Transmitting the entrepreneurial spirit to the work team in SMEs: the importance of leadership

Domingo Ribeiro Soriano and José Manuel Comeche Martínez
University of Valencia, Valencia, Spain

Abstract

Purpose – To establish the extent of the influence of variables which, under a particular style of leadership, form the necessary basis for encouraging and developing group, entrepreneurial activities carried out within the context of small to medium-sized enterprises (SMEs) thus explaining the transmission of the entrepreneurial spirit to the work team and, consequently, the existence of collective entrepreneurship in the firm.

Design/methodology/approach – From the results of a questionnaire carried out via personal interviews with over 100 firms, a confirmatory factorial analysis was carried out that provided us with the variables to be studied. The cause/effect relationships and their implications were obtained from applying a LISREL8 analysis.

Findings – A leadership based on relationships shows a positive impact, with an intensity of more than double that of participative leadership. A task-oriented leadership style reduces the chances of transmitting the entrepreneurial spirit to the work team by having a negative influence on the generation of collective entrepreneurship in the firm.

Research limitations/implications – The models contain the relations of “causality” between these latent variables, assuming that the variables observed therein are indicators or symptoms of those other variables. This could be considered as a limitation to our analysis as the study of covariance.

Practical implications – The model has important applications for the process of incorporating new CEOs into the organization.

Originality/value – This paper presents confirmation of the need for aspects traditionally associated with the figure of the entrepreneur to be transmitted to the organization’s collective as a whole and for the existence of collective entrepreneurship: an area of management that has thus far received relatively little attention and which could have important practical implications.

Keywords Entrepreneurialism, Team working, Leadership, Small to medium-sized enterprises

Paper type Research paper

Introduction

When analysis began on the qualitative aspects of entrepreneurship back in the 1960s (McClelland, 1961; Collins and Moore, 1964), researchers focused their attention on determining the psychological characteristics and factors of personality to distinguish entrepreneurs from non-entrepreneurs, and those who were likely to be successful in business from those who were not (Gibb, 1990; Amit et al., 1993). It is unlikely that the functions of an entrepreneur are carried out by a single individual in a firm. This might possibly be the case of microfirms (firms with less than ten workers), as there is a reduced degree of complexity and the owner is capable of controlling the majority of aspects surrounding the firm’s activity. This is not true, though, of bigger businesses and even less so in those in the category of large enterprises, where the existence of work teams is necessary to ensure that these functions are carried out with a certain
guarantee of success. We will see, throughout this paper, the confirmation of the need for aspects traditionally associated with the figure of the entrepreneur to be transmitted to the organization’s collective as a whole and for the existence of collective entrepreneurship.

The entrepreneurial spirit and the work team
Individual entrepreneurship does not add up to collective entrepreneurship, but a small business owner can affect the behaviour and attitudes of subordinates to create the conditions for increasing collective entrepreneurship (Lounsbury, 1998). Therefore, a strong entrepreneurial leader should influence the organization, thus making it more entrepreneurial as a whole.

In relation to collective entrepreneurship (Stewart, 1989), it can be stated that “the concept of entrepreneurial teams of employees may be rather unconventional, but it is consistent with the opportunity-centred interpretation of entrepreneurship”. This interpretation does not centre on individuals and personalities. So, the concept of collective entrepreneurship redirects attention away from popularly held conceptions of the “entrepreneur as hero” (Reich, 1987), focusing attention on the work team, bearing in mind that the fundamental aspects of the work team are that of creativity and innovation. Good collaboration reflects the ability for people to work together for their mutual benefit (Haskins et al., 1998; Scott, 1999). Therefore, the capability and creativity of one individual entrepreneur is always limited. Working together, members of an SME (small to medium-sized enterprise) could also contribute to innovation. Small business owners might benefit from giving more consideration to a leadership role that contributes profoundly to the innovation performance of the small business than its entrepreneurship role. In short, collective entrepreneurship must emerge from the collaboration of individuals, not from coercion or contracts. Moreover, there is no guarantee that entrepreneurship at an individual level will be automatically transferred to a collective. Indeed, it is reasonable to suggest that businesses would profit from creating the conditions of leadership in the organization that are conducive to enabling the transmission of entrepreneurial spirit from the single, individual (entrepreneur) to the group or collective (work team). It is our objective to focus our attention on the leadership conditions that are conducive to the transmission of the aforementioned entrepreneurial spirit to the work team.

Leadership and the conditions of transmission
Reich (1987) pointed out that collective entrepreneurship does not eliminate the need for an individual leader. Leaders of such collectively entrepreneurial organizations or teams understand how to foster creative collaboration (Bennis and Biederman, 1998). Thus, heads of organizations can encourage others to create remarkable outcomes through collective collaboration. Stewart (1989) states that “individual leadership is a crucial part of the entrepreneurial process (of the team)”. Despite arguing that the rate of change and technological complexity of the modern business world has brought an end to the idea that we can depend upon a hero figure or leader for outstanding achievements, Bennis and Biederman (1998) declare, in their study, that “great leaders are important for the creation of great groups”. However, in our analysis, leaders are great, not because they are non-conformist, individual or heroic entrepreneurs but
because they can guide their staff towards the achievement of successful results through “creative collaboration”.

Studies on leadership have identified several leadership styles or behaviours, with the consequent conclusions on their effectiveness that take into account success on a collective level (Parker, 1990) and the behaviour of the players involved, as well as assessments by top level leaders (Yukl, 1998). In our study, we focus on team leadership, in other words, the behaviour of work team leaders. In line with the theory of social learning (Weiss, 1977), we believe that the team leader affects the attitudes and behaviour of other team members, creating the necessary conditions for relations of collective entrepreneurship and, therefore, enabling the transmission of the entrepreneurial spirit to the work team. As we previously suggested, a strong entrepreneurial leader can influence other individuals so that they too are imbued with more of an entrepreneurial spirit. However, individuals alone do not make up the ingredients of collective entrepreneurship (Hampden-Turner and Trompenaars, 1995). Together with the help of orientation from the firm, team leaders must create a context that allows relations of collective entrepreneurship to emerge. However, it should be stressed that different styles of leadership can have different influences on the capacity to transmit the entrepreneurial spirit and thus, here we compile some of the predominant leadership styles (Morrison, 2000; Sorenson, 2000): relationship-oriented (such as doing personal favours for subordinates, looking out for their welfare or accepting their suggestions), task-oriented (such as maintaining performance, asking subordinates to follow standard procedures and regulations and making them see the importance of meeting deadlines) and participative leadership (encouraging and facilitating the participation of subordinates in making decisions that would ordinarily be made by the leader alone). These ideas are expressed in Figure 1.

Leadership styles will either help to facilitate or discourage the building of such competences within small businesses (Bennis and Biederman, 1998). An entrepreneur is able to adopt certain leadership styles or behaviour to encourage employees to work

![Figure 1. Influence of leadership in transmitting entrepreneurial spirit to the work team](image-url)
together to generate innovation for small businesses (Lee et al., 2005). Leadership styles could help to promote small business innovation but such a relationship is mediated by collaboration among members of a small business. According to Yukl (1998), leadership contribution to team or organizational outcomes is mediated by subordinates’ attitudes and their level of cooperative behaviour. Bennis and Biederman (1998) point out that organizational experts make sacrifices to ensure a cooperative atmosphere. We propose that leadership styles do not directly affect the innovation outcomes of a small business, although their contribution to small business innovation is mediated by collaboration among members of that business.

**Relationship-oriented leadership**

Studies show that leaders who adopt a relationship-oriented style are truly interested in people and their social interaction (Sorenson, 2000). Such leaders tend to provoke an increase in collaboration and team work, have a strong identification with the organization and the team, and are committed to producing satisfactory outcomes. Key behavioural components of a relationship-based leadership style include: support, development, recognition and consultation of other individuals (Yukl, 1998). In the analysis of behaviour associated with a relationship-oriented leadership style, it has come to light that support is closely related to positive attitude and behaviour on the part of the subordinate and to interactive behaviour between collaborators/work colleagues. In addition, it is possible that the subordinate will then imitate the leader’s supportive behaviour (Weiss, 1977) and so offer positive support and an efficient working relationship to others, thereby achieving an approximation to creative collaboration (Haskins et al., 1998).

The tendency of a relationship-based leadership style to develop, recognize and reward subordinates increases the likelihood of achieving greater commitment to the team and its tasks, as well as the willingness and satisfaction of contributing to the team’s success. This reasoning leads to the following hypotheses on team leadership and collective entrepreneurship.

**H1.** A relationship-oriented leadership style will positively enhance the chances of transmitting the entrepreneurial spirit to the work team.

**Task-oriented leadership**

Task-oriented leaders put all their efforts into functions aimed at carrying out tasks such as: planning or organization, activities related to coordination and providing the necessary help, as well as supplying equipment and technical assistance for subordinates to carry out their work adequately. Task-oriented leaders structure and define their own rules and those of their subordinates. They supervise their on-site subordinates closely, and keep a close check on the fulfilment of pre-established goals and objectives (Likert, 1961; 1967). Those who adopt a totally task-based leadership style like to keep their psychological distance from those of inferior rank and often appear cold and distant (Blau and Scott, 1962), tending simply to ignore feelings and attitudes towards subordinates. These leaders define the structures where their inferiors are placed, establish the rules that others follow, explain what to do and how to do it, determine ways in which tasks are to be completed (Hersey and Blanchard, 1977), and search for new approaches to solving problems. These are all aspects that increase the likelihood that the subordinate will increasingly depend on the leader and,
therefore, the initiative and creativity of the subordinate becomes nullified. Task-oriented leaders can help their subordinates to collaborate through designing the jobs they are required to perform, along with coordination and other measures, particularly when the work is carried out in teams and coordination becomes an essential part of the leader’s function (Yukl, 1998). However, collaboration that is coordinated and initiated by leaders is often more functional than relational (Bennis and Biederman, 1998; Haskins et al., 1998).

They are often the “individual heroes” (Reich, 1987), who are characterized by a heightened need for achievement (McClelland, 1961), possess an aggressive personality and demand a high level of autonomy (Downtown, 1973). They contribute to the level of team (or firm) entrepreneurship (Miller, 1983) as individual businesspeople, though not as part of collective entrepreneurship. Basing our ideas on the previous assumptions, we will contrast the following hypothesis, considering the relation between a task-oriented leader and the collective entrepreneurship of the team.

H2. A task-oriented leadership style will reduce the chances of transmitting the entrepreneurial spirit to the work team.

Participative leadership

The majority of studies on leadership styles consider “participative leadership” as a different style to the relation-oriented or task-oriented styles (Bass, 1990). Essentially, participative management is a style of leadership in which managers share the decision-making process with other members of the organization. Participative leadership efficiently guides the leader’s efforts towards motivating and facilitating the participation of subordinates in making decisions (Harber et al., 1991; Cole et al., 1993), which, under other circumstances, could be made by the leader alone. Including subordinates in decision-making is often necessary for decisions to be approved and seen through to a successful conclusion. Leaders frequently involve subordinates in making decisions that will directly affect them, inviting individuals to participate in strategic thinking (Bowen and Lawler, 1995). Participative leadership at the highest level involves delegating decision-making to subordinates. Participative leaders motivate subordinates to assume responsibilities for their own work, encouraging, favouring and rewarding all behaviour and ideas aimed at satisfying the needs of innovation (Bowen and Lawler, 1992), thereby improving the organization’s performance (Hermel, 1990). However, Ribeiro (2003a) points out in his analysis of SMEs that it is functions rather than responsibilities that are delegated.

Participative leaders use groups that help to increase personal interaction between team members, mutual obligation and responsibility, bringing the team closer together as a group (McGrath, 1984). Participative leaders often use formal and informal group meetings in order to facilitate the participation of subordinates in decision-making, which leads to improvement in communication and enables conflicts to be resolved (Deakins et al., 2005). In this study, our focus does not focus on how participative leadership will affect the quality of decisions taken; a research topic widely studied in the literature on leadership (Vroom and Jago, 1988). We address the question of how the participative leader will influence the attitudes and interactions of the team, and consequently influence collective entrepreneurship. Finally, we believe that a participative style will influence team members so that they become open to the opinions, ideas and suggestions of others (Weiss, 1977).
Participative leadership has the potential to positively encourage team members to assume positive attitudes toward their work, the team and their leaders. Similarly, participative leaders have a positive impact on building personal and professional relationships. This idea can be expressed in the following hypotheses:

H3. A participative leadership style will positively enhance the chances of transmitting the entrepreneurial spirit to the work team.

The influence of the entrepreneurial leader on the model

Having put forward these hypotheses, we consider that the relations between the variables of attitude and behaviour relevant to team members as well as a particular style of leadership, will have an effect on the basic conditions necessary for transmitting the entrepreneurial spirit to the work team and, therefore, on the development of collective entrepreneurship in the firm. Consequently, we feel it is right to stress the importance of the necessary presence or absence of the entrepreneurial nature of the leader as the carrier of that spirit of enterprise which is intended to be transmitted to the group, as well as the need to analyse these variables with a view to establishing how they are interrelated. In order to be able to name the factors that explain the existence of collective entrepreneurship in the firm and, therefore, the desire to transmit the spirit of enterprise within the organization (e.g. innovation-creativity, pro-activity-autonomy, risk-taking and the search for growth), the inclusion of an additional variable in our model becomes essential. This will allow us to verify whether the existence of collective entrepreneurship is dependent upon the presence of an entrepreneur, a question which is laid down in the following hypothesis:

H4. The probability of transmitting the entrepreneurial spirit to the work team and, therefore, fomenting the existence of collective entrepreneurship in the work team is directly and positively associated with the presence of an entrepreneurial leader.

Method

Sampling procedures and measures

The sample of firms studied was taken from the ARDAN Business Directory of the IMPIVA (Valencian Small and Medium-Sized Industrial Institute), where SMEs from the Valencia region, and other areas of Spain from the industrial, commercial and service sectors are listed. More than 500 firms were contacted at random, of which only 114 entrepreneurs agreed to be interviewed face-to-face. Before applying the questionnaire for the purposes of this paper, which was based on others of similar characteristics (Ribeiro, 2003b, 2004), it was pre-tested by a group of experts made up of professors and researchers from several members of the Editorial Board of the International Entrepreneurship and Management Journal (Springer). All the members of this group are experts in this topic and in the field of statistics applied to social sciences. Once modifications had been made following the suggestions from this team of experts, we began the field work. The definitive structure of the questionnaire is shown in the Appendix.
Statistical analysis
Hypotheses were tested via the following procedures. Firstly, a structural equation modelling technique was applied to test our hypotheses via path analysis for the sample of each type of leadership, analysing whether they have a direct impact on the level of collective entrepreneurship when the leader is an entrepreneur. Using LISREL 8 (Joreskog and Sorbom, 1993), we estimated the parameters of our research model and tested the validity of the measurement of whether different leadership styles have an impact on organizational collective entrepreneurship. This approach enabled a comprehensive and confirmatory assessment of both the convergent and discriminant validity of all constructs used in the model. Secondly, the same structural equation model for the sample of non-entrepreneurial leaders was applied. The approach not only further validated our measurement model, but also enabled us to compare the standardized path coefficients across the two samples.

Choice of explanatory observable variables of the latent variables determined in the model
To successfully develop a model that includes latent variables, it is necessary to consider a wide variety of potential measurements of the factors in order to then go on to select a greatly reduced group (two or three per variable) that encompasses all the relevant information with regard to the latent factor. The most suitable way of choosing the measurement variables for each factor (latent variable) consists of carrying out a series of confirmatory factorial analyses. Using the results of part of a questionnaire designed to this effect, the relevant sections of which are included in the appendix, we established that the variables with the highest standardized coefficients for a relationship-oriented style of leadership were as follows:

- PE1_7: Time available.
- PE1_8: Suggestions.
- PE1_10: Effectiveness.

In our model, these variables are referred to as:

- PE1_7: Time available = LIDREL_1.
- PE1_8: Suggestions = LIDREL_2.
- PE1_10: Effectiveness = LIDREL_3.

The highest standardized coefficient values using this model as a result of confirmatory factorial analysis for task-oriented leadership were:

- PE2_3: Regulations.
- PE2_2: Orientation toward the task.
- PE2_5: Criticism.

In our model, these variables are referred to as:

- PE2_3: Regulations = LIDTAR_1.
- PE2_2: Orientation toward the task = LIDTAR_2.
- PE2_5: Criticism = LIDTAR_3.
Thirdly, the highest standardized coefficient values of the model from the confirmatory factorial analyses for participative leadership were:

- PE3_1: Participation.
- PE3_2: Delegation.
- PE3_4: Groups.

These variables appear in the model as:

- PE3_1: Participation = LIDPAR_1.
- PE3_2: Delegation = LIDPAR_2.
- PE3_4: Groups = LIDPAR_3.

Finally, the resulting model established from the confirmatory factorial analyses for the generation of collective entrepreneurship, factors with the highest values of standardized coefficients, were as follows:

- PF1_8: Voluntary contributions.
- PF1_2: Transmission of the teamwork ethic.
- PF1_10: Accumulation of talent.

These variables appear in our model as:

- PF1_8: Voluntary contributions = EMPCOL_1.
- PF1_2: Transmission of the teamwork ethic = EMPCOL_2.
- PF1_10: Accumulation of talent = EMPCOL_3.

Results
From the results given above, it is possible to obtain an approximation of what might be the effect of the total direct impact of each leadership style on the transmission of collective entrepreneurship to the work team. The estimation obtained is shown in Figure 2.

Formally, the structural part of the model is given by the equation:

\[ \text{CPGNCC} = \gamma_{11} \times \text{LIDREL} + \gamma_{12} \times \text{LIDTAR} - \gamma_{13} \times \text{LIDPAR} + \xi_1 \]

For which the following estimation was obtained:

\[ \text{CPGNCC} = 0.54^{*} \text{LIDREL} - 0.23^{*} \text{LIDTAR} + 0.23^{*} \text{LIDPAR} + \hat{\xi}_1 \]

In brackets, and underneath each coefficient, appears the value of the \( t \) statistic associated with the null contrast of each coefficient, which is asymptotically distributed as a \( t \) student value with 48 degrees of freedom. The fact that the values are greater than 1.96 suggests that the coefficients are not null and that the three styles of leadership have a significant impact on collective entrepreneurship.
Validation of the model

According to the values shown in Table I, the null hypothesis of the model’s goodness of fit can be accepted ($p$-value = 0.112). The goodness of fit index (Table II) is also high (0.80), thus confirming the validity of the model.

In light of the results obtained and due to the opportunity provided for carrying out new approximations that, potentially, would allow us to obtain further information with a view to adding further dimensions to our study, we proceeded to carry out a new analysis in an attempt to explain the impact that the entrepreneurial or non-entrepreneurial character of the leader has on the probability of transmitting...
the entrepreneurial spirit to the work team, according to the style of leadership applied in the organization.

The results obtained for entrepreneurial and non-entrepreneurial leaders are shown in Figures 3 and 4, respectively. The structural equations for the multi-sample model are expressed as:

$$CPGNCC = \gamma_1^{e}\text{LIDREL} + \gamma_2^{e}\text{LIDTAR} + \gamma_3^{e}\text{LIDPAR} + \xi_e$$

$$CPGNCC = \gamma_1^{ne}\text{LIDREL} + \gamma_2^{ne}\text{LIDTAR} + \gamma_3^{ne}\text{LIDPAR} + \xi_{ne}$$

where the superindices $e$ and $ne$ refer to the coefficients of the structural equation for the groups of entrepreneurial and non-entrepreneurial leaders, respectively.

The estimation obtained for entrepreneurial leaders is as follows:

$$CPGNCC = (3.58) \times 0.92 \times \text{LIDREL} - (2.17) \times 0.31 \times \text{LIDTAR} + (1.04) \times 0.34 \times \text{LIDPAR} + \xi_{e}$$

while for non-entrepreneurial leaders, the estimation can be expressed as:

$$CPGNCC = (1.09) \times 0.19 \times \text{LIDREL} - (2.44) \times 0.16 \times \text{LIDTAR} + (4.43) \times 0.45 \times \text{LIDPAR} + \xi_{ne}$$

In brackets, and underneath each coefficient, appears the value of the $t$ statistic associated with the null contrast of each coefficient, asymptotically distributed as a $t$ student value with 102 degrees of freedom. It can be observed that the values of the $t$
statistics associated with the coefficients of all the variables, with the exception of participative leadership (in the equation for entrepreneurial leaders) and that of a relationship-based leadership style (in the equation for non-entrepreneurial leaders) are greater than 1.96.

Validation of the entrepreneurial models
According to the values in Table I, the null hypotheses for the model’s goodness of fit are acceptable ($p$-value = 0.085). The validity of the model (Table II) is confirmed by the values (0.78) of the goodness of fit index and by the average quadratic error.

Final contrast of the existing relation
At this point, it was necessary to carry out a contrast of the null hypothesis that the values of the two coefficients associated with the same variable (styles of leadership) were equal in the previous structural equations. We used the following procedure:

- We estimated the original model and obtained the goodness of fit Chi-squared statistic, represented by $\chi^2$.
- We opposed equality restrictions and estimated the restricted model by again obtaining the goodness of fit Chi-squared statistic, represented by $\chi^0$.
- We calculated the contrast statistic $D = \chi^0 - \chi^1$.
- Under the null hypothesis, $D$ is asymptotically distributed as a Chi-squared value with degrees of freedom given by the difference between the degrees of freedom of the general and restricted models.
Therefore:

- we accept the null hypothesis when the $p$-value of the statistic is greater than the level of significativity chosen, normally represented by $\alpha = 0.05$; and
- we reject the hypothesis that the coefficients are equal when the $p$-value is lower than that level.

The outcome of the aforementioned contrast is shown in Table III.

We can thus reject the null hypothesis that the impact of a leadership style based on relationships is identical among entrepreneurial and non-entrepreneurial leaders. There is insufficient empirical evidence to suggest that the other two styles of leadership have differing levels of impact with regard to the two types of leader.

**Conclusions**

On analysing the results obtained from applying the multi-sample analysis, it can be seen that a leadership based on relationships, (coefficient $= 0.54$) shows a positive impact, with an intensity of more than double that of participative leadership (coefficient $= 0.23$). It can also be concluded that a task-oriented leadership style reduces the chances if transmitting the entrepreneurial spirit to the work team by having a negative influence (coefficient $= -0.23$) on the generation of collective entrepreneurship in the firm. However, a participative leadership style (coefficient $= 0.23$) and, to an even greater extent, leadership based on relationships (coefficient $= 0.54$), both increase this capacity; thereby confirming $H1$, $H2$ and $H3$.

Moreover, when we incorporate the entrepreneurial or non-entrepreneurial aspect of the leader, it can be seen that:

- Relationship-oriented leadership and task-oriented leadership, when the CEO is of an *entrepreneurial* nature; the former showing a positive sign ($0.92$) and the latter a negative one ($-0.31$).
- Task-oriented leadership and participative leadership, when the CEO is *non-entrepreneurial*. The first group is negative ($-0.16$) and the second, positive ($0.45$).

One conclusion from this analysis is that, although a task-oriented leadership style appears to reduce the capacity to generate collective entrepreneurship, and, therefore, the chances of transmitting the entrepreneurial spirit to the work team, regardless of the entrepreneurial or non-entrepreneurial nature of the leader, the impact of the other two leadership styles does appear to depend on this factor. Therefore, when the leader is entrepreneurial, a relationship-oriented style of leadership is positive ($0.92$), where the leader can allow their entrepreneurial capabilities to flow freely among team members due to the importance they give to people and their relationships, the support, rewards and personal consideration they offer and, above all, the respect, acceptance
and concern they show for the needs and of their subordinates, while the impact of participative leadership is relatively small.

In addition, when the CEO is not inclined to be entrepreneurial, participative leadership (0.45) appears to be the most suitable style to adopt enabling the generation of new assets of collective entrepreneurship in the organization. In this case, CEOs are likely to integrate the potential entrepreneurial capacity that the leaders themselves do not possess, of certain team members into the decision-making process. Under such circumstances, our conclusion would be that the leader tends to rely on the group to compensate for their own managerial shortcomings by sharing the decision-making process. By involving collaborators in such tasks, the organization obtains better ratios of communication, collaboration and problem-solving, all of which leads to the cooperative construction of collective personal relationships.

Lastly, we conclude that, although it cannot be confirmed that the probability of transmitting the entrepreneurial spirit to the work team and, therefore, the existence of collective entrepreneurship in the work team is directly and positively associated with the existence of an entrepreneurial leader (H4), it can be accepted that the influence of leadership in transmitting entrepreneurial spirit to the work team does not depend on the previous existence of an entrepreneurial leader, but on a particular style of leadership in accordance with the entrepreneurial nature of the leader.

Limitations and future research
We have attempted to explain the dependent variable “transmission of the entrepreneurial spirit – collective entrepreneurship” through a series of factors (latent variables in our model), which are non-observable variables. This fact forced us to use variables that could provide us with an idea of which latent variables could be used to analyse collective entrepreneurship within the firm. In this context, our models contain the relations of “causality” between these latent variables, assuming that the variables observed therein are indicators or symptoms of those other variables. This could be considered as a limitation to our analysis as the study of covariance between two variables refers simply to the fact that certain given values for a variable are associated with those given for the other variable and, thus, the essential difference lies in the fact that the causal relationship assumes that any change in one of the variables (the cause) will force a variation in the other (the effect). It should also be pointed out that the size of the sample may have had some effect on the results of the study. With a larger sample, the results could have been broken down by sectors or by regions. Despite the fact that the sample obtained is sufficient for the structural models, and thus for the variance-covariance matrix, it is possible that the desirable sample size for the application of a multi-sample analysis might be considered close to the limit. It would therefore be advisable, in future research, to increase the sample and thus contrast whether there is a variation in the results obtained, thereby improving the estimations contained in our conclusions.

Another aspect to consider with regard to the limitations of this research is the fact of not having considered different variables as explanatory variables for the models or even additional latent ones along with those considered in our models. In our opinion, the variables contained in the models were sufficient to show the necessary impact in order to explain the defined dependent variable. However, we are aware both of the possibility of increasing the number of latent variables and of substituting some of the
variables used here for others with greater explanatory possibilities. Therefore, we believe that this could provide the next step in this line of research that would improve the overall vision of the current structural design of organizations and of the influence of the leader as suggested by the new models contained in this study. At the same time, we consider it suitable to initiate a new line of research related to the performance of the organization and the implication and repercussions this may have for the existence of work teams, in this study referred to as e-teams. With regard to the practical applications of the model of relationships included herein, we believe that the model has important applications for the process of incorporating new CEOs into the organization. The foreseeable attitude or style of leadership based on previous knowledge of their entrepreneurial or non-entrepreneurial nature will determine their model of relations and will provide previous information on their management capabilities.

References
Collins, O. and Moore, D.G. (1964), The Enterprising Man, Michigan State University, East Lansing, MI.


Appendix. Extract from questionnaire

A. - GENERAL INFORMATION

FIRM DETAILS

B. - FIRM START-UP STAGE

THE MOTIVATION BEHIND BECOMING AN ENTREPRENEUR

C. - ENTREPRENEURIAL NATURE AND PERSONALITY

TRAITS AND SKILLS OF AN ENTREPRENEURIAL NATURE

C.1. - We would like you to evaluate which of the following traits, in your view, are applicable to you and to what degree (there are no correct or incorrect answers). Score each characteristic according to the following categories:

<table>
<thead>
<tr>
<th>NONE</th>
<th>VERY LOW</th>
<th>AVERAGE</th>
<th>HIGH</th>
<th>VERY HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

   a) I know myself well and am self-confident: □
   b) I feel a strong motivation to achieve: □
   c) I have a realistic, optimistic vision of the future: □
   d) I am skilled at planning and organizing: □
   e) I communicate effectively and am able to generate support networks: □

C.2. - We would like to know your reactions to the following proposals linked to decision-making in your business. There are no correct or incorrect answers; we are interested in your perceptions using the following scale:

<table>
<thead>
<tr>
<th>TOTALLY DISAGREE</th>
<th>DISAGREE</th>
<th>NEUTRAL</th>
<th>AGREE</th>
<th>TOTALLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

   a) I frequently take risks when making decisions related to my business: □
   b) I would rather risk a loss than to later realize I had missed out on a good opportunity: □
   c) If I'm not prepared to take calculated risks, I can't expect big returns: □
   d) One should not dwell too long on the risks of a given situation or opportunity: □
   e) at times I live risk-taking with a certain excitement, as if it were a game: □

C.3. - To end this section, we would like you to evaluate the previous sections in detail. Please do so using the following scale.

<table>
<thead>
<tr>
<th>DOES NOT OCCUR</th>
<th>SELDOM OCCURS AND ONLY WITH EXTERNAL SUPPORT</th>
<th>SOMETIMES OCCURS</th>
<th>SOMETIMES OCCURS WITHOUT SUPPORT</th>
<th>FREQUENTLY OCCURS</th>
<th>ALWAYS OCCURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure A1.

(continued)
SELF-KNOWLEDGE AND SELF-CONFIDENCE
You identify your talent and use it to reach your goals: □
You act on your own initiative and using your resources: □
You identify calculate and control risks when taking action: □
You attribute the causes and consequences of your actions to yourself: □
AVERAGE □

MOTIVATION FOR ACHIEVEMENT
You search for perfection or personal improvement: □
You possess enormous vitality when carrying out activities: □
You meet the commitments you take on: □
You apply quality control (i.e. do things right): □
AVERAGE □

VISION OF THE FUTURE
You propose fresh alternatives for reaching your goals: □
You foresee the results of your actions: □
You provide fluid and/or flexible solutions: □
You pursue and take up opportunities for resolving requests and demands: □
AVERAGE □

PLANNING AND ORGANIZATIONAL SKILLS
You define concrete goals and objectives in the course of your work: □
You investigate, explore and question: □
You administrate resources rationally: □
You evaluate and correct your actions: □
AVERAGE □

PERSUASION AND COMMUNICATION SKILLS
I understand and satisfy the needs of others: □
I work cooperatively within a team: □
I influence others: □
I build support networks: □
AVERAGE □

TOTAL AVERAGE FOR THE ENTREPRENEURIAL PROFILE □

D. - REQUIREMENTS OF ATTITUDE AND BEHAVIOUR OF WORK TEAM MEMBERS

REQUIREMENTS OF ATTITUDE

BEHAVIOURAL REQUIREMENTS

E. - LEADERSHIP STYLES

LEADERSHIP CHARACTERISTICS

E.1. - Please give your opinion on the following points with regard to the leadership skills (oriented towards relationships) of the CEO. Please score according to the values given below.

<table>
<thead>
<tr>
<th>NEVER</th>
<th>RARELY</th>
<th>SOMETIMES</th>
<th>ALMOST ALWAYS</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure A1.
E.1.1. - Do you believe that your attitude demonstrates an interest in people and their relationships?

E.1.2. - Do you attempt to increase collaboration and work in teams?

E.1.3. - Do you put satisfactory work above your own needs?

E.1.4. - Do you believe that team members (including yourself) identify themselves with the organization and the team?

E.1.5. - Do you think that your behaviour includes support, development, recognition and consultation with the individuals that make up the team?

E.1.6. - Do you ever do personal favours for subordinates?

E.1.7. - Do your attitude and behaviour indicate a willingness to dedicate time to attend and listen to the needs of others when important enough?

E.1.8. - Are you open to suggestions from subordinates?

E.1.9. - Do you treat team members (subordinates) as equals or good friends?

E.1.10. - Do you believe that behaviour oriented at relationships encourages commitment to the team and its activities among subordinates?

E.1.11. - As a result of the previous question, are subordinates then more satisfied and willing to contribute to the team?

E.2. - Please give your opinion on the following points with regard to the leadership skills (oriented towards TASKS) of the CEO. Please score according to the values given in the previous table.

E.2.1. - Do you spend time working alongside subordinates?

E.2.2. - Alternatively, do you spend time on task-oriented functions, such as organization and planning, i.e. activities related to the coordination and supply of necessary support, equipment and technical assistance?

E.2.3. - Do you define and structure your own rules and those of subordinates?

E.2.4. - Do you believe that the function of the leader is to supervise subordinates closely in order to establish and attain formally pre-established goals and objectives?

E.2.5. - Is unsatisfactory work often criticized?

E.2.6. - Are subordinates encouraged to carry out work or tasks in line with standard procedures and regulations?

E.2.7. - Do you believe that the leader should keep his/her distance?

E.2.8. - Do you show concern for personal affairs, feelings and attitudes of subordinates?

E.2.9. - Should the leader define the regulations of others, explaining what to do, why and how tasks should be performed?

(continued)
E.2.10. - What is your opinion of this statement? Only the leader offers (or is in a position to offer) a new approach to problems.

E.2.11. - Do you believe that a subordinate should have “a feeling of dependence” on the leader?

E.2.12. - Do you believe that the leader suppresses the initiative and creativity of subordinates with their behaviour?

E.2.13. - Do you think that the leader should help subordinates to coordinate among themselves rather than personally oversee activities?

E.2.14. - Do you feel satisfied when you see that your subordinates follow guidelines laid down by you?

E.2.15. - Do you feel you motivate subordinates to “think on their feet”?

E.2.16. - Do you believe that if you modified your behaviour and attitudes towards a more personal relationship, it would improve subordinates’ behaviour and attitudes towards work and the team?

E.2.17. - Do you consider the leader to be the “individual hero” that contributes to reaching a certain level of entrepreneurship in the team (or firm) as an individual business person?

E.2.18. - Do you believe that via your behaviour and attitudes you can help in reaching a level of collective entrepreneurship?

E.3. - Please give your opinion on the following points with regard to the leadership skills (PARTICIPATIVE) of the CEO. Please score according to the values given in the previous table.

E.3.1. - Do you believe that one of the functions of the leader is to motivate and enable the participation of subordinates in decision-making?

E.3.2. - In an extreme situation, do you delegate entirely to subordinates the power to make decisions?

E.3.3. - Do you motivate subordinates to take responsibility for their own work?

E.3.4. - Do you use the daily activity of groups (teams) to help increase personal interaction between team members, mutual obligation and responsibility?

E.3.5. - Do you believe that the leader should make the team “gel” better via their attitudes and behaviour?

E.3.6. - When this kind of attitude is adopted, do you believe that communication is encouraged and improved, collaboration enhanced and problem-solving enabled?

E.3.7. - What is your opinion of this statement? The role of the leader, in discussions on work, is mainly to guide the discussion and to be constructive in working towards solving problems.

E.3.8. - Do you encourage the appearance of different ideas and opinions from subordinates?

E.3.9. - Do you believe that the leader should purposely encourage conflict of tasks among subordinates?

(continued)
E.3.10. - Despite the fact the leader remains responsible for all decisions and their consequences, should they constantly back up the actions of subordinates?

E.3.11. - Do you believe that this fact increases the motivation of employees in the workplace?

E.3.12. - Does it, therefore, improve commitment to the team and encourage a positive attitude towards the leader?

E.3.13. - If you were to stimulate positive attitudes towards the firm, work and personal relationships in your daily attitudes and behaviour, would this produce an increase in collective entrepreneurship?

E.3.14. - do you think that the attitudes and behaviour of the leader enable collaborative relationships of team members with regard to work?

F.- ENTREPRENEURIAL SPIRIT: COLLECTIVE ENTREPRENEURSHIP

REQUIREMENTS FOR ITS EXISTENCE

F.1. - Please indicate your point of view on the following points, using the scores shown in the tables below.

<table>
<thead>
<tr>
<th>MÍNÍMUM</th>
<th>LESS</th>
<th>THE SAME</th>
<th>GREATER</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1 How do you gauge the sum of individual contributions in the firm in comparison with the total effort?

<table>
<thead>
<tr>
<th>NEVER</th>
<th>RARELY</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2 Are the results of team efforts used in the firm?

3 Does the firm give precedence to individual talent and creativity over team effort?

4 Do you consider the generation and transmission of knowledge to be the sole competence of the firm’s founder and their managing directors?

5 Do you believe that collective knowledge is founded on a capacity that is spread via a collective (work team or organization)?

6 Does the collective capacity to identify and respond to opportunities exist and is does the firm take advantage of this capacity?

7 Do you believe that efforts are made in the firm to transform energy produced by teams into a positive synergetic outcome?

8 Should employees make voluntary contributions to the organization’s collective effort?

9 Does this happen in your firm?

10 Does the leader manage so as to encourage the accumulation of individual talent into a joint creative effort, to be used by the organization as a whole?

(continued)
### Table 1122

<table>
<thead>
<tr>
<th>TOTALLY UNTRUE</th>
<th>GENERALLY UNTRUE</th>
<th>INDIFFERENT</th>
<th>ALMOST ALWAYS TRUE</th>
<th>TOTALLY TRUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

11. What is your opinion of the following sentence when applied to the firm? "The planning and approach to organizational development occurs continually and involves all members, both managers and workers".

12. Do team members cooperate and are committed to teams and the organization due to coercion produced by their contractual situation?

13. Do you believe it possible for a group of unprofessional people, with a low level of expertise and training to form an entrepreneurial collective?

14. Do you think that interaction and cooperation are elements that do not help to improve team performance?

15. Do you believe that the individualistic, non-conformist, "heroic entrepreneur" nature of the leader hinders the creativity of the work team?

16. Please assess the following statement. "In our firm, the individual skills, intelligence and experience of team members are integrated into the organization, forming a strong collective capacity for creation or innovation".

### Table 1122

<table>
<thead>
<tr>
<th>NO SUPPORT</th>
<th>OCCASIONAL SUPPORT</th>
<th>INDIFFERENT</th>
<th>FREQUENT SUPPORT</th>
<th>CONSTANT SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

17. According to this scale, please assess the degree of obstacles the leader represents for "creative collaboration" in the work team.

18. What is your opinion on the following aspects related to group/team members? Please assess using the scale shown.

<table>
<thead>
<tr>
<th>NEVER</th>
<th>RARELY</th>
<th>INDIFFERENT</th>
<th>ALMOST ALWAYS</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

a) They learn how to help each other in order to improve their work:

b) They learn what each of them can contribute to a particular project:

c) They learn how to get the most out of others' experiences:

d) They learn when and how to make mutual adjustments to make the most of opportunities and maximise results:

e) Team members work on various problems and approaches, thereby getting to know the skills they each possess:

---

**Corresponding author**

Domingo Ribeiro Soriano can be contacted at: domingo.ribeiro@uv.es

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints
This article has been cited by:


6. Renaud Redien-Collot, Miruna Radu LefebvreSMEs' Leaders: 143-158. [CrossRef]