Adaptive Strategies in Response to the Economic Crisis: A Cross-Cultural Study in Austria and Slovenia

Dietmar Sternad

This study builds on prior research on culture-specific differences in strategic decision-making and strategic issue analysis, and extends it to the field of strategic crisis adaptation. Taking an upper echelons perspective, it is investigated whether the cultural dimension of uncertainty avoidance had an effect on strategic directions that managers chose in response to the 2008–2009 global financial and economic crisis. Building on a framework of strategic crisis responses and a quantitative survey conducted among 257 managers in Austria and Slovenia, the findings suggest that strategic issue interpretations of the economic crisis as well as country differences influence whether firms are using externally versus internally-directed strategic responses, and pro-active versus retrenchment strategies. The differences in strategy deployment between the two countries, however, could not be consistently traced to differences in the cultural dimension of uncertainty avoidance, thus suggesting that other country-specific factors like institutional or social differences also play an important role.

Key Words: adaptation, crisis, uncertainty avoidance, Austria, Slovenia

JEL Classification: L10, L20

Introduction

Businesses are influenced by major changes in their environment, those events and developments external to the organization which considerably and structurally affect (a) the attainability of an organization’s strategic objectives and/or (b) the strategic choices open to the organization. The financial crisis of 2008–2009 and the subsequent global recession constitute a major environmental change with an impact on a variety of different industries and countries at the same time. All EU countries (with the only exception of Poland) showed a negative real GDP growth rate in the year 2009 (Eurostat 2010), leading to considerable negative demand effects all across the continent, accompanied by...
lower sales revenues, pressure on margins, and a lack of resource availability. In addition, economic crises lead to rising unemployment, credit shortage, more price-sensitive customers, increased competitive rivalry based on price, a significant decline in exports, and a higher level of business failures (Pearce and Michael 2006; Bricongne et al. 2011). Although most businesses are adversely affected by recessions, for management researchers, ‘recessions are a godsend […] they are […] a natural setting in which to study how firms cope with environmental challenges’ (Geroski and Gregg 1994, 1). Despite this, Kitching et al. (2009) noticed a general lack of research focusing on strategic adaptation to major economic downturns.

Upper echelons theory (Hambrick and Mason 1984; Carpenter, Geletkanycz and Sandres 2004; Hambrick 2007; Rost and Osterloh 2010) posits that the strategic choices that organizations make – and thus also decisions on how to strategically adapt to major economic crises – are considerably influenced by the characteristics of their top executives, specifically also by their cognitive base and values. These influences can be direct – when managers act upon their individual preferences – or indirect, when values affect executives’ perceptions which are subsequently shaping managerial action (Hambrick and Brandon 1988). Managers’ cognitive bases and values, in turn, can be influenced by the national cultures in which they were socialized (Brockner 2003; Dickson, BeShears and Gupta 2004).

Several authors (for instance Schneider 1989; Haiss 1990; Ross 1999) support the argument that strategic decision-making can be influenced by national culture. Barr and Glynn (2004) found that cultural differences could have an influence on strategy, however, only at the level of specific cultural dimensions, thereby concluding that strategy research should take these fine-grained differences into account. Following this advice, the aim of this paper is to explore whether the difference in one dimension of national culture, uncertainty avoidance, has an influence on strategic action as the output of the strategic adaptation process when companies are faced with a major economic crisis.

In an empirical study, it was investigated how managers in two European countries (Austria and Slovenia) perceived and interpreted the global financial and economic crisis of the years 2008–2009, and how their organizations strategically reacted to this external event.

The findings of this paper contribute a cross-cultural perspective to the literature on strategic adaptation; thereby following Sminia’s (2009)
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...call for research that focuses on the links between a firm’s environment and strategy-making processes, Elbanna’s (2006) demand for more research on the role of national context in strategic decision-making processes, and Hambrick’s (2007) urge for more studies on upper echelons effects in different national contexts.

**Strategic Adaptation to Environmental Change**

An adaptive perspective of the environment-organization relationship assumes that organizations actively adapt to changes within their environment through taking and implementing decisions which are altering their strategy, structure, and processes (Frishammar 2006).

The term adaptation is so widely used in the strategic and organizational literature that Starbuck (1965, 468) noted that ‘one could legitimately discuss all the aspects of organizations which are relevant to adaptation, which means, in turn, that one could legitimately discuss everything that has been written about organizations.’ It is therefore necessary to define what is meant by ‘adaptation.’ In Chakravarthy’s (1982) terms, I take a process perspective on adaptation (rather than investigating the state of adaptation or adaptive ability of a firm). I base my investigation on Mintzberg’s (1977) notion that organizations through a stream of decisions develop a certain pattern to orient themselves towards the environment. Taking into account the nature of strategic decisions as including high resource commitments and affecting the overall scope and direction of a company, and building on former perspectives on strategic adaptation (e.g. Miles and Snow 1978; Eunni, Post and Berger 2005; Dervitsiotis 2006), I define strategic adaptation for the purpose of this study as the process by which management actively aligns an organization to a changing environment through setting actions which involve high resource commitments and affect the organization’s overall scope and direction (Sternad 2011).

Changing environments can pose constraints as well as create opportunities for organizations (Hrebiniaik and Joyce 1985), so do major economic crises (Wan and Yiu 2009). Weick (1995), however, voiced an important caveat not to fall victim of, as he called it, an ‘innocent-sounding phrase,’ as ‘the’ in ‘the environment’ could imply that there is one singular reality which can be measured objectively, which he literally calls a ‘nonsense’ (Weick 1995). Weick’s argument is that an environment is only disclosed to actors within an organization through the process of sense-making. The sense-making aspect is also pointed out by Haeckel...
(1999, 75) when he states that ‘[e]very adaptive system […] survives by making sense out of its environment and responding with appropriate action.’

Economic crises are environments which are both uncertain and complex, and in which individuals’ limited cognitive abilities and processing capacities make a full understanding of all involved factors and the relationship between them virtually impossible (Tung 1979; Frishammar 2006). Thus, one and the same external event can be perceived differently by different managers. As, according to upper echelons theory, executives’ cognitions and perceptions can have an influence on their strategic decision-making tendencies (Hambrick and Mason 1984), it becomes crucial to take managerial perceptions and interpretations of environmental events into account when investigating how organizations strategically adapt to economic crises.

**Possible Cultural Influences on Strategic Adaptation Behaviour**

According to cultural immersion theory, perceptions, interpretations, and responses to environmental stimuli are influenced by the culture in which people live significant parts of their life through subconsciously developed ‘shared schemas’ (Dickson, BeShears, and Gupta 2004). Some definitions of culture specifically embed the role that this concept plays in interpreting the environment (Schein 1984; Trompenaars 1996; Hoffman 2007). Geletkanycz (1997, 617), for example sees national culture as ‘a common frame of reference or logic by which members of a society view organizations, the environment, and their relations to one another’ (italics added by the author of this article).

The proposition that national cultural differences influence on strategy is supported by Gilbert and Lorange (1994) and Schneider and Barsoux (1997). Conceptual papers on the issue were provided by Brock, Barry, and Thomas (2000), and Schneider (1989); the latter assuming that culture is playing a role in the way in which strategic issues are interpreted and priorities are established. Brockner (2003) also identified an influence of national culture on decision-making tendencies. Although Samiee and Athanassiou (1998) were of the opinion that the effect of culture on strategic decision-making processes had not yet been widely investigated, also a range of empirical studies exist (for example Kagono et al. 1985; Sallivan and Nonaka 1988; Haiss 1990; Hegarty and Hoffman 1990; Schneider and DeMeyer 1991; Kotha, Dunbar, and Birs 1995; Hitt et al. 1997; Geletkanycz 1997; Hennart and Larimo 1998;
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Steensma, Marino, and Weaver (2000; Markóczy, 2000; Parnell, 2004; Barr and Glynn, 2004; Ayoun and Moreo, 2008) about the asserted link between culture and strategy, however as yet yielding ambiguous results. Some authors (like for instance Markóczy, 2000 or Hoffman, 2007) did not find a link at all, leading Markóczy (2000) to pose the question whether cultural differences are actually overrated. Those, who found cultural influences on strategic decision-making processes, were usually focusing either on strategic decision contents (examples include Hitt et al., 1997), who found that while US managers focused on discounted cash-flow, ROI, and projected demand, their Korean counterparts emphasized growth and expansion, or the recent work of Dimitratos et al. (2011), who presented evidence that differences in national culture can also affect international strategic decisions of firms) or on cultural influences on managers’ attitudes. Geletkanycz (1997), for instance, revealed that the cultural dimensions of individualism, uncertainty avoidance, power distance, and short-term orientation correlated with executives’ commitment to the status quo rather than advocating strategic chance.

In this article, I attempt to combine these two perspectives – cultural influences on strategy content as well as on managerial attitudes – by proposing that strategic action can be influenced by culture in at least two ways (see figure 1): First, directly, when decision-makers select between strategic alternatives based on their culturally-influenced personal perceptions and basic assumptions, and second, indirectly, when culture affects how decision-makers interpret major trends and events in the environment (also termed ‘strategic issues’ by Ansoff, 1975), with this interpretations in turn influencing strategic action. Following Mintzberg, Raisinghani, and Théorêt (1976), the diagnosis of issues in large part determines the subsequent choice of action. This is also supported by Dutton and Jackson (1987) and is a general assumption of strategic issue diagnosis research (e.g. Daft and Weick, 1984; Dutton, Fahey, and Narayan, 1983; Julian and Ofori-Dankwa, 2008; Plambeck and Weber, 2010).

One of the dominant concepts in strategic issue diagnosis is the categorization of environmental developments as opportunities or threats. Kovoor-Misra (2009) suggested that whether a crisis is perceived as an opportunity or a threat has an effect on the focus of attention of decision-makers. Dutton and Jackson (1987) note that opportunity interpretations include the perception of a situation as something positive over which one has considerable control, while a situation that is seen as a threat is
usually associated with potentially negative consequences and little control over what is happening.

In this empirical study, it is examined whether an indirect influence of cultural differences on strategic adaptation choices mediated through opportunity/threat interpretations exists; and/or whether the differences in cultural dimensions directly affect the selection of strategic responses to an economic crisis.

**Strategic Responses to an Economic Crisis**

Several authors have investigated the strategic actions firms are taking when faced with situations of sudden economic downturn and recession. From a review of the literature in this field, the following basic tendencies emerge:

First, firms are using a wide range of strategic actions in response to economic crises, the selection of which is also dependent on the type of environment they are embedded in (Smart and Vertinsky 1984; Grewal and Tansuhaj 2001). Strategies include rationalization or retrenchment strategies on the one hand, as well as strategies of counter-cyclical protection or reinforcement of existing resource bases (Whittington 1991), on the other hand, with cost-cutting and retrenchment being very common in times of recession (Bigelow and Chan 1992; Geroski and Gregg 1994; 1997; DeDee and Vorhies 1998; Michael and Robbins 1998). On another dimension, some strategies are internally-directed (like reinforcing control systems or improvement of business processes), while others are externally-directed towards the market – including for instance changes in marketing strategies (Shama 1993), changes in pricing strategies (Chou and Chen 2004), or changes in the international orientation of the firm (Lee et al. 2009; Enderwick 2009; Williamson and Zeng 2009;
Schuh 2011). Recent research (Latham and Braun 2010; Sternad 2011) also showed a tendency towards focussing on customer retention in times of crisis. Merely financial strategies were identified as being the least effective responses to economic downturn in a study by Laitinen (2000).

Second, strategies employed in times of recession impact on both short-term company performance as well as long-term performance in recovery (Whittington 1991). It was found that an over-reliance on retrenchment strategies can result in negative long-term effects (DeDee and Vorhies 1998), while counter-cyclical investment strategies can potentially lead to higher performance during recovery (Whittington 1991; Roberts 2003; Wan and Yiu 2009). Already Edith Penrose (1995, 244) in her classic work *The Theory of the Growth of the Firm*, first published in 1959, found that ‘depression is sometimes looked on as a good time to expand: costs are low, plant can be constructed and equipment bought cheaply.’

Third, it was proposed by several authors (e.g. Chastain 1982; Laitinen 2000; Pearce and Michael, 2006; Kitching et al. 2009; Rhodes and Stelter 2009) that a balanced (or ‘ambidextrous’ in the words of Kitching et al. 2009) approach covering both short-term efficiency improvements and selective market-oriented investments can lead to a higher chance of success both during as well as after the crisis.

I propose a two-dimensional matrix to classify possible strategic actions in response to an economic crisis. The first dimension is based on Chattopadhyay, Glick, and Huber’s (2001) distinction between externally-directed action (strategic action that is directed towards the market) and internally-directed action (action that is directed towards changing the structure, processes, systems, or resource use within the organization). The second dimension distinguishes between pro-active strategies (including counter-cyclical investments) and retrenchment strategies. This dimension resembles a similar conceptualization for the classification of recession strategies put forward by Whittington (1991, 15), who used the terms ‘counter-cyclical hoarders’ and ‘recessionary rationalisers.’ The resulting four types of strategies in response to economic crises – pro-active/external, pro-active/internal, retrenchment/external and retrenchment/internal – are not mutually exclusive. They can, as was pointed out above, be used in combination in ‘ambidextrous’ strategies. Figure 2 provides examples for strategic actions that can be placed into the four quadrants of strategic adaptation strategies in response to economic crises.
<table>
<thead>
<tr>
<th>External</th>
<th>Internal</th>
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<tbody>
<tr>
<td><strong>Pro-active</strong></td>
<td><strong>Pro-active</strong></td>
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<tr>
<td>Investment into new markets</td>
<td>Investment into technology</td>
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<td>Diversification of the business</td>
<td>Investment into quality</td>
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<td>Investment into sales</td>
<td>Investment into HR</td>
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<td>Investment into marketing</td>
<td>Investment into R&amp;D</td>
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<td>Customer acquisition</td>
<td>Investment into production</td>
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<td>Customer retention</td>
<td>Investment into logistics</td>
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<td><strong>Retrenchment</strong></td>
<td><strong>Retrenchment</strong></td>
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<tr>
<td>Withdrawing from markets</td>
<td>Rationalization in administration</td>
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<tr>
<td>Divestment of products/product lines</td>
<td>Rationalization in technology</td>
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<tr>
<td>Rationalization in sales</td>
<td>Rationalization in HR</td>
</tr>
<tr>
<td>Rationalization in marketing</td>
<td>Rationalization in R&amp;D</td>
</tr>
<tr>
<td>Selling parts of the business</td>
<td>Rationalization in production</td>
</tr>
<tr>
<td>Focus on the core business</td>
<td>Rationalization in logistics</td>
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**Figure 2** Classification of Strategies in Response to Economic Crises

**Hypotheses on the Link between the Cultural Dimension of Uncertainty Avoidance and Strategic Adaptation Processes**

In Schneider and De Meyer’s (1991) study, national culture was found to have an effect on both external and internal strategic responses to environmental change. Several researchers and research teams have proposed ‘cultural dimensions,’ constructs aiming at reducing cultural complexities and measuring national cultural differences between societies. Among the best-known studies in this field are Hall’s (1960; 1976), Trompenaars and Hamden-Turner’s (1998), Hofstede’s (1980), and House et al.’s (2004) *globe* study.

One cultural dimension – uncertainty avoidance – which can be found in both Hofstede’s as well as House et al.’s study, lends itself well for studying possible cultural effects on managerial thinking and actions in economic crises, as they are by their nature times of uncertainty. For firms, which are faced with an economic downturn, it is hard to predict how long the crisis will last, and how deep it will become. While the cultural dimension of uncertainty avoidance was associated with stress measures such as nervousness and tenseness at work in Hofstede’s work (Venaik and Brewer 2010), the construct was more focused on aspects like valuing rules, order, and predictability in the *globe* study (Sully de Luque and Javidan 2004). Uncertainty avoidance was also found to be related to managerial resistance to change (Geletkanycz 1997) and to the propensity to take risks (Bontempo, Bot-
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tom, and Weber 1997), with the degree of risk in turn being a major criterion in decisions of how to strategically react to a crisis. Sully de Luque and Javidan (2004, 618), for instance, see the tendency in societies with higher levels of uncertainty avoidance to ‘[t]ake more moderate calculated risks.’ Pro-active strategies in times of economic downturn carry a considerable amount of risk due to an uncertain future, while retrenchment strategies can be seen as a more ‘secure’ path on known ground. They are more likely to yield short-term effects and carry a lower risk regarding the expected outcomes. Therefore, I hypothesize that managers in cultures with a higher degree of uncertainty avoidance are more inclined to use retrenchment strategies (both internal and external):

**Hypothesis 1a** Internal retrenchment crisis adaptation strategies will be more common in cultures with a higher degree of uncertainty avoidance.

**Hypothesis 1b** External retrenchment crisis adaptation strategies will be more common in cultures with a higher degree of uncertainty avoidance.

In contrast to the hypotheses above, which are asserting a direct relationship between the cultural dimension of uncertainty avoidance and managers’ propensity to choose certain categories of adaptive strategies, it is explored in the following whether an indirect link exists between uncertainty avoidance and the choice of strategic action, with strategic issue interpretation as opportunity or threat as a mediating variable. If radical changes – especially negative ones with uncertain outcomes – are likely to be seen as a threat in cultures which are valuing predictability, are risk-averse, and less in favour of changes, then we can assume that higher levels of uncertainty avoidance in a culture could foster the interpretation of a major negative environmental change such as a global economic crisis (in which risk and uncertainty are inherent) as a threat. Staw, Sandelands, and Dutton (1981) found that the interpretation of events and developments as a threat tend to be associated with more defensive responses. Therefore, I suggest that threat interpretations mediate a relationship between the level of uncertainty avoidance in a society and defensive retrenchment strategies (both externally and internally-directed):

**Hypothesis 2a** The degree to which internal retrenchment strategies are used in response to an economic crisis is positively influenced by the
level of uncertainty avoidance in a culture, mediated through threat interpretation.

Hypothesis 2b The degree to which external retrenchment strategies are used in response to an economic crisis is positively influenced by the level of uncertainty avoidance in a culture, mediated through threat interpretation.

Method

Sample and Data Collection

The hypotheses were tested in a quantitative study among managers in Austria and Slovenia, two European nations which were chosen for the reasons (a) that they are likely to exhibit both common cultural characteristics (due to their centuries of common history under Habsburg rule) as well as cultural differences (due to their affiliation with two major European cultural areas – the Slavic and Germanic languages regions, and due to the decades of communist influence in Slovenia before 1991), (b) that they share comparable institutional environments (both are EU member states), and (c) that the 2008–2009 financial crisis had a similar impact on the countries in terms of time and magnitude.

After a qualitative pre-study including semi-structured interviews with Austrian and Slovene top managers, I conducted a quantitative study in September 2010 in which a link to an online questionnaire was distributed via e-mail to managing directors of Austrian and Slovene companies in three industries that were particularly affected by the 2008–2009 financial and economic crisis in both countries: printing, construction of machinery, and travel agencies. The Compnet (Austria) and PIRS (Slovenia) business databases were used for the contact addresses of all companies in these industries except one-person firms. The procedure followed the multiple-contact method suggested by Dillman (2007). Representatives of 346 out of all 1,667 contacted companies responded, yielding an overall gross response rate of 20.8%. I excluded respondents who were (a) in their positions for less than two years, (b) not of Austrian or Slovene nationality, (c) working for foreign companies (local subsidiaries of foreign companies remained included), or (d) not sufficiently filling out the questionnaire. 257 of the questionnaires were valid and usable for further analysis (157 from Austria, 100 from Slovenia).

Various steps were taken to minimize the risk of bias in the research: In line with other cross-cultural studies (Shane, Venkatraman,
and MacMillan 1995; Geletkanycz 1997), back-translation procedures were employed to minimize translation problems. Following Huber and Power (1985), the following steps were taken to minimize the influence of retrospective report bias: (1) using the most appropriate persons as informants. As members of the management board or managing directors are likely to be the most knowledgeable persons on strategic issues, they were directly targeted with the research; (2) taking away the fear that the research could have possible adverse effects on the respondents’ interests through ensuring full anonymity to the participating managers; (3) using scales that were pre-tested in prior research (in the case of strategic issue analysis). To mitigate the risk of non-response bias, mean responses of the first quartile were compared with the fourth quartile of respondents for each variable, as is has been found that late respondents often react similarly to non-respondents (Armstrong and Overton 1977; Ghobadian et al. 2008). The absence of significant differences signals a low threat of non-response bias. No single factor emerged in an unrotated factor analysis, thus suggesting that common method bias is also not a major concern (Podsakoff and Organ 1986).

MEASURES
Considerable effort was put into the design of the survey instrument, which was developed in a three-step process. First, literature was reviewed for existing and tested constructs that represent the key issues and concepts. Second, the initial instrument was reviewed by five management researchers for content validity regarding the concepts that it ought to measure. Third, as conducting qualitative interviews with members of the target population is seen as vital to ensure content validity for the development of a scale which is used in quantitative research (Johnson and Harris 2003), managing directors of six companies in Austria and Slovenia were interviewed to check face validity, clarity, and meaningfulness of the questions, thus pre-testing both the relevance of the questions and the clarity and comprehensiveness of the questionnaire, while at the same time trying to minimize cross-cultural equivalence bias (Fontaine 2008). The instrument was subsequently modified with minor changes according to the additional input gained from both management researchers and practicing managers.

STRATEGIC ISSUE DIAGNOSIS
The opportunity and threat constructs were measured with items which were slightly adapted from those proposed by Julian and Ofori-Dankwa
(2008), and included the aspects of potential gain, positiveness, and controllability for opportunity, and possible negative implications and potential reduction in profits for threat. An item measuring limited controllability was included for in the questionnaire, but had to be excluded in the subsequent analysis due to reliability concerns. Based on the recommendation of Hinkin (1998), all strategic issue diagnosis items were measured on a 5-point Likert-type scale. The scores for each construct were calculated as an average of the item scores that together constitute the construct. Cronbach’s alpha for the resulting three-item opportunity construct was 0.776, and 0.822 for the two-item threat construct.

**STRATEGIC ACTION**

Following two dimensions proposed by Chattopadhyay, Glick and Huber (2001) and Whittington (1991), and incorporating different strategic adaptation measures in response to crises identified by Whittington (1991), Geroski and Gregg (1997), DeDee and Vorhies (1998), Laitinen (2000), and Roberts (2003), four categories of strategic action in response to the crisis were measured as follows: (1) *Pro-active/external strategies* included items on the extent of investment into new markets and diversification of the business, on the importance of customer acquisition and customer retention strategies (measured on a 5-point Likert-type scale with the anchors 1 = ‘not used at all’ and 5 = ‘highly used’), and on the extent of investment into sales and marketing (both measured on a bipolar scale from ‘strong rationalization’ to ‘strong investment,’ with the answers subsequently transposed as follows: ‘strong rationalization,’ ‘some rationalization’ and ‘no changes’ into 1, ‘some investment’ into 3 and ‘strong investment’ into 5 on a scale of 1–5. The resulting 6-item variable ‘Pro-active/external’ was calculated as the average of the individual item scores, with all items carrying the same weight. Cronbach’s alpha of this construct was measured as 0.746. The other three categories were measured using the same logic: (2) *Retrenchment/external strategies* included items on the extent of using the following strategies: withdrawing from markets, divestment of product/product lines, selling parts of the business, focus on the core business (5-point Likert-type scale), rationalization in sales, and rationalization in marketing (bipolar scales transposed to ‘strong investment,’ ‘some investment,’ ‘no changes’ = 1, ‘some rationalization’ = 3, ‘strong rationalization’ = 5). Reliability for the 6-item construct was measured at $\alpha = 0.658$. (3) *Pro-active/internal strategies* consisted of six items on investment into technology, quality, HR, R&D,
production, and logistics (each measured on a bipolar scale transposed as in (1) above) with an $\alpha = 0.725$. (4) Retrenchment/internal strategies were measured with items on the extent of rationalization in the areas of administration, technology, HR, R&D, production, and logistics (each measured on a bipolar scale transposed as in (2) above). Reliability was measured at $\alpha = 0.708$.

**DIFFERENCES IN UNCERTAINTY AVOIDANCE**

In line with prior cross-cultural studies (Geletkanycz 1997; Barr and Glynn 2004), national cultural values were not explicitly surveyed but assigned to respondents from a widely recognized study, thus also reducing the risk of common method bias. Due to the sample (managers), relative recency, research method (quantitative study), and contents (frequently used cultural dimensions), the findings on cultural practices of the GLOBE study (House et al. 2004) were used to determine differences in the cultural dimension of uncertainty avoidance between Austria and Slovenia. On the 1 (low) to 7 (high) GLOBE scale, Austria showed a higher level of uncertainty avoidance (5.17; first quartile of countries) than Slovenia (3.78, third quartile) (House et al. 2004). Following Peng, Peterson and Shy’s (1991) advice, the differences between the two countries on the GLOBE scores were dichotomized into ‘high’ versus ‘low,’ as the ordinal nature of responses is more dependable than their interval aspects.

**CONTROL VARIABLES**

Control variables included company size (as for example Peters 1992; Chen and Hambrick 1995; Dean, Brown and Bamford 1998; and Latham 2009 found size-specific differences in strategic adaptation to environmental change), industry (as according to Spender (1989) firms within one sector often use ‘industry recipes’ in response to environmental change), the availability of slack resources (using the two-item self-report scale developed by Chattopadhyay, Glick and Huber 2001), and respondents’ gender and age group.

**Results**

87.5% of the respondents were owners, board members or managing directors of their companies. Firm sizes ranged from 1–50 employees (66.5%), 51–250 employees (21.8%), 251–500 employees (7.0%) to more
than 500 employees (4.7%). 81.1% of respondents were male, 18.9% female.

Descriptive statistics on strategic action in response to economic crisis, strategic issue diagnosis, and on key control variables are presented in table 1. Significant correlations between the individual strategic choice categories could be determined. The two pro-active strategies (external and internal) positively correlate with each other, as do the two retrenchment strategies. On the other hand, as one would also intuitively assume, all pro-active and retrenchment strategies are negatively correlated with each other. Furthermore, the results suggest that interpretations of the crisis as an opportunity is significantly related to the use of pro-active strategies, and that threat perception is linked to the extent that internal retrenchment strategies are used. The use of three strategies (pro-active external, pro-active internal, and retrenchment-external) as well as threat perception significantly correlate with country differences in the cultural dimension of uncertainty avoidance.

Descriptive statistics on country level are presented in table 2 together with the results of first tests of country differences without taking into account any of the control variables. Both t-tests and non-parametric Mann-Whitney-U-tests show the same results: Significant country differences were found in the use of external and internal pro-active strategies (both were more common in Slovenia) and of external retrenchment strategies (more common in Austria), as well as in the perception of the crisis as a threat (higher in Slovenia). No country-specific differences could be determined for opportunity perceptions and for the use of internal retrenchment strategies. Overall, we can see that external pro-active strategies were by far the most frequently used strategic response to the economic crisis in both countries.

Hierarchical multiple regression with external and internal retrenchment strategies in response to the crisis as the dependent variables were used to control for possible effects in company size, industry differences (dummy-coded), availability of slack, and gender and age of respondents (see table 3 for the detailed results). Possible mediating effects were tested using the three regression equations as suggested by Baron and Kenny (1986).

The results show a link between the perception of the crisis as a threat and the use of internal retrenchment strategies. However, there is no significant influence of the cultural dimension of uncertainty avoidance on the use of internal retrenchment strategies. Hypothesis 1a was, therefore,
### Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>10</th>
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<tr>
<td>1. Pro-active/external</td>
<td>3.12</td>
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<tr>
<td>2. Pro-active/internal</td>
<td>1.85</td>
<td>0.84</td>
<td>0.52***</td>
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<tr>
<td>3. Retrenchment/external</td>
<td>1.72</td>
<td>0.67</td>
<td>-0.28***</td>
<td>-0.27***</td>
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<tr>
<td>4. Retrenchment/internal</td>
<td>1.76</td>
<td>0.78</td>
<td>-0.17**</td>
<td>-0.36***</td>
<td>0.40***</td>
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<td>5. Opportunity</td>
<td>2.69</td>
<td>1.03</td>
<td>0.24***</td>
<td>0.35***</td>
<td>-0.07</td>
<td>-0.02</td>
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<tr>
<td>6. Threat</td>
<td>4.18</td>
<td>0.89</td>
<td>0.08</td>
<td>0.00</td>
<td>0.09</td>
<td>0.22***</td>
<td>-0.17**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Company size</td>
<td>0.34</td>
<td>0.47</td>
<td>-0.03</td>
<td>0.08</td>
<td>0.13*</td>
<td>0.16*</td>
<td>0.09</td>
<td>0.15*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Slack</td>
<td>3.39</td>
<td>1.17</td>
<td>-0.02</td>
<td>0.12</td>
<td>-0.11</td>
<td>-0.12*</td>
<td>0.26***</td>
<td>-0.21**</td>
<td>0.16*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Gender</td>
<td>0.81</td>
<td>0.39</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.11</td>
<td>0.06</td>
<td>0.10</td>
<td>-0.01</td>
<td>0.08</td>
<td>0.16**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Age</td>
<td>0.38</td>
<td>0.49</td>
<td>-0.06</td>
<td>-0.11</td>
<td>0.01</td>
<td>0.06</td>
<td>-0.05</td>
<td>0.00</td>
<td>0.08</td>
<td>-0.08</td>
<td>0.14*</td>
<td></td>
</tr>
<tr>
<td>11. Country</td>
<td>n.a.</td>
<td>n.a.</td>
<td>-0.33***</td>
<td>-0.26***</td>
<td>0.17**</td>
<td>0.02</td>
<td>-0.12</td>
<td>-0.26***</td>
<td>0.21**</td>
<td>0.30***</td>
<td>0.13*</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**Notes**: The table shows means, standard deviations and bivariate correlations of the main variables in the study. Stars indicate two-tailed significance levels: *p < 0.05, **p < 0.01, ***p < 0.001. Scales: Company size: 0 ≤ 50 employees, 1 ≥ 50 employees; Gender: female = 0, male = 1; Age: <50 years: 0, >50 years: 1. Other variables: 5-point Likert-type scale from 1 (low) to 5 (high).

### Table 2: Country differences of the main variables

<table>
<thead>
<tr>
<th></th>
<th>Austria</th>
<th>Slovenia</th>
<th>T-test</th>
<th>Mann-Whitney-U-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Opportunity</td>
<td>2.59</td>
<td>0.994</td>
<td>2.85</td>
<td>1.063</td>
</tr>
<tr>
<td>Threat</td>
<td>4.00</td>
<td>0.972</td>
<td>4.46</td>
<td>0.652</td>
</tr>
<tr>
<td>External pro-active strategies</td>
<td>2.89</td>
<td>0.775</td>
<td>3.47</td>
<td>0.868</td>
</tr>
<tr>
<td>Internal pro-active strategies</td>
<td>1.67</td>
<td>0.689</td>
<td>2.11</td>
<td>0.972</td>
</tr>
<tr>
<td>External retrenchment strategies</td>
<td>1.81</td>
<td>0.680</td>
<td>1.58</td>
<td>0.627</td>
</tr>
<tr>
<td>Internal retrenchment strategies</td>
<td>1.77</td>
<td>0.767</td>
<td>1.73</td>
<td>0.81</td>
</tr>
</tbody>
</table>

**Notes**: (1) mean, (2) standard deviation, (3) T-value, (4) p (2-tailed), (5) Mann-Whitney-U, (6) Z, (7) p (2-tailed). The table shows means and standard deviations for the strategic issue analysis and strategic variables on a country-level, as well as results of T-tests and Mann-Whitney-U tests testing whether significant differences exist between the Austrian and Slovenian results. Stars indicate two-tailed significance levels: *p < 0.05, **p < 0.01, ***p < 0.001. Variables are scaled on a 5-point Likert-type scale from 1 (low) to 5 (high).
### TABLE 3  Multiple Hierarchical Regression Results

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>DV: External retrenchment strategies</th>
<th>DV: Internal retrenchment strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Age</td>
<td>-0.049 (0.089)</td>
<td>-0.061 (0.089)</td>
</tr>
<tr>
<td>Gender</td>
<td>0.193 (0.111)</td>
<td>0.244 (0.115)*</td>
</tr>
<tr>
<td>Company site</td>
<td>0.222 (0.092)*</td>
<td>0.241 (0.092)*</td>
</tr>
<tr>
<td>Slack</td>
<td>-0.089 (0.057)*</td>
<td>-0.099 (0.057)</td>
</tr>
<tr>
<td>Step 2: Industry (dummy-coded)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry (dummy 1)</td>
<td>0.068 (0.136)</td>
<td>0.069 (0.136)</td>
</tr>
<tr>
<td>Industry (dummy 2)</td>
<td>0.247 (0.141)</td>
<td>0.251 (0.141)</td>
</tr>
<tr>
<td>Industry (dummy 3)</td>
<td>0.279 (0.137)*</td>
<td>0.279 (0.137)*</td>
</tr>
<tr>
<td>Step 3: Strategic issue diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat</td>
<td>0.030 (0.049)</td>
<td>0.070 (0.050)</td>
</tr>
<tr>
<td>Country</td>
<td>0.297 (0.092)**</td>
<td></td>
</tr>
<tr>
<td>Step 4: National differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>245</td>
<td>245</td>
</tr>
<tr>
<td>Model R²</td>
<td>0.050*</td>
<td>0.076**</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.034</td>
<td>0.049</td>
</tr>
<tr>
<td>R² change†</td>
<td>0.050*</td>
<td>0.026</td>
</tr>
</tbody>
</table>

**NOTES**  † with p for F change. The table shows multiple hierarchical regression results with the four strategic action categories in response to economic crisis as dependent variables (DV). Control variables are entered in a first step (models i), followed by dummy-coded industry variables (models ii), strategic issue diagnosis variables (models iii) and country differences (models iv). The presented values in the four steps of the model are unstandardized regression coefficient with standard errors in parentheses. Stars indicate significance (of the model and of the significant change in F between the models) at the following levels: * p < 0.05, ** p < 0.01, *** p < 0.001.
Adaptive Strategies in Response to the Economic Crisis

not substantiated. With one of the conditions for a mediating effect also not being fulfilled, also Hypothesis 2a needed to be rejected. In the case of external retrenchment strategies, differences in uncertainty avoidance levels had an effect. As external retrenchment strategies were significantly more frequently reported in Austria even after all control variables were entered into the model, H1b received support. Testing for a possible mediating effect of threat perception between uncertainty avoidance and external retrenchment strategies using Baron and Kenny’s (1986) three regression equations, however, failed on one condition, as the effect of the independent variable (country differences) on the dependent one (external retrenchment strategies) was higher in the equation in which the presumed mediator threat perception was controlled (not standardized coefficient = 0.281, \( p < 0.01 \)) than in the equation without this strategic issue diagnosis variable (not standardized coefficient = 0.229, \( p < 0.01 \)). Therefore, hypothesis 2b could not be substantiated – threat perception does not mediate the relationship between national differences and the use of external retrenchment strategies.

Discussion and Conclusions

The findings of the empirical study are ambiguous as to whether differences in the cultural dimension of uncertainty avoidance influence on the strategic decision-making process when firms adapt to an economic crisis situation. It was hypothesized that in cultures with higher uncertainty avoidance, managers tend to use more retrenchment strategies, both internal as well as external ones. While in one category, external retrenchment strategies, a potential significant influence of the uncertainty avoidance variable was found, such a relationship could not be determined for internal retrenchment strategies. Therefore, differences in uncertainty avoidance did not provide a consistent explanation of differences in the choice of strategic action in response to the economic crisis.

The results add to the inconclusive discussion in which some studies (e.g. Geletkanycz 1997; Hitt et al. 1997; Barr and Glynn 2004) confirm the existence of cultural influences on strategic decision-making processes, while others (e.g. Markóczy 2000; Hoffman 2007) did not find significant variations in strategy-related beliefs and practices of managers between cultures. The findings of this study seem to support the latter group, thus also confirming the results of Ayoun and Moreoe’s (2008) work in which cross-cultural differences in uncertainty avoidance levels
also only had minimal influence on managers’ strategic orientations. A possible explanation can be found in the possibility that country-specific differences that do affect strategic choice are a complex combination of different factors such as culture, institutional framework, business climate, or public opinion. The difficulty to disentangle cultural factors from institutional influences and economic systems was also acknowledged by Schneider (1989).

Reducing country differences to cultural differences, and in particular also to one specific cultural dimension, without considering other institutional or social factors is also one of the major limitations of this study. Further limitations include the two-country instead of a multi-country study design, and the selection of countries for the sample from the same region – Central Europe. Ethnocentric bias (Adler 1983) could be a possible issue as the author is a citizen of one of the two observed countries. A cross-cultural research team would be preferable. Another limitation lies in the retrospective questions that were asked after the crisis situation occurred, thus being susceptible to hindsight bias – the tendency to recollect one’s own interpretations as more ‘correct’ after the event (Wright et al. 2004) and to attributional bias – attributing outcomes to salient, however incorrect causes (Huber and Power 1985). Only industries on which the crisis had a considerable negative influence were included in the study. It is possible that different strategic adaptation tendencies exist in industries, which were less negatively or even positively affected by the economic downturn. Together with the high proportion of small firms and male respondents as well as the fact that the sample only included firms that survived the economic crisis, this limits the possibility to generalize the results to the whole population of firms.

The limitations of this study present opportunities for further research: Follow-up studies could include a larger set of countries. Together with a selection of culturally more distant countries, also from different continents, this could yield more pronounced results. Other forms of research – particularly also qualitative one – that observe strategic reactions in real-time as opposed to retrospective might alleviate problems of potential hindsight bias and attributional bias. As the sole use of cultural differences achieved insufficient explanatory power, further studies could add other country-specific factors to their design, such as institutional differences, short-term public opinion, business climate, or more generally, as Tsui, Nifadkar and Yi Ou (2007) suggest, the political, social, and economic context. Further cross-cultural studies on strategic adap-
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tation could attend to other major environmental changes in addition to economic crises, such as technological discontinuities or changes in the institutional environment, thereby also extending our knowledge on whether different types of environmental change trigger different strategic responses.

Other research opportunities emerge from one major counter-intuitive result of this study, the high level of external pro-active strategies, which were used in both countries, Austria and Slovenia, in response to the crisis compared to retrenchment strategies. Companies focused more on customer acquisition and retention, as well as on creating new market opportunities than they did on rationalization. Recent research results from other regions also support this general tendency. Battisti and Deakins (2010) in their study of firms in New Zealand, for example, observed that market-oriented strategies led to better performance in the recession than cost-cutting. In their work on Chinese manufacturing smes, Naidoo (2010) showed that marketing innovations as an exemplary pro-active strategy are instrumental to building competitive advantages that increase the likelihood of firm survival during an economic crisis. These results, combined with recent theoretical advantages on how firms can capitalize on opportunities created by a changing environment (Wan and Yiu 2009) could lead to a research agenda in which different pro-active crisis response strategies and their effects on firm performance are investigated in more detail, thus adding to our understanding how these strategies can also improve firm performance in prima facie adverse environmental conditions.

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Managing Global Transitions


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