



## Research paper

# We survived this! What managers could learn from SMEs who successfully navigated the Greek economic crisis



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## ABSTRACT

Small and medium size enterprises in both business to business and consumer markets are particularly vulnerable to economic downturns. Concentrating on the Greek economic crisis, one of the toughest and most prolonged on a global scale, the present research sheds light on both anthropocentric and business-centric factors that helped SMEs survive, therefore, providing a valuable survival manual. Per findings of two studies performed under the given economically intense conditions, it is evidenced that the right answer to survival rests upon: (a) the entrepreneurs' personality traits and skills that affect the market and entrepreneurial orientations of SMEs, (b) the adoption of such orientations that keep impacting the firms' performance, and finally (c) the implementation of strategy relevant to reaching higher quality standards for products and services, combined with tactics relevant to downsizing, marketing actions, extroversion, and financial management.

## 1. Introduction

The recent Greek financial downturn is one of the most notorious cases of a devastating crisis that is comparable to the crisis the world is facing due to Covid-19. In fact, between 2008 and 2014, about 229,000 SMEs went out of business in Greece and 700,000 jobs were lost (KEPE, 2015). The crisis hit the medium-sized businesses harder than the small businesses due to higher operating costs and less flexibility and they reduced by 35% (KEPE, 2015). Nonetheless, turbulent times generate learning opportunities and can provide rare business lessons and takeaways for future navigation. With SMEs being the backbone of the European economy (as they account for 99% of the 15.8 million companies located in the EU region) (European Commission, 2017) and the B2B sector being depended on the products and services that SMEs produce and provide (Siropolis, 2001), it is crucial to identify the factors that can contribute in their survival.

The present research was conducted in Greece while the country was facing one of the most extreme economic downturns in modern

history; indeed, the particular milieu served as a proper ground for further exploring suitable strategies and tactics for survival. The current Covid-19 pandemic has already created unfavorable economic, social, and financial conditions similar to the Greek crisis of the late 2000s. For example, US GDP has shrunk by 4.8% in the first quarter of 2020 (Davidson, 2020), while the GDP in the Eurozone shrank by 3.8% in the same period (The Guardian, 2020). In this study, we convey useful managerial insights from SMEs who navigated and survived the prolonged and deep Greek financial crisis and address several issues that remain under-investigated in the literature. More specifically, we 1) explore the impact of specific personality traits and skills (need for achievement, optimism, locus of control, risk taking, and negotiation skills) on the Market Orientation (MO) and Entrepreneurial Orientation (EO) of SMEs in times of economic turbulence; 2) examine whether important strategic orientations (i.e., MO and EO) continue to impact SMEs performance in times of financial crisis; 3) investigate the reasons as well as the tactics that helped SMEs manage the financial storm and survive; 4) explore the aforementioned relationships by applying the

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novel and robust Bayesian SEM approach in industrial marketing management and contributing methodologically.

Research has highlighted the important roles of MO and EO as well as their impact on firm performance even during periods of financial crisis (Beliaeva, Shirokova, Wales, & Gafforova, 2020; Petzold, Barbat, Pons, & Zins, 2019). Consequently, in times of downturns, not only is it imperative to acknowledge which factors actually stimulate firm performance but it is also urgent to identify the factors that impact these strategic orientations, especially as SMEs struggle to survive. Being among the few relevant research attempts in the field, our work goes beyond traditional business or environmental factors and concentrates on the entrepreneurs and explores whether their personality traits and skills directly affect the small firm's MO and EO. It therefore aspires to turn the focus on the entrepreneur, the key player of SMEs. In fact, our research meets the call by Rauch and Frese (2007) to put the individual back in the entrepreneurial and business research in order to closely examine his/her impact upon entrepreneurial success. Also, strategy researchers (e.g., Abell, Felin, & Foss, 2008; Felin & Hesterly, 2007; Teece, 2007) have highlighted the critical role of individuals in creating and sustaining competitive advantages and we add to this stream of research by showing that the microfoundations of SME capabilities are bolstered by the abilities and traits of individual entrepreneurs that affect strategic orientations. Additionally, we draw on the unique experiences of the Greek financial crisis to investigate the reasons and tactics that made SMEs successfully navigate and survive under such extreme turbulence. In concert, this provides valuable business lessons for future economic downturns, just as the anticipated ones stemming from present coronavirus pandemic.

Most empirical survey studies use a covariance-based SEM approach, assuming that the data are distributed normally. This leads to invalid results and unavoidably, invalid implications. To confront this critical issue, Bayesian SEM is used since the research data presented abnormal distribution.

The paper is structured as follows: Section 2 reviews all the relevant literature while presenting the research hypotheses. Section 3 presents the research methodology and Section 4 presents the results of the statistical analyses. In closing, Sections 5 and 6 discuss the findings and the academic and the managerial implications of the research.

## 2. Literature review and hypotheses development

### 2.1. Approaches and Tactics of SMEs for surviving financial crisis

SMEs working under intensely unfavorable conditions need to develop alternative approaches in order to properly confront the adversity. Within the Greek financial crisis firms opted to reengineering their product in order to better meet consumers' needs, put an emphasis on environmentally aware customers and adjusted product price, among other actions (Bourletidis & Triantafyllopoulos, 2014). Also, small firms focused on product quality improvement while medium sized ones focused on utilization of new technologies and extroversion (Giannacourou, Kantarakis, & Christopoulou, 2015).

### 2.2. Entrepreneur's personality traits and skills

Personality is considered to be among the most important concepts in psychology and its investigation happens through a focus on relevant traits. Actually, personality refers to “psychological qualities that contribute to an individual's enduring and distinctive patterns of feeling, thinking and behaving” (Cervone & Pervin, 2015, p. 8) while the foregoing personality traits have been considered as a sort of behavioral coherence in different situations (Cervone & Pervin, 2015; Eysenck, 2013). Various theories have been developed that examine different personality dimensions grounded in relevant characteristics. For instance, the Big Five theory (see Cattell, 1950; Eysenck, 2013). Despite the criticism turned against these theories (e.g., on the grounds of their

lack of universality; see Gurven, Von Rueden, Massenkoff, Kaplan, & Lero Vie, 2013), most researchers agree that the individual can be described by personal traits.

Research has shown that entrepreneurs often hold characteristics that distinguish them from the general population (Song, Son, & Choi, 2015) and has focused on investigating the possibility of early identification of potential company founders by estimating on personality traits (Espiritu-Olmos & Sastre-Castillo, 2015) and by shedding light on the characteristics of successful entrepreneurs (Elenurm, Alas, Rozell, Scroggins, & Alsua, 2014). Several studies as well as meta-analysis papers (Nicolaou, Shane, Cherkas, Hunkin, & Spector, 2008; Rauch & Frese, 2007; Ringberg, Reihlen, & Rydén, 2019) have shown that specific personality traits such as the need for achievement (McClelland, 1961), self-confidence (Busenitz, 1999), extroversion (Baron & Markman, 2003), locus of control (Evans & Leighton, 1990), risk taking (Stewart Jr & Roth, 2001) and optimism (Cooper, Woo, & Dunkelberg, 1988) affect people's tendency to develop business activities.

In the current study, based on the criterion of choosing traits, not only relevant to business action (Holland, 1985; Vinchur, Schippmann, Switzer III, & Roth, 1998) but also relevant to different facets of the personality (Judge, Locke, & Durham, 1997) the following traits were included: need for achievement, optimism, locus of control, and risk taking. In terms of skills, the negotiation skills were also put into test as they are considered to be of high importance in the business world (Artinger, Vulkan, & Shem-Tov, 2015).

Need for achievement as a personality trait pertains to a person's desire for high standards and important accomplishments (McClelland, 1961). It stands as one of the most important motives affecting engagement with entrepreneurial activity (Florin, Karri, & Rossiter, 2007). It impacts the feasibility as well as desirability of starting a business (Zeffane, 2013) and influences entrepreneurial persistence (Markman, Baron, & Balkin, 2005).

Optimism represents the expectations of a person for improvements in life as well as in the general economic environment (Wally & Baum, 1994). Optimism falls into the broader positive affect state of entrepreneurs which itself might bear an important impact on motivation to engage with starting a business (Taormina & Lao, 2007). Also, it enhances entrepreneurs' creativity and innovation tendency (Baron & Tang, 2011).

Locus of control is perceived as the people's belief that they have control over their fate (Rotter, 1966). It has been found to be associated with entrepreneurial activity (Hansemark, 2003) as well as with persistence to entrepreneurial initiatives (Gatewood, Shaver, & Gartner, 1995).

Risk taking refers to a person's engagement in behaviors or actions that could lead to negative consequences (Eysenck, Wilson, & Jackson, 1991; Jackson, 1976). It seems to affect opportunity evaluation (Keh, Der Foo, & Lim, 2002) whilst its influential dynamics may vary cross cultures.

In addition to personality traits, negotiation skills are considered essential management skills (Banting & Dion, 1988). Research unearthed an interesting finding namely that entrepreneurs may close fewer deals than non-entrepreneurs, however, these deals produce a much higher profit (Artinger et al., 2015). Scholars have pinpointed the need of proper training of entrepreneurs in order to be able to use a palette of negotiation skills (Guerrero & Richards, 2015).

### 2.3. Market and entrepreneurial orientation

Narver and Slater (1990) described market orientation (MO) as the organizational culture that promotes customer orientation, competitor orientation and interfunctional coordination. Researchers have tried to identify the factors that affect the implementation of MO, primarily focusing on environmental parameters (Grewal & Tansuhaj, 2001). MO is considered an important strategic choice that has a positive effect on business performance (Kohli & Jaworski, 1990; Matsuno, Mentzer, &

Özsomer, 2002; Narver & Slater, 1990). Indeed, a number of meta-analysis papers has supported this view (Cano, Carrillat, & Jaramillo, 2004; Ellis, 2006; Kirca, Jayachandran, & Bearden, 2005). Also, it is noted that such positive effects in terms of various performance measures (e.g., new product success, market sales, market growth, and profitability), have been evidenced within a B2B context (Autahene-Gima, 1995; Pelham, 1999; Pelham & Wilson, 1996). In fact, given such an array of favorable outcomes, it is argued that a strong MO culture should be cultivated in the B2B milieu (Frösén, Jaakkola, Churakova, & Tikkanen, 2016).

Finally, relevant to the present paper's research scope, there is strong evidence that MO exerts a significantly favorable influence on business performance even under a crisis regime. For instance, via its competitor and inter-functional components, MO positively relates to marketing innovation and as such to the development and sustainability of a competitive advantage that helps the firm's survival (Naidoo, 2010). Or for example, in additional research, dependent upon a SME manager's perception of the crisis intensity, MO has been found to be significantly impactful on a firm's growth sales, market share, liquidity as well as overall performance (Petzold et al., 2019).

Following, there is an additional important strategic orientation namely, that of entrepreneurial orientation (EO). Grounded in its core dimensions of innovativeness, proactiveness, and risk taking, EO has been evidenced to entail a positive impact on firm performance (Covin & Slevin, 1991; Keh, Nguyen, & Ng, 2007; Matsuno et al., 2002; Rauch & Frese, 2008; Smart & Conant, 1994). In fact, it is noted that such a positive impact in terms of various performance measures (e.g., sales growth, customer acquisition, success in competition, loyalty, and profitability) has been evidenced within a B2B frame (Chang, Wang, & Arnett, 2018; Chen, Li, & Evans, 2012; Hughes & Morgan, 2007; Reijonen, Hirvonen, Nagy, Laukkanen, & Gabrielsson, 2015). Finally, as with MO and relevant to the scope of the current study, EO exerts a strong influence on business performance in crisis circumstances. In particular, according to the findings, EO components such as those of innovativeness and proactiveness help in securing the firm's profitability while attenuating the negative impact of the crisis upon the firm's operations (Soininen, Puimalainen, Sjögrén, & Syrjä, 2012). Or for example, by considering the financial capital availability that a firm should have under a crisis regime, EO is shown to bear a positive impact on a firm's relevant indicators such as those of sales revenue and profitability among others (Beliaeva et al., 2020). In all cases, like with MO, EO helps in orchestrating relevant firm capabilities. These capabilities, in turn, help in maintaining a competitive advantage which accommodates survival within difficult conditions (Naidoo, 2010) as well as a stronger presence in the market (Rauch & Frese, 2008).

#### 2.4. Links between personality traits, skills, MO and EO

According to Kotter (1990), the leader plays the most decisive role in shaping the firm's vision and strategy, while also determining the strategic plan for the realization of this vision. In SMEs, the notion of entrepreneurship is much more evident since usually the same person holds the roles of the owner- entrepreneur and the general manager (Bridge & O'Neill, 2013).

Researchers have explored the possible effects that entrepreneurs' traits have on strategic decision-making (Wally & Baum, 1994), on export involvement (Halikias & Panayotopoulou, 2003), on the formulation of strategies and on business performance (Lee & Tsang, 2001; Miller & Toulouse, 1986; Poon, Ainnuddin, & Junit, 2006). Researchers have also examined the possible influence of CEOs' personality traits on technological innovation in the manufacturing sector (Papadakis & Bourantas, 1998). In addition, research has explored the role of entrepreneurs in the growth orientation of small firms (Moran, 1998) and scholars have demonstrated the impact of entrepreneur's narcissism and resilience on EO (Leonelli, Masciarelli, & Fontana, 2019).

While the possible effects of entrepreneur's traits on strategic

decision-making (Wally & Baum, 1994), strategy formulation as well as business performance (Lee & Tsang, 2001; Miller & Toulouse, 1986; Poon et al., 2006) have been investigated, the influence of SME entrepreneurs' personality traits (i.e., need for achievement, optimism, locus of control, and risk taking) and skills' (i.e., negotiation skills) on MO and EO has been neglected. This omission is unfortunate because both orientations are integral elements of the firm strategy that can lead to the creation of competitive advantage, affect the business performance and create value for customers (Chaston, 1997). However, when the external environment is turbulent, uncontrollable, and hostile, it is expected that the personality characteristics of entrepreneurs in SMEs play a critical role for survival and business performance. Based on the foregoing discussion, we formulate the following hypotheses:

**H1.** a-e: For SMEs surviving an economic crisis, the higher the entrepreneur's (a) negotiation skills, (b) need for achievement, (c) optimism, (d) locus of control, (e) risk-taking levels, the higher the EO levels.

**H2.** a-e: For SMEs surviving an economic crisis, the higher the entrepreneur's (a) negotiation skills, (b) need for achievement, (c) optimism, (d) locus of control, (e) risk-taking levels, the higher the MO levels.

#### 2.5. Links between MO, EO, and performance

Researchers have tried to unveil the interplay between EO and MO with mixed findings (see Hult & Ketchen Jr, 2001; Martinez, Serna, & Guzman, 2018). Matsuno et al. (2002) demonstrated that entrepreneurial proclivity, a closely linked construct to EO, is positively related to MO. Kilenthong, Hultman, and Hills (2016) showed that EO is a factor that influences significantly the manifestation of entrepreneurial marketing. Furthermore, Tzokas, Carter, and Kyriazopoulos (2001) found that entrepreneurial and marketing orientation work in a synergic way and that they are both critical to the success of small companies. The positive impact of MO and EO on business performance has been demonstrated in emerging markets as well (Gruber-Muecke & Hofer, 2015).

In line with the literature, we formulate the following hypothesis:

**H3.** : For SMEs surviving an economic crisis, the higher the EO levels, the higher the MO levels.

Several papers have demonstrated EO's positive impact on business performance (Keh et al., 2007; Smart & Conant, 1994). In particular, a meta-analysis performed by Rauch, Wiklund, Lumpkin, and Frese (2009) showed that this impact is strong cross-culturally. Moreover, research within a services sector context, manifested that EO affects business performance only in small and not in large companies (Núñez-Pomar, Prado-Gascó, Sanz, Hervás, & Moreno, 2016). Nonetheless, in small family businesses the relationship between EO and business performance is stronger when there are lower levels of family involvement in the company's board of directors (Arzubiaga, Iturralde, Maseda, & Kotlar, 2018). In addition, studies have shown the positive impact of EO on SME's performance when the SME becomes active in international markets (see Chew, 2018).

Moreover, research has shown that in times of financial crisis, firms with a high EO are inclined to form strategic alliances in order to deal with the crisis conditions (Marino, Lohrke, Hill, Weaver, & Tambunan, 2008). Also, during economic downturns, different EO components seem to have different effects on firm operations and profitability. Innovativeness and proactiveness help so that the firm's operations are less impacted by the crisis, whereas risk-taking seems to have a negative impact on liquidity and profitability during a recession (Soininen et al., 2012). However, even in a recession, the EO impact on firm's performance is evident (Beliaeva et al., 2020). Following previous research (Gounaris & Avlonitis, 2001; Shan, Song, & Ju, 2016), the current work

assesses business performance with the use of benchmark (performance against goals).

The foregoing analysis leads to the formation of the fourth hypothesis:

**H4.** : For SMEs surviving an economic crisis, the higher the EO levels, the higher the performance levels.

Moreover, MO stands for a crucial strategic choice that can have a positive impact on business performance (Kohli & Jaworski, 1990; Matsuno et al., 2002; Narver & Slater, 1990), on new product development performance (Frishammar & Hörte, 2007) as well as service sector small firm performance (Kara, Spillan, & DeShields, 2005). Shoham, Rose, and Kropp (2005) in their meta-analysis concluded that managers can expect higher impact of MO on business performance in less developed countries. The research of Doyle and Armenakyan (2014) revealed that MO might affect business performance mostly through its relationship with the marketing capabilities that drive value creation.

Particularly in times of downturns, MO relates to marketing innovation that fosters developing a competitive advantage which itself supports the survival of the firm (Naidoo, 2010). Research under economic crisis conditions, pinpointed that the responsiveness facet of MO (i.e., standing for a firm's vigilance in reacting to its environment by performing proper actions), is positively related to increased ad spending which itself can support a better business performance (Özturan, Özsoy, & Pieters, 2014). Petzold et al. (2019) concluded that MO impacts perceived firm performance and that this relationship is moderated by the SME manager's perception of the intensity of the crisis. Therefore, we expect the positive association between MO and business performance to help SMEs survive the crisis.

**H5.** : For SMEs surviving an economic crisis, the higher the MO levels, the higher the performance levels.

Fig. 1 depicts the conceptual model as well as the research hypotheses.

### 3. Methodology

#### 3.1. Context and data collection

This paper is based on two rounds of data collection. In the first phase, a structured questionnaire was employed. The questionnaire was designed by using established scales previously used in relevant surveys and a relevant pretest took place with 20 participants (SME owners and expert academics) that helped refine the research instrument. Table 1 includes the research constructs and the sources of the scales. The majority of the scales are seven-point Likert-type scales (Churchill & Iacobucci, 2010).

The sampling unit of this survey was the owner of a business that employs less than 100 people and who plays a central role in the management of the company as well as in the strategic decision-making. We used the national ICAP database to create the sampling frame. Subsequently, the database was filtered using three relevant criteria: geographic dispersion, number of employees, and sector of activity. The companies were operating in a variety of markets. Based on these criteria, a sampling frame of 25,391 SMEs was created. Employing an according sample size formula (Survey System, 2010) the proposed sample size was 264 companies. The questionnaires were administrated with personal interviews (Parasuraman, Grewal, & Krishnan, 2004). In total, 550 companies were approached using a random number generator and the data collection was completed with a sample of 250 SMEs (Table 2). The response rate was 45% which is considered quite satisfactory (BIS, 2015). Reasons that contributed to such a high response rate were the way respondents were approached (two official cover letters and office meeting) and the participants' interest in the survey's results. Data collection took place between

January 2010 and January 2012 that is in the heart of the Greek crisis.

As the financial crisis in Greece continued to deepen, the researchers deemed necessary the collection of a second round of data. Thus, a follow-up study was conducted with the objectives of: (a) detecting the companies participating in study one that managed to survive, and (b) investigating the reasons, strategies and tactics that led to such a positive outcome. The follow-up study was conducted in July 2013, roughly one and a half years after the first data collection, via telephone interviews. Out of the 250 SMEs that were in the original sample, 189 had managed to survive and participated in our second phase.

Open ended questions were used to capture approaches and tactics implemented and enabled respondents to elaborate on what they did to survive the crisis. It also ensured that the authors did not limit answers to their way of thinking. Indeed, very creative answers were given. To more systematically capture the different strategies adopted by firms, a four-item scale was developed and used. The questions aimed at capturing the overall strategic focus of the SME such as technological leadership, high quality, creating distinctive image, and offering new products/services.

#### 3.2. Bayesian structural equation modeling in industrial marketing research

Bayesian methods, specifically Bayesian SEM can be used in an effort to give rise to new conclusions and discussions in industrial marketing research. It is suitable especially when it comes to structural models that contain complex data, as is the case in this research. The true values of model parameters are viewed by the Bayesian methods as unsystematic and unknown. It is expected that these values will be distributed on a probability distribution, leading to a “posterior distribution” (Bolstad & Curran, 2016). The estimates based on the Bayesian methods merge the data probabilities with previous distributions that generate posterior distributions. These distributions are then used to generate estimates of the parameters (Muthén & Muthén, 2012).

### 4. Findings

#### 4.1. Results of the first phase study

The Shapiro-Wilk test was initially used to examine univariate data normality. This is the test of choice when examination of skewness, kurtosis, or both is needed, due to its excellent power properties (Mendes & Pala, 2003). According to Yap and Sim (2011), the Shapiro-Wilk test is superior to all others (skewness-kurtosis test, Kolmogorov-Smirnov, Lilliefors, etc.) because its power properties are considered optimal across a wide asymmetric distribution range. A violation of the normal distribution assumption was evidenced when applying this test.

Mardia's coefficient (Mardia, 1970) was reviewed to examine multivariate normality. When the value is over 7, there is substantial departure from normality (Byrne, 2013), while kurtosis values between 8 and 20 demonstrate extreme kurtosis according to Kline (2015). Kline also supports that values higher than 3 indicate more extreme skewness levels. Based on the results, Mardia's coefficient exceeded the proposed thresholds (Mardia's coefficient 318.310 critical ratio 34.897), demonstrating deviation from multivariate kurtosis. As outlined in Table 3, the data are not normally distributed, making the use of Bayesian SEM approach appropriate and necessary.

##### 4.1.1. Measurement model

The model hypothesized was tested using data from the 189 SMEs that survived the financial crisis. This paper initially looked into the psychometric traits of the constructs used, using the posterior values from the Bayesian estimation (see Table 3). Apart from the means calculated using the Bayesian estimation, the standardized factor loadings ( $\lambda$ ) were also estimated. During the confirmatory factor analysis process (CFA), the latent constructs proved statistically significant ( $p < .05$ ) (i.e., the zero value was not included in the confidence



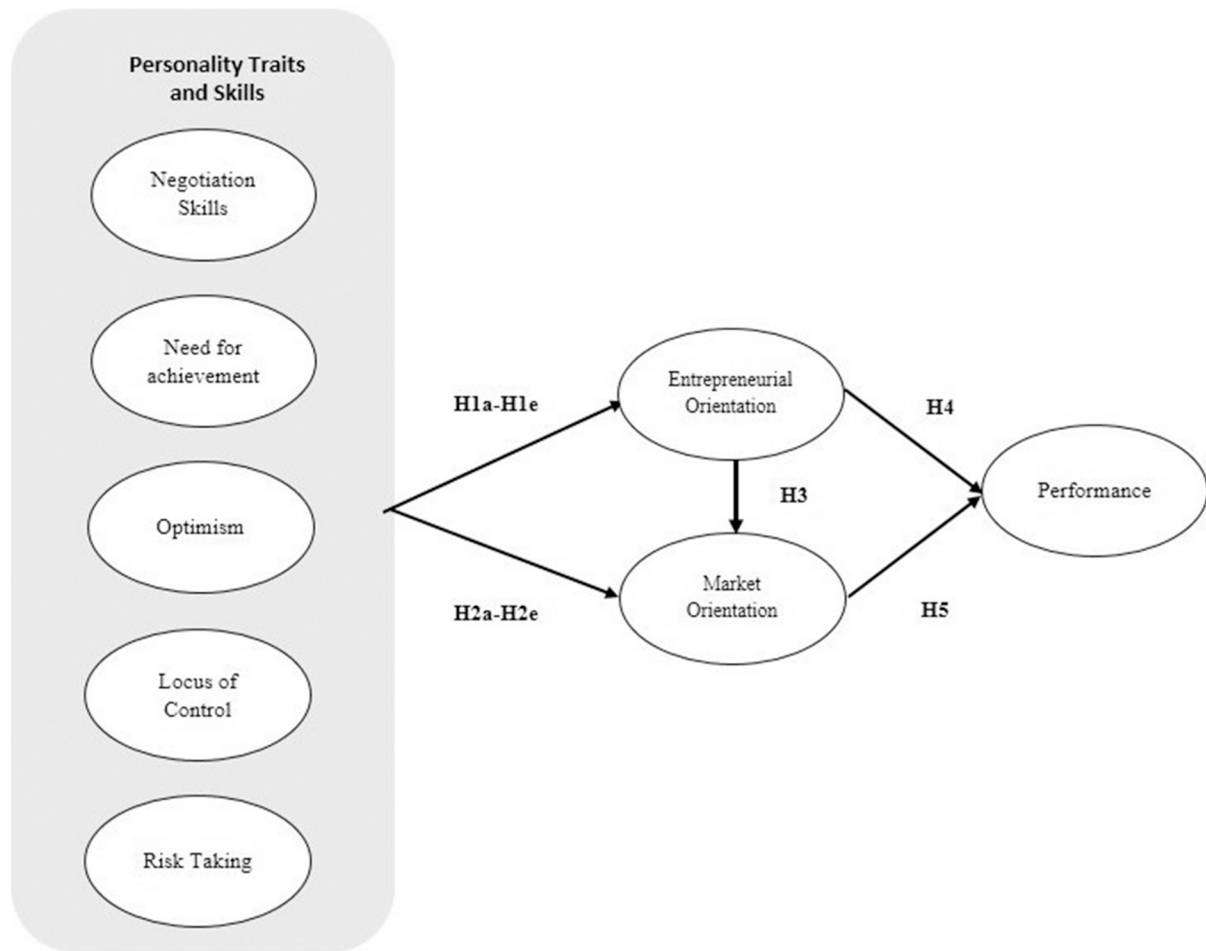


Fig. 1. Conceptual model of study one.

Table 1

Questionnaire's constructs and sources of scales.

Construct	Source of scale
MO	Narver and Slater (1990)
EO	Covin and Slevin (1988)
Performance	Gounaris and Avlonitis (2001)
Need for Achievement	Davidsson (1989)
Optimism	Wally and Baum (1994)
Locus of Control	Thomas and Mueller (2000); Rotter (1966)
Risk Taking	Jackson (1976); Eysenck et al. (1991)
Negotiation Skills	Banting and Dion (1988)

interval) and higher than 0.5, a fact that demonstrates that the constructs show convergent validity (Hair, Black, Babin, Anderson, & Tatham, 1998). Other reliability and validity measures that are often used, such as Cronbach's  $\alpha$  and composite reliability, are based on multivariate normality. As a consequence, it is not possible to estimate these measures for ordinal variables (Van Poucke, Matthyssens, & Weeren, 2016).

Discriminant validity was estimated using the Fornell-Larcker criterion (Fornell & Larcker, 1981; Hair et al., 1998). Based on this method, the correlations of the latent values are compared to the square root of the AVE values. The square root of the construct's AVE should be higher than its highest correlation with any other construct. The Bayesian estimation method provided the covariance posterior distributions of all the model variables and the correlations were calculated based on these. These correlations were lower than the square root of the AVE, consequently proving discriminant validity (see Table 4).

Table 2

Characteristics of the companies surveyed.

Characteristic	Category	
Industry categories/ Sector	Manufacturing	23%
	Trade	35%
	Services	30%
	Tourism	12%
	Total	100%
Employment Size	1–9	47%
	10–49	46%
	50–99	7%
	Total	100%
Geographical distribution	Attica	52%
	Northern Greece	19%
	Central Greece	10%
	Southern Greece	5%
	Islands	14%
	Total	100%
Age	Under 5 years	1%
	Between 5 and 10 years	12%
	Between 11 and 20 years	34%
	Between 21 and 50 years	50%
	Between 51 and 100 years	3%
	Total	100%

The Bayesian estimation uses MCMC algorithms for repetitive extraction of random samples from the posterior distribution of model parameters (Muthén & Muthén, 2012). To estimate convergence, the posterior distribution is used, based on trace and autocorrelation plots

**Table 3**  
Normality test and Psychometric Properties.

Constructs and Indicators	Normality SW Test	AVE	Mean	SD	$\lambda$
Negotiation skills		0.544			
1. I am usually as well prepared or better prepared for negotiations than other purchasing agents	0,863***		5.942	0.046	0.689*
2. I perform well under the pressure of negotiation	0,812***		5.417	0.018	0.765*
3. I can express myself well in negotiation sessions	0,932***		6.827	0.056	0.763*
4. I am persuasive in negotiation sessions	0,963***		6.551	0.047	0.768*
5. I am decisive in negotiation sessions	0,832***		5.776	0.081	0.733*
6. During negotiation sessions, I am in control of my emotions so that they are not visible to others, unless I wish them to be	0,852***		5.632	0.063	0.753*
7. I am able to perceive and use power to achieve a negotiation objective	0,961***		6.312	0.055	0.685*
Need for Achievement		0.533			
1. I always wanted to succeed and achieve something in my life	0,963***		5.581	0.021	0.769*
2. It is hard for me to understand people who work hard towards new goals even if they have already succeeded	0,861***		6.245	0.026	0.752*
3. It is important for me to come across new challenges and succeed	0,823***		5.517	0.042	0.703*
4. I am so happy with what I have achieved so far that I can stop trying	0,812***		6.621	0.042	0.693*
Optimism		0.546			
1. I believe that my performance will improve the following year	0,903***		5.278	0.071	0.763*
2. I believe that the economy will improve the following year	0,932***		5.457	0.042	0.685*
3. Usually, I expect improvements in my life and in the economy	0,912***		6.545	0.051	0.766*
Locus of control		0.580			
1. What happens is my own doing	0,936***		5.026	0.031	0.706*
2. Getting people to do the right things depends upon ability; not luck	0,836***		5.525	0.041	0.803*
3. When I make plans, I am certain I can make them work	0,831***		5.454	0.092	0.762*
4. I get what I want because I work very hard for it	0,863***		5.914	0.014	0.695*
5. My success depends mainly on being in the right place at the right time	0,812***		5.685	0.036	0.832*
Risk taking		0.537			
1. If the possible reward was very high, I would not hesitate putting my money in a new business that could fail	0,932***		5.616	0.021	0.883*
2. I would prefer a job involving change, travel, and variety even though risky and insecure	0,832***		6.472	0.052	0.656*
3. I quite enjoy taking risks	0,863***		5.552	0.041	0.904*
4. Life with no danger would be too dull for me	0,823***		5.451	0.026	0.747*
5. I enjoy fast driving	0,863***		6.242	0.045	0.576*
6. I believe that an element of risk adds spice to life	0,932***		6.027	0.021	0.692*
7. When I am catching a train, I often arrive at the last minute	0,812***		6.052	0.035	0.601*
EO		0.680			
1. In my company, there exists a very strong emphasis on R&D, technological leadership and innovation	0,932***		5.677	0.047	0.765*
2. My company introduced many new lines of products or services in the past 5 years	0,867***		5.723	0.033	0.796*
3. The changes in product lines (types/number of products) for my company have usually been dramatic	0,961***		5.341	0.041	0.768*
4. My company is typically the first to initiate actions to competitors for which the competitors then respond	0,940***		5.632	0.043	0.848*
5. Very often, my firm is the first company to introduce new products/services, techniques, technologies, etc.	0,867***		6.035	0.045	0.924*
6. I have a strong preference for high-risk projects (with chances of very high return)	0,875***		6.063	0.032	0.761*
7. I believe that, owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives	0,934***		5.956	0.045	0.856*
8. When confronted with decision-making situations involving uncertainty, my firm typically adopts a cautious, 'wait and see' posture in order to minimize the probability of making costly decisions	0,863***		6.312	0.023	0.865*
MO		0.557			
1. Our commitment to serving customer needs is closely monitored	0,964***		6.321	0.032	0.656*
2. Our objectives and strategies are driven by the creation of customer satisfaction	0,852***		5.632	0.063	0.706*
3. Competitive strategies are based on understanding customer needs	0,863***		5.326	0.044	0.605*
4. Customer satisfaction is frequently assessed	0,842***		5.945	0.030	0.802*
5. Close attention is given to after sales service	0,847***		5.321	0.034	0.897*
6. Salespeople share information about competitors	0,874***		6.031	0.036	0.863*
7. We achieve rapid response to competitive actions	0,853***		6.352	0.045	0.653*
8. Top management regularly discuss competitors' strengths and weaknesses	0,965***		5.326	0.016	0.762*
9. Customers are targeted when we have an opportunity for competitive advantage	0,941***		5.345	0.026	0.685*
10. Business functions are integrated to serve market needs	0,978***		5.637	0.063	0.834*
11. Information shared among functions	0,985***		5.923	0.023	0.844*
12. Our managers understand how employees can contribute to value for customers	0,867***		6.063	0.042	0.558*
Performance (against goals)		0.728			
1. Sales volume	0,867***		3.364	0.032	0.776*
2. Profits	0,975***		3.453	0.021	0.812*
3. ROI	0,985***		4.132	0.010	0.931*
4. Market share	0,869***		4.363	0.026	0.885*

Note: An asterisk (\*) indicates significance at the 0.05 level (i.e., the value was not included in the confidence interval). Three asterisks (\*\*\*) denote values significant at  $\alpha = 0.01$ . SW = Shapiro-Wilk test; M = mean; SD = standard deviation;  $\lambda$  = factor loadings; Sig. = significance level

(Muthén & Muthén, 2012). There is rapid convergence in the distribution when there are significant fluctuations and no continuous trends in the plot (Arbuckle, 2013; Kaplan & Depaoli, 2012). The model results were based on 55,000 samples collected after 1000 burn-in samples, for a total of 56,000 samples following the thinning process.

To evaluate model fits, a satisfactory number of samples was extracted from the posterior distribution, in an effort to accurately calculate the posterior parameter values (Arbuckle, 2013). The model generated posterior a predictive value of 0.52 which demonstrates a very good fit (Gelman, Carlin, Stern, & Rubin, 2014). MCMC

**Table 4**  
Discriminant validity.

Constructs	Fornell and Larcker criterion							
	NS	NfA	O	LoC	RT	EO	MO	P
Negotiation Skills (NS)	<b>0.737</b>							
Need for Achievement (NfA)	0.052	<b>0.730</b>						
Optimism (O)	0.158	0.127	<b>0.738</b>					
Locus of Control (LoC)	0.047	0.145	0.057	<b>0.761</b>				
Risk Taking (RT)	0.118	0.148	0.054	0.044	<b>0.732</b>			
Entrepreneurial Orientation (EO)	0.466	0.074	0.590	0.150	0.496	<b>0.824</b>		
Market Orientation (MO)	0.394	0.412	0.424	0.453	0.072	0.414	<b>0.746</b>	
Performance (P)	0.151	0.138	0.165	0.124	0.073	0.462	0.414	<b>0.853</b>

<sup>a</sup>Diagonal elements in bold denote the square root of Average Variance Extracted.

<sup>b</sup>Lower triangle: denotes the correlations between the constructs.

<sup>c</sup>Upper triangle: denotes the heterotrait-monotrait values.

convergence evaluation was based on potential scale reduction (PSR) convergence criterion (Gelman et al., 2014). Furthermore, within- and between-chain variations were compared to the PSR criterion in parameter estimates. A PSR value equal to 1.000 shows flawless convergence (Kaplan & Depaoli, 2012; Muthén & Muthén, 2012). When where there is a large number of parameters, a PSR value below 1.100 for each parameter signifies convergence of the MCMC sequence (Muthén & Muthén, 2012). In the case of this model, the PSR value was 1.0016 which demonstrates that convergence has been achieved.

#### 4.1.2. Structural model

Hypothesis H1a was supported (Table 5) indicating a positive effect of negotiation skills on EO (mean: 0.423, confidence interval 0.241 to 0.752). Moreover, optimism (mean: 0.512, confidence interval 0.311 to 0.684) and risk taking (mean: 0.375, confidence interval 0.265 to 0.531) were also found to positively impact EO providing support for hypotheses H1c and H1e respectively. However, neither need for achievement (mean: 0.032, confidence interval – 0.152 to 0.132) nor locus of control (mean: 0.061, confidence interval – 0.032 to 0.136) was found to impact EO. Therefore, hypotheses H1b and H1d were not supported.

Additionally, support was found for hypothesis H2a indicating a positive effect of negotiation skills on MO (mean: 0.468, confidence interval 0.231 to 0.672). Moreover, need for achievement was found to positively impact MO as well (mean: 0.211, confidence interval 0.152 to 0.432) providing support for H2b. Optimism (mean: 0.503, confidence interval 0.256 to 0.633) and locus of control (mean: 0.353, confidence interval 0.265 to 0.523) were also found to positively impact MO providing support for hypotheses H2c and H1d respectively. However, risk taking (mean: 0.032, confidence interval – 0.142 to 0.175) was not found to impact MO, not providing support for H2e. H3

was supported, highlighting the positive impact of EO on MO (mean: 0.361, confidence interval 0.288 to 0.633). Finally, EO (mean: 0.433, confidence interval 0.338 to 0.667) and MO (mean: 0.366, confidence interval 0.226 to 0.574) were found to positively impact performance, providing support for H4 and H5 respectively.

#### 4.2. Bayesian independent sample t-test

A Bayesian *t*-test analysis was run in order the key differences between the survived-not survived companies to be explored. According to the results (Table 6), negotiation skills (mean difference: –1.1414, confidence interval from –1.6333 to –0.1890) and optimism (mean difference: –1.4977, confidence interval from –1.6996 to –0.723) were significantly higher in the case of the survivors group. Additionally, the performance (mean difference: –1.4812, confidence interval from –1.7852 to –0.9632) of the survivors was higher, as well as the entrepreneurial orientation (difference mean: –0.9627, confidence interval from –1.2363 to –0.0031), although marginally.

#### 4.3. Results of the follow-up study

The objective of the follow-up study was to determine the firms participating in the first study that survived the prolonged Greek crisis as well as to investigate the reasons, strategies, and tactics that facilitated their survival. Out of the 250 SMEs of the first study, 189 had managed to survive, reflecting an approximately 75% survival rate within an eighteen-month period. The rather high survival rate speaks to the ability of SMEs to survive despite hostile and unfavorable conditions.

We analyzed the two broad sets of open-ended questions by implementing the analytical technique of content analysis (Krippendorff,

**Table 5**  
Summary of effects.

Hypothesis	Path	Mean	S.E	S. D	95% Lower Bound	95% Upper Bound	Min	Max	Status
H1a	NS→EO	0.423	0.004	0.054	0.241	0.752	0.203	0.813	Supported
H1b	NfA→EO	0.032	0.001	0.005	–0.152	0.132	–0.163	0.163	Not Supported
H1c	O→EO	0.512	0.003	0.082	0.311	0.684	0.166	0.733	Supported
H1d	LoC→EO	0.061	0.001	0.009	–0.032	0.136	–0.064	0.175	Not Supported
H1e	RT→EO	0.375	0.004	0.063	0.265	0.531	0.195	0.612	Supported
H2a	NS→MO	0.468	0.005	0.065	0.231	0.672	0.136	0.752	Supported
H2b	NfA→MO	0.211	0.003	0.033	0.152	0.432	0.103	0.532	Supported
H2c	O→MO	0.503	0.002	0.075	0.256	0.633	0.202	0.701	Supported
H2d	LoC→MO	0.353	0.004	0.059	0.265	0.523	0.231	0.633	Supported
H2e	RT→MO	0.032	0.001	0.002	–0.142	0.175	–0.176	0.203	Not Supported
H3	EO→MO	0.361	0.004	0.073	0.288	0.633	0.233	0.763	Supported
H4	EO→P	0.433	0.005	0.063	0.338	0.667	0.303	0.766	Supported
H5	MO→P	0.366	0.004	0.053	0.226	0.574	0.167	0.694	Supported

**Table 6**  
Bayesian Independent Samples t-test.

Construct	Survivals and not survivals means	Mean difference	S. D	95% Lower Bound	95% Upper Bound	Between-Group Difference
Negotiation Skills	Yes No	5.9286 4.7872	– 1.1414	0.052 0.062	– 1.6333 – 0.1890	Yes
Need for Achievement	Yes No	5.4084 5.2857	– 0.1227	0.031 0.028	– 0.6289 0.3171	No
Optimism	Yes No	4.4225 2.9248	– 1.4977	0.076 0.040	– 1.6896 – 0.7231	Yes
Locus of Control	Yes No	5.3299 5.1905	– 0.1394	0.076 0.052	– 0.2632 0.2154	No
Risk Taking	Yes No	3.9438 3.8286	– 0.1152	0.046 0.032	– 0.1633 0.1363	No
Entrepreneurial Orientation	Yes No	4.0663 3.1036	– 0.9627	0.036 0.031	– 1.2363 – 0.0031	Yes (Marginally)
Market Orientation	Yes No	5.5964 5.4405	– 0.1559	0.042 0.036	– 0.2863 0.0756	No
Performance	Yes No	3.2312 1.7500	– 1.4812	0.023 0.016	– 1.7852 – 0.9632	Yes

Note:  $\alpha = 5\%$ .

2018). The respondents' answers were analyzed by generating categories in a data-driven/inductive mode, as proposed by Schreier (2012). Overall, we compared the responses across categories to identify patterns. In general, data analysis was carried out in an iterative cyclic process (Daymon & Holloway, 2010). In order to secure the reliability of the coding procedure, two independent coders participated through a blind coding procedure. The total coefficient of agreement between the two coders for all units of coding was 89.93%. However, quite often a conventional coefficient of agreement overestimates the amount of actual agreement, since it does not consider agreement by chance alone. To tackle this limitation, we calculated Cohen's kappa coefficient of agreement for each of the two questions. The two questions had kappa coefficients of 89.1% (question about reasons that led to survival), and 88.5% (question about tactics that led to survival) respectively, values that surpass the proposed 80% cut off value (Krippendorff, 2018), and reflect satisfactory intercoder reliability. In addition, the inductive method of coding is a way that secures the validity of the coding frame (Schreier, 2012). Face validity was enhanced through the following points: (1) a pilot coding procedure enhanced the accuracy of the coding frame; (2) no subcategory had extremely high frequency; (3) the level of abstraction employed to reduce the data was kept to a medium level (Schreier, 2012). Table 7 includes the reasons as well as the tactics that the entrepreneurs themselves identified as key factors for their survival. Moreover, such reasons and tactics are presented from the most to the least frequently mentioned replies.

Table 7 shows that, according to entrepreneurs, the main reasons for their firms' survival were: reduction of costs, the fact that the industry in which they operated was not affected as much as other industries, hard work, exports, reducing prices of their products and services, and avoiding taking loans.

A closer look to these findings reveals that the reasons of survival can be grouped into six main factors that helped SMEs survive: *downsizing* (including cost reduction, expense and salary reductions, and general downsizing) was a key factor according to 36.5% of entrepreneurs, *prudent financial management* (including avoiding taking loans, general financial management and accounting liquidity) was mentioned by 22.2% of the entrepreneurs, *extroversion* (including export activity and finding new business partners) was a key factor

**Table 7**  
Reasons and tactics that Led to the survival of SMEs.

Reasons that Led to Survival (ranking)		Tactics that Led to Survival (ranking)
1.	Cost reduction	Cost reduction
2.	Industry	Price reduction
3.	Hard work	New partners/ suppliers
4.	Exports	Exports
5.	Price reduction	Downsizing
6.	No loans	New products
7.	Family business	Expense reduction
8.	Financial management	Salary reduction
9.	Loyal customers	Industry
10.	Good management	Financial management
11.	Experience/ well established	Loyal customers
12.	Expense reduction	Better quality
13.	Downsizing	New markets
14.	Salary reduction	No loans
15.	New products	Good management
16.	Accounting liquidity	Hard work
17.	Better quality	Family business
18.	New partners	
19.	Customer selection	

according to 12.7% of entrepreneurs, *marketing actions* (through price reductions of products and services, launching new products and improving the quality of existing products) were indicated by 19.6% of entrepreneurs, industry was mentioned by 11.6% and *other reasons* (such as hard work, the fact that the company was a family business, the loyalty of the customers, good management, the fact that it was a well-established company that had experience and customer selection) were mentioned by 42.3% of entrepreneurs.

Regarding the ways of survival, while highly correlating with reasons of survival, there were changes in the rankings. Respondents highlighted the importance of reducing costs, dropping prices, finding new partners and suppliers, exporting, downsizing and offering new products to the market. 'New partners/suppliers' was in the top three, while it was the 18th in reason for survival. New products were also more important as a tactic for survival compared to reasons for survival.



**Table 8**  
Strategy Adopted During the Crisis (during the last 12 months before the follow-up study).

Strategy	Mean	St.D	Variance
1. Technological leadership relative to your competitors.	4.011	1.482	2.196
2. Reach higher quality standards with your products and services	5.063	1.282	1.643
3. Create a distinctive image with your products and services.	4.954	1.359	1.848
4. To offer new products/services to your customers.	4.264	1.733	3.005

These tactics that SMEs successfully employed in order to survive can be grouped into five main factors: *downsizing* (including cost reductions, general downsizing, expenses and salary reductions) was mentioned as successful tactic for survival by 64.6% of entrepreneurs, *marketing actions* (including dropping the price of the products and services, launching new products, and improving the quality of existing products) were indicated by 40.7% of the entrepreneurs, *extroversion* (including export activity, finding new business partners and spotting new markets) was a key tactic for their survival according to 31.2% of entrepreneurs, *other tactics* (such as enhancing the loyalty of customers, good management, hard work and stronger bonds within the family business) were mentioned by 7.4% of entrepreneurs, *financial management* (through general financial management and avoiding taking loans) was indicated by 6.3% of the entrepreneurs.

Table 8 reports the means and variances regarding the different strategies adopted by SMEs that survived the crisis. The numbers reflect the strategies deployed by the surviving firms, as reported in the follow-up study.

It appears that the SMEs that survived followed a strategy of improvement of the quality of their products and services and the creation of a distinctive image for their offerings. This finding is interesting because the deep and prolonged crisis led to significant decline in the purchasing power of customers. The follow-up study suggests that surviving SMEs - although faced with an extremely unfavorable and threatening economic environment - implemented quality and image improvement rather than blindly cutting costs in order to survive. Indeed, a series of crosstabs between the traits and skills of the first study and the strategies deployed as reported in the follow-up study revealed that entrepreneurs who had high levels of negotiation skills, need for achievement, optimism, locus of control and risk-taking, had a preference for reaching higher quality standards with their products and services during the crisis (Table 9).

Our results show that although one of the leading tactics for survival is decreasing costs (see Table 7), the improvement of the product/service quality remains of paramount importance as well (see Table 8). For SMEs, such a finding shows how crucial it is to employ an effective supply chain management system and foster cooperative relationships with suitable suppliers so that the seemingly contradictory goals of cost decreases and product quality improvements can be achieved simultaneously (Davis, 1993 cited in Sánchez-Rodríguez & Hemsworth, 2005; Jingjing, Wei, Gongbin, & Liang, 2015). Along similar lines, the improvement of the SMEs' purchasing performance can be accomplished via the enhancement of the quality of the materials used, the improvement of on-time delivery, the reduction of inventory and the reduction of overall costs (Chao, Scheuing, & Ruch, 1993 cited in Sánchez-Rodríguez & Hemsworth, 2005). Indeed, in line with previous research, our study reveals that identifying new partners and suppliers is one of the most crucial tactics to be applied for the survival of an SME during a crisis (see Table 7).

## 5. Discussion

The results show that some personality traits and skills do have positive effects on market and entrepreneurial orientations, which influence the SMEs' performance. According to Covin and Slevin (1991) the entrepreneur should be in the spotlight of every corporate behavior

model. Our findings confirm previous research demonstrating that personality traits influence strategic decision-making (Wally & Baum, 1994) and business strategies (Miller & Toulouse, 1986). Carson and Gilmore (2000) emphasized that marketing in SMEs has peculiarities that originate from the entrepreneur-owner-manager, a phenomenon that is supported by the current findings. According to Kotter (1990), the leader determines not only the vision and its future direction, but also the strategies and tactics that will lead to the needed changes and the wanted outcomes.

More specifically, the current research showed that negotiation skills have a positive effect on both entrepreneurial orientation and market orientation, thus hypotheses *H1a* and *H2a* have been confirmed. It seems that the more negotiation skills of the entrepreneur, the more market and entrepreneurial capabilities the SME develops. Probably, the SME is becoming more effective in the competitive arena (for example through better negotiation processes with suppliers as well as with other stakeholders) and is more attentive to customer needs. The effective negotiations might strengthen the innovativeness of the SME perhaps by achieving better agreements and partnerships with upstream as well as downstream stakeholders such as suppliers and retailers. Also, they might enable the SME to be more proactive by achieving better collaborations for new product development and launching more projects that entail a certain level of risk.

The findings of the current research show that the entrepreneur's need for achievement has a positive impact on the SME's MO, therefore, confirming *H2b*. However, this was not the case for the effect of need for achievement on EO; thus, *H1b* was rejected. It appears that the personality of the entrepreneur has a positive impact on how well an SME is oriented towards its competitors and its customers. The more intense the drive for achievement, probably the more effort the entrepreneur allocates in making his/her firm compete in a better way by offering additional value to its customers. It is well known that people with high need for achievement are more likely to take actions that are necessary for business success (McClelland, 1961). This study confirms previous findings that need for achievement has a positive influence on business performance (Collins, Hanges, & Locke, 2004). However, it seems that in times of economic crises, the need for achievement does not drive more innovativeness in SMEs as entrepreneurs might become relatively reluctant to invest in R&D.

Another important finding is that the entrepreneur's optimism seems to have direct positive effects on both EO and MO, thus confirming *H1c* and *H2c*. Especially during the challenging crisis times, the entrepreneurs' notion for a brighter future can stimulate their efforts to become more effective in the competitive arena and to serve the needs of their customers in a better way. It also appears that when entrepreneurs manage to retain their optimism while operating their SMEs in an environment of uncertainty, they foster a more innovative culture in their small firm. At the same time, their optimism is likely to push them to be more determined in the business arena in order to identify and take advantage of new opportunities, in order to be proactive and to take risks at a corporate level. This determination is at the heart of business action (Morris & Paul, 1987).

Furthermore, per findings, the entrepreneur's locus of control seems to have a direct positive impact on the SME's MO, supporting *H2d*. The entrepreneurs' notion that they are responsible for their fate may lead to a higher degree of dedication towards the accomplishment of the firm's

**Table 9**  
Existing Personality Trait and Strategy Adopted.

Strategy adopted during the crisis				
Existing Personality Trait	Technological leadership relative to your competitors	Reach higher quality standards with your products and services	Create a distinctive image with your products services	To offer new products/services to your customers
NS	106	149	147	105
NfA	103	145	141	104
Op	86	118	114	87
LoC	109	152	148	109
RT	55	80	79	60
Hierarchy of preferred strategies				
1st	Reach higher quality standards with your products and services	2nd	3rd	4th
NS	Reach higher quality standards with your products and services	Create a distinctive image with your products services	Technological leadership relative to your competitors	To offer new products/services to your customers
NfA	Reach higher quality standards with your products and services	Create a distinctive image with your products services	To offer new products/services to your customers	Technological leadership relative to your competitors
Op	Reach higher quality standards with your products and services	Create a distinctive image with your products services	To offer new products/services to your customers	Technological leadership relative to your competitors
LoC	Reach higher quality standards with your products and services	Create a distinctive image with your products services	Technological leadership relative to your competitors	To offer new products/services to your customers
RT	Reach higher quality standards with your products and services	Create a distinctive image with your products services	To offer new products/services to your customers	Technological leadership relative to your competitors

Note: Dominant Personality Trait = Over the threshold of 4 out of the 7 points of the Likert scale.

goals. When the entrepreneurs feel that they can play an important role on the fate of the SMEs, they may attribute greater importance of MO in the implementation of survival strategies, as MO can positively affect performance (Doyle & Armenakyan, 2014; Ellis, 2006). Moreover, this belief may engage them further towards thwarting their competitors and organizing their firm more effectively. Those are important steps that may lead to better survival rates in times of crisis. Nonetheless, *H1d* (i.e., locus of control bearing a positive impact on EO) was not supported. It appears that in times of crisis, entrepreneurs might not be willing to put emphasis on proactiveness or innovativeness even if their belief that they govern their present is strong.

In addition, results show that risk-taking as an entrepreneurial personality trait seems to have a positive impact on EO, confirming *H1e*. However, this personality trait seems not to affect MO, thus *H2e* was not supported. Apparently, the greater the levels of risk taking as a personality trait, the more the SME is focused on entrepreneurship reflecting innovativeness, proactiveness and risk taking at a strategic level. This finding confirms the intuitive notion of Doole and Lowe (2008) that the SMEs are so dominated by the presence of their owners that they end up becoming their personification, since the entrepreneurs' opinions and attitudes determine the adopted strategies.

Moreover, the present research showed that EO has a direct positive impact on MO in a SME context. Therefore, *H3* was supported. The findings confirm Murray's (1981) view that in highly competitive environments, marketing tends to manifest in an entrepreneurial way. As expectations and pressures for survival and performance rise, an entrepreneurial organization might have to become more innovative, proactive and have a more positive predisposition towards risk taking, fostering at the same time MO (Miles & Arnold, 1991). This activation of entrepreneurial behavior might explain why, even in times of economic downturns, EO seems to enhance MO. During a financial crisis, the stakes are high since expectations and pressures do not relate with business performance only, but they focus primarily on survival. As a result, SMEs are becoming more extrovert and more willing to leverage their skills of identifying opportunities in the surrounding environment.

The findings verified that both EO and MO have positive impact on SMEs' performance in times of crisis, thus both *H4* and *H5* were supported. These results are in line with previous studies that demonstrated the positive relationship between EO and company outcomes (Keh et al., 2007; Rauch et al., 2009), as well as the positive relationship between MO and business performance (Doyle & Armenakyan, 2014; Ellis, 2006). Hunt and Morgan (1995) pointed that MO is incorporated within the competitive strategy, leading to the creation of a sustainable competitive advantage. Gaining competitive advantage may provide the basis for explaining the positive impact of MO on performance (Hunt & Morgan, 1995).

Regarding the follow-up study, the results indicated the main reasons that the entrepreneurs themselves pinpointed as key to their survival. The dominant explanations were cost reductions, the fact that the industry in which they operate was not greatly affected by the crisis, hard work, exports, price reductions, avoiding taking loans, being a family business and prudent financial management. Regarding the tactics SMEs employed in order to survive, the entrepreneurs of our study highlighted the importance of cost reduction, price reduction, finding new business partners and suppliers, putting more effort on exporting, downsizing, and launching new products. The findings showed that the road to survival goes mainly through the path of downsizing, financial management, extroversion and marketing actions.

Importantly, reaching higher product and service quality levels was the dominant strategy for the firms that survived, making this a rather unexpected and crucial finding for navigating future economic downturns. Further, the analysis revealed that the firms that survived were run by entrepreneurs that demonstrated higher levels of optimism and better negotiation skills compared to the companies that did not survive. It appears that maintaining optimism and developing negotiation

**Table 10**  
Suggestions on how entrepreneurs can benefit from strategic orientations, tactics, personal skills and traits.

Suggestions for Actions	Performance boosters	Survival boosters
<i>Strategic orientations</i>		
Entrepreneurial orientation	✓	✓
- Innovate services/products without threatening solvency		
- Take a forward-looking perspective to anticipate and seize new opportunities		
- Step out of the comfort zone of your business and explore new markets, new business models, new ways of operating		
Market orientation	✓	
- Adapt to changes in customer needs and customer behavior		
- Monitor and respond to competitor actions		
- Align functions to the marketing strategy and tactics		
<i>Key tactics</i>		
- Downsize (i.e., reduce costs, expenses and salaries)		✓
- Define marketing actions (i.e., decrease prices, improve/ renew products)		
- Be more extrovert (i.e., export, find new business partners and new markets)		
- Focus on financial management		
<i>Personal skills and traits</i>		
Negotiation skills:	✓	✓
- Renew contracts for better conditions		
- Train and improve negotiations skills		
Optimism:	✓	✓
- Recognize the strengths of employees		
- Resiliently look for new opportunities from the crisis		
Need for achievement:	✓	
- Set motivating goals for yourself and employees		
- Celebrate even small successes		
Locus of control:	✓	
- Identify factors that can be changed and ways to change them		
- List key decisions to make about the financial structure		
- Reallocate assets and resources to capture new opportunities		
Risk-taking:	✓	
- Dare to challenge your professional identity and positioning		
- Take calculated risks		

skills may improve the chances of SMEs survival. In addition, it seems that EO plays a significant role on a strategic level since the SMEs that survived had higher levels of EO compared to the ones that didn't make it. Fostering innovativeness, being proactive in the competitive arena by introducing for example new products with better quality and new initiatives and taking calculated risks all seem to help SMEs survive the financial crisis. Finally, having better levels of performance seems to have a carry-on effect that helps SMEs survive in the long run.

By explaining how individual-level factors impact the survival of the SME, these findings can contribute to a more nuanced understanding of the microfoundations of strategy at the intersected levels of crisis management, cognitive psychology, and market turbulence.

## 6. Managerial implications

Like the Covid-19 crisis, the Greek crisis triggered people's fight-or-flight survival instinct due to unprecedented levels of market uncertainty, unpredictability, retrenchment, fear of the future and intense need for fast adaptation to new economic conditions. Blaming the crisis for intensified competition, financial turbulence, limited access to loans, reductions in aggregate demand or high business mortality rates may release a wide range of unpleasant emotions such as fear, worry, doubt, frustration, and anger (Wagner, 2014). Entrepreneurs might experience even higher intensity of such negative emotions as they face the additional pressure caused by health-related concerns during the dire economic conditions triggered by the Covid-19 pandemic. However, regardless of the type of crisis, SMEs usually have disadvantages in terms of external restrictions such as access to capital and internal restrictions such as management expertise, talent and limitations on the development of slack resources. The traits highlighted here can help managers view any crisis in a new perspective as they can be modified

over time with individual experiences. When knowing what the unique advantages of entrepreneurs' personality are, they can better use the influence of the traits to inspire and encourage their employees to work effectively to achieve common goals. A financial crisis can also have a maturing effect and thus trigger personal as well as corporate and societal growth. Considering what Joseph Schumpeter coined “creative destruction”, a crisis is a disruption that can trigger new innovations and practices for the better.

The entrepreneurs who successfully navigated through the Greek crisis did not only fulfil short-term strategic goals but were also adaptive to changes in the environment and able to explore and exploit sources of value creation by using different tactics of downsizing, financial management, extroversion, and marketing actions. The follow-up study revealed the main reasons and tactics of survival. Strategically, the survivors focused mainly on improving the quality of their products and services and tried to create a unique image for them. Those important findings could help SMEs facing future crises.

There are some differences between the Greek financial crisis and the current Covid-19 crisis. In the case of the Greek crisis, as the domestic market continued to sink, the global economy had started to recover, providing SMEs opportunities to explore foreign markets. In the case of the global Covid-19 crisis, finding healthy international markets will be even more challenging. Thus, deploying both EO and MO will be crucial for SMEs to compete more effectively during and after the Covid-19 crisis as both orientations usually improve performance. But these entrepreneurs most likely will not be fully aware of how their personality and skillsets helped them survive.

Nevertheless, the study confirms how individual personality traits, skills, and strategic orientations in concert contribute to the survival of SMEs during a crisis. It highlights the positive role of need for achievement, optimism, risk taking, locus of control, and negotiation

skills when SMEs are shaken and struggle to survive. These findings stress how important it is to consider the micro-foundations of strategy when facing a crisis. In addition to analyzing environmental factors, managers also need to take into account how their personal traits and skills influence their abilities for navigating turbulent times. Table 10 illustrates how entrepreneurs can benefit from traits, skills, strategic orientations and tactics to strengthen the ambidextrous leadership of SMEs:

A crisis creates a high level of unpredictability where classical strategic marketing and management tools can turn out to be useless (Stacey, 2010). The study reminds us that there are alternative methods for survival than focusing on financial stamina or competitive positioning of the firm which rely more on knowing what the unique advantages of the individual are. Thus, managers should keep in mind how they directly impact on important aspects of the SME strategy such as entrepreneurial and market orientations which, in turn, affect the business performance. In uncontrollable situations like the Greek financial crisis or the present Covid-19 situation that seems to be leading many B2B companies into a global recession, an increased self-awareness may direct the manager's attention towards aspects that to some extent can be controlled.

Focus on the personality aspects encourage managers to take control of and/or reinforce some of the characteristics that have a positive effect on the performance and survival of their business endeavors. The traits highlighted here can help managers view crisis in a new perspective as they can be modified over time with individual experiences (Boyce, Wood, & Powdthavee, 2013; Hudson, Roberts, & Lodi-Smith, 2012). For example, as a person's commitment to work increases, personality traits may change due to the fact that new social (professional) roles require and reinforce specific patterns of emotion, thought and behavior (Lodi-Smith & Roberts, 2007).

Entrepreneurs without the same financial capacity of larger companies can use the influence of their personality to inspire and mobilize their teams to work effectively to achieve common goals. With proper training, they can develop particular skills that can positively impact firm performance. It is important for entrepreneurs to realize the immediate impact that their characteristics and skills have on their strategy and ultimately on performance and to self-assess their characteristics in order to examine ways that their companies can benefit from those traits (Bass & Riggio, 2006). Such reflective process may enhance business results and increase the chances of survival and growth.

Due to the positive impact of EO and MO on SME's performance even in times of recession, managers should take into account that EO (Covin & Slevin, 1988) enhances SME's performance directly and indirectly (through the positive impact on MO). EO requires determination that in the case of SMEs usually stems from a strong, visionary leader (Dess, Lumpkin, & Covin, 1997), so the role of the entrepreneur is vital. At the same time, entrepreneurs should strengthen MO by intensifying the notions of customer and competitor orientation as well as the inter-functional coordination (Narver & Slater, 1990). MO should be an integral part of the business culture but also emanated by all company functions and coordinated towards a shared vision to impact the results of a SME.

Future research could investigate further the relationship between personality characteristics and strategies and tactics used to survive the crisis. For example, are entrepreneurs with certain types of personalities more likely to pursue quality and image improvements while others strive for technological leadership? The answers can provide guidelines for SMEs to rely on certain types of entrepreneurs to ride economic downturns, including the current Covid-19 situation. If certain personality characteristics embrace EO and MO more, then certain traits should be nurtured in executive training workshops. Researchers could also investigate whether the relationships between the aforementioned variables continue to occur under different conditions and with what intensity and whether those impacts continue to exist when the SMEs

grow, and more people get involved in strategic decision making. In-depth interviews with entrepreneurs whose firms did not survive could uncover the conditions and factors that led to such an unfavorable outcome.

Finally, relating to the resources and capabilities of the firm (Coff & Kryscynski, 2011), further research on strategic crisis navigation could also include employees and the interplay of their idiosyncratic traits, preferences, experiences, and goals. As they can choose whether to stay and exert effort or abandon the company during a crisis, a more detailed understanding of how relations between macro variables are mediated by micro actions and interactions at organization-level, as well as how future opportunities are created through collective network effects, may uncover how SMEs are better able to cope with market turbulence and crisis.

## 7. Conclusion

The study showed how SMEs managed to survive while facing one of the most devastating and long-lasting economic crises. SMEs made it through challenging times by closely monitoring environmental developments, coordinating operations, intensifying efforts, improving productivity and efficiency, conducting financial management, downsizing, taking proper marketing actions, and developing new partnerships with supply channel members. It is evident that entrepreneurs with a proper set of traits, skills, strategic orientations and tactics can weather financial storms that seem uncontrollable, and can significantly improve their chances of survival.

In Chinese, the word 'crisis' is composed of two characters—one represents danger, and the other represents opportunity. In Greek, it stems from “κρίνω” (krínō), which means to pick out, choose, decide, judge. In combination, the two translations illustrate how individual personality is determining whether the focus is on what is lost or what can be gained. Our capacity to respond positively to the future crises depends not only on reducing costs, but also on whether managers can let go of the costs and focus on the potential benefits of the crisis.

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