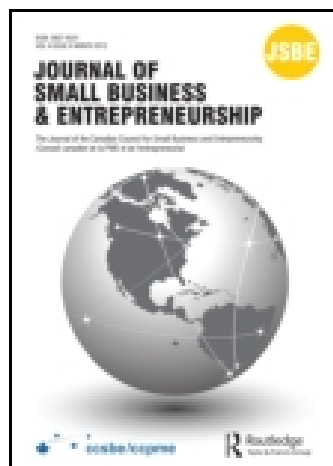


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How Do Entrepreneurs' Emotional Intelligence and Transformational Leadership Orientation Impact New Ventures' Growth?*

Ronit Yitshaki, Bar-Ilan University and Ariel University Center, Israel

ABSTRACT. This study examines the interrelations between entrepreneurs' emotional intelligence (EI), transformational leadership behaviors and growth. Based on data collected from 99 entrepreneurial firms, the findings show that entrepreneurs' EI has an indirect impact on growth. Entrepreneurs' EI is positively related to entrepreneurs' intellectual stimulation and individualized consideration and entrepreneurs' charismatic-inspirational behaviors. However, only entrepreneurs' charismatic-inspirational behaviors impact growth. The findings extend the literature by suggesting that entrepreneurs' EI is a "latent" emotional capability that impacts their transformational leadership orientation. It is also suggested that by employing charismatic-inspirational behaviors, entrepreneurs' demonstrate their ability to *enlist* and *manage* followers' emotions and hence influence growth.

RÉSUMÉ. Cette étude examine les interrelations entre l'intelligence émotionnelle (IE) des entrepreneurs, les comportements de leadership transformationnel, et la croissance. Les données recueillies auprès de 99 entreprises révèlent que l'intelligence émotionnelle des entrepreneurs a un impact indirect sur la croissance. De plus, il existe un lien positif entre l'intelligence émotionnelle des entrepreneurs et la stimulation intellectuelle des entrepreneurs et l'appréciation individualisée ainsi qu'avec les comportements charismatiques-inspirants des entrepreneurs. Cependant, seuls les comportements charismatiques-inspirants avaient un impact sur la croissance. Les résultats obtenus apportent aux études antérieures en proposant que l'intelligence émotionnelle des entrepreneurs est une capacité émotionnelle « latente » ayant un impact sur leur leadership transformationnel. Les auteurs proposent également que les entrepreneurs démontrent leur capacité à *susciter* et *gérer* les émotions de leurs disciples, et ainsi influencent la croissance, en ayant recours à des comportements charismatiques-inspirants.

Introduction

This study focuses on an examination of the interrelations between entrepreneurs' emotional intelligence (EI) and transformational leadership behavior, and their impact on entrepreneurial firms' growth. Research in the field of entrepreneurship focuses on an individualistic explanation of entrepreneurial activity. Entrepreneurs are seen as agents able to initiate and identify new ideas and then transform them into economic and social activities (Gartner, 1985; Ireland et al., 2001; Lumpkin and Dess, 1996; Schumpeter, 1965; Shane and Venkataraman, 2000). Accordingly, considerable attention has been dedicated to researching entrepreneurs' unique capabilities (Baron, 2000, 2004; Baron and Markman, 2003; Gartner, 1985; Hitt et al., 2001; Lumpkin and Dess, 1996; Shane and Venkataraman, 2000; Sternberg, 2004). These studies relate to entrepreneurs' traits and capabilities, such as their strong need for achievement, tolerance for ambiguity, intuition, flexibility, self-confidence and even self-efficacy, rather than examining their emotional capabilities, such as emotional intelligence (Rhee and White, 2007).

Recent studies call for closer attention to entrepreneurs' emotional behavior resulting from their strong feelings of psychological ownership and identification with their venture (Goss, 2005; Lindgren and Packendorff, 2009; Pierce and Morgan, 1991; Pierce, Kostova

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and Dirks, 2001; Cardon et al., 2005; DeTienne, 2010; Townsend et al., 2009). It is further argued that the role of affects in the entrepreneurship arena is under-examined. For example, Goss (2005: 619) asserted that, "one of the most notable omissions is the role of emotion which, despite its growing significance in other areas of organizational theory, has made virtually no impact within the field of entrepreneurship." It is further argued that "what seems more interesting to researchers is just how much influence does EI have on the concepts that remain ambiguous areas in the literature. Entrepreneurship remains one of these areas, despite its apparent attraction to society as a 'hot' topic. What little is known about the truth behind entrepreneurial success has not previously been explored from an emotions perspective" (Cross and Travaglione, 2003: 227). While the role of EI in management is extensively acknowledged as having influence on different levels of organizational performance in other fields (Schutte, Schuettelpelz and Malouff, 2001; Rosete and Ciarrochi, 2005; Goyal and Akhilesh, 2007; Stubbs and Wolff, 2008), a review of the literature reveals very few studies that focus specifically on entrepreneurs' EI and its impact on new ventures' growth (Cross and Travaglione, 2003; Rhee and White, 2007).

In the same vein, entrepreneurs' exclusive managerial competencies are conceptually acknowledged (Stevenson and Gumpert, 1985; Stevenson, Roberts and Grousbeck, 1985; Brown, Davidsson and Wiklund, 2001; Gupta, MacMillan and Surie, 2004). However, relatively few empirical studies focus directly on entrepreneurs' leadership orientation (Ardichvili, 2001; Jensen and Luthans, 2006b; Jensen and Luthans, 2006a) and its impact on new ventures' growth (Baum, Locke and Kirpatrick, 1998; Baum, Locke and Smith, 2001; Ensley, Pearce and Hmieleski, 2006). Thus, while there are some indications that entrepreneurs are more transformational leadership-oriented, little attention has been made in the literature to the relations between entrepreneurs' emotional capabilities, their managerial orientation and growth.

nation of the interrelations between entrepreneurs' EI, transformational leadership behaviors and new ventures' growth. It is argued that, although the current literature refers to entrepreneurs' EI and transformational leadership behaviors as two distinct research areas, these fields of research have much in common. This is especially so, since both rely on emotional competencies that relate to the way in which entrepreneurs perceive their own feelings and their ability to motivate their followers based on emotional identification. This connectedness has an important relevance in the field of entrepreneurship, especially due to the challenges entrepreneurs face in managing dynamic internal and external changes (Kuratko, 2007).

Emotional Intelligence of Entrepreneurs

Emotional intelligence relates to the ability to identify and express emotions, emotional adjustment and using emotions for self-motivation and as a means to motivate others (Salovey and Mayer, 1990; Golman, 1995). According to Schutte et al. (2008: 103), emotional intelligence is described as "consisting of the interrelated abilities of effectively perceiving emotion in the self and others, using emotion to enhance decision making, understanding emotion, and regulating emotion in the self and others."

Previous studies provide several definitions to the concept of EI that varies in the degree to which EI is perceived as an ability or as a part of the personality. According to Mayer, Salovey and Caruso (2000: 396), EI is defined as "the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others." More specifically, EI is defined as an emotional

ability that is based on a set of abilities to identify and utilize emotions effectively, such as: (1) the ability to perceive emotion; (2) the ability to integrate emotion to facilitate thought; (3) the ability to understand emotions; and (4) the ability to manage emotions (Mishra and Mohapatra, 2009). Other definitions perceive EI as but one dimension of multiple intelligences (Golman, 1995) and as an ability that is similar to cognitive intelligence (Mayer, Salovey and Caruso, 2004). EI is also perceived as social intelligence that enables greater understanding of one's own and others' feelings and emotions, thereby providing information that can guide actors' thinking and actions (Salovey and Mayer, 1990). Recently, it was suggested by Cherniss (2010) that EI should be seen differently from emotional and social competences. However, in contrast to cognitive and social intelligences, EI can be seen as a trait, competency or skill that consists of "latent potential within the individual and that this potential may or may not be displayed in the individual's everyday functioning" (Schutte et al., 2008: 103).

While some definitions relate to EI as a latent part of one's personality, some scholars argue that emotional intelligence can be seen as emotional competence that can be learned over time (Golman, 1995, 1998; Grove, McEnrue and Shen, 2008; McEnrue, Grove and Shen, 2009). This attitude is based on the assumption that EI also relates to self- and social awareness, as well as to relationships' management that can be learned and improved over time (Webb, 2009).

Based on the above-mentioned studies, it seems that entrepreneurs' EI has an important impact on their managerial capabilities, especially as higher EI enables a better understanding of one's own and others' emotions, and effective management of these emotions. Nevertheless, to the best of this author's knowledge, there are very few studies that focus on entrepreneurs' EI. For example, based on a qualitative study conducted with five entrepreneurs, Cross and Travaglione (2003) found that, overall, entrepreneurs demonstrated high emotional intelligence. In another study, it was found that entrepreneurs ranked trustworthiness the highest among 18 emotional competencies, such as: self-confidence, achievement orientation, service orientation, change catalyst, collaboration, and teamwork (Rhee and White, 2007).

Emotional Intelligence and Performance

Recently, it was argued that IQ measures fail to take account of performance among top managers and senior leaders, mainly because the performance of top managers relies on their emotional intelligence and social capabilities (Webb, 2009). This argument is consistent with Golman's argument that EI can lead to "outstanding performance" (Golman, 1998: 25). In the same vein, it has also been suggested that higher EI enables employment of emotions in organizations in a way that has an impact on organizational performance and job performance (Cherniss, 2001, 2010). For example, previous studies found that EI has an influence on occupational setting (Mishra and Mohapatra, 2009), leadership effectiveness (Rosete and Ciarrochi, 2005), work teams and team performance (Goyal and Akhilesh, 2007; Stubbs and Wolff, 2008), cognitive tasks performance (Schutte, Schuettpeitz and Malouff, 2001), and greater adaptability and emotional functioning, such as involvement in high emotional affordance situations (Schutte et al., 2008). It was also found that emotional awareness is associated with emotional regulation and, therefore, with higher performance. Seo and Barrett (2007) found that individuals who better understood their feelings were more successful in regulating them and, therefore, achieved higher decision-making performance.

Recently, it was conceptually suggested that entrepreneurs' affects are important, as they have to cope with an unpredictable environment and with ongoing changes that require frequent emotional and cognitive adjustments. As such, it has been further suggested that entrepreneurs' affects influence their perceptions, memories and cognitions in a way that impacts the entrepreneurial process and outcomes (Baron, 2008). Other conceptual studies relate to entrepreneurs' affects by using a motherhood metaphor (Cardon et al., 2005) or by drawing connections between entrepreneurs' emotional feelings, such as love and passion, and opportunity recognition, venture creation, and growth (Cardon, 2008; Cardon et al., 2009). However, while passion can be considered as a personal trait that is interrelated to entrepreneurial behavior, such as creative problem solving, persistence and absorption capabilities (Cardon et al., 2009), entrepreneurs' EI is more closely related to entrepreneurs' emotional behavior and to the way in which they are able to perceive, integrate and understand emotions, as well as to the manner in which they manage their emotions in an environment of constant change.

There are relatively few studies that focus on an empirical examination of entrepreneurs' affects and their impact on new ventures' performance. For example, it was found that entrepreneurs' passion has an indirect effect on venture growth (Baum and Locke, 2004; Baum, Locke and Smith, 2001). In another study, it was found that, by emphasizing "love," founders increase their employees' attachment to the venture and reduce the likelihood of organizational failure (Baron and Hannan, 2002). Cross and Travaglione (2003) suggest that entrepreneurs have extraordinary levels of EI, as demonstrated by entrepreneurs' ability to utilize emotions when dealing with problem solving and in day-to-day functioning. They assert that, "emotional reactions to situations, such as criticism and rejection, ambiguity and stress, appear to be utilized to achieve greater results and persistence" (Cross and Travaglione: 226). Another study finding indicated that entrepreneurs with higher EI have a greater ability to control emotions and, therefore, demonstrate more effective self-leadership (D'Intino et al., 2007). Finally, EI was found to be associated with higher performance at the organizational level. Recently, it was found that leaders' EI was positively associated with organizational effectiveness (Malik, Danish and Munir, 2011). In addition, it was found that the EI of new immigrants in Austria was associated with the volume of sales (Fertala, 2009). Following the above-mentioned literature, entrepreneurs' emotional intelligence is expected to be positively associated with performance at the organizational level. It is therefore hypothesized that:

H1: Entrepreneurs' EI will be positively associated with new ventures' growth.

Transformational Leadership

Leadership is defined as "the process whereby one individual influences other group members toward the attainment of defined group or organizational goals" (Greenberg and Baron, 2003: 471). Avolio and Bass (1991) differentiate between transactional and transformational leadership. Transactional leadership focuses on exchange relationships between leaders and their followers. Such exchange relationship is based on extrinsic rewards, such as motivations for performance based on contingent reward and management by expectation (Bass and Avolio, 1993). On the other hand, transformational leadership is based on a participative process and intrinsic motivations, through which followers are inspired by leaders to self-identify with the organizational vision and objectives. According to Avolio, Bass and Jung (1999), transformational leadership is characterized by three main aspects of behavior: charismatic-inspirational leadership, intellectual stimulation and individualized

consideration. Transformational leaders integrate creative insight, persistence and energy, intuition, and sensitivity to the needs of others (Bass and Avolio, 1993). Transformational leadership refers also to leaders' ability to inspire their followers, build team spirit, provide meaning and challenge their followers' work, based on moral standards and integrity. Transformational leaders also challenge their followers' thoughts, imagination and creativity (Avolio et al., 2004).

Scholars have suggested that transformational leadership is associated with a family-based organizational culture, long-term commitment, and the sharing of mutual interests, values and norms between leaders and followers (Bass and Avolio, 1993). It has been further argued that followers' identification is enhanced by transformational leaders, because the leaders increase their followers' sense of worth and self-identity in a way that contributes to their internal commitment toward achieving collective goals (Bass, 1998; Kark and Shamir, 2002). Following the leadership literature, it seems that transformational leadership increases followers' psychological ownership, since it provides a link between their self-identity and the organizational desire for success (Pierce and Morgan, 1991; Pierce, Kostova and Dirks, 2001).

Entrepreneurs' Leadership Orientation

Entrepreneurs are considered to possess the personal attributes that enable them to lead others (Gupta, MacMillan and Surie, 2004; Ensley, Pearce and Hmieleski, 2006). According to Schumpeter (1965: 511), entrepreneurial activity is facilitated by entrepreneurs displaying unique leadership characteristics: "Leadership, that is, as a special kind of function... the facts alluded to create a boundary beyond which the majority of people do not function promptly by themselves and require help from the minority." Entrepreneurs are considered to be "promoters" who have a proactive orientation toward opportunity recognition, strategic planning, resource utilization and organizational culture (Stevenson and Gumpert, 1985; Stevenson, Roberts and Grousbeck, 1985; Ardichvili, 2001; Brown, Davidsson and Wiklund, 2001).

The above-mentioned literature makes a connection between entrepreneurs' unique capabilities and their "natural" leadership orientation. Consistently, Gupta, Macmillan and Surie (2004: 242) suggest that entrepreneurial leadership is defined as "leadership that creates visionary scenarios that are used to assemble and mobilize a "supporting cast" of participants who become committed by the vision to the discovery and exploitation of strategic value creation."

Conceptually, it has been suggested that entrepreneurial leadership is based on five leadership roles: framing the challenge, absorbing uncertainty, clearing the path, building commitment and specifying limits (Gupta, MacMillan and Surie, 2004). Empirically, it has been found that entrepreneurs' in Russia demonstrate transformational leadership based on charismatic behavior (Ardichvili, 2001). Another study suggested that successful entrepreneurs in the high-tech arena apply two distinct leadership competencies: functional competencies that refer to performance subsystems (operations, finance, marketing and human resources) and self-competencies that refer to intellectual integrity, a focus on firm targets and utilization of external advisors (Swiercz and Lydon, 2002). It was further found that entrepreneurs' authentic leadership, as perceived by their followers, is associated with job satisfaction, organizational commitment and work happiness (Jensen and Luthans, 2006b). In another study, Jensen and Luthans (2006a) found that entrepreneurs' self-perception of authentic leadership was positively associated with their psychological capital, which in turn refers to their optimism, resiliency and hope. Recent study findings indicate that

transformational leadership has a positive direct impact on the innovation, growth and profitability of small and medium enterprises (Matzler, et al., 2008).

Emotional Intelligence and Transformational Leadership

EI is found to be associated with managers' ability to motivate their followers based on transformational leadership (Sosik and Megerian, 1999; Rubin, Munz and Bommer, 2005). There are two principal explanations for the positive relations found between EI and transformational leadership: firstly, leaders with transformational leadership orientation have a higher degree of EI and can therefore lead by creating a connection between the organizational vision and their followers' commitment, based on internal identification rather than on external control (Stein et al., 2009); secondly, higher EI is demonstrated by an ability to recognize emotions and positive affects that contribute to the creation of agreeableness that is positively associated with transformational leadership (Rubin, Munz and Bommer, 2005). Similarly, it was found that individuals who better understood their feelings were more successful in regulating them and therefore achieved higher decision-making performance (Seo and Barrett, 2007).

Other studies found that the EI of managers increases their innovativeness and effectiveness, because they have a high level of self-awareness and interpersonal skills (Yuvaraj and Srivastava, 2007). In another study, it was found that the outstanding performance of principals of urban schools was associated with higher emotional intelligence, social skills and an ability to adapt to external changes in the environment (Williams, 2007). Stein, et al. (2009) found in their study that top executives have higher emotional intelligence than the normative population, and that this is associated with leading high profit-earning companies. In addition, these scholars also found that top executives with higher emotional intelligence perceive strategic challenges with respect to managing growth, managing others, and training and retaining employees as being easy. A recent meta-analysis suggests a strong relationship between EI and transformational leadership, especially when data is based on same source rating (Harms and Credé, 2010).

In their conceptual study, D'Intino et al. (2007) suggest entrepreneurs' self-leadership motivation is associated, among other things, with their happiness, optimism, personality, locus of control, self-monitoring, and need for autonomy, as well as with their emotional intelligence. However, in contrast to the self-leadership construct that focuses on entrepreneurs' behavior as a unit of analysis, less attention has been paid in the literature to entrepreneurs' emotional intelligence and its interrelations with transformational leadership and growth. In this paper, it is argued that entrepreneurs' EI is important for their ability to lead for the following reasons. First, in establishing a new venture, entrepreneurs are passionate and emotionally driven (Cardon et al., 2009). Understanding their own and others' feelings may be important for entrepreneurs' ability to share their ideas with others and obtain financial and non-financial resources at the incorporation and growth stages. In addition, entrepreneurs are also expected to demonstrate transformational leadership behavior in the context of dynamic environments. Consequently, entrepreneurs need to set up vision and intellectually stimulate their followers in order to cope with uncertainties and frequent changes (Ensley, Pearce and Hmieleski, 2006).

The current literature relates to transformational leadership of entrepreneurs as one construct. However, in this study, transformational leadership of entrepreneurs is examined with relation to intellectual stimulation and individualized consideration and charismatic-inspirational leadership, as suggested by Avolio, Bass and Jung (1999). This distinction

seems to be important in order to understand the interrelations between entrepreneurs' EI and leadership behaviors. It is therefore hypothesized that:

H2: Entrepreneurs' EI will be positively associated with their ability to demonstrate intellectual stimulation and individual consideration behaviors.

H3: Entrepreneurs' EI will be positively associated with their charismatic-inspirational behavior.

Leadership Orientation and Performance

Previous studies have shown that transformational leadership is found to be associated with higher performance (Sosik, 1997; Jung and Avolio, 2000). For example, it has been found that psychological empowerment mediates the relationships between transformational leadership and organizational commitment (Avolio et al., 2004). In other studies, it has been found that the effect of transformational leadership on individual performance is mediated by the interaction of followers' identification with the work unit and self-efficacy, as well as followers' subjective perceptions regarding the adequacy of processes and procedures for performing work tasks (Walumbwa et al., 2005; Walumbwa, Avolio and Zhu, 2008).

Some scholars argue that entrepreneurial leadership should not be considered as being different from other types of leadership (Vecchio, 2003). However, when considered in the context of entrepreneurial firms, transformational leadership seems to be important since entrepreneurs have to cope with exceptional demands for change in the product, market and the organizational structure. This process is usually associated with continuous rethinking about the venture's strategy and requires vision creation (Tichy and Devanna, 1986). Accordingly, it was suggested that entrepreneurs' leadership orientation has an impact on their ability to effectively exploit new opportunities (Shane and Venkataraman, 2000; Gupta, MacMillan and Surie, 2004).

In contrast to institutionalized firms, entrepreneurs do not have pre-existing structural routines and cultural norms. Furthermore, they also have to define their vision and goals and motivate their followers toward organizational outcomes (Ensley, Pearce and Hmieleski, 2006; Jensen and Luthans, 2006a). Recently, it was found that in entrepreneurial firms, the CEO's ability to articulate vision was positively related with higher subordinates' engagement, while it does not have any remarkable effect on subordinates' engagement in professionally managed companies (Papalexandris and Galanaki, 2009).

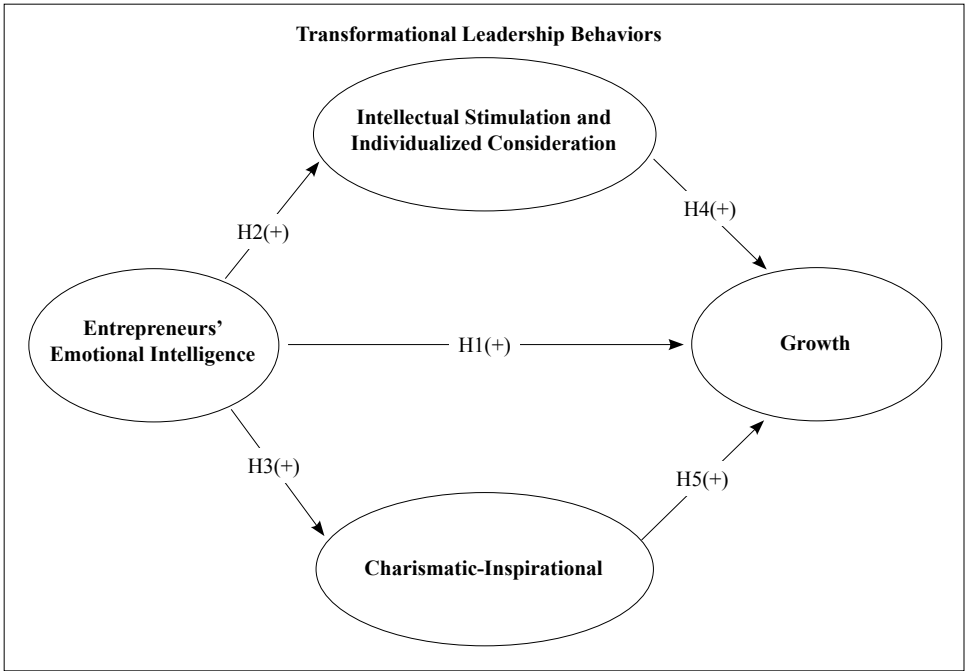
Previous studies that examined the interrelations between entrepreneurs' leadership and growth have suggested that environmental dynamism moderates the effects of entrepreneurs' leadership behavior on new venture performance. It was found that, in high levels of environmental dynamism, transformational leadership behaviors improve performance (Ensley, Pearce and Hmieleski, 2006). Other studies also found that vision attributes (such as brevity, clarity, abstractness, challenge, future orientation, stability and desirability) and direct vision communication (through verbal and written communication) affect a new venture's growth (Baum, Locke and Kirkpatrick, 1998; Baum, Locke and Smith, 2001). In a follow-up study, Baum and Locke (2004) found that goals, self-efficacy and the communicated vision mediated through the entrepreneur's passion, tenacity and resourcefulness have a direct impact upon venture growth. Accordingly, it is hypothesized that entrepreneurs' transformational leadership behaviors will be positively associated with new ventures' growth as follows:

H4: Entrepreneurs' intellectual stimulation behavior will be positively associated with growth.

H5: Entrepreneurs' charismatic-inspirational behavior will be positively associated with growth.

Figure 1 summarizes the proposed research model and hypothesis.

Figure 1. The Interrelations between Entrepreneurs' Emotional Intelligence, Transformational Leadership and Growth.



Methodology

This study is based on data collected from 99 entrepreneurs during 2006-07. Fifty-three of the firms operated in the high-tech field, while the other 46 firms operated in the area of real estate, marketing and advertising. The initial data collection objective was to attract successful high-tech entrepreneurs who are recognized as belonging to the top 50 entrepreneurial firms, as listed each year by Deloitte Touche, CPAs in Israel. However, due to a low response rate, probably because recognized entrepreneurs are very busy, data was collected from other high-tech firms, using the lists of the Israeli Venture Capital Research Center. In addition, data was also collected from business entrepreneurs who are active in other fields, such as real estate, marketing and advertising. These entrepreneurs attended the annual Globes Business Conference in 2007 (organized by the Globes business newspaper) and agreed to participate in the study.

Measures

This study is based on a self-assessment report by the entrepreneurs. Previous studies have shown that self-reported data have greater reliability than assumed (Fox and Dinur, 1988;

Furnham and Stringfield, 1994). In addition, it is also argued that the self-reported data of a subject with high self-awareness present a narrower gap between declared and actual behavior (Atwater and Yammarino, 1992; Bass and Yammarino, 1991; Carless, Mann and Wearing, 1988). Accordingly, it is also argued that entrepreneurs are usually characterized by high self-awareness and, therefore, self-reported data are likely to have greater reliability (Rhee and White, 2007). This argument is consistent with the argument of Schutte et al. (2008) that self-reported measures can be used to assess emotional intelligence. Furthermore, it is also argued that single-source data is not an issue when different methods are applied. Avolio, Yammarino and Bass (1991: 584) asserted that, "single-source effects are not necessarily an either-or issue...The basis for investigation is that single-source information is not necessarily artifactual, particularly when different methods, including different levels of analysis, constructs, or time intervals between the measurement of constructs are used." Accordingly, the three scales used in this study relate to the different constructs in a way that reduces the single-source bias. In addition, in order to increase construct reliability, all constructs were examined twice by using CFA (implemented in AMOS; Arbuckle, 1997) and Cronbach's alpha.

Emotional intelligence

Emotional intelligence was measured by the Assessing Emotions Scale (Schutte et al., 1998) based on the Mayer, Salovey and Caruso (2000) definition of EI (Chreniss, 2010). The 33-item scale assesses how well respondents typically identify, understand, regulate, and harness emotions both in themselves and others. Items were rated on a five-point scale (1 indicated "strongly disagree"; 5 indicated "strongly agree"). This measure has been used in different studies (Schutte et al., 2008; Mishra and Mohapatra, 2009). In previous research, the scale was found to have an internal consistency of between 0.87 and 0.90 (Chreniss, 2010). In this study, three items did not correlate with others and therefore were omitted from the scale. Cronbach's alpha for the EI construct scale is .864 indicating high reliability. Furthermore, to validate the EI construct, a confirmatory factor analysis was conducted using a structural equation model. The EI construct has very good fit indications: $\chi^2 = 10.15$ ($df = 5$, $p = .071$), goodness-of-fit indexes: NFI=.96, NNFI=.95, CFI=.98).

Transformational leadership

Transformational leadership was measured using a Multifactor Leadership Questionnaire Form 5x-Short (Bass and Avolio, 1995). Entrepreneurs were requested to indicate how frequently they behave as leaders on a five-point scale ranging from 1, indicating "not at all", to 5, indicating "frequently, if not always." According to Avolio, Bass and Jung (1999), transformational leadership behaviors originally divide into three different behaviors: inspirational leadership, individualized stimulation, and demonstration of charisma. However, factor analysis revealed that transformational leadership behavior loaded on two factors: Charisma-inspirational (nine items, with a loadings range between .595 and .773) and intellectual stimulation and individualized consideration loaded on one factor instead of two (five items, with a loadings range between .590 and .800).

With regard to entrepreneurs' leadership behavior, the loading of intellectual stimulation and individualized consideration on one factor seems to be reasonable, because entrepreneurs may have a close acquaintance with their followers. Therefore, they may perceive the way in which they provide intellectual stimulation (i.e., by challenging their followers' way of thinking) and the way in which they pay attention to individual considerations (i.e., by individual mentoring of followers) as interconnected aspects. Similar constructs were

identified by Avolio, Yammarino and Bass (1991). In addition, this understanding is also supported by Avolio, Bass and Jung (1999), who asserted that it might be hard to differentiate between transformational leadership constructs, because the survey includes behaviors, attributions and impact items to represent charismatic leadership. This might explain why different constructs of transformational leadership were found in different samples. In addition, it should also be noted that previous studies used the transformational leadership construct without differentiating between its component factors (Avolio, Bass and Jung, 1999; Walumbwa et al., 2005; Ensley, Pearce and Hmieleski, 2006; Walumbwa, Avolio and Zhu, 2008). Following Podsakoff et al., (2003), exploratory factor models with formative indicators relate to constructs driven by the data. The constructs of transformational leadership meet the following criteria of formative indicator as distinguished by Podsakoff et al., (2003): (1) change in the indicators would cause changes in the construct; (2) dropping an indicator might alter the conceptual domain of the construct; (3) the indicators do not necessarily covary with each other; and (4) the indicators are not interchangeable and therefore do not necessarily have the same antecedents and consequences.

The Cronbach's alpha for the charisma-inspirational construct is .914 indicating high reliability. Similarly, Cronbach's alpha for intellectual stimulation and individualized consideration is .865. In addition, CFA analysis indicated that these constructs have high fit indices: Chi-Square 85.08 ($df=64$, $p=.040$), NFI=.90, NNFI=.95, CFI=.97, RMSEA=.058. According to Hooper, Coughlan and Mullen (2008), the Chi-Square cannot be the only fit indicator, especially in small samples when other indices are high.

In addition, discriminant validity analysis was made to examine the average amount of variation in order to ensure that the latent constructs are able to explain by the observed variables to which they are theoretically related (Fornell and Larcker, 1981; Anderson and Gerbing, 1988; Farrell and Rudd, 2009). The composite reliability (CR) of EI and both transformational leadership constructs (intellectual stimulation and individualized consideration and charismatic-inspirational) was above 0.7, indicating that the constructs are well measured by its indicators. The average variance extracted (AVE) of EI and transformational leadership constructs were above .05, indicating that the EI construct is valid.

Performance

The measurement of performance in new ventures usually relies on several measures, especially since a new venture's performance cannot be easily measured in its early stages. It is argued that collecting data on the performance of new ventures is often difficult due to a lack of historical information and accessibility (Dess and Robinson, 1984; Brush and VanderWerf, 1992; Chandler and Hanks, 1993). In this study, the growth measure was based on the mean of sales growth and growth in employees over the past five years. These measures provide a robust indication for growth based on indicators that are relevant to the entrepreneurship field. Similar use of sales growth over time was employed recently by Ensley, Pearce and Hmieleski (2006). The combined measure of performance and all indices met the respective criteria $\chi^2 = 28.17$ ($df=26$, $p=.35$), NFI=.93, NNFI=.98, CFI=.99, RMSEA=.029 (below .05). In addition, Cronbach's alpha for the growth construct scale is .86, indicating high reliability.

Control variables

Previous studies have found that entrepreneurial human capital such as education and industry-specific experience was associated with performance of new ventures (Bruderl, Preissendorfer and Ziegler, 1992; Gimeno et al., 1997). Thus, the control variables employed

entrepreneurs' education and the founder's previous managerial experience in start-ups management as to examine if they have an influence on the research model. In addition, it was also found that performance of new ventures may also be influenced by the field in which the firm operated (Brush and Chaganti, 1998). Accordingly, the venture field was examined as a dummy variable, when high-tech firms were coded as '0' and low-tech firms were coded as '1'. The firms' age is also considered as an indicator for new ventures' performance and survivability (Chandler and Hanks, 1993; Low and Abrahamson, 1997; Ensley, Pearce and Hmieleski, 2006). Therefore, age of the firm was also considered as a control variable.

Findings

Table 1 shows significant positive correlations between growth and transformational leadership behaviors: intellectual stimulation and individualized consideration (.391**) and charismatic-inspirational (.285*). In addition, growth is found to be positively correlated with field (.242*), which becomes non-significant in the regression analysis. Entrepreneurs' emotional intelligence has no correlations with growth. However, positive correlation is found between entrepreneurs' EI and their ability to demonstrate intellectual stimulation and individualized consideration (.224*).

Table 1. Means, Standard Deviations, and Correlations for Study Variables									
	Mean	SD	1	2	3	4	5	6	7
1. Education	2.40	.86							
2. Experience in start-up management	2.32	2.94	.106						
3. Field	.54	.50	-.010	.232*					
4. Age of firm	2.36	1.10	-.055	-.041	.366**				
5. Emotional intelligence	3.75	.54	.071	.023	-.125	.105			
6. Intellectual stimulation and individualized consideration	3.49	.84	.166	-.022	.000	.058	.224*		
7. Charismatic-inspirational	3.60	.78	.041	.071	.089	.006	.157	.738**	
9. Growth	84.61	89.39	.083	-.077	.242*	-.200	.027	.391**	.285*
* p<.05 ; ** p<.01; n=99.									

Table 2 shows the results of the hierarchical regression analysis. The first column shows the results when only the control variables are included in the model; the second column shows the results when entrepreneurs' EI and the control variables are included; the third column shows the results when entrepreneurs' EI, transformational leadership behaviors (intellectual stimulation and individualized consideration and charismatic-inspirational behaviors) and the control variables are included. The results shows that all the control variables examined and entrepreneurs' EI do not explain entrepreneurial firms' growth. As

shown in the third column, entrepreneurs’ charismatic-inspirational behavior is significant and explains 15.1% of the level of growth.

Table 2. Hierarchical Regression of the Influence of Entrepreneurs’ EI and Leadership and Growth			
	Model 1	Model 2	Model 3
<i>Control Variables</i>			
Education	.106	.103	.089
Experience in start-up management	-.118	-.124	-.116
Field	.208	.208	.173
Age of the firm	.131	-.136	-.124
<i>Independent Variables</i>			
Emotional intelligence		.054	.024
Intellectual stimulation and individualized consideration			-.016
Charismatic-inspirational			.373*
Model F	2.00	1.63	3.06*
R-squared	.094	.097	.225
Adj-R-squared	.047	.038	.151
Change in R-squared		.003	.128**
*p<.05; **p<.01; n=99.			

Table 3 shows the results of the structural equation modeling (without control variables). The findings indicate that relations between entrepreneurs’ EI and growth is not significant, thus hypothesis 1 is not supported. The results show positive and significant relations between entrepreneurs’ emotional intelligence and intellectual stimulation and individualized consideration ($b=.276$, $p<.01$), thus supporting hypothesis 2. Similarly, positive and significant relations are found between entrepreneurs’ emotional intelligence and entrepreneurs’ charismatic-inspirational behaviors ($b=.227$, $p<.05$), thus supporting hypothesis 3. The relations between intellectual stimulation and individualized consideration behaviors and growth are found to be not significant, thus not supporting hypothesis 4. Similar to the results of the regression, it is found that the relations between entrepreneurs’ charisma-inspirational behaviors and growth is significant ($b=.420$, $p<.01$), thus supporting hypothesis 5. The fit indices provide good fit between the model and the data (Chi-Square=26.70 ($df=19$, $p>.05$), NFI=.94, NNFI=.95, CFI=.98, RMSEA=.064).

Table 3. Results of Structural Equation Model	
Paths	Path Coefficients
Emotional intelligence ---> Charismatic-inspirational	.227*
Emotional intelligence ---> Intellectual stimulation and individualized onsideration	.276**
Emotional intelligence ---> Growth	.019
Intellectual stimulation and individualized consideration ---> Growth	-.051
Charismatic-inspirational ---> Growth	.420**
Chi-Square=26.70 (df=19, p=.112) NFI=.94, NNFI=.95, CFI=.98, RMSEA=.064	
*p<.05; **p<.01, ***p<.001; n=99.	

To conclude, No support is found for hypotheses 1 that posits a positive association between entrepreneurs' EI and growth. The SEM analysis provides an indication for positive relations between entrepreneurs' EI and transformational leadership behaviors (hypothesis 2 and 3). Both the regression and the SEM analysis provide support for hypothesis 5, suggesting positive relations between charismatic-inspirational behaviors and growth.

Discussion

Entrepreneurs are considered as having unique capabilities that enable them to discover new opportunities (Shane and Venkataraman, 2000). However, the subject of successful exploitation of new opportunities remains somewhat vague. Previous studies called for closer examination of entrepreneurs' affects and their impact on new ventures' growth. However, despite the fact that these aspects have extensive representation in explaining growth in other organizational arenas, the interrelations between entrepreneurs' EI, transformational leadership behaviors and growth is under-examined in the entrepreneurship literature (Cross and Travaglione, 2003; Jensen and Luthans, 2006b; D'Intino et al., 2007). Thus, the findings of this study provide, for the first time, support for the interrelations between entrepreneurs' EI and transformational leadership behaviors, and particularly between entrepreneurs' charismatic-inspirational behavior and growth. These findings add to the literature by providing additional understanding as to how entrepreneurs' affects impact managerial processes and growth.

Entrepreneurs' Emotional Intelligence and Growth

Although it is suggested that entrepreneurs have high EI (Cross and Travaglione, 2003; Rhee and White, 2007), the findings of this study indicate that it has an indirect influence on growth. As presented in the SEM analysis (Table 3), the findings suggest positive relations between entrepreneurs' EI and their intellectual stimulation and individualized consideration as well as charismatic-inspirational behaviors. However, entrepreneurs' EI have an indirect impact on growth. These findings can be explained in two complimentary ways: firstly, it is suggested that entrepreneurs with higher EI have better abilities to perceive their own and others' emotions. In addition, they have better abilities to use emotions in order to challenge their followers to consider alternative ways of thinking and courses of action, as well as in mentoring them individually (Salovey and Mayer, 1990; Schutte et al., 2008). Entrepreneurs with higher EI influence their followers' psychological ownership, because they encourage them to be involved actively and thus contribute to a closer attachment between their followers' self-identity and the organization (Pierce and Morgan, 1991; Pierce, Kostova and Dirks, 2001); secondly, by delegating control and enabling their followers to contribute to decision making, entrepreneurs demonstrate managerial trustworthiness behavior, which constitutes trust relations and forms a basis for relations management (Whitener et al., 1998).

The indirect connections that were found between entrepreneurs' EI and growth seem to be linked to the argument that EI can be seen as "latent potential" that may be displayed in the individual's functioning (Schutte et al., 2008). The role of EI in the entrepreneurship arena is therefore demonstrated by entrepreneurs' ability to lead their followers through environmental dynamism and uncertainties related to the product and the market (Ensley, Pearce and Hmieleski, 2006).

Previous studies suggested that entrepreneurs' affects influence their perceptions, memories and cognitions in a way that influences the entrepreneurial process (Baron, 2008). In addition, it was also suggested that entrepreneurs' emotional feelings and passion may be

interrelated to entrepreneurs' behavior and venture growth (Cardon, 2008; Cardon et al., 2009). In a broad sense, entrepreneurs' EI is an emotional ability and, therefore, should be considered as part of entrepreneurs' affects. However, the above-mentioned studies refer to affects as an antecedent capability (either as a motivator or as an aspect of passion), which have an influence on opportunity recognition and new venture creation. This study's findings extend the current literature by demonstrating that entrepreneurs' affects, as displayed by their EI (i.e., their ability to understand their own and others' feelings and use these emotions as a basis for relations management), are related to entrepreneurs' managerial skills and have an impact on outcomes. Furthermore, the interrelations between entrepreneurs' EI and transformational leadership behaviors mean that entrepreneurs' emotional capabilities have implications on their ability to manage their followers' emotions. It is suggested that when entrepreneurs are able to share emotions with their followers, they emotionally transfer their affects and passion to their followers. Such emotional transference contributes to their followers' emotional attachment in a way that increases their psychological ownership, identification and commitment, both at the individual and at the firm levels. As this study's findings indicate, these aspects have an indirect impact on growth.

Entrepreneurs' Transformational Leadership and Growth

The findings of this study indicate that entrepreneurs' demonstration of charismatic-inspirational behaviors impact growth ($b=.420$, $p<.01$). This finding is consistent with previous studies' findings (Baum, Locke and Kirkpatrick, 1998; Baum, Locke and Smith, 2001; Ensley, Pearce and Hmieleski, 2006). The findings also indicate positive and significant relations between the two transformational leadership behaviors and entrepreneurs' EI (see Table 3). Although the two examined transformational leadership behaviors are interrelated, they impact growth differently. Entrepreneurs' charismatic-inspirational behaviors impact growth directly, as these behaviors are associated with vision setup and demonstrate of optimism and belief in the venture success. By demonstrating charismatic-inspirational behaviors, entrepreneurs are able to extend their circles of influence by *enlisting* their followers' emotions to believe in the venture's vision. That is, they create broader support for their passion by developing engagement between their followers' self-identity and the venture objectives. On the other hand, demonstration of intellectual stimulation and individualized consideration behaviors require more particular encouragement and mentoring at the individual level and therefore might be less associated directly with growth.

Limitations, Implications and Future Research

The study findings' generalization is somewhat limited as it is based on a small and diversified sample. In addition, the data are based on entrepreneurs' self-assessment reports. While self-reported data are recognized to be reliable, future research should take into consideration multiple data collection methods to increase the findings' validity. In addition, while the study relates to entrepreneurs' EI and transformational leadership, it gives no indication regarding entrepreneurs' passion and self-efficacy or environmental dynamism. Further research should also examine the impact of entrepreneurs' EI on their followers' psychological ownership and commitment. In addition, using a combination of quantitative and qualitative research can lead to a better understanding of the interrelations between entrepreneurs' EI and transformational leadership. It is also suggested that longitudinal research be conducted to examine if and how entrepreneurs' EI and leadership orientation evolve over time, and how they impact entrepreneurial firms' growth. Finally, the findings

of this study call for further examination of the interrelations between entrepreneurs' EI and leadership orientation in other contexts.

The study findings have some practical implications for entrepreneurs, as well as for venture capitalists. While entrepreneurs are motivated by opportunity recognition, they should take into consideration the interrelations between their emotional capabilities and leadership orientation in order to increase the odds of their venture's success. As to venture capitalists, the study findings stress the fact that paying attention to entrepreneurs' human capital, in terms of education and previous managerial experience as a criterion for investment, is not sufficient. Therefore, entrepreneurs' EI and managerial skills should also be taken into consideration, since higher EI and transformational leadership impact entrepreneurs' ability to better cope with environmental dynamism and increase growth probabilities. Alternatively, venture capitalists should take into consideration how to support entrepreneurs, so as to increase their EI and mentor their managerial behaviors.

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