor of corporate entrepreneurship. Transformational leadership is conceived as a multidimensional concept composed of intellectual stimulation, idealized influence, inspirational motivation and individual consideration. As for corporate entrepreneurship, it is composed of new business venturing, innovativeness, self-renewal and proactiveness. According to the acceptable levels of fit indexes, the research model has been retained. The model highlights the relatively relevance of transformational leadership's components in triggering the corporate entrepreneurship's patterns. The findings fit to a certain extent with the leadership's theories advocated by prior research studies (Bass, 1999; Bryman *et al.*, 1996; Bass and Avolio, 1994; Burns, 1978). More particularly, the case-study subordinates tend to be innovative and self-renewing if they are intellectually stimulated by their leaders who seem to be transformational. This finding ties with prior works (Sharmaa *et al.*, 2012; Bass, 1999) which highlighted that transformational leaders challenge subordinates thoughts, imaginations and mindset in order to trigger their sense of creativity and innovation. Workers in Tunisian SMEs, by contrast, do not have the ability neither to be proactive nor to launch a new business inside their companies even if their leaders are intellectually stimulating. This result is surprisingly not consistent with the previous work of Avolio and Bass (2002) who emphasized that, whenever transformational leaders are intellectually stimulating, subordinates tend to launch innovative activities inside their companies. Accordingly, we may infer that intellectual stimulation is only concerned by the organizational problems' resolution in an innovative and a creative way (Beh and Shafique, 2016; Rafferty and Griffin, 2004; Jung *et al.*, 2003). In the same rationale, it seems that even if leaders are charismatic and admirable, they can only trigger a self-renewal spirit among workers and they cannot, unfortunately, enhance neither new business venturing, nor innovativeness and proactiveness. This finding is relatively consistent with works of Men (2014), Yang (2007) and Eagly and Johannesen-Schmidt (2001) who pointed out that transformational leaders, who are idealistic, encourage subordinates to not resist to organizational changes, reformulate their tasks, reorganizing their power sharing and delegation. Leaders encourage their followers to enhance their knowledge, expertise and full potential to develop their organizations (Eagly and Johannesen-Schmidt, 2001). Being charismatic and admirable seems to influence subordinates at an individual but not at an organizational level inhibiting, thereby, the new business venturing in particular. The findings have also reported that Tunisian workers tend to launch new business inside their enterprises, to be innovative and proactive if their leaders motivate them and have inspiring professional visions. This seems consistent with prior research (Hughbank and Horn, 2013;

Jung *et al.*, 2003) which reported that transformational leaders tend to inspire their followers to efficiently accomplish their tasks by conceiving a strategic and a motivational vision on how to achieve organizational and individual purposes. Transformational leaders, in such cases, usually establish personal connections and communicational paths with subordinates. They tend to provide professional support in terms of training, trusting and rewarding in order to motivate workers and enhance their professional implication (Antoncic and Hisrich, 2001). Regrettably, inspirational motivating leaders do not let workers be self-renewing which seems intriguing. Indeed, previous works highlighted the importance of inspirational motivation triggered by transformational leaders in self-renewing process (Morianio *et al.*, 2011; Jung *et al.*, 2003) which is not consistent with the findings. Finally, leaders who attend and support individual needs and expectations can only boost workers' innovativeness and self-renewal. Leaders' individual consideration seems to be a motivational factor for subordinates that let them innovate by creating new products, services, procedures, processes and technologies as it was argued (Beh and Shafique, 2016; Antoncic and Hisrich, 2001). It let also subordinates reformulate, reorganize and change their strategies in performing tasks. This finding ties with prior research studies (Chen *et al.*, 2014; Moriano *et al.*, 2011; Ozdemirci, 2011; Jung *et al.*, 2003) that reported that transformational leaders often seek to satisfy their subordinates' needs, to coach and encourage them to think differently in order to deal with the organizational issues more efficiently. Otherwise, the findings do not align with previous research studies regarding the effect of individual consideration on new business venturing and on proactiveness. New business venturing and proactiveness may require, not to be satisfied, but other leadership supports and likely specific personal attributes.

Conclusion

The main objective of this paper was to investigate the effect of the transformational leadership style on corporate entrepreneurship in Tunisian SMEs. The literature review suggests that transformational leadership is composed of four factors which are supposed to positively influence the four components of corporate entrepreneurship. On the one hand, transformational leadership was conceptually based on intellectual stimulation, idealized influence, inspirational motivation and individual consideration. On the other hand, corporate entrepreneurship was theoretically composed of new business venturing, innovativeness, self-renewal and proactiveness. Empirical evidence shows that transformational leadership partially predicts corporate entrepreneurship through disparate correlation's levels between the concepts' factors.

Implications

This paper has a set of theoretical and managerial implications. As for theoretical implications, this research defends a hypothetical-deductive positivist approach. The entrepreneurship-related theories seem to be suitable for the Tunisian entrepreneurial context. The theory of leadership, advocated by Burns (1978) and developed by researchers in management (Bass, 1999; Bryman *et al.*, 1996; Bass and Avolio, 1994), appears as a powerful theoretical framework to explain the effect of transformational leadership on corporate entrepreneurship. In addition, this research validates the theoretical compositions of transformational leadership and corporate entrepreneurship. Moreover, this research seems to be a relevant contribution to the existing literature on the role of leadership in the corporate entrepreneurship process.

As for managerial implications, the significant impact of the inspirational motivation on new business venturing, innovativeness and proactiveness should encourage managers to involve workers in the articulation of strategic collective visions in order to motivate them to initiate new internal innovative projects. Furthermore, leaders should conceive training

programs in order to boost workers' creativity and stimulate their intellectual abilities which will enhance their innovative and self-renewing behaviors. Finally, leaders have to appear charismatic, develop a more convincing internal communication, attend and satisfy their subordinates' need to encourage them to be self-renewing and to improve their performance.

The effect of
transformational
leadership

Limitations

Indeed, this research is not without limitations. First, some relevant constructs, such as collective communication and staff collaboration, that may mediate the relationship between transformational leadership and corporate entrepreneurship, have not been included in the research model. Future research can therefore address and narrow this gap. Moreover, the study was conducted on a sample of SMEs and neglected the large companies which may be restrictive. Finally, the recruited Tunisian SMEs are mainly operating in the industrial sector. It will be then worth to apply the research model on companies of other fields such as agriculture and services.

References

- Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two – step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.
- Antonic, B. (2007), "Intrapreneurship: a comparative structural equation modeling study", *Industrial Management and Data Systems*, Vol. 107 No. 3, pp. 309-325.
- Antonic, B. and Hisrich, R.D. (2001), "Intrapreneurship: construct refinement and cross-cultural validation", *Journal of Business Venturing*, Vol. 16 No. 5, pp. 495-527.
- Aryani, Y.A. (2009), "The effect of fairness perception of performance measurement in the balanced scorecard environment", doctorate thesis in Management, Faculty of Commerce and Law, University of Victoria, Melbourne, Australia.
- Avolio, B.J. and Bass, B.M. (2002), *Developing Potential Across a Full Range of Leadership*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Avolio, B.J., Bass, B.M. and Jung, D.I. (1999), "Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire", *Journal of Occupational and Organizational Psychology*, Vol. 72 No. 4, pp. 441-462.
- Baruah, B. and Ward, A. (2014), "Metamorphosis of intrapreneurship as an effective organizational strategy", *International Entrepreneurship and Management Journal*, Vol. 11 No. 4, pp. 811-822.
- Bass, B.M. (1985), *Leadership and Performance Beyond Expectation*, Free Press, New York, NY.
- Bass, B.M. (1999), "Two decades of research and development in transformational leadership", *European Journal of Work and Organizational Psychology*, Vol. 8 No. 1, pp. 9-32.
- Bass, B.M. and Avolio, B.J. (1994), *Improving Organizational Effectiveness Through Transformational Leadership*, Sage Publications, Thousand Oaks, CA.
- Bass, B.M. and Avolio, B.J. (2004), *Multifactor Leadership Questionnaire*, Mind Garden, Redwood City, CA.
- Beh, L.-S. and Shafique, I. (2016), "Does leadership matter in innovation and new business venturing? Testing the mediating effect of absorptive capacity", *International Journal of Innovation, Management and Technology*, Vol. 7 No. 5, pp. 206-212.
- Benraiss, L. (2004), "Méthodologie de Construction d'une Echelle de Mesure: Application du Paradigme de Churchill", *XVème Congrès Annuel de l'Association Francophone de la Gestion des Ressources Humaines, Montréal, September 1-4*.
- Bollen, K.A. and Stine, R.A. (1992), "Bootstrapping goodness-of-fit measures in structural equation models", *Sociological Methods and Research*, Vol. 21 No. 2, pp. 205-229.
- Boukamcha, F. (2015), "Impact of training on entrepreneurial intention: an interactive cognitive perspective", *European Business Review*, Vol. 26 No. 6, pp. 593-616.

- Bryman, A., Gillingwater, D. and McGuinness, I. (1996), "Leadership and organizational transformation", *International Journal of Public Administration*, Vol. 19 No. 6, pp. 849-872.
- Burns, J.M. (1978), *Leadership*, Harper & Row, New York, NY.
- Chen, Y., Tang, G., Jin, J., Xie, Q. and Li, J. (2014), "CEOs' transformational leadership and product innovation performance: the roles of corporate entrepreneurship and technology orientation", *Journal of Product Innovation Management*, Vol. 31 No. 1, pp. 2-17.
- Comeche, J.M. and Loras, J. (2010), "The influence of variables attitude on collective entrepreneurship", *International Entrepreneurship and Management Journal*, Vol. 6 No. 1, pp. 23-38.
- Covin, J. and Slevin, D.P. (1991), "A conceptual model of entrepreneurship as firm behaviour", *Entrepreneurship Theory and Practice*, pp. 7-25.
- Covin, J.G. and Slevin, D.P. (1989), "Strategic management of small firms in hostile and benign environments", *Strategic Management Journal*, Vol. 10 No. 1, pp. 75-87.
- Cummings, G.G., MacGregor, T., Davey, M., Lee, H., Carol, A., Lo, E.W., Muise, M. and Stafford, E. (2009), "Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review", *International Journal of Nursing Studies*, Vol. 47 No. 3, pp. 363-385.
- Cyert, R. (2006), "Defining leadership and explicating the process", *Nonprofit Management and Leadership*, Vol. 1 No. 1, pp. 29-38.
- Eagly, A.H. and Johannesen-Schmidt, M.C. (2001), "The leadership styles of women and men", *Journal of Social Issues*, Vol. 57 No. 4, pp. 781-797.
- Enders, C. K. (2005), "An SAS macro for implementing the modified Bollen–Stine bootstrap for missing data: implementing the bootstrap using existing structural equation modeling software", *Structural Equation Modeling*, Vol. 12 No. 4, pp. 620-641.
- Eyal, O. and Kark, R. (2004), "How do transformational leaders transform organizations? A study of the relationship between leadership and entrepreneurship?", *Leadership and Policy in Schools*, Vol. 3 No. 3, pp. 209-233.
- Felsenstein, J. (1985), "Confidence limits on phylogenies: an approach using the bootstrap", *Evolution*, Vol. 39, pp. 783-791.
- Franco, M. and Gonçalo Matos, P. (2015), "Leadership styles in SMEs: a mixed-method approach", *International Entrepreneurship and Management Journal*, Vol. 11 No. 2, pp. 425-451.
- Gartner, W.B., Bird, B.J. and Starr, J. (1992), "Acting as if: differentiating entrepreneurial from organizational behavior", *Entrepreneurship Theory and Practice*, Vol. 16 No. 3, pp. 13-32.
- Gherib, J. and Berger-Douce, S. (2012), "Entrepreneurial profile and environmental commitment of SMEs: a comparative analysis in France and in Tunisia", *International Business Research*, Vol. 5 No. 7, pp. 1-16.
- Hackman, J.R. (1987), "The design of work teams", in Lorsch, J.W. (Ed.), *Handbook of Organizational Behavior*, Prentice Hall, Englewood Cliffs, NJ, pp. 315-342.
- Hughbank, R.J. and Horn, L.C. (2013), "Traits and behavior: psychological approaches to leadership", *Collective Efficacy: Interdisciplinary Perspectives on International Leadership*, Advances in Educational Administration, Vol. 20, Emerald Group Publishing, pp. 245-260.
- Jung, D.I., Chow, C. and Wu, A. (2003), "The role of transformational leadership in enhancing organizational innovation: hypotheses and some preliminary findings", *The Leadership Quarterly*, Vol. 14 Nos 4-5, pp. 525-544.
- Khandwalla, P.N. (1977), *The Design of Organizations*, Harcourt Brace Jovanovich, New York, NY.
- Knight, G.A. (1997), "Cross-cultural reliability and validity of a scale to measure firm entrepreneurial orientation", *Journal of Business Venturing*, Vol. 12 No. 3, pp. 213-225.
- Krueger, N.F.J., Reilly, M.D. and Carsrud, A.L. (2000), "Competing models of entrepreneurial intention", *Journal of Business Venturing*, Vol. 15 Nos 5-6, pp. 411-432.
- Lounsbury, M. (1998), "Collective entrepreneurship: the mobilization of college and university recycling coordinators", *Journal of Organizational Change Management*, Vol. 11 No. 1, pp. 50-69.

- Men, L.R. (2014), "Strategic internal communication: transformational leadership, communication channels, and employee satisfaction", *Management Communication Quarterly*, Vol. 28 No. 2, pp. 264-284.
- Menzel, H.C., Aaltio, I. and Ulijn, J.M. (2007), "On the way to creativity: engineers as intrapreneurs in organizations", *Technovation*, Vol. 27 No. 12, pp. 732-743.
- Miller, D. (1983), "The correlates of entrepreneurship in three types of firms", *Management Science*, pp. 770-791.
- Miller, D. and Friesen, P.H. (1978), "Archetypes of strategy formulation", *Management Science*, Vol. 24 No. 9, pp. 921-933.
- Moriano, J.A., Molero, F., Topa, G. and Lévy Mangin, J.-P. (2011), "The influence of transformational leadership and organizational identification on intrapreneurship", *International Entrepreneurship and Management Journal*, Vol. 10 No. 1, pp. 1-17.
- Nunnally, J.C. and Bernstein, I.H. (1994), *Psychometric Theory*, 3rd ed., McGraw-Hill, New York, NY.
- Ozdemirci, A. (2011), "Corporate entrepreneurship and strategy process: a performance based research on Istanbul market", *Procedia – Social and Behavioral Sciences*, Vol. 24, pp. 611-626.
- Quinn, R.E. (1988), *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance*, Jossey Bass Publishers, San Francisco, CA.
- Rae, D. and Carswell, M. (2001), "Towards a conceptual understanding of entrepreneurial learning", *Journal of Small Business and Enterprise Development*, Vol. 8 No. 2, pp. 150-158.
- Rafferty, A.E. and Griffin, M.A. (2004), "Dimensions of transformational leadership: conceptual and empirical extensions", *The Leadership Quarterly*, Vol. 15 No. 3, pp. 329-354.
- Sellgren, S., Ekvall, G. and Tomson, G. (2006), "Leadership styles in nursing management: preferred and perceived", *Journal of Nursing Management*, Vol. 14 No. 5, pp. 348-355.
- Serinkan, C., Kaymakci, K., Arat, G. and Avcik, C. (2013), "An empirical study on intrapreneurship: in a service sector in Turkey", *Procedia – Social and Behavioral Sciences*, Vol. 9, pp. 715-719.
- Sharmaa, P., Nagarb, P. and Pathak, S.C. (2012), "Impact of transformational leadership on creative flexibility of engineers in India", *Procedia – Social and Behavioral Sciences*, Vol. 57, pp. 555-559.
- Shortell, S.M. and Kaluzny, A.D. (2006), *Health Care Management: Organization Design and Behavior*, 5th ed., Delmar Publishers, Albany, NY.
- Sinha, N. and Srivastava, K.B.L. (2015), "Intrapreneurship orientation and innovation championing in Indian organizations", *Global Business Review*, Vol. 16 No. 5, pp. 760-771.
- Soriano, D.R. and Urbano, D. (2009), "Overview of collaborative entrepreneurship: an integrated approach between business decisions and negotiations", *Group Decision and Negotiation*, Vol. 18 No. 5, pp. 419-430.
- Soriano, R.D. and Urbano, D. (2010), "Employee-organization relationship in collective entrepreneurship: an overview", *Journal of Organizational Change Management*, Vol. 23 No. 4, pp. 349-359.
- Spreitzer, G.M., De Janasz, S.C. and Quinn, R.E. (1999), "Empowered to lead: the role of psychological empowerment in leadership", *Journal of Organizational Behavior*, Vol. 20 No. 4, pp. 511-526.
- Stevanovic, D. (2009), "Serbian KINDL questionnaire for quality of life assessments in healthy children and adolescents: reproducibility and construct validity", *Health and Quality of Life Outcomes*, Vol. 7 No. 1, pp. 79-86.
- Tang, S.-F. (2011), "QHEQ: a validation study on students' evaluation", *International Conference on Management and Service Science, IPEDR, Vol. 8, IACSIT Press, Singapore*.
- Toledano, N., Urbano, D. and Bernadich, M. (2010), "Networks and corporate entrepreneurship: a comparative case study on family business in Catalonia", *Journal of Organizational Change Management*, Vol. 23 No. 4, pp. 396-412.
- Vardiman, P., Houghston, J. and Jinkerson, D. (2006), "Environmental leadership development. Toward a contextual model of leader selection and effectiveness", *Leadership and Organization Development Journal*, Vol. 27 No. 2, pp. 93-105.

Yang, J.-T. (2007), "Knowledge sharing: investigating appropriate leadership roles and collaborative culture", *Tourism Management*, Vol. 28 No. 2, pp. 530-543.

Yukl, G. (2012), *Leadership in Organizations*, 8th ed., Prentice-Hall, Upper Saddle River, NJ.

Zahra, S.A. (1993), "Environment, corporate entrepreneurship, and financial performance: a taxonomic approach", *Journal of Business Venturing*, Vol. 8 No. 4, pp. 319-340.

Appendix

Leadership (Avolio and Bass 2002)

Idealized influence

- Ideal1: I make others feel good to be around me.
- Ideal2: others have complete faith in me.
- Ideal3: others are proud to be associated with me.

Inspirational motivation

- Inspir1: I express with a few simple words what we could and should do.
- Inspir2: I provide appealing images about what we can do.
- Inspir3: I help others find meaning in their work.

Intellectual stimulation

- Intellect1: I enable others to think about old problems in new ways.
- Intellect2: I provide others with new ways of looking at puzzling things.
- Intellect3: I get others to rethink ideas that they had never questioned before.

Individual consideration

- Indiv1: I help others develop themselves.
- Indiv2: I let others know how I think they are doing.
- Indiv3: I give personal attention to others who seem rejected.

The corporate entrepreneurship scale (Zahra, 1993)

New business venturing

- Bus-vent1: stimulating new demand for existing products in current markets through aggressive advertising and marketing.
- Bus-vent2: broadening business lines in current industries.
- Bus-vent3: pursuing new businesses in new industries that are related to current business.
- Bus-vent4: finding new niches for products in current markets entrepreneurship scale venturing.
- Bus-vent5: entering new businesses by offering new lines and products.

Innovativeness

- Innov1: company's emphasis on developing new products entrepreneurship scale.
- Innov2: rate of new product introduction into the market.
- Innov3: company's spending on new product development activities.
- Innov4: the number of new products added by the company.

- Innov5: the number of new products introduced by the company.
- Innov6: investment in developing proprietary technologies.
- Innov7: emphasis on creating proprietary technology.
- Innov8: adoption of technologies developed by other companies or industries.
- Innov9: company's emphasis on technological innovation.
- Innov10: company's emphasis on pioneering technological developments in its industry.
- Innov11: percent of the company's revenue generated from products that did not exist three years earlier.

Self-renewal

- Selfrenew1: defining the company's mission.
- Selfrenew2: revising the business concept.
- Selfrenew3: redefining the industries in which the company will compete.
- Selfrenew4: reorganizing units and divisions to increase innovation.
- Selfrenew5: coordinated activities among units to enhance company innovation.
- Selfrenew6: increasing the autonomy (independence) of different units to enhance their innovation.
- Selfrenew7: adopting flexible organizational structures to increase innovation.
- Selfrenew8: training employees in creativity techniques.
- Selfrenew9: rewarding employees for creativity and innovation.
- Selfrenew10: establishing procedures to solicit employee ideas for innovations.
- Selfrenew11: establishing procedures to examine new innovation ideas.
- Selfrenew12: designating formal idea (project or venture) champions.
- Selfrenew13: making resources available for experimental projects.

The ENTRESCALE (Knight 1997)

Proactiveness

- Proact1: new techniques (first to introduce new products, administrative techniques, operating technologies, etc.).
- Proact2: competitive posture ("undo-the-competitors" posture).
- Proact3: risk-taking proclivity.
- Proact4: environmental boldness (bold and wide-ranging acts necessary to achieve objectives).
- Proact5: decision-making style (bold and aggressive posture).

About the author

Fayçal Boukamcha, PhD, is Assistant Professor of Marketing at the University of Sousse, author of various research papers in social marketing and entrepreneurship. The main fields of interest are persuasion, cognitive mechanism, social marketing, data analysis methods and entrepreneurship. Fayçal Boukamcha can be contacted at: boukamchaf@yahoo.fr

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com