

Managerial Cognition, Strategy and Performance of Foreign SMEs in Romania

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Abstract

Economic downturn can either create opportunities or difficult threats for small and medium sized enterprises. Managerial perceptions act as environmental interpretations and influence the strategies that are implemented during recessions and other difficult situations. In any scenario, they affect organizational performance. This paper investigates the interactions between managerial cognition of an economic recession, the response strategy chosen and the consequences for firm performance amongst foreign SMEs operating in Romania across 12 industries. We consider both managerial and organisational antecedents for organisational performance.

Keywords: threats and opportunities, Romania, SMEs, entrepreneurial cognition, strategic orientations

1. Introduction

The majority of the strategic management literature explains organisational behaviour through organisational variables other than those related to strategic decision-making, while recent views have been increasingly indicating that executive judgment is an important cause of organisational strategic behaviour (Powel et al., 2011). Accordingly, strategic judgment significantly influences the strategic orientation of organisations (Holmes et al., 2011), while the orientation of the strategic decision maker, i.e. the managerial perception of opportunities and threats, influences the choice of organisational strategy (Devers et al., 2008). The strategic management literature traditionally assumes that organisational behaviour and thus strategic orientation is based on several organisational and environmental variables; however, individual decision-making models argue that the managerial perception of risk, opportunities and threats influences strategic decision-making, thus influencing organisational behaviour and performance, causing deviations from what would be expected, based merely on strategic management arguments, i.e. the expected return (Kahneman, 1992).

To start understanding managerial perception and risk orientation, we find ourselves tapping into the field of cognitive science, since the strategic management literature has been lagging behind. It is only recently that the strategic management field has turned its attention to the role of cognitive processes within the strategic management process, i.e. the implications of individual decision-making for strategic management within an organisation, a field which recently has been coined as the 'behaviour strategy field' (Powel et al., 2011). This field highlights the fact that firm-level actions and organisational behaviour are influenced by the cognitive processes of strategic decision-makers (Porac & Thomas, 2002). For individuals in isolation, the implications of risk perception and attitudes to the individual decision-making process have been repeatedly pointed out (Edwards, 1996). However, despite research that draws from cognitive theory to explain organisational behaviour, the link between managerial risk orientation and organisational strategy implications, under conditions of risk, still remains unclear (Homes et al., 2011).

Risk situations, relevant for the relationship between strategic risk attitudes and the choice between organisational strategies, entail conditions of high-stake and complex problem-solving (Powel et al., 2011), situations which are often associated with decision-making during organisational crises (Dutton & Jackson, 1987; Jackson & Dutton, 1988). Especially crisis situations resulting from macro-institutional changes, i.e. economic turbulence affecting the market, are habitually associated with high-stake and complex problem-solving circumstances (Pearson & Clair, 1998). Economic crises are representative of high risk circumstances, where both opportunities and threats can be spotted. An opportunity represents a high chance for likely gain and a small

chance for loss, while a threat is the exact opposite (Jackson & Dutton, 1988). Therefore, the perception of a crisis, in terms of opportunity and threat, is not only found to be salient in strategic literature; it is also used as a suitable indicator of risk framing and perception (Ocasio, 1995; Chattopadhyay et al., 2001).

Crises can devastate unprepared organisations but can strengthen those that are well prepared (Loosemore et al., 2000). During a period of economic downturn, all firms face difficult environmental conditions, because of the decline in demand, the fact that there is less available capital, the increase in unemployment, the reduction of shareholder value and the lower return on investments and the ambiguity of cause and means of resolution (Kunc & Bhandari, 2011; Pearson & Clair, 1998; Vaaler & McNamara, 2004). In such contexts, the adaptations organisations make to environmental changes are strongly influenced by the interpretations of decision-makers (Chattopadhyay et al., 2001). Because changes in the environment are often ambiguous, managers' perceptions become increasingly important in executing certain types of strategies. Such perceptions may influence the managers' responses (making them risk-averse or risk-seeking) to environmental changes and, consequently, may influence future organisational actions (Chattopadhyay et al., 2001).

Such interpretations of the environment by managers can be categorised either into threats or opportunities (Dutton and Jackson, 1987). Past research has shown that this categorisation of the environment could affect the performance of organisations. Dutton and Jackson (1987) confirm that categorising and labelling an issue as a threat vs. an opportunity can have significant effects on the responses and performance of firms (Kreiser and Davis, 2010). To this labelling, a third perception is added here; namely, the perception of a moderate volatile market (McKee et al., 1989).

Within such contexts, there is no single way for firms to react; therefore, no single success formula can be identified. Organisational behaviour, business strategy and performance vary in terms of resources and capabilities, managerial perceptions of the threats faced, availability of opportunities and the wider organisational, market and institutional contexts. Although considerable theory has been developed, little is known about the actual organisational response strategies (Dutton and Jackson, 1987; Staw et al., 1981; in Ashmos et al., 1997).

This paper aims to study the interrelations between managerial perception, organisational response strategy and performance during economic recession. Empirical evidence has been gathered from foreign SMEs in Romania. Numerous empirical tests of the strategy-performance relationship appear in the relevant literature; however, many of these studies have only taken under consideration mature and stable industries (Parnell et al., 1993; Kitching et al., 2009). Little attention has been paid to the strategic and performance implications of managerial perceptions of an economic crisis in the context of emerging economies. International business scholars have argued that emerging economies represent the place and source for future theory testing, revelations and exploration (Gauselmann et al., 2011; Uhlenbruck & De Castro, 2000; Oviatt & Mcdougal, 1997). Additionally, these fast growing emerging markets offer a diversity of strategic goals and opportunities for foreign firms (Baack & Boggs, 2008). At the time of our data collection (Spring 2014), as a former communist Eastern European country, Romania was classified as an emerging economy (WEO, 2014).

2. Managerial Risk Perception and Response Strategies

Risk perception indicates an expectation of the future (Jackson & Dutton, 1988), while risk attitudes are used to determine the most likely choice in a specific situation, describing systematic biases in rational decision-making behaviour (Tversky & Kahneman, 1979). Risk perception and attitudes contain information indicating the magnitude of either risk-seeking or risk-averseness behaviour, becoming suitable for accurate predictions of decision-making behaviour under risk circumstances (Pennings & Smidts, 2000). However, it is assumed (Ocasio, 1995) and has been argued (Chattopadhyay et al., 2001) that risk perception can be accurately used to indicate risk attitudes, which in turn could then be used to better understand the influence of risk perception on organisational behaviour.

Various studies have investigated the organisation-environment adaptation cycle. A main division can be made between individual-level responses and company-level responses. The typology of different strategy types (prospectors, analysers, defenders and reactors) is based on the dynamic process of adjusting to a high pace of environmental changes and uncertainty (Miles & Snow, 1978), taking into account the trade-off between external and internal strategic factors. Other theories, such as Prospect Theory and Threat-Rigidity Theory, focus more on the individual level. Although these theories show contradictory attitudes about the notion of economic crises, both categorise perceptions in the face of a crisis into threats or opportunities (Chattopadhyay et al., 2001; Thomas et al., 1993). These categorisations made by individuals are important because managers will enact their environment consistently with their psychological set (Smart & Vertinsky, 1984). The way managers perceive a

crisis has consequences, in terms of determining strategic responses; thus, the level of individual tolerance for ambiguity and uncertainty becomes a critical factor in determining organisational responses to environmental stimuli (Dutton & Jackson, 1987, in; Ashmos et al., 1997; Smart & Vertinsky, 1984).

2.1 Perceiving Threats: Threat-Rigidity Theory

A threat is an event that has impeding negative or harmful consequences for the entity (Staw et al., 1981; in Barnett et al., 2000). In order to understand managers' responses to threats, the threat-rigidity theory has been developed (Staw et al., 1981). Staw et al. (1981) mention several examples of companies in which individuals, groups and organisations act rigidly in the context of threatening situations. A threat may thus lead to a restriction of information and a constriction in control.

A restriction of information is characterised by a narrowing of the field of attention, a simplification of information codes, or a reduction in the number of channels used (Staw et al., 1981). A constriction of information means that the power within an organisation shifts to higher levels in the hierarchy. There are several levels at which the threat-rigidity theory applies; namely, the individual, the group and the organisational level. The focus here lies on the individual level, because organisational actions often involve the function of the welfare of individual managers (Staw et al., 1981). Individual managers who perceive the environment as a threat—like a crisis situation—possibly face limited control over the situation and the risk of negative results (Chattopadhyay et al., 2001, p. 939). As a reaction to such threats, managers can end up executing a greater level of organisational control. Also, other reactions to threats, such as cost cutting or budget tightening (Thomas et al., 1993), as well as an intensification of efficiency concerns (Staw et al., 1981) are possible. All these can be seen as risk-averse behaviours.

The threat-rigidity theory assumes that managers take risk-averse decisions in the face of a threatening environment, in this case a crisis situation. Instead of focusing on new markets and / or products, the company focuses on current resources, trying to make them more efficient. This is called exploitation (Kitching et al., 2009).

The threat-rigidity theory can be related to the strategy typology of Miles and Snow (1978), containing respectively a Reactor, a Defender, a Prospector and an Analyser. This study uses the Miles and Snow strategy typology, in order to distinguish the different strategy types among small- and medium sized companies. It was first published in 1978 and has been used later on by many other authors too (Hambrick, 1979; Snow & Hambrick, 1980; Meyer, 1982; McDaniel & Kolari, 1987; Ruekert & Walker, 1987; Zahra, 1987; Conant et al., 1990; in: Parnell et al., 1993, p. 30). The reason for choosing this typology is because it has proven its potential during the last decades, it is suitable for SMEs and it takes into account the adaptive capabilities of companies, by including a rank order from Reactor to Prospector Strategies.

Snow and Hribiniak (1980) state that organisations that use a Reactor strategy are often forced into this strategy because managers are not able to develop capabilities to deal with environmental changes. This can be related to the threat-rigidity hypothesis, because managers who perceive a crisis situation as threatening could be risk-averse and could react to the situation by means of a so-called Reactive Strategy. Managers only act when something happens in the environment. Miles and Snow (1978) have also identified the strategy type of a Defender. By means of this strategy, the organisation wants to secure and maintain its position in the market, by offering higher quality, superior service, or lower prices to protect their domain, rather than to move aggressively (Segev, 1987). The focus lies on securing market position, offering better customer service and keeping low prices (Gruber-Muecke & Hofer, 2015). Based on this line of argument, our first hypothesis can be formulated:

Hypothesis 1: The managerial perception of the crisis environment as a threat positively relates to a Defender Strategy or Reactor Strategy.

2.2 Perceiving Opportunities: Prospect Theory

The Prospect Theory contradicts the threat-rigidity hypothesis (Chattopadhyay et al., 2001). According to the Prospect Theory, decision-makers will take greater risks in response to threats, rather than in response to opportunities (Dutton & Jackson, 1987). Prospect Theory is based on the assumption that the probabilities of outcomes are known. This contradicts the Threat-Rigidity Hypothesis, which can be linked to uncertainty and in which managers are assumed to be risk-averse.

According to the Prospect Theory, responses to issues labelled as opportunities should be comparable to responses to problems framed as potential gain situations (Dutton & Jackson, 1987). When a manager perceives the environment as threatening, he or she will not preserve the status quo but will take action accordingly. This contradicts the Threat-Rigidity Hypothesis, which states that managers react conservatively in response to a

crisis. According to Prospect Theory, individuals who are in unfavourable circumstances tend to become risk-seeking, because they feel they have little to lose (Chattopadhyay et al., 2001). Thus, decision-makers will end up taking greater risks in response to threats, for example in response to a crisis (Dutton & Jackson, 1987). According to this idea, managers who face a crisis environment, and thus face unfavourable circumstances, will be more willing to take risks, as a remedy to the crisis.

This argumentation can be linked to Miles and Snow's Prospector Strategy (1978). This is the most aggressive strategy, whereas a firm actively seeks new market opportunities and new product developments. Therefore, these kinds of firms are also called 'industry designers'. They respond very quickly to changes in the market, sometimes without even investigating potential risks. This resembles the concept of exploration, which is characterised by looking for new sources of competitive advantage (Kitching et al., 2009). When managers perceive a volatile market as positive, opportunities for the organisation tend to increase, because managers think there is a chance for market growth (McKee et al., 1989). Therefore, the following hypothesis can be formulated:

Hypothesis 2: The managerial perception of the crisis environment as an opportunity positively relates to a Prospector Strategy.

2.3 Perceiving Both Sides: Exploration and Exploitation

An organisation can execute a balancing strategy between exploration and exploitation. Miles and Snow's Analyser Strategy (1978) would suit most in this situation. This strategy is characterised by the maintenance of a stable domain, in which an organisation can operate with relative efficiency, also though attempting to identify (through market scanning and research) any emerging opportunities (McKee et al., 1989). The Analyser, as the name suggests, thus conducts profound market analysis before taking actions.

Often, the organisation is second-in to new product markets, learning from its predecessors. When a manager faces a crisis and takes greater risks compared to a non-crisis situation, he can use the Analyser Strategy if he does not want to take too much risk but still wants to take advantage of the crisis situation. McKee et al. (1989) have empirically investigated the fact that Analysers financially outperform other strategy types, when the market is mildly volatile. To see whether this also accounts for a relatively neutral perception of the market, the following hypothesis is formulated:

Hypothesis 3: Managers who perceive a crisis environment neither as a threat nor as an opportunity are more likely to choose an Analyser Strategy.

3. Strategy and Organisational Performance during a Crisis

Geroski and Gregg (1997) argue that an organisation's pre-recession performance is no reliable measure of within- or post-recession performance. Firms with relatively poor performance before the recession might have excellent results after that period, while firms that operated well before could be worse off after the crisis. Some firms are able to adapt to recession conditions in superior ways, leading to improved performance. If companies are not able to innovate or display flexibility, relying solely on existing ideas, there can end up being fewer opportunities for exploration and ambidexterity. Performance during crisis maps organisational characteristics, such as business size or sector, in differentiated ways (Kitching et al., 2009). Regardless of whether an industry is flourishing or not, there are always differences that could be identified between high performers and low performers. The authors argue that 'outcomes cannot simply be read off from organizational characteristics' (p. 54); it is also about how businesses behave under certain conditions, thus the specific organisational strategy that is undertaken is an important antecedent, associated with performance during crisis (Tang and Hull, 2011).

In the relevant literature, different process characteristics of strategies have been identified. The typology of Miles and Snow (1978) can be seen as an ordinal set of the extent to which firms in these categories develop adaptive capability to respond to the market (McKee et al., 1989). Moreover, considerable empirical support has been found for this typology (Conant et al., 1990; Hambrick, 1979, 1983; McDaniel & Kolari, 1987; Meyer, 1982; Ruekert & Walker, 1987; Snow & Hambrick, 1980; Zahra, 1987; in Parnell et al., 1993).

The Prospector is the most aggressive strategy, in which the firm actively seeks new market opportunities and new product developments. The company responds very quickly to market changes, sometimes without even investigating the risks. Due to its external orientation, the Prospector tends to maintain and accept the inherent costs in developing extensive capabilities, necessary for responding to market changes (Miles & Snow, 1978; Uddin et al., 2014).

The Defender, is almost the opposite of the Prospector, because the firm intentionally reduces the adaptive capability and the associated cuts (McKee et al., 1989). The organisation selects a narrow and stable market so that it can focus on efficiency. Besides, the organisation is risk averse, in order to maintain its position in the

market. By doing this, it can keep advertising expenditures low and the firm can focus on a limited product offering. Defenders display high labour division, high formalisation and a high centralisation structure (Parnell et al., 1993). The disadvantage is that the organisation can fail to notice market changes, leading to rigidity as a result (Keels et al., 1998).

The third strategy mentioned by Miles and Snow (1978) refers to the Analyser. Firms using this strategy maintain a stable domain, in order to operate with relative efficiency, while attempting to identify (through market scanning and research) any emerging opportunities. Firms choose this strategy because they are less risk-averse compared to Defenders and Reactors, but not so risk loving as Prospectors. Therefore, they are often second-in to new product markets, awaiting the advantage of learning from the pioneers. Analysers exert tight control over their current operations, but lose control of new ones. The Analyser often accomplishes above-average advantages, because of the ability to imitate Prospectors, while maintaining efficiency (Parnell et al., 1993).

Finally, the Reactor is characterised by a lack of adaptive capability, because of failing find a fit or rationale in terms of market changes. As McKee et al. (1989) note, a Reactor does not have a clearly articulated strategy, lacks linkages between strategy, structure and processes and tends to hold on to the status quo, despite changes in the environment. It can be seen as the least effective strategy, when reacting to a crisis, because the organisation has no direction or focus in mind (Gruber-Muecke & Hofer, 2015).

When looking at the relationship between type of strategy and performance of a firm, many studies conclude that superior performance can typically be found in Prospectors, Analysers and Defenders, while Reactors tend to perform poorly (Parnell et al., 1993). However, it must be noted that all this research was done in stable industries and not within highly volatile industries. Performance for Reactor companies was significantly lower than for non-reactors. Furthermore, O'Regan et al. (2006) found that Prospectors display superior performance, when compared to the other types. Based on these findings, we formulate the following hypotheses:

Hypothesis 4: During an economic crisis, Prospector SMEs will outperform the Defender, Analyser and Reactor SMEs.

Hypothesis 5: During an economic crisis, the Defender Strategy positively influences organisational performance.

Hypothesis 6: An Analyser Strategy positively influences organisational performance during an economic crisis.

Hypothesis 7: During a crisis, Reactor SMEs will show the lowest performance compared to Prospector, Defender and Analyser SMEs.

4. Methodology

4.1 Sample and Data

As the concept of organisation strategy focuses on the organisation, the unit of analysis is the organisation itself. In large organisations, it is difficult to discover the relationship between perception of an individual manager and the strategy the organisation on the whole adopts. Smaller firms are better able to adapt quickly to a crisis environment, when compared to larger firms, due to their greater flexibility that can help them adjust. Shama (1993) reported that managers in small, rapidly growing companies are more likely to report experiencing less of a negative impact by a crisis, when compared to managers of larger companies. On the other hand, smaller firms do not have the necessary resource-base to be able to quickly adapt. Kitching et al. (2009) mention that large companies have a wider range of strategic choices, available to them on the basis of their superior resources in terms of scanning the environment for potential opportunities, developing various capabilities and adopting a flexible approach in order to withstand difficult times. Thus, we are inclined to argue that smaller firms tend to suffer more than larger firms during a crisis. However, small firms could have an advantage, based on their ability to switch quickly.

Since international business scholars maintain that emerging economies represent the source of future theory testing, revelations and exploration (Gauselmann et al., 2011; Uhlenbruck & De Castro, 2000; Oviatt & McDougal, 1997). Additionally, the fast growing, emerging markets offer a diversity of strategic goal opportunities for FI.

At the time of data collection (Spring 2012), as a former communist Eastern European country, Romania was classified as an emerging economy (WEO, 2014). The growth of its GDP increased rapidly from 19,578 in 1992 to 122,696 in 2006 (both in millions of US dollars) (WEO, 2014). This study uses data from foreign SMEs operating in the service industry in Romania.

The data for this study were gathered using a (postal and email) questionnaire survey, conducted among the strategic decision-makers (managing directors or owners) of SMEs, in the summer of 2013. In order to refine the final survey, we initially conducted a number of interviews with the respondents; we also pre-tested the survey on a sample of 40 respondents. The final study sample of 1410 foreign SMEs operating in Romania across 12 industries (see Figure 1) represents 40% of the population group of 3770 SMEs. Furthermore, the data was analysed by means of multinomial logistic regressions.

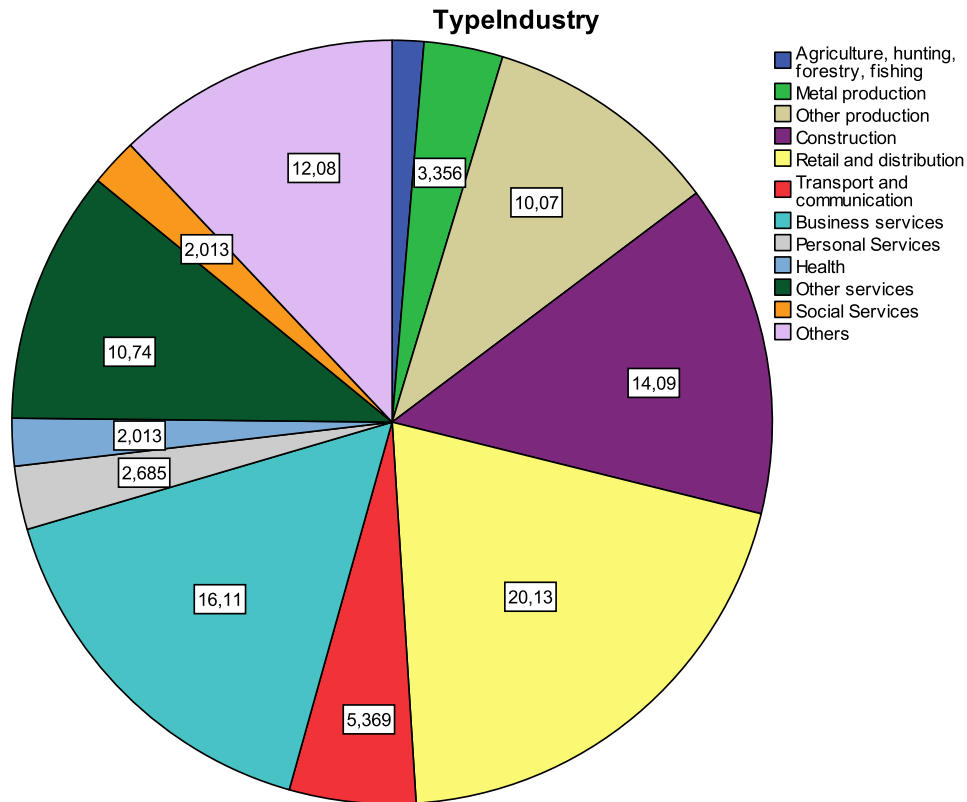


Figure 1. Industry representativeness of sample foreign SMEs in Romania

4.2 Variable Measurement

Table 1 presents the operationalisation of the main variables in the study.

Table 1. Operationalization of main variables

Construct	Dimension	Indicators
Perceived organisational performance (O'Regan, 2006; Venkatraman and Ramanujam, 1986)	Perceived performance	financial Return on total assets (after tax) compared to similar companies in the industry Return on total sales (after tax) compared to similar companies in the industry Sales growth compared to similar companies in the industry
		non-financial Employee satisfaction Local community responsibility Environmental responsibility
	Threat	Perception of losses Negative attitude Little control of the situation
Managerial Perception (Dutton and Jackson, 1987)	Opportunity	Perception of gains Positive attitude Control of the situation
	Neither threat, nor opportunity	Indifferent between gains or losses Neutral attitude Indifferent about controlling the situation
	Defenders	Narrow and carefully focused Prominence in 'their' product market(s) Domain dominated and cautious/strong organisational monitoring Cautious penetration and advances in productivity Cost-efficiencies Focal, core technology / basic expertise Standardisation, maintenance programmes Centralised and formal / financially anchored
	Prospectors	Continuously expanding Active initiation of change Market and Environmentally oriented / aggressive search Product market development and diversification Problem and opportunity finding / campaign (programme) perspective
Response Strategy (Miles and Snow, 1978; Conant et al., 1990)	Analysers	Product and/or market centred Segmented and carefully adjusted Calculated followers of change Competitive oriented and thorough Assertive penetration and careful product market development Incrementalism and synergism Comprehensive with incremental changes Staff dominated / matrix oriented Multiple methods / careful risk calculations
	Reactors	Uneven and transient Opportunistic thrusts and coping postures Sporadic and issue dominated Project development and completion Ability to experiment Trouble-Crisis oriented and disjointed shooters Tight formal authority / loose operating design Avoid problems / handle problems / remain solvent

4.3 Control Variables

The covariate company size is measured independently as the number of employees.

The covariate company age is an interval variable, measuring the number of operating years of the SME.

5. Empirical Results

The multicollinearity of the data was assessed by means of the Variance Inflation Factors (VIFs) and Tolerance values. The values of the VIFs and the Tolerance values are respectively 1.000 and 1.000. Both values are not higher than 10 or lower than 0.1, revealing the fact that multicollinearity is not a problem (Field, 2010).

Table 2 presents an overview of the managerial perception and the response strategy chosen: 31% of respondents

experience the crisis as a threat, while 69% of respondents view the crisis as an opportunity. This indicates that more than two thirds of the entrepreneurs have a risk-open attitude in times of an economic crisis, when it comes to thinking about the opportunities for their companies. Because more respondents view the crisis as an opportunity, the chances of accepting the hypothesis regarding threat perception and Defender Strategy decrease.

Secondly, among the total working sample, 86,8% was male while only 13,2% was female. From this we can assume that more men than women manage SMEs in Romania. When comparing these numbers to national figures, 3 out of 10 managers of SMEs are female [http://www.anr.gov.ro/, accessed on December 18, 2013].

Third, it is striking that most respondents (42,4%) fall in the age category of 41-50 years. Given that the majority of respondents are male and most of them fall in this age category, this is something that could 'colour' the results and should be taken into account.

Table 2. Overview data

		N	Marginal Percentage
Response Strategy	Prospector	200	14,2%
	Defender	430	30,5%
	Analysers	480	34,0%
	Reactor	300	21,3%
Perception	Threat	350	24,8%
	Opportunity	1060	75,2%
Valid		1410	100,0%
Missing		0	
Total		1410	
Subpopulation		20	

Defender: As perception changes from threat to opportunity, the change in the odds of choosing a Defender Strategy, compared to a Prospector Strategy, is 2,456. In other words, the chance that a manager views a crisis as a threat, choosing a Defender Strategy, compared to choosing a Prospector Strategy, is $1 / 2,456 = 0,41$ more likely than when a manager sees a crisis as an opportunity.

Analysers: As perception changes from threat to opportunity, the change in the odds of choosing an Analyser Strategy, compared to a Prospector Strategy, is 1,685. This means that the odds for a manager to view a crisis as a threat, choosing an Analyser Strategy, when compared with choosing a Prospector Strategy, are $1 / 1,685 = 0,60$ times more likely than when a manager sees a crisis as an opportunity.

Reactor: As perception changes from threat to opportunity, the change in the odds of choosing a Reactor Strategy, compared to a Prospector Strategy, is 2,061. This means that the odds that a manager views the crisis as a threat, choosing a Reactor Strategy, compared with choosing a Prospector Strategy, are $1 / 2,061 = 0,49$ times more likely than when a manager sees a crisis as an opportunity.

The empirical results testing the above hypotheses concerning managerial perception and the choice for a response strategy are presented in Table 3. Hypothesis 1 states that the more a manager of an SME perceives an economic crisis as threatening, the more he or she will choose a Defender Strategy. The results in table 3 below indicate that no significant relationship exists, as the Wald Statistic is not significant. Consequently, hypothesis 1 is rejected.

Secondly, hypothesis 2a claims that the more a manager of an SME perceives an economic crisis as an opportunity, the more likely he or she will be to choose a Prospector Strategy. When looking at the results in table 3 below, no such effects were found. Therefore, this hypothesis is also rejected.

Third, hypothesis 2b states that the more a manager of an SME perceives an economic crisis as an opportunity, the less likely he or she will be to choose a Reactor Strategy. Table 3 indicates that the Wald Statistic, indicating whether the predictor is making a significant contribution to the outcome, is not significant. Hence, hypothesis 2b is also rejected.

Finally, hypothesis 1 claims that the more a manager of an SME perceives an economic crisis as an opportunity, the more likely he or she will be to choose an Analyser Strategy. Table 3 below shows no significant relationship; therefore, this hypothesis is also rejected.

Table 3. Summary of model 1

		95% Confidence	
interval for Odds Ratio [⊖]		Lower	Upper
	β (SE)	Wald	Odds Ratio
Upper[⊖]			
Defender vs. Prospector[⊖]			
Intercept [⊖]	.57 (.30)** [⊖] 3.50 [⊖]	⊖	⊖
Managerial perception [⊖]	.90 (.71) [⊖] 1.61 [⊖]	.61 [⊖]	2.50 [⊖] 9.85 [⊖]
Analysers vs. Prospector[⊖]			
Intercept [⊖]	.78 (.29)* [⊖] 7.0* [⊖]	⊖	⊖
Managerial perception [⊖]	.52 (.71) [⊖] .53 [⊖]	.42 [⊖]	1.69 [⊖] 6.83 [⊖]
Reactor vs. Prospector[⊖]			
Intercept [⊖]	.26 (.32) [⊖] .64 [⊖]	⊖	⊖
Perception [⊖]	.72 (.75) [⊖] .93 [⊖]	.47 [⊖]	2.06 [⊖] 9.0 [⊖]

Note: R² = .014 (Cox & Snell), .015 (Nagelkerke). Model $\chi^2(3) = 1.947, p > .05$. * p < .05, ** p < .10.

The second part of the model examines the effects of the four strategy types on organisational performance. By means of table 4, the hypotheses will be accepted or rejected accordingly. Table 4 presents the summary of the outcomes without covariates, while table 12 includes them.

Table 4. Summary of model 2 without covariates

	β(SE)	Sig.	95% Confidence Interval	
			Lower	Upper
a. Dependent variable: Return on Assets (ROA)				
Intercept		1.85 (.11)	.00*	1.62 2.10
Independent variable: Response Strategy				
Prospector	.06 (.18)		.74	-.30 .42
Defender	.15 (.15)		.32	-.15 .45
Analysers	-.08 (.15)		.61	-.36 .21
Reactor	Reference category			
b. Dependent variable: Return on Sales (ROS)				
Intercept		1.82 (.12)	.00*	1.6 2.06
Independent variable: Response Strategy				
Prospector	.05 (.19)		.81	-.33 .42
Defender	.14 (.16)		.40	-.18 .45
Analysers	.05 (.15)		.75	-.25 .35
Reactor	Reference category			
c. Dependent variable: Total Sales Growth				
Intercept		1.82 (.12)	.00*	1.57 2.06
Independent variable: Response Strategy				
Prospector	-.23 (.20)		.25	-.61 .16
Defender	.11 (.17)		.50	-.21 .44
Analysers	.07 (.16)		.66	-.24 .38
Reactor	Reference category			

a. R² = 0.020, b. R² = .005, c. R² = .024.

a. Model (3) = .979, p > .05, b. Model (3) = .262, p > .05, c. Model (3) = .616 > p .05.

Note: * p < .05.

Table 4 presents the results of the relationships between response strategies and organisational performance. The main model is not significant, because the significant values are respectively .40, .85 and .31, which are all greater than the p-value of .05.

In order to accept or reject these hypotheses, each one will be discussed separately. Hypothesis 4 states that the Prospector Strategy will outperform the Defender, Analyser and Reactor SMEs during an economic crisis. Table 4 displays that there is no significant relationship between a Prospector Strategy and ROA, ROS and Total Sales Growth, with respectively significant values of .74, .81 and .25, which are greater than the p-value of .05. Two B-values of the Prospector Strategy show a positive value (respectively .06 and .05) for Return on Assets and Return on Sales. This means that as the Prospector Strategy increases with one unit, while the ROA or ROS increases with .06 and .05. So, the Prospector Strategy does have a positive influence on organisational performance; therefore, hypothesis 4 is accepted.

Secondly, Hypothesis 5 claims that the Defender Strategy positively influences organisational performance during an economic crisis. Table 4 indicates that no effects are found, with significance levels of respectively .32, .40 and .50 for ROA, ROS and Total Sales Growth. When looking at the B-values in table 4, one sees that they all are positive. This means that as a Defender Strategy increases with one unit (so one Defender company more), ROA, ROS and Total Sales Growth increase as well, with respectively .15, .14 and .11. Therefore, hypothesis 5 is accepted.

Third, Hypothesis 6 stresses that the Analyser Strategy positively influences organisational performance during an economic crisis. Again, no results were found, as no significant relationships were discovered in the model. Table 4 shows one negative B-value and two positive B-values, but also here, the positive values do not have enough power to be significant.

Finally, Hypothesis 7 states that the Reactor Strategy negatively influences organisational performance during an economic crisis, when compared to the other strategy types. When looking at the results in table 4, the overall model is not significant, meaning that no significant differences exist between the strategies on the dependent variable, which is organisational performance. Thus, this hypothesis is not accepted as well. Because this strategy was the reference category in the parameter estimates, nothing can be said about the B-values, as these were set on 0.

Other Interesting Results

Table 5 below shows that the main model is significant for Return on Sales and Total Sales Growth, with respectively significant values of $.06 < p < .10$ and $.01 < p < .05$. When looking in more detail at these relationships, some striking aspects need to be mentioned in terms of both Return on Sales and Total Sales Growth.

The covariates Company Size and Company Age do have a significant influence on Return on Sales, with respective values of $.002 < p < .05$ and $.007 < p < .05$. This means that Company Age and Size do matter when analysing the relationship between response strategies and organisational performance. The B-value for Size (-.10) shows a negative sign, meaning that as Company Size changes with one unit, the change in Return on Sales is -.10. This means that Company Size negatively influences Return on Sales. The B-value for Company Age shows a positive value with .15. This means that as the age of a company changes with one unit, Return on Sales increases with .15. Thus, the older a company is, the more experience it has and thus the higher the Return on Sales.

Total Sales Growth is significant as well in the main model. When looking at the covariates, one sees that Company Size and Company Age cause this significance, with values of respectively $.09 < p < .10$ and $.001 < p < .05$. Thus, again Company Size and Company Age are important when analysing the second model. The B-value for Company Size is -.06, meaning that as this variable changes with one unit, the change in Total Sales Growth is -.06. This means that Company Size negatively influences Total Sales Growth. The B-value for Company Age is .19, indicating that as the age of a company increases with one unit, the change in Total Sales Growth is .19. Thus, the older the company is, the higher the Total Sales Growth. In times of an economic crisis this could indicate that older, more established companies are more robust and have built some reserves in order to cope with crises.

Table 5. Summary of model 2, including covariates Company Size, Company Age and Type of Industry

	B(SE)	Sig.	95% Confidence Interval	
			Lower	Upper
a. Dependent variable:				
Return on Assets (ROA)				
Intercept	1.74 (.21)	.00*	1.33	2.16
Independent variable: Response Strategy				
Prospector	.08 (.18)	.68	-.28	.43
Defender	.15 (.15)	.33	-.15	.45
Analysar	-.06 (.15)	.68	-.35	.23
Reactor	Reference category			
Size	-.04 (.03)	.23	-.102	.03
Company Age	.09 (.05)	.10	-.02	.19
Type of industry	-.01 (.02)	.70	-.04	.03
b. Dependent variable:				
Return on Sales (ROS)				
Intercept	1.62 (.22)	.00*	1.20	2.01
Independent variable: Response Strategy				
Prospector	.07 (.19)	.70	-.29	.44
Defender	.12 (.16)	.45	-.19	.42
Analysar	.10 (.15)	.50	-.19	.40
Reactor	Reference category			
Size	-.102 (.03)	.002*	-.17	-.04
Company Age	.15 (.05)	.007*	.04	.25
Type of industry	.003 (.02)	.86	-.03	.04
c. Dependent variable:				
Total Sales Growth				
Intercept	1.2 (.22)	.00*	.80	1.67
Independent variable: Response Strategy				
Prospector	-.24 (.19)	.22	-.61	.14
Defender	.08 (.16)	.61	-.23	.40
Analysar	.01 (.15)	.52	-.21	.40
Reactor	Reference category			
Size	-.06 (.03)	.09**	-.12	.01
Company Age	.19 (.06)	.001*	.09	.30
Type of industry	.03 (.02)	.12	-.01	.07

a. $R^2 = 0.041$, b. $R^2 = .081$, c. $R^2 = .109$.

a. Model (6) = .1.036, $p > .05$, b. Model (6) = 2.11, $p < .10$, c. Model (6) = .01 < $p < .05$.

Note: * $p < .05$ ** $p < .10$

The contrast matrix in table 6 below presents some more information about the differences between strategies in organisational performance, when including the three covariates. Two significant effects are found when including the covariates in the model, with a confidence level interval of 90% or a p-value of .10. First of all, the differences between the Defender Strategy and the Prospector Strategy turned out to be significant, with a value of $.08 < p < .10$. To discover which of the four strategies scores better on Total Sales Growth, a profile plot has been made. This shows that a Defender scores significantly higher on Total Sales Growth when compared with a Prospector. Secondly, the difference between the Analysar and the Prospector Strategy also shows a significant effect, with a value of $.06 < p < .10$. This means also that an Analysar Strategy scores significantly better in terms of Total Sales Growth, when compared to a Prospector Strategy and when taking into account the covariates Size, Company Age and Type of Industry.

Table 6. Contrast results (K Matrix) with Prospector Strategy as reference category. ** $p < .10$.

Independent variable Response Strategy	Dependent variables		
	ROA	ROS	Total Sales Growth
Defender vs. Prospector			
Sig.	.67	.80	.08**
Lower Bound	-.21	-.25	.02
Upper Bound	.36	.34	.62
Analysers vs. Prospector			
Sig.	.41	.86	.06**
Lower Bound	-.42	-.25	.04
Upper Bound	.14	.31	.63
Reactor vs. Prospector			
Sig.	.68	.70	.22
Lower Bound	-.38	-.38	-.08
Upper Bound	.22	.23	.55

6. Discussion and Conclusions

The aim of this study was to discover what influence the perception of an economic crisis of SMEs in Romania has on their choice of a strategy type and also in terms of organisational performance. Our results indicate that 69% of the respondents' view economic crises as an opportunity, as opposed to 31% of respondents who are not so positive concerning the crisis and see it as a threat for their company. When you compare these results with the International Business Report (IBR) of Grant Thornton, they are quite in line with that institute's findings. Grant Thornton found that foreign entrepreneurs started to have more confidence in the economy during the third quarter of 2012, compared to the second quarter of 2012. Even though there was an increase in their economic confidence, however, entrepreneurs remained predominantly negative.

When looking at the results of this study, one sees that, first of all, most of the companies fall into the category of Analyser, with a number of 53 out of 151 ($\approx 35\%$). It seems that most managers would like to invest in times of economic crisis, but they are careful and do not want to take too much risk by focusing on only one market. This separation of a stable market focus on the one hand and a changing market focus on the other hand is most popular among the SMEs of this study. This means that in stable markets, companies operate routinely and efficiently by means of already established procedures. In changing markets, managers tend to look towards competitors sharply for new ideas, in order to adapt quickly when they turn out to be successful (Miles and Snow, 2003).

Secondly, after the Analyser Strategy, the Defender Strategy follows, with 43 out of 151 companies ($\approx 28\%$). This means that 28% of SMEs' managers do not tend to search outside their domains for new opportunities (Miles & Snow, 2003). They stay where they are and wait for better times to come, while in the meantime trying to increase the efficiency of their company's operations.

Third, results concerning the Reactor Strategy show that approximately 22% of the companies perceive change and uncertainty in their organisational environments but are unable to respond effectively (Miles & Snow, 2003). Finally, 22 out of 151 companies ($\approx 15\%$) are Prospectors. These companies continuously search for market opportunities and regularly experiment with responses to emerging market trends (Miles & Snow, 2003). Because of this low number, it seems that managers of SMEs are reluctant when it comes to new investments and experimenting with new products / services. They tend to use other strategies, more than the Prospector Strategy.

Company size negatively affects ROS and Total Sales Growth, while the age of a company positively affects ROS and Total Sales Growth. Within these significant models, the Defender and Analyser Strategies score better than the Prospector Strategy in times of an economic crisis.

When looking at the first part of the model, it has been concluded that managerial perception does not determine a certain strategy response. This contradicts part of the previous findings in the relevant literature. Thomas et al. (1993) have found that there is a positive and significant relationship between the interpretation-action linkages. They found that the perception of controllability (an indicator of the dimension opportunity in this study) is a predictor of a product-service change. When comparing it with this study, no significant relationship between the

Opportunity Perception and the Prospector Strategy (which focuses on change) has been found. As an explanation for this, there might be additional factors that affect the choice of a certain strategy type. Examples include the industry structure (Porter, 1985; Nadkarni et al., 2008), the financial possibilities of the company and the resources and capacities of the company to react quickly to the environment. Nadkarni et al. (2008) state that managerial cognition is not enough when it comes to predicting a company's strategic actions.

The findings of this study show that no best performing strategy can be discovered among Prospectors, Defenders, Analysers and Reactors. This contradicts the theory concerning action and outcome in several ways.

First of all, O'Regan et al. (2006) state that the majority of high performing firms are "Prospector" type firms. This is not the case in the findings of this study, because no differences were found between the four strategy types of Miles and Snow (1978) when it comes to organisational performance.

The Analyser Strategy is the most common strategy in this study; 35% of companies follow an Analyser Strategy. Although no significant relationship exists between the Analyser Strategy and organisational performance, our respondents probably use the Analyser Strategy as this works best for them during an economic crisis.

Finally, it is interesting to note here that Miles and Snow (1978) stated initially that each strategy should perform equally. Our results correspond with their findings.

This research focuses on the current perceptions of owners / managers during a crisis, at one moment in time. This also refers to the strategy the company applies; it is measured at one moment in time. This gives only a 'snapshot' of a company's strategy, because it is possible that an SME's strategy can change quickly. When looking at the first part of the model, one could argue that there might be a gap between thinking (perceiving the world around you) and doing (acting upon this world). De Wit and Meyer (2004) state that a balance should be kept between what the organisation might do in terms of environmental opportunity. When a manager of an SME views a crisis as an opportunity, it is possible that this does not lead immediately to the execution of another strategy. It takes time to implement a certain strategy; time is needed between thinking and executing a certain action.

When looking at the action part only—executing a response strategy—some interesting aspects will be mentioned in order to arrive at a more comprehensive view of reality. In this study, the Miles and Snow typology (1978) has been used as a measure of strategic action. The literature offers an interesting insight into the use of typologies and, specifically,

According to Ghemawat (1993), the companies that emerge the strongest from a downturn are those that use this time of uncertainty to their advantage. They manage to improve their market position through targeted investment in their core business, either by adding capacity or capability. They also avoid diversification, as it dilutes focus when it comes to strengthening the core business. By being proactive and remaining focused on their core business, such companies can outperform hesitant and struggling competitors. Navarro (2005) argues that firms that aggressively ramp up investments during a recession may emerge in the next expansion with the lowest capacity available to satisfy pent up demand. Firms may also achieve product innovations that will allow them to grab market share from competitors, once the recovery takes place.

Recent research into the crisis response strategies of organisations has created some theoretical foundations for analysing the relation between risk preferences and strategic decision-making on a corporate level, with the main goal being to supplement existing rational analytical models (Holmes et al., 2011). Evidence indicates that there is a relation between risk perception in the context of opportunity and threat and the type of strategic responses to a crisis. These relations are to some extent in line with the arguments of PT. However, to what extent risk perceptions, as used by individual decision-making models, influence the choice in crisis response strategies is unknown (Chattopadhyay et al., 2001). He hereby provides empirical evidence with complex cognitive implications for the organisational actor, strategy, and performance. Moreover, Kitching et al. (2009) note that firm size is only one determinant of performance under recession conditions. Factors like industry and geography have an impact as well (Phongpetra & Johri, 2011).

This study contributes to a body of research on the effects of response strategies during economic crises on firm performance (Gruber-Muecke & Hofer, 2015; Uddin et al., 2014). The aim of this research is to give an insight in terms of what successful response strategies can firms adopt during an economic crisis. Many studies have focused on the survival of firms during recessions (Bibeault, 1982; Bigelow & Chan, 1992; Kitching et al., 2009; Lin et al., 2008; Patheo & Szabo, 2010; Pearce & Michael, 2006). However, those studies examined the effects of strategies used during previous recessions, less radical and far reaching, similarly to the global economic crisis that started in September 2008. This economic crisis has a distinct character (Allen, 2009) and is of such

magnitude that its survival requires an individual analysis.

Previous studies also didn't take into account the distinction between performance during a crisis and afterwards. Obviously, no crisis lasts forever and the effects of a strategy on performance after a crisis are also important to consider. Therefore, an important issue is to get a better understanding of how to respond strategically in order to maintain or improve firm performance during a crisis and afterwards. This study contributes to the development of knowledge about response strategies during a crisis and the effects on firm performance, by indicating that solely investing in core business, marketing and innovation during an economic crisis seem to have a positive effect on firm performance during a crisis and afterwards (Enderwick, 2009).

Most executives, even of multinationals, are not used to tackling the complex set of internal and external issues that are thrown up by a crisis (Booth, 1993; Kreiser and Davis, 2010). For example, Hoffman (1989) has suggested that 'an increasing number of general managers are having to cope with crisis and decline, yet they have little experience or management theory upon which to draw'. Although a few years old, these quotes remain meaningful today. Therefore, it is relevant to develop an understanding of response strategies that can help firms manage their way through such crises. Results of this study indicate that in order for firm performance to improve during and after a crisis, firms need to innovate and invest in core business and marketing. Innovation seems to have a positive effect on market share and investing in core business and marketing indicates good results on profitability and sales during a crisis. Innovation may be especially effective during a recession, since during a downturn, competitors are usually relatively quiet. A successful introduction of a new product can infuse a firm with a boost of new revenues (McCarthy & Sutcliff, 2002), causing its market share to grow, compared to non-innovating businesses. So firms that are proactive in marketing and remaining focused on the core business through investing can outperform sedentary companies during a crisis. Their position in the marketplace can thus be protected. Furthermore, investment in core business and marketing also seems to be the most appropriate strategy to choose in order to keep up sales after a crisis. A recession does not last forever, so managers need to prepare for the growth that inevitably follows a recession, in order to keep up revenues. A lack of investment often leaves firms unable to meet the demand generated by an economic recovery, competitors emerging to fill the void.

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