

**An Empirical Investigation of the Effects of Strategy Making Processes on the
Performance of Internationalized SMEs**

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Abstract

This paper attempts to examine the direct effect of strategic decision making processes on international performance; and, whether the relationship between strategic decision making processes and international performance is contingent upon environmental dynamism. Drawing on a sample of 528 small and medium enterprises (SMEs) across four countries (USA, UK, Greece and Cyprus), the paper views strategic decision making processes in five dimensions: rationality, formalization, political behavior, decentralization and lateral communication. The results indicate that rationality, formalization and decentralization have a positive effect on international performance; while political behavior has a negative effect, and lateral communication has no effect. Some evidence exists to support the moderating role of dynamism on the process-international performance association in that decentralization produces negative effects in dynamic environments while lateral communication a positive effect. Overall, the results attest to the significant role of strategic decision making processes for international performance in SMEs.

Keywords: Internationalization of SME(s), Strategic decision making processes, environmental dynamism, cross-cultural study

1. Introduction

Research on strategic decision making (SDM) has proceeded at breakneck speed during the past three decades (Elbanna, 2006). There is now convincing theoretical and empirical evidence that SDM processes are multidimensional (e.g. Hart and Banbury, 1994; Dean and Sharfman, 1993b; Hickson et al., 1986), and shaped by an array of factors relating to external and internal conditions (e.g. Elbanna and Child, 2007a; Papadakis, Lioukas, and Chambers, 1998; Fredrickson, 1985); as well as that they exert an influence on firm performance, which is contingent upon the degree of environmental dynamism (Mueller, Mone, and Barker, 2007; Goll and Rasheed, 1997; Priem, Rasheed, and Kotulic, 1995).

Similarly, research on Strategic and International Entrepreneurship (IE) has grown at a frenzied pace (Jones et al., 2009; Hitt et al., 2002). Entrepreneurship scholars have mainly been concerned with the antecedents of the firm's entrepreneurial orientation and the relationship between the dimensions of Entrepreneurial Orientation (EO) and firm performance (e.g. Rauch et al., 2009; Escriba-Esteve, Sanchez-Peinado, and Sanchez-Peinado, 2008; Zahra and Gerard, 2002; Lumpkin and Dess, 2001).

Despite the profound interest in both SDM and IE themes, there has been very little work at their intersection. Indeed, with very few exceptions (e.g. Brouthers, Andriessen, and Nicolaes, 1998), virtually all studies on SDM have been carried out in large manufacturing firms. Thus, we do not know whether their results apply to small and medium enterprises (SMEs, hereafter). Accordingly, with few exceptions, strategic entrepreneurship scholars appear to have overlooked the way by which decisions are made. Covin, Green and Slevin (2006) investigated the moderating effects of strategy processes on the relationship between EO and firm performance.

Their results indicated that two process characteristics namely, participativeness and learning from failure, are valid negative moderators on this relationship. In another notably study, Heavy, et al. (2009) examined the influence of Comprehensiveness on EO. The above two studies, although of considerable value, refer to firm overall strategy making processes and not to internationalization processes. As a matter of fact, it seems that within the IE field of research there is still a “black box” as regards the way by which firms craft their IE strategies (Zahra, Korri, and Yu, 2005). This is surprising given Melin’s (1992) assertion that internationalization is integral to the strategy process of firms.

One further consideration informed our research. Studies from both the decision making and the entrepreneurship literature have relied to a large extent on samples based in the US (Elbanna, 2006; Zahra and Gerard, 2002). Lately, we have seen some papers examining SDM processes and international entrepreneurship issues in developed (Netherlands, Japan and Germany) and emerging economies (China, Egypt and Malaysia), as Papadakis, Thanos and Barwise (2010) note in their recent review. However, these studies have developed independently from the US studies. Thus, a promising future research avenue refers to the implementation of comparative cross cultural studies, investigating SDM processes and internationalization between different cultures (Kirkman, Lowe, and Gibson, 2006; Zahra and Gerard, 2002).

Taking all the above into account, we designed a cross cultural study in order to explore the effects of internationalization decision making processes on the international performance. We examine the effects of procedural rationality, political behavior, formalization, lateral communication and decentralization on international performance. We also examine whether environmental dynamism moderates the magnitude of this effect. Our emphasis is on the focal internationalized enterprise that

originates from a given home country; rather than on the differences between focal internationalized enterprises and their export, joint venture or wholly-owned subsidiary partners abroad.

The research took place in four distinct national settings, namely USA, UK, Greece and Cyprus. Two reasons applied for the selection of these four countries. The first is that they belong to two largely different national culture groups of nations that suit the purposes of our comparative analysis (Hofstede, 1980). The USA and UK are distinguished by the Anglo-Saxon cultural values of low power distance, high individualism and low uncertainty avoidance. On the other hand, Greece is characterized by high power distance, low individualism and high uncertainty avoidance. Although there are no national culture scores calculated for Cyprus, it is reasonable to presume that Cyprus would generally be in the same culture group with that of Greece due to common language, religion and national origin; similar mentality, tradition and heritage; and, geographical proximity. This argument is additionally supported by studies that attempted to cluster countries in terms of similarity of cultures. The near Eastern cluster that included Greece, Turkey and Iran (Ronen and Shenkar, 1985; Hofstede, 1980) has geographic and historical commonalities that apply to Cyprus as well. For the purposes of this study and based on the above, US and UK SMEs represent the Anglo-Saxon national culture group and Greek and Cypriot SMEs represent the Mediterranean group.

Second, the four countries have dissimilar characteristics in terms of market size and level of economic development. The US economy is very large and developed, while the UK economy shows about the same rate of economic development but is smaller than the US. Greece, consisting of almost 11 million people, is a relatively small market but recently exhibited strong rates of economic

progress, such as GDP growth. Cyprus is a very small EU country that has similarly experienced significant rates of success in terms of economic growth. Therefore, we posit that because of the dissimilarity in the demographical and economic characteristics of the four countries the generalizability of the findings of the current study is likely to be considerable.

2. Theoretical Background and Hypotheses

Several researchers have attempted to synthesize past knowledge on SDM (Elbanna, 2006; Rajagopalan, Rasheed, and Datta, 1993). It is beyond the scope of this paper to provide a comprehensive review of earlier research. However, based on earlier reviews we argue that two streams of research seem to have dominated the literature over the years.

The first refers to models explaining decision-making behaviors examining how strategic decisions are made (Maritan and Schendel, 1997). Examples of such models include the rational, bureaucratic, command, adaptive, incremental, political, avoidance and the garbage can model (Eisenhardt and Zbaracki, 1992; Hart, 1992; Chaffee, 1985; Mintzberg, Raisinghani, and Theoret, 1976). It should be noted that these models although of great value they do not fully capture the plethora of issues, concepts, dimensions and biases present in strategic decision making (Papadakis, 2006: 369).

The second major stream of research focuses on explaining the dimensions of SDM processes (Dean and Sharfman, 1993b; Bourgeois and Eisenhardt, 1988; Hickson et al., 1986). Again a plethora of SDM dimensions are encountered in the literature. For instance, Fredrickson (1984: 447) measures comprehensiveness, an aspect of rationality which is “the extent to which an organization attempts to be

exhaustive or inclusive in making and integrating strategic decisions”. The Bradford team (Hickson et al., 1986), based on an extensive research of 150 strategic decisions, argued that three dimensions constitute the SDM processes. These are complexity (difficulties surrounding the decision), politicality (negotiations and bargaining experienced during the decision making process) and aspects such as formality and disruption. Dean and Sharfman (1996; 1993) distinguish between procedural rationality and political behavior. More recently, Elbanna and Child (2007a; 2007b) argue in favor of a multidimensional representation of SDM processes and examine procedural rationality, political behavior and intuition.

Furthermore, within this stream of research, a considerable amount of studies have focused on either identifying the antecedents of these process dimensions (e.g. Talaulicar, Grundei, and Werder, 2005; Miller, Burke, and Glick, 1998; Dean and Sharfman, 1993a; Fredrickson, 1985); or, on exploring their relationship with firm performance taking into account the moderating role of the external environment (e.g. Mueller et al., 2007; Goll and Rasheed, 1997; Priem et al., 1995; Glick, Miller, and Huber, 1993).

Taken all together, we reach the conclusion that researchers are confronted with a difficult task when deciding to choose focal constructs to measure SDM processes. In the current study we decided to focus on five process dimensions. These are: procedural rationality, formalization, political behavior, decentralization and lateral communication. Three reasons guided the selection of this particular set of variables.

The first is that we wanted to select variables that have received a central role in the literature. This would ensure continuity with past theoretical work and would provide us with the opportunity to directly compare our results with those of previous

empirical investigations from the SDM field of research. All five chosen dimensions have repeatedly appeared in the literature (e.g. Elbanna and Child, 2007b; Dean and Sharfman, 1996; Cray et al., 1988; Stein, 1980).

The second criterion was to capture to a large extent the multidimensional character of SDM processes by combining both synoptic and incremental-political perspectives. Procedural rationality was chosen as a representative of the former perspective and political behavior was taken to represent the latter perspective following Dean and Sharfman (1996; 1993b). In addition, the three remaining process dimensions, namely, formalization, decentralization and lateral communication capture the dimensions suggested by the Bradford team of researchers (Hickson and his colleagues). More specifically, formalization captures the “scrutiny” aspect; decentralization captures the “centrality” aspect and lateral communication the “interaction” aspect (Cray et al., 1988).

The third criterion used was that these constructs are logically and empirically distinct and do not overlap with each other. Papadakis et al. (1998) provided empirical support that these five dimensions meet this criterion.

In the following paragraphs, we develop our hypotheses, starting with the main effects and continuing with the potential moderating effect of environmental dynamism. The influence of environmental dynamism that deals with the degree of change that firms can predict is of utmost importance inasmuch as dynamism is a key environmental trend that modern SMEs face in the international marketplace.

2.1. Main effects

2.1.1. Procedural Rationality

The degree of rationality has occupied a central role in the literature of SDM (Wilson, 2003). The concept has its roots back in classic economic theory (Dean and Sharfman,

1993a). According to the rational decision making model, actors have known and predetermined objectives and evaluate all possible consequences of their actions. Then, they gather all relevant information, develop alternatives plans of action and finally select the most optimal alternative (Eisenhardt and Zbaracki, 1992). Still, this optimal selection of solution is usually hindered by the cognitive limitations of the decision makers and the lack or the high cost of required resources (Schwenk, 1995; Jones, Jacobs, and van't Spijker, 1992). Thus, organizations make satisfying decisions with bounded rationality (Simon, 1956).

Various constructs have appeared in the literature measuring the rationality of strategic decision making (Papadakis et al., 2010; Elbanna, 2006). All of them are considered as identical and used interchangeably by researchers (Goll and Rasheed, 2005). For instance, Langley (1989) labels rationality as formal analysis which refers to “the use of written documents supporting the results of some systematic study of a specific issue”. Schwenk (1995:475) defines rationality as the “extent to which the decision makers follow a systematic process in reaching carefully through-out goals”. Fredrickson and Mitchell (1984: 402) measure comprehensiveness, which is an aspect of rationality and refers to the extent to which an organization attempts to be exhaustive or inclusive in making and integrating strategic decisions.

For the purposes of this study we will share Dean and Sharfman’s (1996) approach and measure procedural rationality. This concept refers to the extent to which the decision process involves the collection of relevant information and the reliance upon analysis of this information in making a choice (Walter, Lechner, and Kellermanns, 2008).

Miller (2008) contends that rational processes help decision makers deal effectively with the complexity associated with strategic decisions, reduce some of the

elements of cognitive biases and enhance implementation motivation among decision makers. Thus their use is associated with improved performance. Priem et al. (1995), Goll and Rasheed (1997) and Fredrickson and Mitchell (1984) have provided empirical arguments supporting Miller's (2008) points. Furthermore, researchers who use the decision (e.g. decision quality, decision effectiveness) and not the firm level as their unit of analysis lend credence to the above (Elbanna and Child, 2007b; Hough and White, 2003; Dean and Sharfman, 1996). For example, Dean and Sharfman (1996) based on a longitudinal study in the USA concluded that use of procedural rationality is positively related to strategic decision effectiveness. More recently, Elbanna and Child (2007b) replicated this finding in the Egyptian setting. We believe that this may especially happen in the internationalization context, which is full of contingencies for the typical SME, and so, this enterprise has to adopt rational decision-making processes in order to achieve enhanced outcomes abroad. The above discussion leads to:

H 1. Procedural rationality will be positively related to International performance

2.1.2. Formalization

Formalization or else standardization concerns the extent to which organizational policies, rules, charts and plans are articulated explicitly and formally in SDM processes (Eisenhardt and Bourgeois, 1988). The relationship between planning formalization and firm performance has been a subject of debate among researchers and no consensus has yet emerged in the literature. There is evidence for positive (e.g. Pearce Ii and Robbins, 1987) and for little or no relationship (e.g. Robinson et al., 1984; Robinson and Pearce Ii, 1983) between these two constructs. Schwenk and Shrader (1993) conducted for the first time a meta-analysis of 26 previous empirical

studies on formal strategic planning and performance of small firms; their results showed that the overall relationship between formal planning and performance across studies is positive. One year after that, another meta-analysis of previous studies corroborated this finding (Miller and Cardinal, 1994). In addition, researchers adopting a decision making perspective, which is the focus of this study, have reported that the use of formalized decision making processes is positively related to both financial (e.g. Grinyer and Norburn, 1977) and overall performance (Papadakis, 1998). We tend to believe that in the international marketplace, the relationship between formalization in decision making processes and international performance will be positive for two reasons. The first is that by performing the same activity over time individuals and organizations become more skilled in this particular activity. This might prove a viable competence in the international marketplace which is full of dangers for a SME. Thus, having prescribed screening procedures and predetermined criteria for decision evaluation might help a firm to achieve superior profitability in the demanding international marketplace. The second is that to the extent that standardized/formalized procedures are embedded in the structure of a SME, they might be perceived as fair, for they are carried out through in the expected way. The latter could suggest that formalization contributes to superior performance by creating a perception of procedural justice (Kim and Mauborgne, 1998). Based on the previous discussion, we develop the following hypothesis.

H2. Formalization will be positively related to International performance

2.1.3. Political behavior

Political behavior has long been recognised as an aspect of organizational decision making (Wilson, 2003; Pettigrew, 1973). The political perspective of decision

making originates from the political science literature of the 1950s (Eisenhardt and Zbaracki, 1992). According to this perspective, decisions represent the result of a process in which decision makers have different goals, form coalitions to achieve these goals and the preferences of the most powerful decision makers prevail (Stone, 2002). Child, Elbanna and Rodrigues (2010) in their in-depth review on the political aspects of SDM argue that political behavior over decision making has been examined from two basic viewpoints.

The first emphasizes political behavior among organizational members and refers to the use of political tactics among the actors, the antecedents of political behavior and its relationship to decision outcomes (Elbanna and Child, 2007b; Papadakis et al., 1998; Dean and Sharfman, 1996). The second investigates political behavior among organizational units. This study adopts the first point of view and focuses on issues such as bargaining, negotiation and the use of power during the decision making.

Ample empirical evidence exists for a negative relationship between political behavior and firm or decision outcomes (e.g. Elbanna and Child, 2007b; Nutt, 1998; Dean and Sharfman, 1996; Eisenhardt and Bourgeois, 1988). Some authors argue that this is due to the fact that its existence restricts information flow (Pettigrew, 1973), is time consuming and leads to incomplete understanding of the environmental constraints (Dean and Sharfman, 1996). From the above, we expect that for internationalizing firms distorted or incomplete information could have highly problematic consequences if, for instance, international market entry is made on the basis of overestimated market opportunities or underestimated cultural barriers (Eriksson et al., 1997). The above discussion leads to:

H3. Political behavior will be positively related to International performance

2.1.4.-2.1.5. Hierarchical Decentralization and Lateral Communication

Previous conceptualizations of SDM processes stress the importance of participation, especially of middle management (Papadakis, 1998). In this study, we study two dimensions of participation. The one captures its vertical aspect and refers to the degree of involvement of various hierarchical levels in the decision making process (hierarchical decentralization) while the other captures its horizontal dimension (lateral communication) and refers to the degree of involvement in decision making of managers from different functions such as sales, marketing, human resource management and production. Forbes (2005) notes that decentralization in small firms reflects the extent to which decision making is dispersed among the individuals in the firm as opposed to being concentrated in the hands of an individual.

Following Bourgeois and Eisenhardt (1988) and Amason (1996), we argue that firms applying greater participation during their SDM process will improve their performance in the international marketplace. Two reasons apply behind this standpoint. The first is that middle management involvement in the SDM processes increases the level of strategic consensus among middle-level managers, produces a common understanding of the joint task, creates a climate of shared effort, and facilitates smooth implementation of Strategic Decisions (Wooldridge and Floyd, 1990). The second is that managers at lower levels of the organization are often closer to the “action in the marketplace” than managers from the upper levels and usually have an important role to play in terms of day to day international operations (Zahra, Ireland, and Hitt, 2000). Customers could also have a similar important role in the case of internationalization (Styles & Ambler, 1994; Lynch & Beck, 2001). Thus, their involvement will equally contribute to international performance. The above

discussion leads to:

H4. Hierarchical Decentralization will be positively related to International performance

H5. Lateral Communication will be positively related to International performance

2.2. The Moderating Role of Environmental Dynamism

With few exceptions, previous researchers argue that three dimensions constitute the external environment of the firm. These are dynamism, complexity and munificence (Dess and Beard, 1984). For the purposes of this study, we decided to focus on one of them, notably, dynamism, which is defined as the amount and unpredictability of changes in customer and competitors actions (Dess and Beard, 1984). The reason behind this choice is that past reviews on SDM recognize it as the most studied potential moderator on the process-performance relationship (Elbanna, 2006; Rajagopalan et al., 1993). Besides, dynamism is a major environmental challenge that SMEs change in modern turbulent times worldwide.

The potential moderating role of environmental dynamism on the relationship between rational decision making and performance has received a great deal of empirical attention in the literature (Forbes, 2007). Fredrickson and his colleagues (Fredrickson and Iaquinto, 1989; Fredrickson and Mitchell, 1984; Fredrickson, 1984) argue that there is a negative relationship between comprehensiveness in decision processes and firm economic performance in unstable environments, and a positive relationship in stable environments. The rationale behind this argument is that in stable environments information and data are more readily available and more time is available for the use of more comprehensive/rational processes (Mueller et al., 2007). Thus, comprehensiveness which requires a great amount of information in order to be

effective will lead to decreased performance if used in dynamic industry conditions.

In contrast to Fredrickson and his colleagues, there is a constantly growing stream of research which suggests the exact opposite argument. Bourgeois and Eisenhardt (1988) based on qualitative evidence were among the first to propose that rational and formalized decision making processes are beneficial in turbulent, high-velocity environments. In their case study research, they found that effective as opposed to non effective decision makers used formal analytic techniques and comprehensive search of alternatives. In order to interpret this intriguing finding, the authors drew on the psychoanalysis prescription theory, which suggests to persons who feel that they are in an unstable environment to sort things out by setting priorities, collecting information and generating alternatives (Deboard, 1978). Thus, the need for rational and formalized decision processes is stronger in dynamic than in stable environments (Dean and Sharfman, 1996). Eisenhardt (1999) one year later extended these arguments to dynamic firms by using multiple case studies in order to assess the speed of strategic decisions. Her results suggested that fast decision makers relied mostly on comprehensive/rational decision makers in the microcomputer industry.

Evidence from large quantitative studies seem to corroborate Eisenhardt's findings (e.g. Andersen, 2004; Walters and Bhuian, 2004; Priem et al., 1995; Glick et al., 1993). For example, Glick et al. (1993) surveyed members of top management teams of 79 strategic business units operating in the USA and found positive effects for comprehensiveness in turbulent environments and no effects in non turbulent environments. Priem et al. (1995) surveyed executives from 101 US manufacturing firms and concluded that rational decision processes are effective in dynamic industry conditions. A more recent study outside the US context argues along similar lines.

Andersen (2004) investigated the effects of strategic planning processes in 185 Danish manufacturing organizations operating in both dynamic and non dynamic industries. His results showed that strategic planning processes have a somewhat higher positive effect on economic performance in dynamic rather than in non dynamic industries. Given that the preponderance of empirical studies argues in favor of a positive moderating effect of dynamism on the relationship rationality-performance and formalization-performance relationships, we develop the following hypotheses:

H6. The positive relationship between procedural rationality and international performance will be stronger in dynamic environment

H7. The positive relationship between formalization and international performance will be stronger in dynamic environments

Previously in hypothesis 3, we referred to studies that have identified the use of political behavior over decision making as negatively related to firm and decision outcomes (Elbanna and Child, 2007b; Dean and Sharfman, 1996; Eisenhardt and Bourgeois, 1988). Baum and Wally (2003) argue that it is more difficult to manage the unpredictability associated with dynamic environments. Hence, the firm's profitability in dynamic environments is lower compared with that in stable environments. This means that the effect of political behavior on firm performance could become even more detrimental and irreversible in such environments because everything is at constant change and profitability is relatively low as opposed to more stable environments which might be more forgiving of poor judgments (Eisenhardt and Bourgeois, 1988). Ketchen, Thomas, and McDanniel (1996, p.237) hypothesized that in a dynamic environment, the level of political activity will be negatively related

to organizational performance because it diverts management attention away from environmental scanning which is of particular importance when the environment is dynamic; and impedes the flow of accurate information to and amongst key decision makers. Bourgeois and Eisenhardt (1988) based on a qualitative study of four firms similarly proposed that in high velocity/dynamic environments the greater the political behavior among the top management team, the poorer the performance of the firm. The above discussion leads to:

H8. The negative relationship between political behavior and international performance will be stronger in dynamic environments

The last two hypotheses concern the moderating role of environmental dynamism on the relationship between structural factors (decentralization and lateral communication) and international performance. Previously, we argued that there is a positive relationship between these two process dimensions and international performance. We posit that this relationship becomes stronger in the case of dynamic environments. Huber (1990) proposes an explanation for this. He argues that if managers who are closer to the market place are able to take new initiatives on their own, then their firms are enabled to react faster to changing market conditions. This can be a source of competitive advantage in dynamic industry conditions where everything is at stake. Contingency theorists seem to share the above view as they have argued that in uncertain environments firms should adopt decentralized decision making patterns (Lawrence and Lorsch, 1967). Empirically, Andersen (2004) provided support to the above. He found that the positive relationship between decision authority (an aspect of decentralization and participation) and firm performance is higher in dynamic environments. Thus:

H9. The positive relationship between decentralization and international performance will be stronger in dynamic environments

H10. The positive relationship between lateral communication and international performance will be stronger in dynamic environments

3. Research Method

3.1. Sample and Data Collection

A four-country mail survey was carried out in the USA, UK, Greece and Cyprus in order to examine SDMPs linked to international performance based in these four countries. In this research, investigated firms should have employed between 10 and 250 employees; have been locally owned (not subsidiaries of foreign firms); and, have international sales achieved through exporting, joint venture or wholly-owned subsidiary modes. All industrial sectors of economic activity (manufacturing or services) were acceptable to be included in this study. In the USA and the UK, the Dun and Bradstreet database was used as the sampling frame to randomly select internationalized firms. In Greece and Cyprus, the ICAP Greek Financial Directory and Cyprus Chamber of Commerce databases, respectively, were employed. In all four countries these databases are typical sampling frame sources for firms.

We followed the “key informant method” in this study (Kumar, Stern, and Anderson, 1993; Huber and Power, 1985). We contacted over the phone the CEOs of each firm who were the most suitable persons for providing information on strategy issues (Miller, 1991; Hambrick, 1981) and requested their kind participation in our research. We briefly explained the purposes of the study; the benefits attained when participating in the study; and provided assurances that their responses would be treated with confidentiality. In cases where the CEO was unable to answer the

questionnaire, we asked him/her to hand the questionnaire to that manager who was best informed about the international activities of the firm. All respondents in this study were nationals of the respective countries examined. The databases in all four countries inevitably included some enterprises that had moved to unknown addresses, ceased international activities, acquired by other firms etc., rendering a small fraction of firms in the database unusable. The questionnaire was pretested by twelve academics and managers in order to check its comprehensibility and clarity before the launch of the survey. A second wave of questionnaires was sent to the targeted firms three weeks after the dispatch of the first wave. Follow-up phone calls were conducted in between the two mailings. The effective response rate was 15% (115 firms) in the US, 13% (101 firms) in the UK, 22% (208 firms) in Greece and 25% (104 firms) in Cyprus.

To ensure that the results from the four samples can be generalised to the population, we examined whether early (first wave of questionnaires) and late respondents (second wave of questionnaires) differ with respect to three variables: number of employees, years of international experience and international performance. The rationale behind this analysis is that late respondents would probably share similar characteristics of non respondents (Walter et al., 2008). In all instances, t-tests were found to be insignificant ($p > 0.1$), providing support to the argument that non-respondent bias is not an issue of concern in this study.

3.2. Measures

For the purposes of this study, we employed well established measures of variables. In the following paragraphs, we describe our measures and the sources from which they were derived. With the exception of the control variables, all the other variables

were measured with five point scales (1= not at all – 5= very much).

3.2.1. International performance

Past studies have assessed firm domestic, international or overall performance with either objective or subjective measures (see Richard et al., 2009; Wheeler, Ibeh, and Dimitratos, 2008 for recent comprehensive reviews on performance issues). Objective measures refer mainly to financial indicators such as sales growth and return on investment (Covin et al., 2006) and subjective assessments include a combination of financial and non financial indicators such as ROI, sales growth and overall effectiveness of the firm (Escriba-Esteve et al., 2008; Lumpkin and Dess, 2001; Dess, Lumpkin, and Covin, 1997). In this study, we asked executives to rate the degree of perceived performance in international marketplace compared with that of their direct competitors in terms of sales level, market share, return on investment, profitability and overall satisfaction with performance relative to objectives set (Sullivan, 1994). Reliability ($\alpha=0.85$) of the five item scale was very satisfactory and comparable to other studies employing similar scales for measuring overall or international performance (e.g. Morgan and Strong, 2003; Zahra and Garvis, 2000; Priem et al., 1995).

The decision to rely on subjective measures of performance over objective was due to two reasons. First, subjective assessments referring to both financial and non financial indicators capture more accurately the multidimensional character of performance as opposed to financial ratios which represent the narrowest measure of performance (Venkatraman and Ramanujam, 1986). Second, SME researchers often encounter problems getting access to objective data of performance (Escriba-Esteve et al., 2008). In the case of international performance which is the focus of this study,

gathering objective financial data might be even more difficult since few companies are required to publicly report their international results separate from overall performance (Zahra and Garvis, 2000, p.479). Additionally, our study reports the results of a large-scale research project involving four countries where obtaining separate data sources for all the countries is particularly difficult (Chang, Witteloostuijn, and Eden, 2010, p. 182). Hence, subjective measures are more suitable (Morgan and Strong, 2003). Nevertheless, past research indicates that subjective measures of performance are correlated with objective (Andersen, 2004; Venkatraman and Ramanujam, 1987). However, to validate the subjective performance measures, we followed previous studies (e.g. Dess et al., 1997; Hart and Banbury, 1994) and collected objective data for a subsample of the overall sample of the study (50 firms representing around 10% of the firms that participated in the study). Specifically, the foreign country sales ratios of fifteen firms in each country gathered from the aforementioned databases were correlated with their perceived international performance scores. The significant correlation pattern of 0.42 attested to the strong association between subjective and subjective performance measures, ensuring credibility to the dependent variable under examination in the current study.

3.2.2. *Rationality*

We employed Dean and Sharfman's (1996) five item scale to measure rationality. Five items were included measuring: the search of relevant information in making international decisions, the analysis of relevant information, the importance of quantitative techniques, the effectiveness of decision makers in taking into consideration relevant information and the use of analytical vs. intuitive decision making processes. Reliability ($\alpha=0.73$) of the five item scale was very satisfactory

and comparable to other studies employing this scale (e.g. Walter et al., 2008; Elbanna and Child, 2007a; Dean and Sharfman, 1996).

3.2.3. Formalization

This variable was taken from King (1975) and Stein (1980) and measures the degree of standardization of decision-making as regards key internationalization projects using five items that capture the degree to which the firm has a: written procedure guiding the decision-making process; prescribed procedure to identify ways of action (roadmap); prescribed screening procedures; formal documents guiding the final decision; predetermined criteria for decision evaluation. Reliability of the measure ($\alpha = 0.91$) was adequate and comparable to other studies based on the same or similar measures (e.g. Papadakis et al., 1998; Sabherwal and King, 1992).

3.2.4. Political behavior

For political behavior, we used the Papadakis et al. (1998) measure, which is based on the work of Pettigrew (1973), Hickson et al. (1986) and Mintzberg et al. (1976). Four items are included measuring: the extent of coalition formation, the degree of informal negotiation taking place among major participants, the degree of external resistance encountered in the process, and the degree of interruptions experienced in the process. Reliability of the measure ($\alpha = 0.91$) was higher than reliability estimates reported for other studies based on the same or similar measures (e.g. Papadakis et al. 1998; Dean and Sharfman, 1996).

3.2.5. Decentralization

A composite variable consisting of six items was used to capture the involvement in

decision-making of six hierarchical levels and organizations: the owner or main shareholders (reverse scale); top management (reverse scale); middle/lower management; other enterprise employees; customers at home or abroad; collaborating firms at home or abroad. This measure was drawn from Dewar, Whetten and Boje (1980) and its reliability level was adequate and comparable to other studies based on the same or similar measures (e.g. Papadakis et al. 1998; Sabherwal and King, 1992).

3.2.6. Lateral Communication

This variable was drawn from Tannenbaum (1968) and measures the extent of balanced participation of major departments/ sections in decision making in major internationalization projects. It consists of eight items capturing the participation of the departments/ sections of: finance & accounting; marketing; sales; personnel; research and development; information technology; production; export or international operations. Reliability of the measure ($\alpha = 0.75$) was adequate comparable to other studies based on the same or similar measures (e.g. Papadakis et al. 1998).

3.2.7. Environmental Dynamism

We employed Miller and Friesen's (1983) five item scale to measure environmental dynamism. Items rate the degree of frequent change of competitive practices of the firm; high rate of obsolescence of products in the industry; unpredictability of competitive actions; unpredictability of demand and customer preferences; unpredictability of production technology. Reliability of the measure ($\alpha = 0.86$) was adequate and comparable or even higher to other studies based on the same or a very similar measure (Escriba-Esteve et al., 2008). Given that environmental

conditions might differ between domestic and international marketplaces (Miller, 1993) and that with few exceptions (e.g. Dimitratos, Lioukas, and Carter, 2004; Zahra and Garvis, 2000) the majority of previous work has focused on the domestic environment, we used the same scale to measure both domestic and international environmental dynamism, the only difference being the locality of the context. However, because management perceptions of the domestic and international environment showed high levels of correlation, we employed one average of these perceptions in the current research. We also run a set of regression analysis with domestic dynamism only and another one with international dynamism. Regression analyses in all cases yielded similar results.

3.2.8. Control Variables

We also employed four control variables. Following Escriba-Esteve et al. (2008), we controlled for size through the natural logarithm of employees; and, for age through the logarithm of the number of years the firm had international activities. The third control variable referred to the industry type. We classified the four samples into two broad categories: services and manufacturing (Dess et al. 1997). Finally, we controlled for the effects of the national group in which the country is based on (US and UK firms were coded as 0; and, Greek and Cypriot firms were coded as 1). This control variable may play a role in the internationalization of the firms in the respective country (Hofstede, 1980).

3.3. Examination of Potential Biases

This study that was based on a single source of information (questionnaire completed by a single informant) might suffer from some important methodological caveats such

as informant and common method bias.

For instance, there is a possibility that the views expressed are likely to be subject to manager's individual bias (Lubatkin and Shrieves, 1986) and that the manager can mentally connect the hypothesized relationships among the variables and respond in a "socially desirable manner"; and, intentionally overestimate the performance of the firm (Miller, 2008). Relevant literature often suggests the use of multiple informants as a valid measure to overcome the above mentioned limitations (Miller, Cardinal, and Glick, 1997; Bowman and Ambrosini, 1997; Kumar et al., 1993). The idiosyncrasies of our samples (very few key informants especially in the case of small firms) and the international character of our research made it impossible to use multiple managers and aggregate their responses. Furthermore, it should be noted that the preponderance of studies from both the entrepreneurship and strategic decision making area are based on a single informant (Elbanna and Child, 2007b; Brouthers, Brouthers, and Werner, 2000; Hart and Banbury, 1994).

Following Elbanna and Child (2007a; b), on 10% of the firms participating in our research, we requested a second executive to complete the same questionnaire. We then compared the responses from the two managers. The t-tests statistics showed no statistically significant differences providing evidence for strong interrater reliability between the two managers. Furthermore, in 50 firms we had both objective and subjective data for performance. These two alternative measures of performance were found to be correlated, which provides evidence of strong convergent validity and that managers have not overestimated their firm's performance (Dess et al., 1997; Hart and Banbury, 1994).

To further collect reliable data, we assured the respondents that there are no right or wrong answers (Miller et al. 1997). This procedure reduced the possibility

that respondents would provide their responses so as to be more socially desirable and consistent with how they thought the researcher wanted them to respond (Li, Bingham, and Umphress, 2007).

Moreover, the possibility that the executives could have held beliefs about how decision making processes was related to international performance and responded accordingly was rather low for three reasons (Walter et al. 2008; Miller, 2008). First, when we contacted firms we stated the general purpose of the project and did not label the study as an examination of the relationship between decision making processes and international performance. Second, it is unlikely that the respondents linked the variables under investigation, because performance and decision making processes were presented on different pages of a lengthy questionnaire. The complex data relationship associated with the moderation of environmental dynamism provided a third reason to suggest that managers could not have guessed the hypothesized relationships and respond accordingly (Walter et al. 2008).

Another concern was the minimization of common method variance. Common method variance might exist when dependent and independent variables come from the same source of information. We followed both ex ante and ex post remedies so as to limit the potential negative effects of common method variance in our results following Chang et al. (2010). With respect to the former, we tried as said before to collect objective data for international performance independently of the questionnaire and calculated correlations with managers' perceptions of international performance. In addition, as mentioned earlier, we assured respondents of the anonymity and confidentiality of the study, that there are no right or wrong answers and followed several precautions in order to ensure that responses will not be influenced by social desirability effects. Regarding ex post remedies, we tested for

relationships (moderating effects of dynamism) which we believe that are complex enough to have been “predicted” by respondents. In addition, we employed Harman’s single factor test following Podsakoff et al. (2003) Results showed that no single factor emerged in the unrotated solution that explained the vast majority of variance. This may suggest that common method bias is not likely to be an issue in this study as past studies recommend (Walter et al. 2008; Elbanna and Child, 2007a). Overall, we believe that the two ex post and the two ex ante tactics followed in this research limit the possibility that common method variance has biased our results.

4. Results

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 Insert Table 1 about here
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In order to understand the differences between the two cultural groups represented in our research (Anglo-Saxon and Mediterranean), we run independent sample t-tests for the control, main and moderating variables. Table 1 reports that on average Anglo Saxon SME firms of our study are larger ($t=3.73$, $p<0.001$) and have a higher level of international experience ($t=4.01$, $p<0.001$) than Mediterranean firms. Also, it indicates that firms from both groups are performing equally well in the international marketplace and their managers perceive no differences in the overall dynamism of the environment. Finally, interesting are the results deriving from the comparison of the Internationalization decision processes characteristics between the two national culture groups. Results from table 1 suggest that Anglo-Saxon SMEs are less rational ($t=-2.31$, $p<0.05$) and follow less formalized decision making processes ($t=-3.27$, $p<0.01$) than Mediterranean firms. Consulting earlier studies from the Greek context, this finding seems somewhat counterintuitive (e.g. Papadakis et al., 1998; Bourantas et al., 1990). For example, Papadakis et al. (1998) concluded that on

average Greek medium to large private firms as opposed to subsidiaries of US and UK multinationals operating in Greece follow less rational and formalized decision processes when making decisions of a strategic nature. Extending this argument to Internationalization processes of SMEs, we would expect Mediterranean firms to be less rational and formalized than Anglo- Saxon firms; the opposite of what table 1 suggests. We believe that this finding is attributable to the environmental changes that took place during the last ten years in Greece and Cyprus accordingly. More specifically, Greece's affiliation in the European Monetary Union which resulted in new challenges and increased competition (Caloghirou, Protogerou, Spanos, & Papagiannakis, 2004; Spanos, Prastacos, & Papadakis, 2001) especially for the SMEs might have pushed these firms to adopt more rational and formalized approaches in the international marketplace. Cyprus affiliation in the European Union might have implied similar competitive pressures for Cypriot firms which urged them to be more rational and formalized. Thus, due to the fierce competitive forces of the international marketplace, Greek and Cypriot firms might have employed more rational approaches and have limited the use of political behaviour over decision making which explains why the Mediterranean group scores lower in the political behaviour process dimension than the Anglo-Saxon group ($t=3.03$, $p<0.05$). Finally, of interest are the results referring to decentralization and lateral communication. Table 1 suggests that Anglo-Saxon firms are more decentralised and follow more lateral communication than Mediterranean firms. This finding is in line with existing empirical evidence and the common wisdom which hold that Greek/Cypriot firms are rather centralized (Bourantas et al. 1990).

Table 2 reports the means, the standard deviations and correlations of the variables assessed in this study. From table 2, we observe that all correlations between

the independent variables are below 0.6, suggesting that multicollinearity is not a problem in this study. We also used the Variance Inflation factor (VIF) test to check for multicollinearity among the predictor variables. For all the regression models the VIF values are well below 10, the tolerance statistics are far above from 0.2 and the average VIF is around 1, providing a further reason to believe that multicollinearity is not an issue in this study (Field, 2005: 196).

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Insert Table 2 about here
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In order to test our hypotheses we conducted hierarchical regression analysis. In this analysis we entered in the first block all the main effects (model 1 in table 3) and in the second step we entered the interactions terms (model 2). Entering all interactions in one full model provides us the possibility to see how they compete with each other simultaneously. Following Cohen, Cohen, West and Aiken (2003), we centered our independent variables in order to reduce possible multicollinearity problems before calculating interaction terms. Centering involves subtracting the sample mean from each independent variables so that the sample distribution is unchanged but the adjusted variable has a mean of zero (Simons and Peterson, 2000: 106).

Results from table 3 support that there is a positive and statistically significant relationship between procedural rationality and international performance ($p < 0.001$). Thus, hypothesis 1 is supported. Similarly, formalization ($p < 0.05$) and decentralization ($p < 0.001$) appear to be positively and statistically significant related to international performance. Thus, hypotheses 2 and 4 are supported. Moreover, political behavior ($p < 0.01$) appears to be negatively related to international performance which verifies hypothesis 3. Finally, lateral communication is positively

but insignificantly related to international performance. This means that hypothesis 5 is not confirmed.

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Insert Table 3 about here
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Model 2 reveals a marginally significant ($p < 0.1$) negative beta for the interaction term between rationality and dynamism, indicating that hypothesis 6 does not receive empirical support. Moreover, the interaction of formalization and dynamism and the interaction of political behavior and dynamism appear to have an insignificant beta. This means that hypotheses 7 and 8 are not supported. As for the interactions between the decision process dimensions and dynamism, table 3 suggests that they are both statistically significant at the 5% level. Specifically, the interaction between decentralization and dynamism is negative ($p < 0.001$) and the interaction between lateral communication and international performance ($p < 0.001$) is positive. These results provide support to hypothesis 10 but not to hypothesis 9.

5. Discussion

Our evidence suggests that even after controlling for the effects of a series of variables, SDM processes are significant predictors of international performance. Specifically, procedural rationality is positively associated with international performance. This finding is in line with the results of previous investigations carried out in large manufacturing firms (e.g. Goll and Rasheed, 2005; Fredrickson and Mitchell, 1984). It seems that intensive information search and analysis is vital to achieving enhanced international performance. We do not view this as a contradiction to perspectives emphasizing non-rational cognition (Zahra et al., 2005; Autio, Sapienza, and Almeida, 2000). Rather, there seems to be a place for systematic

information analysis to validate intuitions about international opportunities and to guide their effective enactment. We also speculate that there is scope to fruitfully link procedural rationality with internationalizing firms' ability to acquire knowledge rapidly, which is a notion at the heart of IE research (Zahra et al., 2000). Perhaps rational information analysis supplants the more informal learning that takes place on an everyday basis. In addition, of interest appears to be the weak negative moderating effect of environmental dynamism on the relationship between rationality and international performance. This result provides some support to Fredrickson's findings and refutes the opposite line of reasoning (e.g. Priem et al., 1995; Glick et al., 1993) which argues that environmental dynamism has a positive moderating effect on the rationality-performance relationship. Further research is needed within the context of SMEs in order to safely conclude on the exact direction of the moderating effect of environmental dynamism.

Formalization which has some similarities to the construct of rationality appears to exert a positive impact on international performance as well. In addition, it appears to be equally beneficial in both high and low dynamism environments. It seems that SMEs which follow standardized techniques and use written and prescribed screening procedures are more successful in the international marketplace. This echoes previous studies which hold that the use of formalized decision making processes is positively related to both financial (e.g. Grinyer and Norburn, 1977) and overall performance (Papadakis, 1998). In the opposite direction are the results for political behavior where data suggest that firms engaging in the use of power, hidden agendas and negotiations are less effective in the international marketplace. This negative effect is equally detrimental in both high and low dynamism environments confirming Elbanna and Child's (2007b) findings.

Finally, this study as hypothesized supports a positive relationship between decentralization of decision making and international performance, indicating the benefits of granting sufficient autonomy to key actors. However, intriguing are the results regarding the moderating role of dynamism on the relationship between decentralization, lateral communication and international performance. The positive and significant beta for the moderator in the relationship between lateral communication and performance indicates that in dynamic environments firms, which allow multiple departments such as finance, marketing and R&D to participate in the decision making processes, improve their performance. This might mean that the diversity of the opinions evolving from the different functional backgrounds is proven beneficial in conditions where everything is at constant change. This could provide support to the role of decentralized decision-making in international new ventures (Hornsby et al., 2002).

On the contrary, results indicate that decentralization, which refers to the involvement of multiple hierarchical levels, is conducive to negatively outcomes in dynamic environments. This can be probably explained by the fact that stakeholders such as the owner of the firm, the top management team, the middle managers, the customers and collaborating firms abroad might have conflicting goals. Hence, their involvement might slow down decision making. Thus, by the time an agreement is reached among the various participants, environmental conditions may have changed. This in turn might render obsolete any choices already made and deteriorate performance. This argument essentially supports the notion that internationalization can be a complex issue for the internationalized SME concerned (Aharoni, 1966).

6. Conclusions, Limitations and Suggestions

In a nutshell, this study lies at the intersection of two fields of research, namely

Strategic Decision Making and International Entrepreneurship. To the best of our knowledge, it is the first study providing evidence to how SDM processes affect international performance, hence linking the two aforementioned fields. It also responds to calls for using large multi-country datasets. The results suggest to SME managers that SDM processes do play a significant role in explaining performance in the international marketplace even after controlling for the effects of control variables and dynamism. Therefore, the lesson for the managers is that if they have the processes of rationality, formalization and decentralization in place, avoiding political behavior in international decision making, international performance can be enhanced. However, the results of this study should be interpreted bearing in mind some limitations.

The first is that its cross-sectional design might raise doubts on the causal relationships between SDM processes and international performance. Future researchers are encouraged to adopt longitudinal research designs and examine the relationship between SDM processes and international performance throughout time. Second, we examined the moderating effect of environmental dynamism on the relationship between SDM processes and international performance. The decision to focus on this environmental dimension was due to the central role that has received in the previous literature. However, it might be that the process-performance relationship is equally moderated by other environmental dimensions such as complexity and munificence or by firm factors such as past strategies and structure.

TABLES

Table 1: t-tests between the two national groups

Variables	Anglo-Saxon group		Mediterranean group		t-statistic
	Mean	SD	Mean	SD	
Firm Age	83.50	73.10	62.09	58.41	3.73***
Number of Employees	35.86	28.65	27.62	18.58	4.01***
International Performance	3.16	0.80	3.11	0.88	0.63
Dynamism	2.87	0.65	2.78	0.78	1.32
Rationality	3.40	0.79	3.56	0.74	-2.31*
Formalization	2.46	1.11	2.79	1.16	-3.27**
Political behavior	2.45	0.78	2.21	0.96	3.03**
Decentralization	3.29	0.65	3.09	0.67	3.31**
Lateral Communication	2.84	0.90	2.46	0.85	4.96***

Note: *p<0.05, **p<0.01, ***p<0.001, n=216 for the Anglo-Saxon group and n= 312, for the Mediterranean group.

Table 2 Means, Standard Deviations and correlations for variables assessed in this study

Variable	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Performance	3.13	0.85	1										
2. Sector	0.20	0.40	0.13**	1									
3. Nationality	1.59	0.49	-0.03	-0.13**	1								
4. Log size	1.66	0.42	0.14**	-0.07	-0.15**	1							
5. Log age	1.40	0.29	-0.13**	-0.20**	-0.15**	0.37**	1						
6. Dynamism	2.82	0.73	0.13**	0.17**	-0.06	0.03	-0.15**	1					
7. Rationality	3.50	0.76	0.34**	-0.02	0.10*	0.09*	-0.06	0.07	1				
8. Formalization	2.65	1.15	0.31**	0.08	0.14*	0.09*	-0.07	0.18*	0.55*	1			
9. Political behavior	2.31	0.90	-0.12**	0.01	-0.13**	0.11*	0.03	0.17**	-0.05	0.02	1		
10. Decentralization	3.17	0.70	0.29**	0.12*	-0.14**	0.05	-0.06	0.22**	0.26**	0.11*	0.27**	1	
11. Lateral Communication	2.61	0.89	0.25**	0.01	-0.21**	0.18**	0.02	0.21**	0.33**	0.19**	0.35**	0.59**	1

Note: *p<0.05, **p<0.01, ***p<0.001

Table 3: Results of Moderated Regression Analysis with international performance as a dependent variable

Variable	Model 1 (Main effects)	Model 2 (full model)
First Step		
Sector	0.08 ⁺	0.09*
Nationality	-0.04	-0.06
Log size	0.17***	0.17***
Log age	-0.14**	-0.15**
Dynamism	0.04	0.06
Rationality	0.19***	0.19***
Formalization	0.12*	0.12*
Political behavior	-0.16**	-0.16***
Decentralization	0.16***	0.15**
Lateral Communication	0.04	0.04
Second Step		
Rationality x Dynamism		-0.08 ⁺
Formalization x Dynamism		0.02
Political behavior x Dynamism		-0.02
Decentralization x Dynamism		-0.15***
Lateral Communication x Dynamism		0.15***
R ²	0.23	0.25
Adj R ²	0.22	0.23
Δ R ² (from model 1 to model 2)		0.02
F	15.72***	11.59***
ΔF		2.79**

Note: 1. ⁺ p<0.1, *p<0.05, **p<0.01, ***p<0.01

2. Standardized regression coefficients are reported

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