

WHAT MAKES ITALIAN SME ENTREPRENEURS SUCCESSFUL? THE LEVERAGE EFFECT OF RELATIONAL COMPETENCIES¹.

by *Fabrizio Gerli, Alessandra Tognazzo, Paolo Gubitta*

1. Introduction

The entrepreneur's demographic, psychological and behavioral characteristics, and his/her managerial skills and technical know-how are often cited as the most relevant determinants of small and medium sized enterprises' (SME) performance, which is usually considered the ultimate criterion to define successful or unsuccessful firms (Chandler & Hanks, 1994; Man, Lau, & Chan, 2002; Man, Lau, & Snape, 2008; Noor, Ramayah, Wilson, & Kummerow, 2010; Rasmussen, Mosey, & Wright, 2011).

Previous research has considered that the capabilities of the individual leader besides influencing job performance can determine present and future interactions as well as business strategies (Morris, Schindehutte, & Allen, 2005) and consequently crucially influence the profitability of the firm (e.g. Man et al., 2002) especially in small and medium sized contexts (Man et al., 2008). However it has never measured their impact on SMEs' performance.

In this paper, we chose to analyze SMEs where the individual leader clearly affects the decision making process and the organization as a whole with the aim of answering the question: what are the entrepreneurs' distinctive competencies that impact on firm performance in SMEs? To reach our goal, first we analyze the portfolio of entrepreneurs' competencies using a set of tools. Second, we identify the distinctive competencies using a comparative multi-dimensional performance criterion. Lastly, we focus our analysis on firm financial performance and its relation to entrepreneurs' distinctive competencies.

¹ *Acknowledgements:* We want to thank the CUA Foundation for the support given to the project. *Presentations of previous versions of the paper:* "Entrepreneurial competencies and firm performance: an empirical study" 12-13 May 2011, VIII International workshop on human resource management, Seville, Spain; "Entrepreneurial competencies and firm performance" 16-17 September 2011, 3rd Workshop Innovative processes in small firms. Challenges beyond the crisis, Urbino, Italy.

This paper is organized as follows. In the first part, we present a literature review to identify the main research gaps and our research questions. We then describe the research design and method applied, and finally we present the results and main implications that can be drawn from our analysis.

2. Background literature and research questions

For a SME, the process of achieving competitiveness is strongly influenced by the key players, defined as the “entrepreneurship factors” in the framework of Horne, Lloyd, Pay and Roe (1992). Also, the Organization for Economic Cooperation and Development (OECD, 1993) study advances the idea that because of the concentration of decision-making power in the owner/manager in a SME environment, his/her role is one of the major determinants of the business competitiveness and of the firm’s overall strategy. Building on Stoner’s (1987) findings, recent studies (Noor et al., 2010; Rasmussen et al., 2011) also support this emphasis on the human factor. According to this research, the key distinctive competencies of small firms are the experience, knowledge and skills of the owners and workers.

Moreover, the literature that has focused on entrepreneurial competencies has considered them as a strategic resource of the business (Hayton & Kelly, 2006) and supports the idea that the individual and, in particular, his/her competency portfolio, has a strong influence on financial performance in SMEs (Chandler & Hanks, 1994; Mitchelmore & Rowley, 2010; Zahra, Nielsen, & Bogner, 1999). This research stream about entrepreneurial competencies and their role in determining performance and growth also underlines that it is of paramount importance to explore the measurement and identification of entrepreneurial competencies and the link with business performance using new and original variables.

In this work, we embrace the North-American definition of competencies, by considering that a competency is defined as a personal characteristic which is causally related to superior or effective performance in a job (Boyatzis, 1982, 2008). Individual competencies are, in fact, as unique as the person that possesses them. They are also difficult for rivals to imitate because of the ambiguity about their origins and their embeddedness in the individual. In particular, we will focus on emotional intelligence competencies (Salovey & Mayer, 1990; Goleman, 1995) which are human talents that result in superior performance (Boyatzis, Goleman, & Rhee, 2000). By defining competencies as higher-level characteristics encompassing personality traits, skills and knowledge, and consequently seeing them as the total ability of the entrepreneur to perform a job successfully, we have a way to analyze entrepreneurial characteristics that have closer links to organizational performance (Man et al., 2002; 2008).

Traditionally researchers have used these tools to explore managerial competencies as drivers of better job performance or to examine what competencies distinguish a corporate manager from an individual who operates his/her own business (Carland, Hoy, Boulton, & Carland, 1984; Chen, Greene, & Crick, 1998; Stewart, Watson, Carland, & Carland 1999). In those works three classical themes are used to describe entrepreneurs: achievement motivation, risk-taking propensity and inclination to innovation.

Here we take a step further by relating entrepreneurs' competencies to their business performance, which can be seen as a broader definition of their job outcome. In fact, although the importance of the entrepreneur on SME outcomes seems to be widely recognized, the role of entrepreneurial competencies on firm performance is still underexplored in the literature and a multi-method quantitative analysis of the entrepreneurial competencies portfolio related to firms' performance is still lacking. For this reason, this research tries to focus on this issue by answering the following questions: a) How can the competency portfolio of a sample of entrepreneurs be measured and what is its internal composition? b) How can entrepreneurs' distinctive competencies (i.e. those competencies more related to a higher *organizational* performance) be identified? c) Which are the entrepreneurs' competencies that impact on their firms' *financial* outcomes?

We try to answer these research questions by building on a preliminary research experience (Camuffo, Gerli, & Gubitta, 2012) and developing this study on a larger sample, a more in-depth analysis of competency portfolios by also considering the dimension of competency *variety* in addition to competency *frequency*, the use of a number of statistical tools to cluster the different competencies and to explore their relationship with SMEs' performance and finally the consideration of SMEs' financial outcomes. In the next section we will describe our research design and methods.

3. Research design and method

In order to answer our research questions, we collected a set of data on a sample of 94 entrepreneurs, whose 91 firms are located in North-East Italy, which is one of the most industrialized parts of Italy with a long tradition of SMEs characterized by entrepreneurs' strong commitment and involvement in their firms' activities. The sample of entrepreneurs we analyzed, whose composition and characteristics are described in the following paragraph, was made up of the participants to the first five editions of the *Master for Entrepreneurs of Small and Medium Enterprises* organized by Fondazione CUOA, one of the most important Italian business schools. It is a part-time MBA program lasting 20 months. The data were collected from the participants to the editions from 2006 to 2010.

There were three criteria for admittance to the MBA program. First, all the entrepreneurs had to own small and medium-sized privately held limited companies, i.e. with fewer than 500 employees, following the broader OECD definition. Second, all their firms had to be located in the North of Italy, which is the most industrialized area in the country. This allowed us also to control for possible local cultural effects. Third, a more stringent definition of SMEs had to be respected. In particular, all entrepreneurs' firms had to comply with the "personal principle", i.e. the company entrepreneur performed a fundamental role in the business decision making process. He/she needed to have a lifelong relationship to the company, a direct contact with the employees, customers and suppliers and an overview of fundamentally all technical, administrative and organizational procedures in the company (Loecher, 2000). Therefore, in all the firms of the MBA participants, the leading family was involved in the management of the business and the leaders were emotionally bound to their firm history and extremely willing to enhance their organizations' performance.

Since our aim was to analyze the impact of the individual characteristics of the entrepreneurs on their firms' performance, we excluded from our sample of MBA participants those who did not want to be surveyed and who did not consent to the collection of the necessary information regarding their firm.

At the beginning of each edition of the MBA program, a process of analysis of the participants' individual competencies was carried out. This was part of a more comprehensive process aimed at supporting the trainees' development, according to a self-directed learning approach (Kolb & Boyatzis, 1970; Kolb, Winter, & Berlew, 1968), by strictly integrating the educational process with some evaluation check-points during the Master Program.

The data gathered from the analysis carried out at the beginning of the MBA were used for the purposes of this study and were then integrated with a set of personal, organizational and performance variables in order to answer our research questions. It is worth considering that competencies, especially those related to emotional intelligence abilities, are considered as higher order traits that tend to be quite stable in time. Moreover, since the data on the entrepreneurs' competency portfolio were collected at the very beginning of their MBA, they couldn't have been influenced by the MBA itself. Our study is composed of three sections. In the first part we analyze the characteristics of the competency portfolio of the sample of 94 entrepreneurs. In the second we explore and discuss the relationship between the competency possessed by the entrepreneurs and their firms' performance. In the third section we explore the impact of the distinctive competencies on the financial outcomes, by considering also a set of individual and organizational control variables.

3.1 Competency Portfolio

In the first section of our study, the entrepreneurs' competency portfolio has been analyzed by using three kind of tools, with the purpose of gathering information on: a) both their technical and emotional competencies, in order to get a complete view of their competency portfolios, and b) both the entrepreneurs' own perception of competency possession and the competency evaluation coming from an external, with the purpose of getting more reliable data (Hansson, 2001). These three tools, which composed the process of competency analysis carried out at the beginning of the MBA program, are described as follows:

Self-Evaluation of Technical Competencies. A set of functional competencies regarding the knowledge of methods and tools that are necessary to manage a firm was evaluated by the sample of 94 entrepreneurs through a questionnaire. In this questionnaire 80 skills were listed and clustered into 17 groups regarding the main areas of managerial knowledge (e.g. strategy, accountancy, finance, control, marketing and sales, business law, human resource management, organization, procurement, production and logistics, project management, information technology, internationalization, etc.). The skills contained in this questionnaire were adapted from the "Functional Skills Profile" questionnaire (Camuffo, Gerli, & Chiara, 2006) by considering the peculiarities of entrepreneurial roles in SMEs, typical of the economic context of North East Italy. Each entrepreneur of the sample had to assign a value to each of the 80 skills according to a scale of perceived possession, from 1 ("I do not possess this skill") to 7 ("I master this skill").

Self-Evaluation of a Set of Emotional Competencies. We used a questionnaire to assess a set of emotional competencies and to this end we adapted the "Emotional Competence Inventory (ECI) 1.0" questionnaire (Boyatzis et al., 2000; Byrne et al., 2007) by adding one cluster related to cognitive competencies, taken from the ECI "University version" (Boyatzis & Goleman, 2001). The resulting questionnaire was made up of 72 behaviors organized into 24 competencies and grouped into 5 clusters (*Self-awareness, Self-management, Social awareness, Relationship management, and Cognitive competencies*). Each entrepreneur of the sample had to assign a value to each of the 72 behaviors in terms of the extent to which he/she expressed that behavior, on a scale from 1 ("Never") to 5 ("Consistently"), with the possibility of also giving the evaluation "Don't know / I have never had the opportunity to demonstrate this behavior".

Third-Party Assessment. All the entrepreneurs of the sample were interviewed using behavioral event interviewing (BEI) techniques, in order to measure the composition of their competency portfolio. Each BEI was recorded and then analyzed and coded for frequency and variety of occurrence (Boyatzis, 1998; Camuffo, & Gerli, 2004). Double coding techni-

que was used to attain higher reliability (Boyatzis, 1998) and a percentage of agreement of more than 90% was always obtained. The *frequency* parameter gives the recurrence with which one specific competency is expressed by an individual, while the *variety* parameter indicates the number of different behaviors performed when he/she expresses that specific competency². In other words, frequency can measure how often someone activates a certain competency, while variety can measure if that specific competency is expressed by someone through many or few different behaviors (referable to different behavioral indicators) and for this reason it gives some information on the greater or lesser possession of each specific competency. We used Boyatzis' codebook as an initial main reference for the coding (Boyatzis, 1982; Boyatzis et al., 1995). This codebook categorizes 22 themes of competencies divided into three groups: goal and action management abilities, people management abilities and analytic reasoning abilities. Boyatzis' codebook was then enriched with 12 themes of competencies by using thematic analysis in order to take into account further behaviors that led to effective performance in the specific context. The competencies we added to Boyatzis' codebook are: *Information gathering, Result orientation, Organizational commitment, Customer orientation, Business bargaining, Organizational awareness, Directing others, Teamwork, Leadership, Visioning, Process-based vision and Benchmarking.*

²The *frequency* of occurrence of a competency is the number of times a competency is detected out of the maximum possible number of times it can be detected; for example, a 10% frequency means that a competency appears in one behavioral event out of ten. The *variety* of occurrence of a competency is the number of detected behaviors out of the maximum number of behaviors referable to that competency; for example, a 10% variety means that a competency is expressed by the subject through one behavior out of ten different behaviors. More generally, we coded for frequency and variety of occurrence using the following measures:

$$F_i = \frac{\sum CC_{i,n}}{\sum PC_{i,n}} ; F_i = \frac{\sum db_{i,n}}{\sum pb_{i,n}}$$

with:

F_i : Frequency of competency i ;

$CC_{i,n}$: Coded Competencies: the number of behaviors associated with competency i detected in the interview with subject j (independently of the specific behavioral indicator);

$PC_{i,n}$: Potential Competencies: the maximum number of behaviors associated with competency i detectable in the interview with subject j (independently of the specific behavioral indicator).

V_i : Variety of competency i ;

$db_{i,n}$: Different Behaviours: the number of different behavioural indicators (related to competency i) that were observed in the interview with subject n ;

$pb_{i,n}$: Possible Behaviours: the number of different behavioural indicators (related to competency i) that were observable in the interview with subject n .

3.2 Distinctive Competencies

The second section of our study aims at identifying which competencies, among those detected in the entrepreneurs' portfolio, are related to a better organizational performance. Starting from the assumption that in the SMEs under analysis each entrepreneur plays a significant and direct role in the main decisions of his/her firm, due to a process of centralization of the most important choices and activities, this part of our analysis tries to evaluate the impact of specific competencies on the results obtained by the firms. To this end we performed a competency modeling process (Spencer & Spencer, 1993) described as follows.

Step 1: Definition of a Firm Performance Criterion. First of all, we adopted a multidimensional approach in order to measure SME performance and to define a criterion to be used to differentiate firms into one of the three groups: best, average and poor. The data we used were: 1) the capability to define and pursue an effective strategic path, in terms of the quality of strategic performance; 2) the quality of decision making processes, in relation to the organization of the governing bodies and the extent of institutional overlap; 3) the trend in profitability and growth over the last three years. Since this analysis has been conducted on firms operating in different industries, which are subjective to different competitive dynamics, we had to take into consideration some issues which could have made it difficult to compare the various companies. First, the profitability and growth trends are significantly affected by the internal dynamics of the specific sector in which each firm operates. Second, there is reciprocal interdependence between the strategic paths and the quality of the decision making processes, which is influenced by the competency portfolio of the leader, the strength of familial ties and the ability of the owners to separate family from firm. To solve these problems, a panel of two experts was consulted. The experts were selected for their academic experience and for their in-depth knowledge of the firms analyzed and of their environmental, organizational and familial context. As a matter of fact, they knew all the entrepreneurs personally since they tutored them during the years of the MBA. One is the scientific director of the Master Program, who holds the MBA admission interviews, coordinates the "Strategy & Competition" module of the MBA, supports the students from a methodological point of view in the drafting of the strategic analysis of their firms, and therefore possesses an in-depth knowledge of the strategic plans and decisional processes of the firms. The other is a consultant who coordinates the MBA module "Accounting, Finance & Risk" and supports students from a methodological point of view in the economic, financial and asset

analysis of their firms, and therefore possesses in-depth knowledge on the evolution of performance. They were asked to separately express a comparative evaluation about the overall performance of the firms on the basis of their personal knowledge of the firms and their professional experience.

Step 2: Ranking and Classification of the Sample. According to the firms' performance criterion defined above, each expert classified the firms in our sample and – consequently – their entrepreneurs into three categories: best, average and poor performers. The inter-rater reliability coefficient (ICC 3,1) was .84, which shows high agreement between the judgments and confirms the uniformity of the evaluation criteria adopted by the two experts. Each sub-sample was then analyzed in terms of the characteristics of its members.

Step 3: Identification of the Distinctive and Threshold Competencies. After having classified our sample of entrepreneurs into three sub-samples according to their firms' performance, we compared these three sub-samples according to the different competencies possessed by each of them. This analysis has been built on the database stemming from the codification for frequency and variety of occurrence of the individual competencies gathered through BEIs. A standard non-parametric statistical analysis has been conducted, using the Mann-Whitney U test, to compare the sub-samples and identify those competencies which differentiate them. This analysis allowed us to identify: a) which competencies lead to an average firm performance, and for this reason are necessary to pursue an entrepreneurial career (i.e. *threshold competencies*); and b) which competencies lead to a superior performance (i.e. *distinctive competencies*), since they differentiate the superior performers from the others.

Step 4: Factor Analysis on the Distinctive Competencies. Finally, we performed a factor analysis on the distinctive competencies in order to identify the groups of competencies that the entrepreneurs tend to perform together while they obtain effective organizational results. This allows us to find some typical behavioral paths, or some “complex behavioral strategies” more related to the attainment of positive outcomes.

3.3 Distinctive Competencies and Financial Performance

In the third section of our study, we analyzed the impact of the distinctive competencies on firm financial performance. Since our sample is composed of SMEs all belonging to different sectors, we extracted from the database AIDA (covering all Italian firms with sales larger than 1.5 million Euros) data about the firm's EBIDTA and that of the peer group, which

AIDA defines on the basis of the industry in which the firm operates and the size class calculated in respect to deciles in the sector. We chose to use EBITDA as dependent variable because it is influenced only by the return from the productive factors used in the firm. It is less affected by the financial maneuvers on interests or taxes that can be made in the balance sheet. For this reason, it is a good measure of the actual performance of SMEs. First, we calculated the average EBITDA growth rate of the firm. Second, we calculated the comparative EBITDA growth rate by calculating the difference between the growth rate of the firm's EBITDA and that of the peer group. The two dependent variables are highly correlated ($r = .97$, $p < .001$), consequently, since the sector of activity is not that influential we report just those results for the first one. This variable will be used in the regression analysis to evaluate the impact of distinctive competencies on financial performance.

We also gathered some information on each entrepreneur and on his/her firm in order to check for a relationship between the competency endowment and some control variables. We chose these control variables after having included variables suggested in other studies (e.g. Zahra, 1991), some of them are related to the firm (firm size and sector of activity) and some of them are related to the individual (age, gender, leading generation and organizational role). Firm size was measured as the number of employees reported in AIDA. We used the ATECO code (first 2 digits) to codify the sector of activity and classified four industries: manufacturing, construction, retailing, service. As a size variable, we used the number of employees, rather than turnover, which is less subject to economic change especially in the Italian context where the job market has few exit strategies. We also included some self-reported information. We considered dummy variables for gender and organizational role, which indicates whether the entrepreneur is mainly a member of the top management team with a more strategic role or a functional one. Finally, we considered the age of the entrepreneur at the moment of admission to the MBA, and the leading generation of the firm - since our sample is made up of family firms this is an important indicator which takes into account the influence of the family.

For the analysis of the financial performance we considered only those businesses for which we had archival data available in the database AIDA (extractions were made in June 2011) and we also excluded those 3 entrepreneurs whose firms failed before finishing the MBA. Therefore, in the regression analysis we focused on 82 entrepreneurs.

4. Characteristics of the sample

As mentioned above, our sample is made up of 94 entrepreneurs who took part in one of the five editions of an MBA. 27% of the participants attended the first edition, 19% the second, 14% the third, 20% the fourth and 20% the fifth. The sample contains 72 males and 22 females. The average age is 36 years old, the maximum is 53 and the minimum is 26, with 58 people graduated from high school and 36 from university.

Of the 91 firms, more than 90% are located in the Veneto Region in the North-East of Italy. Most of them (64%) operate in manufacturing sectors, while the rest are divided among those performing service activities (11%), technology and science based activities (11%) and plant engineering activities (11%). They have an average number of employees of 106, an average turnover of 35.24 million Euros and their average ROA is around 5% in 2009. Also, most of the firms are led by first generation entrepreneurs (37) and by second generation leaders (54), only 2 firms have reached the third generation and 1 business is at the fourth generation.

5. Analysis and results

5.1 Descriptive Analysis: The Competency Portfolio of Entrepreneurs

In this section we are going to describe the results of the first part of this research concerning the analysis of the competency portfolio possessed by the sample of entrepreneurs. The set of tools we used, explained above in the methodological section, allows us to describe this competency portfolio according to three complementary dimensions: 1) Portfolio of technical competencies drawn from self-evaluation; 2) Portfolio of emotional competencies drawn from the adapted version of the Emotional Competency Inventory (ECI); 3) Portfolio of competencies drawn from the BEI and the adapted version of the codebook.

Technical Competencies. Starting our analysis with the portfolio of technical competencies drawn from self-evaluation (Table 1), our sample of 94 entrepreneurs shows a low level of possession of these skills, which are useful for managing a firm and having extensive awareness of its processes. On a scale from 0 to 100, the average level is only 33.2. Without considering the cluster of skills on *Personal Computing*, which concerns the basic use of computer equipment for office duties and which obtains the highest evaluation (51.88), the most widely possessed managerial cluster is *Procurement* (48.09), which concerns the knowledge of procurement markets and the order-to-delivery process. Then, the clusters *Managerial communication* (41.58) and *Business English* (39.24) follow, indicating the importance of the role of interface between the firm and the outside world played by the entrepreneur of a small firm. If we continue the analysis of the list of

skills, we find a broad group of competencies with scores ranging from 27 to 38 (*Project management, Production and logistics, Organization, Total quality management, Human resource management, Strategy, Information technology, Marketing and sales, Business law and Control*). This set is a wide group of technical skills, the possession of which should not be taken for granted by an entrepreneur: indeed, these competencies should be developed further in our sample. Finally, the lowest scoring clusters consist of some skills regarding *Accounting* (14.10) and *Finance* (15.76), which show the lowest level of possession in our sample. The analysis of the standard deviations highlights how the variability is rather similar for most of the skill clusters, with a range of values from 15 to 22, with the exception of *Business English* which presents a significantly higher variability. The correlation analysis³ among different skill clusters shows a significant correlation between nearly all of them, which is indicative of substantial homogeneity in the composition of the entrepreneurs' portfolio of competencies. In other words, a higher level of some technical competencies in one entrepreneur tends to be accompanied by a higher level of other technical competencies in the same entrepreneur, and vice versa. On the whole, the result is a substantially narrow and significantly homogenous portfolio of technical competencies.

Table 1 - Self-Evaluation Of Technical Competencies (Scale 0-100)

Cluster of skills	Average values	Standard deviation
Personal computing	51.88	22.77
Procurement	48.09	21.19
Managerial communication	41.58	20.43
Business English	39.24	32.00
Project management	38.71	21.98
Production and logistics	37.46	19.51
Organization	35.55	21.64
Total quality management	35.30	21.58
HR management	34.05	17.19
Strategy	33.72	17.15
Information technology	33.51	21.65
Marketing and sales	29.31	18.65
Business law	29.25	17.35
Control	27.84	16.35
International management	19.56	17.13
Finance	15.76	17.60
Accounting	14.10	15.29

³ All correlation matrices are available upon request.

Self-Evaluation of Emotional Competencies. The second dimension of the entrepreneurs' competency portfolio is made up of emotional competencies self-evaluated through the ECI questionnaire (Table 2). The competency portfolio produced from this perspective is rather broad and homogenous. The cluster of competencies which obtains the highest level of self-evaluation is the *Social awareness* cluster (72.92) followed by the *Self-awareness* cluster (71.53). Some competencies obtain a significantly high score within these clusters. In particular, *Service orientation* (78.56), *Cultural awareness* (75.00), *Emotional awareness* (75.78) and *Accurate self-assessment* (75.09) seem to be the strengths perceived by our sample, which appears to be highly oriented towards helping, understanding and satisfying others, respecting diversities and considering them as a source of improvement, understanding their own emotions, their causes and implications, and being able to detect their own strengths and weaknesses.

Then, the *Self-management* cluster obtains a slightly lower score (69.00). The emotional competencies which obtain the highest level of evaluation in this cluster are *Optimism* (78.34) and *Conscientiousness* (73.00), revealing the capability to detect opportunities instead of threats, to be positive and trustful, and to carefully perform duties, paying attention to detail. Finally, the *Relationship management* (64.72) and *Cognitive* (62.65) clusters present slightly lower values. In the first of these clusters there are some competencies that can be noted because of their higher score, namely *Teamwork* (74.61), *Change catalyst* (73.70), *Inspirational leadership* (66.58). This means that the entrepreneurs of our sample perceive that they tend to create a collaborative and friendly environment inside the firm and promote a positive team spirit. They also think they are apt to lead change initiatives personally by removing the change constraints and those they are inclined to motivate others by appealing to their emotions offering challenging opportunities.

However, there are some competencies that are perceived to be possessed to a lower degree, including *Influence* (57.03), *Conflict management* (58.64) and *Communication* (59.68). This result seems to show some weaknesses in our sample of entrepreneurs in terms of their capability of persuading others and building consensus, working to reduce conflicts, disagreements and misunderstandings, and presenting their thoughts effectively and in an engaging style.

From a comprehensive point of view, on the one hand, in our sample of entrepreneurs the competencies which imply the capability to understand themselves and others (*Self-awareness* and *Social awareness*) are perceived to be broadly possessed. On the other hand, the corresponding capabilities to manage themselves and others (*Self-management* and *Relationship management*) are not perceived to be possessed at the same level. Similarly, the cognitive dimension is felt as an area which could be further improved.

In this case too, the correlation analysis between emotional competencies shows a statistically significant correlation between nearly all the competencies analyzed with ECI, indicative of the substantial uniformity of the individual competency portfolio. In other words, as explained above, a greater possession of some emotional competencies in one entrepreneur is likely to be accompanied by a greater possession of other emotional competencies in the same entrepreneur, and vice versa.

Table 2 - Self-Evaluation Of Emotional Competencies (Scale 0-100)

Emotional Competencies	Average values	Standard deviation
1. Self-awareness	71.53	9.61
1.1 Emotional awareness	75.78	15.22
1.2 Accurate self-assessment	75.09	12.93
1.3 Self-confidence	63.72	13.82
2. Self-management	69.00	8.27
2.1 Emotional Self-control	64.41	18.10
2.2 Achievement	64.58	15.05
2.3 Initiative	61.28	14.08
2.4 Trustworthiness	70.14	14.30
2.5 Conscientiousness	73.00	14.82
2.6 Adaptability	71.22	14.51
2.7 Optimism	78.34	13.09
3. Social awareness	72.92	9.15
3.1 Empathy	69.84	12.07
3.2 Service orientation	78.56	11.46
3.3 Organizational awareness	68.16	14.11
3.4 Cultural awareness	75.00	13.73
4. Relationship management	64.72	10.19
4.1 Inspirational leadership	66.58	18.43
4.2 Communication	59.68	16.60
4.3 Conflict management	58.64	13.86
4.4 Change catalyst	73.70	15.84
4.5 Influence	57.03	16.67
4.6 Developing others	66.32	11.03
4.7 Building bonds	61.28	17.96
4.8 Teamwork	74.61	12.34
5. Cognitive	62.65	12.39
5.1 Systems thinking	62.02	15.65
5.2 Pattern recognition	63.28	15.00

Third-Party Assessment. The third dimension of the entrepreneurs' competency portfolio is made up of the competencies analyzed through the BEI (Table 3). The portfolio arising from this perspective is rather broad in terms of frequency, with some significant differences among specific competencies. A frequency of 50% for a competency means that the sample tends to use that competency in one event out of two; in other words, the higher the frequency, the more recurrent the use of a specific competency.

The most frequent competencies are those from the *Goal and action management* cluster (which represents 41.8% of the overall portfolio of competencies). In this cluster some competencies show a very high level of possession: *Result orientation* (59.80), *Efficiency orientation* (54.05), *Planning* (48.83), *Initiative* (42.75) and *Attention to detail* (40.07). This means that the entrepreneurs of our sample struggle to reach challenging targets without being discouraged by obstacles, tend to improve their firms' performances, pay continuous attention to the relation between resources required and results obtained, define alternative action plans for the future, are able to act in an innovative or unpredictable way to achieve opportunities, and are very accurate in their work and pursue high quality in their results. Therefore, from the analysis of the behavioral events, the propensity towards action and the attainment of results, through an efficient use of the available resources and continuous attention to improvement are the most frequent reasons for the professional effectiveness.

The second cluster of competencies in terms of possession is the *People Management* one, which represents 38.7% of the overall portfolio of competencies. In this cluster we find some competencies that are present with a rather high frequency: *Persuasiveness* (35.37), *Empathy* (34.36), *Networking* (29.92) and *Teamwork* (28.51). This means that our sample of entrepreneurs tend to convince others of the value of their views, even by explicitly using techniques to gain emotional and rational consensus, accurately read the behavior of others and understand their strengths and weaknesses, create useful relationships for their activities and promote cooperation inside groups by motivating others and sharing information with others. Consequently, we can notice significant attention to the relational dimension in the competency portfolio of the entrepreneurs under analysis. The third cluster of competencies in terms of frequency is *Analytical reasoning*, which represents 19.5% of the overall portfolio of competencies. In this case, the most frequent competency is *Use of concepts* (50.07) followed by *Use of technology* (24.26) and *Pattern recognition* (23.60). This means that the entrepreneurs in our sample tend to make use of concepts when interpreting or explaining a certain situation, are capable of identifying similarities between a new situation and past ones. They also use frameworks to understand and summarize events and information. This indicates the tendency to reflect frequently and systematically on their own experience in order to derive more general knowledge. Moreover, they are able to create techno-

logical process innovations and are also used to implement simulations and analysis in order to interpret data and trends.

Nevertheless, there are many competencies which have a very low level of frequency (values below 10%) such as: *Flexibility, Self-Control, Organizational Commitment, Negotiation, Organizational awareness, Systems thinking, Theory building, Quantitative analysis, Social objectivity, Visioning, Process-based vision* and *Benchmarking*. This means that they could be further improved. In this case, the correlation analysis does not show any systematic and widespread correlation among the competencies found using BEI. However, there are some specific competencies significantly correlated with others. Those competencies are: *Planning, Attention to details, Persuasiveness* and *Oral communication*. This indicates how the attainment of effective results can be obtained through complex behavioral strategies which require the activation of a plurality of different competencies.

With regard to the competency *variety* dimension, it is possible to observe in Table 3 that a number of competencies show a high level of variety. A variety of 50% for a competency means that the sample tends to use one half of the behaviors through which that competency can be expressed: the higher the variety, the richer the possession of a specific competency. The competencies with a higher level of variety are: *Efficiency orientation, Planning, Initiative, Attention to detail, Information gathering, Result orientation, Networking, and Use of concepts*. Since most of these competencies also show a high level of frequency, we can conclude that they are the most significant competencies of our sample. The correlation analysis conducted between frequency and variety shows a high and statistically significant correlation between these two measures. This means that the competencies expressed more often are also expressed using a wider number of different behaviors and, for this reason, they can be considered the “core” competencies of the entrepreneurs analyzed.

Finally, we can take into account some differences and similarities between the results obtained through BEI and through ECI. Although a direct comparison between these two tools is not possible due to the different aims of self versus third party evaluations, we can note that some results are consistent. In particular, some competencies show a higher (*Empathy*) or lower (*Self-confidence, Self-control, Leadership, Communication, System Thinking, Pattern recognition, Organizational awareness* and *Developing others*) value through both evaluations, while others have significantly different results (*Result orientation/Achievement, Adaptability/Flexibility* and *Initiative*). These differences are consistent with previous results in the analysis of competencies, which show that subjective evaluations are less reliable than others' evaluations (Boyatzis et al., 2000), but at the same time they are useful to analyze how each entrepreneur sees him or herself. Therefore, in the next section of this study, dedicated to identifying a relationship between competencies and firms' performance through a competency modeling

process, we used the data from third-party evaluation to avoid any risk of subjective evaluations.

Table 3 - Portfolio Of Competencies Found Through The Behavioral Event Interview

Cluster	Competencies	Frequency		Variety	
		%	Std. Dev.	%	Std. Dev.
Goal and action management skills	Efficiency orientation	54.05	21.20	51.65	19.88
	Planning	48.83	23.28	40.14	21.72
	Initiative	42.75	23.31	39.43	21.85
	Attention to detail	40.07	29.43	47.52	32.31
	Self-control	5.21	11.23	8.23	16.74
	Flexibility	9.15	15.15	16.21	26.24
	Information gathering	30.08	22.15	44.29	29.96
	Result orientation	59.80	17.94	55.74	19.95
	Organizational commitment	9.68	16.23	27.48	43.40
	People management skills	Empathy	34.36	25.39	36.10
Persuasiveness		35.37	23.65	26.70	18.38
Networking		29.92	23.09	36.74	26.77
Negotiation		3.37	9.45	5.21	14.74
Self confidence		26.85	24.89	34.86	29.37
Group management		12.62	17.50	11.91	15.52
Developing others		16.06	18.72	19.33	23.04
Oral communication		20.46	21.79	16.17	16.66
Customer orientation		20.55	23.95	24.86	27.17
Business bargaining		13.09	17.30	18.30	24.44
Organizational awareness		5.78	10.79	9.75	17.93
Directing others		17.24	20.98	24.47	27.52
Teamwork		28.51	25.91	32.52	28.59
Leadership		13.17	16.91	16.49	21.47
Analytical reasoning skills		Use of concepts	50.07	17.57	47.77
	Systems thinking	5.99	12.24	10.21	19.68
	Pattern recognition	23.60	22.65	22.29	19.23
	Theory building	0.43	2.89	1.28	10.44
	Use of technology	24.26	23.89	18.42	16.85
	Quantitative analysis	7.70	13.55	9.82	16.42
	Social objectivity	3.37	9.90	4.26	11.12
	Written communication	10.13	14.95	11.24	16.37
	Visioning	6.45	13.08	17.87	36.65
	Process-based vision	2.30	6.98	8.09	26.31
Benchmarking	5.78	12.53	19.57	39.25	

5.2 Identification and Patterns of Distinctive Competencies

In this section we aim to identify which competencies are related to better firm performance using a multi-firm competency-model.

After having defined the three sub-samples (i.e. best, average and poor performers) according to the performance criterion explained above, we run the Mann-Whitney U test to identify those competencies that differentiate the three sub-samples (Table 4). First, we compared the sub-sample of best performers with a subsample made up of average and poor performers together and found the distinctive competencies. Then, we compared a subsample made up of best and average performers together with the sub-sample of poor performers and defined the threshold competencies. When a competency differentiated both best performers from the others and at the same time best and average from poor performers, we considered it a distinctive competency since it is related to the attainment of higher results (Table 4).

Table 4 - Results Of The Competency Modeling Process

Competencies	Freq. Best	Freq. Av.	Freq. Poor	MWU Test: Best vs (Average and Pooers): Z values ^a	MWU Test: (Best and Average) vs Pooers: Z values ^a	Distinctive comp.	Threshold comp.
Efficiency orientation	58.38	47.14	55.80	1.768**	-0.178 ⁺	✓	
Planning	52.92	46.83	43.48	1.645**	1.043	✓	
Initiative	44.17	36.53	48.84	0.619	-1.423 ⁺		
Attention to detail	36.76	38.49	44.06	-0.397 ⁺	-0.648 ⁺		
Self-control	4.72	7.27	3.48	-0.072 ⁺	1.608*		✓
Flexibility	9.44	7.78	10.58	0.462	-0.881 ⁺		
Information gathering	31.20	31.02	24.35	0.464	1.307*		✓
Result orientation	60.93	59.13	58.12	0.513	0.366		
Organizational commitment	10.83	9.80	8.55	0.657	0.252		
Empathy	36.67	27.98	37.68	0.930	-0.737 ⁺		
Persuasiveness	41.20	31.57	33.04	1.890**	0.599	✓	
Networking	33.56	21.95	35.65	1.132	-1.496 ⁺		
Negotiation	3.06	2.83	3.19	0.412	-0.440 ⁺		
Self confidence	32.87	26.57	19.28	1.475**	1.704**	✓	
Group management	14.54	10.10	13.48	1.200	0.050		
Developing others	17.78	14.75	14.93	1.006	0.422		
Oral communication	22.08	19.34	19.57	0.469	0.218		
Customer orientation	13.38	25.15	23.48	-2.377***	-0.960 ⁺		
Business bargaining	14.91	11.21	14.06	0.691	-0.160 ⁺		
Organizational awareness	10.37	2.83	2.46	3.128***	1.581*	✓	

Directing others	22.78	12.05	15.80	1.978**	0.660	✓	
Teamwork	32.87	28.48	19.86	1.481*	1.577*	✓	
Leadership	16.16	10.91	10.29	1.606*	0.675	✓	
Use of concepts	50.46	54.15	45.36	0.421	1.615*		✓
Systems thinking	4.17	7.68	6.96	-1.516 ⁺	-0.163 ⁺		
Pattern recognition	22.45	23.03	23.91	0.535	-0.613 ⁺		
Theory building	0.56	0.00	0.87	0.317	-0.821 ⁺		
Use of technology	18.38	28.13	26.52	-2.062***	-0.655 ⁺		
Quantitative analysis	5.56	9.60	8.99	-1.157 ⁺	-0.242 ⁺		
Social objectivity	1.67	5.45	3.33	-1.108 ⁺	0.039		
Written communication	10.60	12.05	7.54	0.046	0.249		
Visioning	6.57	7.98	3.77	0.766	1.151		
Process-based vision	2.13	1.82	3.48	-0.007 ⁺	-0.459 ⁺		
Benchmarking	7.50	2.83	6.09	1.449*	-0.306 ⁺	✓	

^a Z values for Mann-Whitney U Test, one tailed: * $p < .1$; ** $p < .05$; *** $p < .01$

⁺ means a two-tailed significance level in the opposite direction with respect to the predicted one.

From this analysis, we found nine distinctive competencies (*Efficiency orientation, Planning, Persuasiveness, Self-confidence, Organizational awareness, Directing others, Teamwork, Leadership* and *Benchmarking*) and three threshold competencies (*Self-control, Information gathering* and *Use of concepts*). It is interesting to note that six out of nine distinctive competencies belong to the *People management* cluster. This means that a considerable component of high performance in the entrepreneurial tasks is due to the capability of effectively managing relationships with others, which is combined with regular attention to the efficient use of the resources and to the definition of plans to organize the future. On the other hand, the characteristics of the entrepreneurs who obtain an average performance are the following: they collect information that is useful for their business but not easily available in an original way, and they are always searching for news and the opinions of others. Moreover, they are capable of maintaining self-control in stressful and emotionally intense situations and tend to interpret and explain situations by conceptualizing them in a more abstract manner, using frames of reference and also making use of their experience, which allows them to identify similarities between current and past situations and to act accordingly. From the frequency distribution presented in Table 4, it is also interesting to note that there are two competencies that have a statistically significant inverse relationship with performance, since they are possessed more by those entrepreneurs with poor or average performances. These are *Customer orientation* and *Use of technology*.

This result is probably due to the fact that these competencies are commonly possessed and used in entrepreneurial duties, and for this reason

they do not differentiate those entrepreneurs who obtain higher outcomes. Without considering problems related to the specific sample composition, the reason why a linear relation between competency and performance is not always present in our results could also be due to the existence of some behaviors that represent some “competency traps” for the entrepreneurial role considered here. In other words, they could represent a signal with regard to aspects which are not consistent with or supportive of entrepreneurial effectiveness. For this reason, another result of this analysis seems to be the identification of these competencies with a complex relation with performance, which represent a set of behaviors which may have a dysfunctional impact on overall firm performance, even though they have a positive impact on the single and specific event in which they have been demonstrated.

Moreover, if we consider the dimension of variety in the competency modeling process, we obtain some consistent results. According to this dimension, distinctive competencies are: *Planning, Information gathering, Empathy, Organizational awareness, Directing others, Leadership* and *Benchmarking*, while threshold competencies are *Self-control* and *Persuasiveness*. This result confirms that a wider possession of some competencies, in this case through the use of a greater number of associated behaviors, allows the attainment of a higher performance in the role analyzed.

Finally, it is also worth considering that four out of the nine distinctive competencies are more frequent among the poor performers rather than the average ones. Namely *Efficiency orientation, Persuasiveness, Directing others* and *Benchmarking*. This result should be given a scant importance, since distinctive competencies are those that distinguish only best performers from the others. Therefore, various comparisons among groups might not provide the same results. In order to complete our analysis, we performed a factor analysis on the frequency of the distinctive competencies, with the aim of recognizing some groups of behaviors typically performed by the entrepreneurs while they obtained effective results.

Table 5 - Factor Loadings After Varimax Rotation

Variable	Factor 1	Factor 2	Factor 3	Uniqueness
Efficiency orientation	0.64	-0.09	0.07	0.57
Planning	0.47	0.23	0.51	0.46
Persuasiveness	0.02	0.82	0.02	0.32
Self-confidence	-0.19	0.59	0.43	0.43
Organizational awareness	0.47	0.35	0.11	0.64
Directing others	-0.14	0.23	0.49	0.67
Teamwork	0.78	-0.00	0.09	0.39
Leadership	0.20	-0.05	0.81	0.30
Benchmarking	0.23	0.54	-0.41	0.47

From the exploratory analysis of the factor loadings we defined three factors. The first factor, that we named “*Entrepreneurial engaging exploitation*”, was made up of three competencies: *Efficiency orientation*, *Organizational awareness* and *Teamwork* (Cronbach’s alpha = .83). The second, that we defined “*Entrepreneurial change commitment*”, was also made up of three competencies, namely *Persuasiveness*, *Self-confidence* and *Benchmarking* (Cronbach’s alpha = .90). The last factor, that we called “*Entrepreneurial proactive supervision*”, was made up of *Planning*, *Directing others* and *Leadership* (Cronbach’s alpha=.98). All the Cronbach’s alpha values are acceptable since they are higher than the value of .7 suggested by Nunally (1978).

We also performed a confirmatory factor analysis of the three factors, considering also the correlation between *Teamwork* and *Directing others*. The model yielded a χ^2 of 26.91 (d.f. 23; $p = .26$), CFI = .94, TLI .91, RMSEA .04 ($p = .52$). These results are above the recommended thresholds and therefore confirm our exploratory model.

It is interesting to note that each of these factors represents a group of competencies that are typically performed together more than others when an entrepreneur obtains some superior results. Since these factors are composed of competencies which belong to different typologies (action, people management and reasoning abilities) in order to obtain higher results it seems to necessitate activating some behaviors of a different nature and that different competencies support each other in the attainment of a superior performance. This can have direct implications on the development processes also in terms of competency learning.

5.3 Impact of Distinctive Competencies on Financial Performance

In the last section of our study, we tried to focus on the relationship between entrepreneurial competencies and financial performance by also considering some control variables. To this end we performed a regression analysis through which we regressed the three factors identified on two measures of financial performance. The results of the regression analysis can be seen in Table 6. We had to perform a robust regression, estimating the standard errors using the Huber-White sandwich estimators because the distribution of residuals is not normal (Shapiro-Wilk $W = .86$; $p < .0001$) and also because there is some evidence of homoskedasticity in the distribution of residuals ($\chi^2(1) = 10.13$; $p = .0015$). Moreover, the variable that includes firms in the construction industry has been omitted because of multicollinearity. There are no variables omitted in the model since VIF=1.59.

Table 6 - Regression Analysis

Firm Ave. Ebitda 2006-09	Model 1 Robust estimation	Model 2 Robust estimation	Model 3 Robust estimation
Constant	-0.10 (0.08)	-0.84** (0.32)	-0.74** (0.31)
Manufacturing	-0.08 (0.006)	-0.08 (0.12)	-0.12 (0.14)
Services	1.21* (0.04)	1.14* (0.60)	0.72 (0.48)
Retailing	-0.13 (0.57)	-0.01 (0.17)	0.01 (0.18)
Size	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Leading generation	0.06 (0.10)	0.08 (0.90)	0.08 (0.10)
Gender		0.07 (0.14)	0.08 (.14)
Age		0.02 (0.01)	0.02* (0.01)
Organizational role		-0.04 (0.20)	-0.06 (0.21)
Entrepreneurial engaging exploitation			0.12** (0.06)
Entrepreneurial change commitment			0.01 (0.08)
Entrepreneurial proactive supervision			-0.03 (0.09)
N	82	82	79
F	1.62	1.97*	1.71*
R ²	0.21	0.24	0.18

*p<.1; ** p<.05; ***p<.01

These results underline the role of distinctive competencies of entrepreneurs, in particular the ones related to *Entrepreneurial engaging exploitation* (*Efficiency orientation, Organizational awareness and Teamwork*), which are significantly positively related to firms' financial performance ($\beta=.12$, $p<.05$). From model 1 and 2, we can also see that the sector of activity has some influence on performance since the service industry has a positive relationship to performance. Looking at the control variables, only in model 2 the service sector is significantly related to performance and in model 3 age is also weakly positively related to performance.

6. Discussion and implications

In this work we focused first on the measurement of entrepreneurial competencies, using a variety of tools and methods, and then we analyzed the relationship between these competencies and firm performance, considering a multi-dimensional performance criterion for the identification of distinctive competencies. Lastly, we evaluated their impact on financial outcomes. Also, the context provides a fascinating background for the interpretation of our results (Welter, 2011). In fact, we focused on Italian family businesses, which are characterized by the significant pervasiveness of the entrepreneur in business life. It is interesting to underline that the entrepreneurs under analysis seem to have a well defined and homogeneous portfolio of competencies. On average, they perceive they possess a low level of technical competencies, except for the ability to use computer equipment, the knowledge of procurement markets and delivery process, and communication skills. Similarly, in the self-assessment of emotional intelligence competencies entrepreneurs show uniformity in their idea about the set of competencies that characterize themselves. The competencies which imply the capability to understand themselves and the others appear to be strongly possessed, while the corresponding capabilities to manage themselves and the others are possessed to a lesser degree. Also, the cognitive dimension represents an area which can be further improved according to their perception. Finally, in the results of the behavioral analysis conducted by a third-party the entrepreneurs show a strong willingness to reach challenging targets without being discouraged by obstacles, they tend to improve their firms' performances, also paying continuous attention to the relation between the resources required and results obtained. Moreover, they are able to define alternative action plans for the future and to act in an innovative and unpredictable way to exploit opportunities. Nonetheless, they are very accurate in their work and pursue high quality in their results. All these results support previous research results and provide a more in-depth definition of what previous work has found when comparing managers' and entrepreneurs' characteristics (Carland et al., 1984; Chen et al., 1998; Stewart et al., 1999). In determining distinctive competencies of entrepreneurs, what characterizes those with a superior organizational performance appears to be the capability to effectively manage the use of resources and the relationships with others combining different competencies through complex behaviors, as shown also by the factor analysis. In particular, the set of behaviors related to superior organizational outcomes includes the capability of evaluating the resources needed and the results obtained in order to maximize efficiency and to continuously improve results to "make something better than others". To this end, also defining plans and organizing the future is important, because by

outlining the actions needed to obtain measurable targets and by evaluating the risks of certain options the entrepreneurs in our sample can achieve effective results in their activities. Furthermore, it is interesting to notice that the most effective entrepreneurs activate also a set of interpersonal behaviors. First of all, they are capable of convincing others of the value of their own point of view and they can often anticipate other people's reactions in order to consciously use techniques of persuasion. Second, they are also very self-confident and never hesitate. Third, they are good at working with others by sharing information, cooperating and providing a valuable contribution to the team. At the same time, they can also assume the role of leaders, by making decisions, defining shared goals and ensuring they are followed by the team, and also directing and controlling other people's behavior by making use of their formal power. Their capabilities include as well an in-depth understanding of the characteristics, even of those that are less visible, of their organization and of its procedures, and the aptitude to compare their organization with others (mostly competitors), through a process of strategic benchmarking aimed at improving their firm performance. Thanks to this result, we can argue that besides the capabilities of improving entrepreneurs' job which imply the attention to efficiency and continuous improvement, also the relational aspect has a considerable impact on organizational and strategic performance. This supports the idea of previous research, which has found that social competencies are one of the drivers of entrepreneurial success (Baron & Markman, 2003). This finding seems also to be in line with previous research on entrepreneurship (Chandler & Hanks, 1994; Man et al., 2002). To summarize, our results support the idea that entrepreneurs' competencies play a central role not only in determining individual performance, but also that of the organization as a whole. This work shows that the entrepreneurs' portfolio of distinctive competencies is made up of three factors each including three competencies, which have to be combined in order to gain superior organizational performance. In particular, one factor appears to be fundamental in determining firm financial results, namely *Entrepreneurial engaging exploitation* which is made of three competencies (*Efficiency orientation*, *Organizational awareness* and *Teamwork*). This implies that a recurrent preoccupation in the use of human and material resources, accompanied by a deep knowledge of the organization and a systematic involvement of workers in the business activities seems to be the key of success of SMEs in the Italian context. As practical indications, we believe that it is of the utmost importance that family SMEs develop some specific competencies of the entrepreneurial mindset that are related to higher performance and that allow them to implement processes, practices, and decision-making activities that lead them to enter new or established markets with new or existing goods or services (Cuervo, 2005; Hayton & Kelly, 2006; Lumpkin & Dess,

1996) and to transform their capabilities into actual performance (Baron & Markman, 2000; 2003; Noor et al., 2010; Rasmussen et al., 2011). In other words, entrepreneurs should invest in their internal and external relationships besides spending their time in looking for cost reductions and higher sales. Educators and consultants, especially those that teach in Italy, need also to take into consideration these results when planning entrepreneurs' education, helping them not only to develop technical competencies but also more complex ones that can allow them to establish and create a valuable network of contacts inside their firm but also outside their business boundaries. In entrepreneurship and SMEs research it would be interesting to try to explore this issue further by using the same measurement of competencies in other contexts outside the Italian one. Moreover, it would be useful to compare our results with a sample of managers who work in the same geographic area. The differences and similarities could help us to better define what actually characterizes the two roles and improve the quality of the entrepreneurial way of doing business. Future works could also focus on identifying mediating or moderating variables of the relationship between distinctive competencies and firm performance.

*Fabrizio Gerli
Ca Foscari University of Venice and CUOA Foundation
Department of Management
gerli@unive.it*

*Alessandra Tognazzo
University of Padua
Department of Economics and Management
alessandra.tognazzo@unipd.it*

*Paolo Gubitta
University of Padua and CUOA Foundation
Department of Economics and Management
paolo.gubitta@unipd.it*

Abstract

We analyze the role of emotional intelligence competencies and their impact on business outcomes in a sample of entrepreneurs of small and medium sized Italian firms. We focus on the measurement of competencies by using a variety of tools and identify those ones that distinguish superior performers (i.e. distinctive competencies). Using factor and regression analysis we identify three factors of distinctive competencies and show that the relational dimension primarily affects organizational results. In particular, competencies such as Efficiency orientation, Organizational awareness and Teamwork are related to a higher firm financial performance.

Riassunto

Questo lavoro analizza il ruolo delle competenze legate all'intelligenza emotiva e il loro impatto sui risultati aziendali in un campione di imprenditori di piccole e medie imprese italiane. In particolare, lo studio presenta diversi strumenti per la misurazione delle competenze e identifica le competenze distintive, ovvero quelle che caratterizzano i migliori performers.

Analizzando queste particolari competenze attraverso l'analisi fattoriale e quella di regressione, i risultati mostrano che la dimensione relazionale ha un impatto determinante sui risultati organizzativi. Infatti, competenze come l'Orientamento all'efficienza, la Consapevolezza aziendale e il Lavoro di gruppo sono legate a una performance d'impresa maggiore.

Jel Classification: M1 - Business Administration - M10 - General

Keywords (Parole chiave): small firms, entrepreneurship, competencies (piccola impresa, imprenditorialità, competenze)

References

- Baron, R.A., & Markman, G.D. (2000). Beyond social capital: how social skills can enhance entrepreneurs' success. *Academy of Management Executive*, 14, 106-116.
- Baron, R.A., & Markman, G.D. (2003). Beyond social capital: the role of entrepreneurs' social competence in their financial success. *Journal of Business Venturing*, 18(1), 41-60.
- Boyatzis, R.E. (1982). *The Competent Manager: A Model for Effective Performance*. New York: Wiley.
- Boyatzis, R.E. (1998). *Transforming Qualitative Information. Thematic Analysis and Code Development*. Thousand Oaks, CA: Sage Publications.
- Boyatzis, R.E. (2008). Competencies in the 21st century. *Journal of Management Development*, 27(1), 5-12.
- Boyatzis, R.E., & Goleman, D. (2001). *Emotional Competence Inventory-University Version*. Boston, MA: Hay Group.
- Boyatzis, R.E., Cowen, S.S., Kolb, D.A. & Associates (1995). *Innovation in Professional Education*. San Francisco, CA: Jossey-Bass.
- Boyatzis, R.E., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the emotional competence inventory (ECIs). In R. Bar-On & J. D.A. Parker (Ed.), *Handbook of emotional intelligence* (pp. 343-362). San Francisco, CA: Jossey-Bass.
- Byrne, J.C., Dominick, P.G., Smither, J.W., & Reilly, R.R. (2007). Examination of the discriminant, convergent, and criterion-related validity of self-ratings on the emotional competence inventory. *International Journal of Selection and Assessment*, 15(3), 341-353.
- Camuffo, A., & Gerli, F. (2004). An integrated competency-based approach to management education: an Italian MBA case study. *International Journal of Training and Development*, 8 (4): 240-257.
- Camuffo, A., Gerli, F., & Chiara, F. (2006). *Tracking careers to improve competency-based management education: a longitudinal study of Italian MBAs*. In C. Wankel & De Fillippi, R. (Eds.), *New Visions of Graduate Management Education; Research in Management Education and Development Series*. Greenwich: Information Age Publishers.
- Camuffo, A., Gerli, F., & Gubitta, P. (2012). Competencies matter: Modelling effective entrepreneurship in North East of Italy Small Firms. *Cross Cultural Management: An International Journal*, 19(1), 48-66.
- Carland, J.W., Hoy, F., Boulton, W.R., & Carland, J.A.C. (1984). Differentiating Entrepreneurs from Small Business Owners: A Conceptualization. *The Academy of Management Review*, 9(2), 354-359
- Chandler, G.N., & Hanks, S.H. (1994). Founder competence, the environment, and venture performance. *Entrepreneurship: Theory and Practice*, 18, 77-89.
- Chen, C.A., Greene, P.G., & Crick, A. (1998). Does entrepreneurial efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13, 295-316.
- Cuervo, A. (2005). Individual and Environmental Determinants of Entrepreneurship. *International Entrepreneurship and Management Journal*, 1, 293-311.
- Goleman, D. (1995). *Emotional intelligence*. London: Bloomsbury.
- Hansson, B. (2001). Competency models: Are self-perceptions accurate enough? *Journal of European Industrial Training*, 25(9), 428-441.
- Hayton, J.C., & Kelly, D. (2006). A Competency-Based Framework for Promoting Corporate Entrepreneurship. *Human Resource Management Journal*, 45(3), 407-427.
- Horne, M., Lloyd, P., Pay, J., & Roe, P. (1992). Understanding the competitive process: A guide to effective intervention in the small firms sector. *European Journal of Operational Research*, 56(1), 54-66.
- Kolb, D.A., & Boyatzis, R.E. (1970). Goal-setting and self-directed behavior change. *Human Relations*, 23(5), 439-457.
- Kolb, D.A., Winter, S.K., & Berlew, D.E. (1968). Self-directed change: Two studies. *Journal of Applied Behavioral Science*, 6 (3), 453-471.

Loecher, U. (2000). Small and medium-sized enterprises – delimitation and the European definition in the area of industrial business. *European Business Review*, 12(5), 261 – 264.

Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135– 172.

Man, T.W.Y, Lau, T. & Snape, E. (2008). Entrepreneurial Competencies and the Performance of Small and Medium Enterprises: An investigation through a Framework of Competitiveness. *Journal of Small Business and Entrepreneurship*, 21(3), 257–276.

Man, T.W.Y, Lau, T., & Chan, K.F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17 (2), 123-142.

Mitchellmore, S., & Rowley, J. (2010). Entrepreneurial competencies: a literature review and development agenda. *International Journal of Entrepreneurial Behaviour & Research*, 16(2), 92-111.

Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur’s business model: toward a unified perspective. *Journal of Business Research*, 58 (6), 726-735.

Noor, H.A., Ramayah, T., Wilson, C., & Kummerow, L. (2010) Is entrepreneurial competency and business success relationship contingent upon business environment?: A study of Malaysian SMEs. *International Journal of Entrepreneurial Behaviour & Research*, 16 (3), 182-203.

Nunnally, J.C. (1978), *Psychometric theory*. New York: McGraw Hill.

Organisation for Economic Cooperation and Development (1993). *Small and medium-sized enterprises: Technology and competitiveness*. Paris: Organisation for Economic Cooperation and Development.

Rasmussen, E., Mosey, S. & Wright, M. (2011). The Evolution of Entrepreneurial Competencies: A Longitudinal Study of University Spin-Off Venture Emergence. *Journal of Management Studies*, doi: 10.1111/j.1467-6486.2010.00995.x

Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185-211.

Spencer, L.M., & Spencer, S.M. (1993). *Competence at Work: Models for Superior Performance*. New York: Wiley.

Stewart, W.H, Watson, W.E., Carland, J.C., & Carland, J.W. (1999). A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners, and corporate managers. *Journal of Business Venturing*, 14(2), 189-214.

Stoner, C.R. (1987). Distinctive competence and competitive advantage. *Journal of Small Business Management*, 25 (2), 33–39.

Welter, F. (2011). Contextualizing Entrepreneurship—Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice*, 35, 165–184.

Zahra, S.A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6 (4), 259–285.

Zahra, S.A., Nielsen, A.P., & Bogner, W.C. (1999). Corporate Entrepreneurship, Knowledge, and Competence Development. *Entrepreneurship: Theory & Practice*, 23(3), 169-189.