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## **Internationalization of Manufacturing SMEs in Central and Eastern Europe: Which Capabilities Matter?**

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## **Internationalization of Manufacturing SMEs in Central and Eastern Europe: Which Capabilities Matter?**

### **ABSTRACT**

Although small and medium-sized enterprises (SMEs) have been a major source of economic growth in Central and Eastern Europe (CEE), the capabilities underlying their expansion into international markets have received very little attention in the literature. We hypothesize that the level of internationalization will be positively related with knowledge orientation, cost –orientation and managerial IB orientation of a CEE based SME. Using data from 90 manufacturing SMEs from six CEE countries, we examine the impact of different capabilities on the level of internationalization. The results indicate that low-cost manufacturing capabilities and pro-active managerial orientation towards international operations are positively associated with increased internationalization. Surprisingly, a focus on using knowledge resources is not related to CEE firms' level of internationalization. The implications of these findings are discussed within the context of developing sustainable competitive advantage in transition and emerging economies.

**Keywords:** Internationalization, SMEs, Central and Eastern Europe, Capabilities, Management

## INTRODUCTION

Existing research analyzing the internationalization behavior of firms uses conceptual models such as the Internationalization Process (IP) model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1990,) and Ownership - Location - Internationalization (OLI) model (Dunning, 1988,) and theoretical perspectives such as transaction cost theory (Anderson and Gatignon, 1986), organizational learning (Li, 2010), and the resource based view (McDougall et al., 1994; Oviatt and McDougall, 1994; Bloodgood et al, 1996; Westhead et al., 2001; Zahra, 2005). Large firms or multinational enterprises (MNEs) have been the key focus of empirical analysis conducted to test these models and theories (Brouthers and Nakos, 2004; Nakos and Brouthers, 2002; Meyer, 2001; Shama, 1995). As small and medium sized firms are becoming increasingly significant players in international markets (Simon, 1992; Barrett, 1992; Holstein and Kelly, 1992; Brouthers et al., 1996), scholars have debated the ability of traditional models and theories to explain the international behavior of smaller firms (Buckley and Chapman, 1997; Piercy, 1982; Andersen, 1993; Fillis, 2001). Some research suggests that the internationalization behavior of a small firm is likely to vary from that of large firms (Fillis, 2001, Culpan, 1989, Moen, 1999, Wolff and Pett, 2000), while others indicate that size does not impact the level of internationalization (Cavusgil, 1982). Given this debate, scholars researching in the field of international business have called for testing existing theory with respect to small and medium sized enterprises (SMEs) as well as for formation of new frameworks in new contexts (Madsen and Servais, 1997; Fillis, 2001; Peng, 2001). Our study addresses this need by examining the capabilities that influence internationalization behavior of SMEs operating in Central and East Europe (CEE) countries.

The first capability that is likely to influence internationalization by SMEs is knowledge orientation. Knowledge orientation is defined as the degree to which a firm's competitive advantage is based on organizational knowledge. SMEs are expected to rely on knowledge orientation capabilities because they have limited financial and physical resources compared to large sized firms (Bonaccorsi, 1992, Westhead et al., 2001). In contrast, the financial and physical resources owned by large sized firms facilitate increases in their level of internationalization. SMEs are likely to rely largely on intangible resources and firm capabilities in order to increase their level of internationalization (Westhead et al, 2001). Knowledge orientation as a firm capability is expected to facilitate acquisition and generation of knowledge required by SMEs for operating in international markets. It is likely that SMEs with greater knowledge are able to leapfrog the stages of internationalization proposed by Johanson and Vahlne (1977, 1990). However, previous research does not consider that there may be heterogeneity in knowledge acquired and generated by SMEs and that this heterogeneity may be driven by variation in knowledge orientation amongst the firms. Due to the lack of attention towards the influence of knowledge orientation on the level of internationalization of an SME, our first research question is - does the knowledge orientation influence the level of internationalization of an SME?

The second capability that is expected to influence the level of internationalization of an SME is its cost orientation. Cost orientation is defined as an ability to undertake actions that reduce cost and improve efficiency, reliability, or execution (Porter, 1980; Thornhill and White, 2007). Cost orientation is expected to influence the level of internationalization of an SME by enabling it to achieve cost levels that provide competitive advantage to SMEs in international markets (Bloodgood et al., 1996). Competitive advantage through cost orientation may be achieved by possession of better production technologies and by increased flexibility and agility

to adapt to new customer requirements. Large firms may find themselves locked in old technology and rigid routines that may prevent them from offering a low cost product or service in the international market. While previous studies show that low costs provide a competitive advantage to firms in international markets, these studies do not provide sufficient understanding of the impact of heterogeneity in cost orientation as an SME capability on their level of internationalization. This gap motivates the second research question of our study – does cost orientation influence the level of internationalization of an SME?

The third capability that is expected to influence the level of internationalization of an SME is the managerial orientation towards international business. SMEs are expected to rely on their top managers for all firm operations (Starbuck, 1992), including international business. Managerial perception of the external environment and a positive attitude towards international business determine the international activities undertaken by an SME (Oviatt and Mc Dougall, 1994; Andersson et al., 2004). We consider managerial orientation towards international business as a firm capability that represents managerial attitudes, skills, practices and knowledge relevant for international business. While previous research examines the impact of managerial attitudes, perceptions and knowledge on international activities of a firm (Oviatt and Mc Dougall, 1994; Knight and Cavusgil, 2004; Andersson et al., 2004), it does not consider managerial orientation towards international business as a capability that may influence the level of internationalization of a firm. This gap motivates the third research question of our study - does managerial orientation towards international business influence the level of internationalization of an SME?

We rely on the resource based view and the related capabilities literature (Teece et al. 1997; Amit and Schoemaker, 1993) to develop arguments for hypothesizing a positive relationship between the dependent variable – level of internalization of an SME in a CEE with the three independent variables - knowledge orientation, cost orientation and managerial

orientation towards international business (IB). We test the hypothesized relationships using a sample of SME firms from the manufacturing sector in six CEE countries: the Czech Republic, Estonia, Lithuania, Poland, Romania and Slovenia. We find that there is positive and significant influence of cost orientation and managerial orientation towards international business of SMEs in CEE countries on their level of internationalization. We do not find any statistical significance for knowledge orientation of SMEs in CEE countries.

This study contributes to the continuing debate on the relevance of the Internationalization Process (IP) model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1990) for explaining internationalization behavior of SMEs. It proposes that capabilities such as knowledge orientation, cost orientation and managerial IB orientation determine the degree of internationalization undertaken by an SME. The second contribution of this study lies in addressing the scholarly thought that RBV is likely to address the questions left unanswered by traditional models of firm internationalization (Peng, 2001). The key proposition of existing RBV-based research that compares internationalization behavior of large firm with that of medium and small sized firms is that intangible resources such as organizational knowledge facilitates early adoption of higher level of internationalization by SMEs (Knight and Cavusgil, 2004). However, we also need to understand the routines associated with acquiring and utilizing such resources because efficient factor markets (Barney, 1986) that can provide valuation of intangible resources are rare. The third contribution of this study is that it extends the current understanding of the positive relationship between the level of internationalization and low cost competency to SMEs. We suggest that greater cost orientation capabilities are likely to have a positive impact on the level of internationalization of an SME as well.



This study also makes two empirical contributions. First, it develops a novel way to operationalize and measure the level of firm internationalization. One of the ways in which existing studies operationalize this measure is by assigning ranks to each mode of internationalization. Mode of entry that entails least resource commitment is ranked the lowest and the mode with greatest resource commitment is assigned the highest rank. The other way in which studies operationalize level of firm internationalization is by the number of countries in which the focal firm operates. Our study includes mode of entry and geographic scope in measuring the level of firm internationalization. This operationalization is based on the understanding that SMEs may simultaneously use different modes of entry for different countries.

The second empirical contribution of our study is that it uses the context of CEE countries to develop and test the hypotheses. A significant number of SMEs have emerged in CEE countries following the privatization of the economy. SMEs operating in CEE countries face the challenge of developing competitive advantage in absence of significant financial and physical resources and relevant previous knowledge (Uhlenbruck et al., 2003). In CEE countries, SMEs that possess or are able to develop greater knowledge, cost and managerial capabilities are likely to have a higher level of internationalization compared to those with no or lesser knowledge, cost and managerial capabilities.

In the following section we overview the literature on internationalization of firms in general, of SME firms and of firms in the CEE region. We then develop three hypotheses that predict the level of internationalization of SMEs in Central and Eastern Europe. Subsequently, we discuss the research methods applied to conduct an empirical analysis and present the variables. The methods section is followed by a discussion of the results and limitations of our study. The last section includes concluding remarks of our study.

## **INTERNATIONALIZATION OF FIRMS**

### **Traditional Theories of Firm Internationalization**

Researchers have used several theoretical perspectives to explain the determinants of firm internationalization. According to economic perspectives proposed by early scholars such as Adam Smith and Ricardo, firms internationalize in order to gain from economies of scale and from difference in production costs, especially labor costs, amongst different countries (Sutherland, 1993, Sraffa, 1951, Fillis, 2001). These economic theories provided a relatively macro perspective on internationalization. Later scholars analyzing firm behavior developed theories which proposed firm-level determinants of internationalization.

One of the significant theories based on firm behavior is the Internationalization Process (IP) theory or the Uppsala Model. It was proposed by Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977) and states that internationalization is a staged process and firms sequentially progress from early to latter stages of internationalization. The stages of internationalization were defined based on resource commitments made by the firm, with lowest resource commitment defining the first stage of internationalization and highest resource commitment defining the last stage of internationalization. Thus, stages of internationalization ranged from no export activity to setting up a subsidiary in another country of interest. IP theory states that firms moved from the one stage to the next sequentially as they incrementally gained knowledge of their export markets. An increase in knowledge with respect to international business facilitates increase in level of internationalization by reducing the psychic distance between firms from home and host countries.

The OLI model proposed by Dunning (1988) is another important theory that explains firm internationalization behavior. OLI theory states that ownership, location and internalization

benefits cause a firm to internationalize. Another related theory that explains the internalization behavior of a firm is transaction cost theory (Buckley and Casson, 1976, Caves, 1996, Hennart, 1997, Anderson and Gatignon, 1986). The resource based view (Barney, 1991) provides a complementary explanation by facilitating an understanding of the nature of resources required for firm internationalization (Peng, 2001). The impact of firm resources and capabilities on management of MNEs, on international entrepreneurship, on international alliances and on market entry modes are some of the key relationships supported by the resource based view of the firm (Peng, 2001, Knight and Cavusgil, 2004, Uhlenbruck et al., 2003). A related theoretical perspective is the firm capabilities view. Relationship of firm capabilities and internationalization has not received as much attention as the stated traditional theories. However, researchers such as Knight and Cavusgil (2004) are beginning to rely on this theoretical perspective to explain internationalization behavior of SMEs.

### **SME Internationalization**

Much of the literature on the internationalization of the firm has focused on multinational enterprises (MNEs) (Andersson et al., 2004). More recently, however, scholars have begun examining the internationalization processes of SMEs. Not surprisingly, such research has revealed that smaller firms do not always behave in ways prescribed for larger enterprises (Bell, 1995; Fillis, 2001; Knight and Cavusgil, 1996; Bell, et al., 2003; Lyles et al., 2004). This is because SMEs differ from large firms in several ways. Large firms possess physical and financial resources that facilitate in achieving higher level of internationalization. Large firms are more likely to achieve economies of scale compared to small and medium sized firms. Also, managers of large firms are more likely to undertake international business activities than those of small sized firms. This is so because large firms have a greater capacity to undertake risky ventures

compared to smaller firms. Although smaller firms do not enjoy the resource, cost and risk bearing advantages, they have been shown to undertake a high level of internationalization. For example, Andersson et al. (2004) show that SMEs might enter foreign markets from their inception, leapfrog initial foreign market entry modes, and even successfully compete with large global firms.

Hence, the appropriateness of stages models to explain the internationalization of SMEs has been debated in the literature. Andersen (1993) points to several studies that have shown that SMEs do not select foreign markets as methodically as presumed by the incremental internationalization models. Andersson et al. (2004) argue that the stages model does not explain why some small firms internationalize while others do not. Likewise, Oviatt and McDougall (1994) and Knight and Cavusgil (1996) criticize the model as lacking explanations for the internationalization of small, “born global” firms, which lack both resources and experience, which, the stages model posits are requisites for increasing internationalization. These firms are established by individuals with a global focus from the start and a commitment to rapid internationalization (Bell et al., 2004). Bell (1995) analyzed a sample of small software firms in Finland, Ireland and Norway and suggested that propositions of the IP model of internationalization do not apply to SMEs. The findings show that association with domestic and foreign value chain partners, focus on niche markets and industry characteristics explain internationalization undertaken by SMEs.

Although alternative explanations to the stages model such as transaction costs analysis (Anderson and Gatignon, 1986) and Dunning’s (1988) eclectic paradigm have been developed, these frameworks have rarely been applied in analyzing the behavior of SMEs. Nakos and Brouthers (2002) for example, note only one study (Brouthers et al., 1996), which applied

Dunning's OLI framework to small firms. With respect to network theories, it has been suggested that they explain the mechanisms for overcoming resource constraints rather than provide a stimulus for internationalization (Bell et al., 2004). In addition to organizational learning theory (Li, 2010), theories such as RBV and the capabilities view (Peng, 2001, Autio et al., 2000, McDougall et al., 1994, Zahra et al., 2000, Uhlenbruck et al., 2003) have been used to explain SME internationalization.

Scholars such as Peng (2001) argue that despite the existence of relatively few studies analyzing SME internationalization from a resource-based view, this perspective may be key in explaining why some SMEs successfully internationalize while others do not. He uses the resource-based view to argue that it is knowledge about internationalization opportunities that serves as a primary resource of SMEs and gives them a competitive advantage in internationalizing. Dalli (1995) also states that it is mainly the availability of internal resources that determines whether small firms will be sufficiently committed to international activities. Hoskisson et al. (2000) have also stated that the resource-based view is one of the most useful theories for analyzing emerging markets. Knight and Cavusgil (2004) argue that firm capabilities are a key determinant of SME internationalization. They find a positive relationship between firm capabilities such as international entrepreneurial orientation and international marketing orientation and IB strategies and between IB strategies and international performance of born-global small sized exporters. Westhead, Wright, and Ucbasaran (2001) show that knowledge possessed by the founder and her ability to acquire financial resources had a positive influence on an SME continuing as an exporter seven years after founding of the firm. Madsen and Servais (1997) also propose that operating in niche markets, innovative capabilities and experience and knowledge of the entrepreneur positively influence the performance of a born-global firm. Bell,

McNaughton, Young, and Crick (2003) state that born global firms are classified as knowledge based firms because presence of knowledge is the sole reason for their existence. They propose that heterogeneity in motivation, objectives and knowledge intensity determine the pace and pattern of internationalization of a born global firm. Although Uhlenbruck et al. (2003) also rely on the resource based view of the firm to state that it is likely that intangible resources, such as knowledge, learning and human capital will give firms a competitive advantage, as opposed to tangible resources, they suggest that researchers should also consider organizational learning as a theoretical perspective to understand internationalization by SMEs in CEE.

### **Internationalization of SMEs in CEE Region**

We targeted Central and Eastern Europe for several reasons. The CEE region has been cited to be of particular interest for examining existing management theories, where they are as yet insufficiently understood (Nakos and Brouthers, 2002; Uhlenbruck and De Castro, 2000; Hoskisson et al., 2000). Although transition economies are considered rapidly growing emerging market economies (Hoskisson et al., 2000), the region has been little studied thus far in terms of outward internationalization, and SMEs in the region have only recently begun their internationalization activities. Thus, this research allows us to capture some of the first steps of smaller firms in their international expansion activities. These internationalization activities are driven by several factors. The enlargement of the EU and removal of trade barriers have forced local firms to compete not only with more experienced western European firms, but with other CEE firms as well. CEE home countries tend to have relatively small populations with relatively low purchasing power, adding to the need to enter foreign markets. These SME manufacturing

firms seek new markets to not only increase production volume, but also to establish ties in more advanced markets and to improve profitability.

It is well known that small and medium-sized enterprises (SMEs) are an important driver of the European Union (EU) economy, as they comprise over 99% of all European firms. With the accession of ten new member countries to the EU in 2004, the issues of SME sustainability and competitiveness became a focus of attention for both governments and academics, as the EU had to integrate these emerging economies. While traditional enterprises in the Soviet Union and socialist countries were large industrial complexes focused on mass production, the transition period in Central and Eastern Europe (CEE) brought forth not only the break-up of these former state-owned giants, but also the emergence of both new and restructured SMEs (Hutchinson and Xavier, 2004). Consequently, SMEs in the CEE region have become the backbone of these transition economies. Simultaneously, they are a source of much concern, as the SME sector in these countries still remains largely underdeveloped, especially as firms have difficulty accessing much needed financing (Hutchinson and Xavier, 2004) and firms are plagued by high taxes and corruption (Aidis and Mickiewicz, 2004). With increasing competition from local and foreign companies over the last decade, manufacturing companies in Central and Eastern Europe are increasingly forced to look outside their home countries in order to survive. However, internationalization implies risk and uncertainty, and SMEs, which are often limited in their resources, may face higher uncertainty than large firms. As such, many SMEs that are successful in their home markets might fail in their attempts to enter foreign markets because of limited resources, lack of business experience and international know-how. Thus, understanding what motivates SMEs to increase their levels of internationalization is important in understanding the performance and survival of firms in Central and Eastern Europe.

There has been an increase in studies addressing the foreign entry strategies of firms investing in CEE countries but we still know relatively little about the internationalization strategies of CEE firms themselves. Several studies have addressed the issues of foreign direct investment sourcing strategies, location attractiveness, wages, and the institutional environment of Central and Eastern Europe (Bevan, Estrin and Meyer, 2004; Nakos and Brouthers, 2002; Djarova, 1999; Meyer, 2001; Donges and Wieners, 1994; Shama, 1995), from the perspective of foreign companies investing in the region. Danis and Parkhe (2002) analyzed international alliances and differences in management practices between partners in 17 Hungarian-Western cooperative ventures, and found that Hungarians were more oriented toward personal relationships, production versus market orientation, autocratic management styles, hierarchical structures and low sharing of information as compared to their western counterparts. Liuhto and Jumpponen (2001) studied the motivations for internationalization, market selection and entry mode choice of the largest Baltic companies, and identified increasing competition in local markets as the driving force for internationalization. However, these studies focused on larger companies. There is still a dearth of studies investigating these issues from the viewpoint of SMEs in CEE countries, especially empirical studies analyzing international activity from the firm capabilities and learning perspectives.

Firms in CEE countries face many hurdles, such as bureaucratic obstacles and lack of financial capital, and it is shown that a major impediment to the internationalization of SMEs is the lack of financial and physical resources (Uhlenbruck et al., 2003; Filatotchev et al., 1996). However, successful internationalization of some SMEs indicates possession of certain resources and capabilities that provide an advantage to them over other firms. Uhlenbruck et al. (2003) state that flexibility, which stems from the ability to identify and acquire resources through organizational learning, is especially important in a dynamic environment. According to Meyer



and Peng (2005), the valuable, rare and non-imitable resources that allow firms to attain a sustainable competitive advantage in CEE countries are likely different from those of Western firms, and a key challenge lies in identifying them. Among those resources that might be most important for CEE firms are flexibility, tacit knowledge, top management attitudes and experience, and low cost capabilities (Meyer and Peng, 2005; Uhlenbruck et al., 2003; Hoskisson et al., 2000). Accordingly, we rely on the theoretical underpinnings of the capabilities view (Teece and Pisano, 1994) to identify firm capabilities relating to knowledge, cost and managerial attitude that are relevant for SMEs in CEE region and develop relationships between these capabilities and the level of internationalization.

## **THEORY AND HYPOTHESES**

### **Knowledge-Orientation and Level of Internationalization**

In this section, we develop an argument for the first hypothesis that there is a positive relationship between knowledge orientation and level of internationalization of a CEE based SME. Firms in CEE generally lack physical resources and financial capital (Steensma et al., 2005), and are likely to acquire knowledge and develop skills required for successful internationalization. In addition, SMEs must also overcome numerous external barriers, such as macro environmental variables, remnants of the Soviet system, and lack of information and knowledge (Aidis, 2002). In the socialist era, market information was typically provided by state agencies, and firms neither employed environmental scanning nor did they have knowledge about how to internationalize (Uhlenbruck et al., 2003). Hitt et al., (2000) state that firms in Eastern Europe are less likely to be able to compete with developed market firms in product technologies. Also, they possess underdeveloped management capabilities and decision-making skills because

top managers have relatively less experience than western managers. Uhlenbruck et al. (2003) emphasize that lack of prior knowledge needed to identify opportunities is the main challenge for SMEs in CEE countries.

A firm's challenges with respect to knowledge and learning merit greater understanding because increasing internationalization involves information and knowledge accumulation (Liesch et al., 2002). Uhlenbruck et al. (2003) note several ways for firms to acquire tacit knowledge from external sources, such as establishing alliances with customers and suppliers, observing successful firms, or hiring employees with specific knowledge. An SME that has greater knowledge orientation is expected to form ties with other firms to acquire new knowledge in addition to leveraging their existing specific knowledge (Peng, 2001). Coviello and Munro (1995) note that internationalization activities stem not only from the strategic decisions of company management, but also from the opportunities arising from the firm's network of relationships with other firms. The ability to learn from other firms can help the firm to attain higher performance and competitive advantage (Hoskisson et al., 2000). However, firms do not necessarily have to rely on other firms within their own national boundaries for knowledge acquisition (Kriauciunas and Kale, 2006). Smaller firms have the advantage that they are more likely to work through intermediaries to obtain knowledge, which may help them to achieve more rapid internationalization (Peng, 2001; Peng and Ilinitch, 1998). As knowledge is often embedded in the firm's routines and social context, smaller firms may also more easily absorb knowledge, as they do not have to overcome existing organizational rigidities. As such, knowledge resources linked to learning from external players should be important to SMEs.

Besides learning from external sources, SMEs with greater knowledge orientation are expected to recruit employees and integrate their knowledge to generate organizational

knowledge. The company's general staffing decisions (e.g., hiring and training) determine the firm's ability to continue internationalizing (Liesch et al., 2002). It is important for SMEs to recognize the potential of their human resources, to be able to attract skilled employees and use their capabilities. Peng (2001) points to several studies (e.g., Lee and Miller, 1999) that have shown that companies that view employees as a source of competitive advantage are more likely to attain that advantage. In particular, SMEs that develop knowledgeable and skilled workers can use them to create a competitive advantage. Companies that value their employees and those which seek unique skills in their employees will provide an important resource that should assist in internationalization. Thus, having a focus on obtaining knowledge and developing internal learning capabilities will positively influence the level of internationalization of SMEs.

There are reasons, however, to believe that a high level of knowledge orientation may lower the level of internationalization undertaken by a CEE based SME. This is so because the firm may get locked into acquiring and developing knowledge that is specific to a given set of international business associates. A CEE based SME firm is likely to rely on its external sources of knowledge in order to accumulate previously lacking relevant knowledge. It is possible that the firm will acquire knowledge that facilitates continuation of business with the existing international customers. Since knowledge accumulation is path dependent in nature, specific knowledge acquired with respect to a given set of customers and countries may not be relevant to another set of customers and countries thus limiting internationalization opportunities.

Although a high knowledge orientation may negatively influence the level of internationalization, we believe the overall influence will be positive. This is because knowledge orientation is expected to result in acquisition of knowledge required for internationalization. A CEE based SME that is not knowledge oriented is less likely to focus on acquiring knowledge

relevant to international business. In absence of relevant knowledge, the firm will not be able to engage in international business. Knowledge orientation is expected to increase the level of internationalization by facilitating knowledge acquisition from external sources and recruiting and integrating employees with desired knowledge. Therefore, we hypothesize that:

***Hypothesis 1: In a CEE based SME, the greater the knowledge-orientation, the higher its level of internationalization.***

### **Cost-Orientation and Level of Internationalization**

The second hypothesis of this study predicts a positive relationship between cost-orientation and level of internationalization of a CEE based SME. Although internationalization has been linked to the firm's ability to leverage tacit resources and knowledge across borders (Kogut and Zander, 1992), the primary advantage a firm has for international operations may simply be related to cost. Cost orientation is defined as an ability to undertake actions that reduce cost and improve efficiency, reliability, or execution (Porter, 1980; Thornhill and White, 2007). Previous studies considering cost and internationalization have considered either internationalization and cost structures (Pan, 2002; Mansi and Reeb, 2002) or the cost strategies of domestic firms in a non-U.S. context (Lyles et al., 2004; Bloodgood et al., 1996). Having a cost orientation may be especially beneficial for firms in Central and Eastern Europe for several reasons. Wage levels are extremely low (Wall Street Journal, 2004), with basic education enrollment above 95% (United Nations Economic Commission for Europe, 2000). As such, aside from location advantages, SMEs in the region may be able to benefit from their low wage costs in attracting customers and undertaking internationalization.

Cost orientation is expected to result in high level of internationalization in a CEE based SME because cost orientation can drive utilization of technical knowledge and physical resources

towards producing goods at lower cost. Cost orientation is manifested in several ways including reduced per unit fixed costs, shorter production cycles and increased employee productivity. A CEE- based SME is likely to use these methods of cost reduction to compete with firms in both domestic and international markets. Cost orientation is expected to facilitate not only production of goods for export but also in higher levels of internationalization such as setting up sales subsidiary and entering into joint ventures. Costs of setting up and maintaining a sales subsidiary may be recovered by selling goods and services at a high volume. Similarly, a firm participating in a joint venture may stand to benefit from low cost structures of a CEE based SME partner.

Heterogeneity in cost structure is likely to exist in SME firms based in CEE countries. The heterogeneity is likely to be caused by resources such as depreciated plant and machinery acquired during the economic transition, competent employees hired from labor markets and political connectivity resulting in favorable financing being made available to an SME. These resources are likely to result in firm level heterogeneity in cost orientation amongst SMEs based in CEE countries. CEE countries have a strong history of manufacturing and engineering capabilities that are likely to support a low-cost orientation (Kogut and Zander, 2000). CEE based SME with greater orientation towards cost efficiency is expected to earn higher profits.

The positive impact of cost orientation on the level of internationalization of a CEE based SME may be mitigated if its low cost capability restricts the firm's international business to only those countries where price elasticity of consumer demand is high. Firms in countries where customers are price sensitive generally prefer to do international business with firms from countries which have a greater capability to offer low priced products and services. It is possible that a CEE based SME may internationalize by doing business in these countries in order to capitalize on their low cost capability. It may be dissuaded from entering countries where price elasticity is low and consumers are willing to pay more for desired product characteristics.

Although low cost orientation may restrict international business to countries where consumer demand is elastic, the benefits gained through reduced costs of products and service are likely to facilitate the firm's choice of entry modes with higher resource commitment in such countries. Thus we predict that having a cost-orientation may provide a viable approach to expand in international markets:

***Hypothesis 2:** The greater the low - cost orientation of a CEE based SME firm, the higher its level of internationalization.*

### **Managerial International Business (IB) Orientation and Level of Internationalization**

The third hypothesis of this study predicts a positive relationship between managerial IB orientation and level of internationalization by a CEE based SME. According to Fahy et al. (2000), the rapid change in the environment of transition economies implies that the issue of resource development and exploitation is 'crucial'. Although it is important to have the right set of resources and capabilities, a firm must be able to use them properly. Management has the responsibility to develop the means of leveraging resources and capabilities. Therefore, the capabilities of top management in emerging market firms are critical to their success (Hitt et al., 2000). For example, Allmendinger and Hackman (1996) find that an aggressive managerial attitude combined with proper resources can be the difference between survival and failure for organizations transitioning from Communism to free-markets. This issue of managerial attitude is especially important in the CEE countries, where general management skills are still limited, and managers might base their current decisions on prior knowledge, which, for managers of former state enterprises in particular, will be that of the former planned economy (Makhija and Stewart, 2002; Uhlenbruck et al., 2003). Fey et al. (2001) and Elenkov (2002) also highlight the importance of managerial leadership in the success of firms in transition economies. Since most

SME decisions are made by one or a few top managers, we expect managerial characteristics will influence the level of internationalization (Cavusgil and Naor, 1987; Manolova et al., 2002; Reuber and Fischer, 1997; Wiedersheim-Paul et al., 1978; Harveston et al., 2000; Knight, 2001; Nummela et al., 2004). Specifically, we expect that the attitudes of managers in SMEs will influence the level of internationalization of the firm. The attitude of interest for this study is the attitude of managers towards being successful in international operations. We call this a 'pro-active orientation' of management towards internationalization.

Even with the positive influence of managerial orientation towards internationalization, negative effects can result as well. A high level of managerial orientation towards IB may cause hubris (Roll, 1986) that is likely to result in over investment in high risk projects. International activities such setting up joint ventures, sales subsidiaries or wholly owned subsidiaries entail greater risk compared to contract manufacturing and exports. Lack of knowledge and capabilities is expected to result in incurrence of loss or failure in case of high risk international activities. Hubris coupled with lack of relevant knowledge and managerial competence is likely to adversely affect the high level of internationalization by a CEE based SME.

Even with these risks, a managerial orientation towards IB is essential for a CEE based SME to undertake any level of internationalization. This is so because individual managers in SMEs wield greater influence over a firm's decisions than in larger companies. A proactive view toward establishing relationships, having an international outlook, and acquiring an understanding of the company's advantages are factors that are expected to distinguish more internationalized companies from those less so. According to Ireland et al., (2003), small companies and new ventures tend to be more skilled in identifying opportunities but less so in exploiting them over time than large firms. Thus, a pro-active attitude to exploit international opportunities can make a difference even for a company with other resources and capabilities.

Having a top manager who is committed to using a firm's capabilities to initiate and increase its level of internationalization should lead to higher levels of internationalization. As a result, we predict the following:

***Hypothesis 3:** In a CEE based SME the greater the managerial orientation towards international business, the higher its level of internationalization.*

Above, we use capabilities view of the firm to develop hypotheses that predict a positive relationship between the level of internationalization and the three capabilities of knowledge orientation, cost orientation and managerial IB orientation of a CEE based SME. We empirically test these hypotheses using the survey data collected from SMEs in the CEE region. The data collection methodology, the survey instrument and operationalization of variables are discussed in the following section of our study.

## **METHODS**

### **Sample and data collection**

To test our hypotheses, we collected data through questionnaire surveys from a sample of companies in six Central and East European countries – Czech Republic, Estonia, Lithuania, Poland, Romania, and Slovenia. We identified a sampling frame of small and medium sized industrial manufacturing firms. In accordance with EU Commission recommendations (2003), SMEs were defined as companies having fewer than 250 employees and an annual turnover not exceeding 50 million EUR, and/or an annual balance sheet total not exceeding EUR 43 million.

Our sampling frame was derived from the Kompas database (Tavares and Young, 2002; Nummela et al., 2004). This database covers almost two million firms. We used the following



criteria to select firms to be included in our sampling frame: 1) small and medium size (as defined above), 2) local ownership, and 3) involvement in manufacturing sector. In total, 2,404 firms across six target countries met our criteria. Using Kompass allowed us to target active firms in a broad range of CEE countries . Active firms are those that are registered in local registers and are not inactive or near bankruptcy. The alternative option of using import-export directories in these countries appeared unreliable because only a few companies, which are primarily small exporters, are listed in these directories.

The questionnaire was developed simultaneously in English and Lithuanian and translated into the Polish, Czech, Estonian, Slovene and Romanian languages. Back-translation was not conducted from Lithuanian due to the primary researcher's bilingual capabilities. However, the Lithuanian-language version was thoroughly checked for any inconsistencies in meaning, and small corrections were made before distributing the final version. Back-translation into English was, however, conducted for the remaining languages and small corrections were made across all the versions prior to full-scale administration (Hitt et al., 2000; Filatotchev et al., 2000; Michailova and Liuhto, 2000).

The survey was administered both electronically (by email) and by post from May, 2004 to September, 2005 to 2404 companies in several stages. Companies were sent reminders three and six weeks after initial receipt of the survey. In total, 274 companies responded, resulting in a response rate of 13.2%. Our response rate is not atypical of the rate for international surveys, especially with the secretive nature with which firms in Central and Eastern Europe treat their data (Harzing, 1997; Filatotchev et al., 2000; Kriauciunas and Kale, 2006). Of those responding, some were excluded because they did not want to participate (n=39), were incomplete (n=41) or they did not meet our criteria as SMEs (n=7). This left us with 187 usable surveys. Of these, we

focused on the 90 firms that were involved in contract manufacturing, since that is a common initial step towards internationalization, especially in transition economies (Peng and Luo, 2000). Table 1 provides detailed response rates by country. To test for non-response bias, we used the firms that returned surveys but declined to participate as representative of firms that did not return a survey. Using two-tailed t-tests, we found no significant differences between respondents and non-respondents regarding firm size.

### **Research Instrument**

The questionnaire consisted of three parts. The first part included general questions about the company, such as date of establishment, legal status, number of employees, and ownership. The second part of the survey consisted of several groups of questions concerning the reasons for internationalizing, the process of internationalization, the countries in which SMEs conduct international activities and the degree of involvement in each country. The final group of questions in this section asked respondents to indicate the extent of agreement on a 5-point Likert-type scale to a series of statements about their contract manufacturing activities and the extent to which various barriers hinder their internationalization activities. These questions were included with the intent to gauge the attitudes of managers, who have network ties, toward internationalization in general, and to capture the drivers and barriers to the initial steps of the internationalization process. The focus on network relationships is important, especially in transition economies, as these ties facilitate access to resources and information (Lyles et al., 2004; Peng and Luo, 2000). The last part of the questionnaire included questions about respondent demographics.

### **Measures**

The constructs in our study were all measured with multi-item scales. A listing of the items and the questions used to develop the independent variables are provided in Appendix 1.

***Dependent Variable.*** The dependent variable for this paper is the *firm's level of internationalization*. This variable is operationalized by calculating the weighted average of a firm's international operations across different countries. Each respondent was asked to indicate the number of countries with which it was engaged in each of the following operations: foreign manufacturing contracts in the home market, exporting, licensing or contract manufacturing abroad, sales subsidiary, joint-venture, or wholly-owned subsidiary. The literature on internationalization stages distinguishes various stages of international activity and treats internationalization as entry into foreign markets and acquisition of experience through export or direct investment modes (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Bilkey and Tesar, 1977). We follow this general approach and also add the fulfillment of foreign orders in the home market, also known as 'contract manufacturing'. We included contract manufacturing activities in the home market as an initial step in the internationalization process as firms may be internationally active without having a presence in foreign markets (Bilkey and Tesar, 1977; Cavusgil, 1982). This is especially true of manufacturing SMEs in the CEE countries, as they may be targeted by western manufacturing firms for the manufacture of lower cost components or may seek out foreign buyers themselves.

We used the following formula to measure the level of internationalization: (# of contract manufacturing countries served from the home market \* 0.5) + (# of export countries \* 1) + (# of contract manufacturing or licensing countries \* 2) + (# of sales subsidiary countries \* 3) + (# of JV countries \* 4) + (# of WOS countries \* 5). This weighted average approach gives greater weight to operations that involve greater investments, greater risk, and greater presence.

In their review of internationalization measures, Hassel et al., (2003) find only three measures of 'degree of internationalization' in the literature: the UNCTAD Transnationality Index, the Transnationality Spread Index of Ietto-Gillier (1998) and the Degree of

Internationalization Scale of Sullivan (1994). These indices measure the internationalization of the world's largest multinationals and are comprised of data that is not accessible in CEE countries. Thus, we had to rely on a more simplistic measure to capture the level of internationalization of SMEs in the region<sup>1</sup>. Our measure is based on the premise that internationalization follows a pattern beginning with pre-export ties in the home market and ending with foreign production (Johanson and Vahlne, 1977). Thus, higher involvement entry modes are considered to involve more risk, investments and other resource commitments than lower modes (Dunning, 1998). In an attempt to synthesize the existing 'degree of internationalization' measures, Hassel et al. (2003) included the variable Geographical Spread, defined as the total number of countries in which firms are active. When we compared their geographic spread categories (where 0-7 countries indicates a low spread and over 16 countries a high spread) to ours, the results were very consistent (Pearson's  $C=.829, p<.001$ )<sup>2</sup>.

***Independent Variables.*** The first independent variable, *Knowledge Orientation*, measures the degree to which a firm's competitive advantage is based on organizational knowledge. The measure was developed based on the "knowledge specificity" measure of Noorderhaven et al., (1998) and the "knowledge intensity" construct of Autio et al. (2000). Five items from the survey were used to measure this variable, with a Cronbach  $\alpha$  value of 0.75. The measure is an arithmetic mean for the five items.

The second independent variable, *Cost Orientation*, measures the degree to which a firm's competitive advantage is based on cost. The respondents assessed three items on a 5-point scale regarding the degree to which they perceive that their buyers are interested in securing low prices, the extent to which received orders are labor-intensive and the extent to which firms view low price as a main advantage. The Cronbach  $\alpha$  of this scale was 0.53. Although this reliability score is somewhat low, we include the measure on the basis that Cronbach  $\alpha$  scores above 0.50

can be considered acceptable for exploratory studies (Nunnally, 1978). This measure is an arithmetic mean of the three items.

The third independent variable, *Managerial Orientation towards International Business*, is based on the firm's response to five items. The items were developed based on previous work that has focused on managerial views towards international operations (Mockaitis et al., 2006; Manolova et al., 2002; Noorderhaven et al., 1998, Wiedersheim-Paul et al., 1978; Nummela et al., 2004; Nummela et al., 2005). The questions comprising this construct focused mainly on the extent to which firms actively pursue opportunities in international markets, through seeking out and retaining network relationships, acquiring information about international market opportunities and using it to secure an advantage over competitors. The Cronbach  $\alpha$  of this five-item scale was 0.73. This measure is an arithmetic mean of the five items.

***Control Variables.*** Since the level of internationalization may be influenced by various factors such as firm size, industry, country, and founding period, these were included as control variables in the study. We measured *Size* as the natural log of the total number of employees in the firm. Size may be related to the level of internationalization given that larger firms tend to have more available resources (Barkema and Vermeulen, 1998; Calof, 1993, 1994). Thus, we expect this variable to have a positive relationship with the level of internationalization. The firms are grouped into five *Industry* categories: automobile and electrical parts (26 firms), machine and metal processing (71), plastic and rubber (27), pulp and paper (21), and textiles (42). These categories are similar to those used in prior research (Khanna and Rivkin, 2001; Hitt et al. 2000). Dummy variables were assigned for each industry category. Since we dropped the 'textile' category while assigning industry dummies, the coefficients for the other industry categories are to be compared against this category. To account for unobserved differences across *Countries*, dummy variables were assigned for each country (Kogut et al., 2000; Shaver et al., 1997). Since

we dropped the ‘Romania’ category while assigning country dummies, the coefficients for the other countries should be compared against this country. The last independent variable is *Transition*, which denotes whether the firm was founded before transition from communism to a free market in its home country or during transition. We set the start of the transition at 1990 for all of the countries in our study. We coded this variable as 1 if the firm was founded before 1990 and 0 if the firm was founded after 1990. In our sample, 67 firms were founded after the onset of the transition period in their countries. The remaining 23 firms were founded before 1990. Meyer and Peng (2005) posit that resources and capabilities inherited from the Communist system may actually be helpful to the firm, if those resources and capabilities can be properly targeted to the firm’s goals. However, when a firm internationalizes, not only must it acquire new knowledge (Ghoshal, 1987; Eriksson et al., 1997), but it must also overcome existing organizational routines (Barkema and Vermeulen, 1998; Autio et al., 2000). As such, the Communist history may be a liability. Therefore, we make no prediction concerning the impact of founding period.

## RESULTS

Table 2 provides the correlation matrix and descriptive statistics for the dependent and key independent variables used in our study. The dummy variables for industry and country are not included for simplicity. Transition is a binary variable and the rest are continuous variables. Correlations for the primary independent variables are 0.34 or lower. VIF values were below 4.0 for the industry and country dummy variables and below 2.0 for all other variables, which is much less than 10, the level at which multi-collinearity would be a concern (Neter et al., 1990).

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Insert Table 2 about here  
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The results of our modeling are presented in Table 3 using OLS. Model 1 reports the results for only the control variables. We see that larger firms are more international than smaller firms. This result holds in all the models. The industry control variables do not contribute significant explanatory power to the model. Also, the coefficients for Estonia and Lithuania are significantly positive.

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Insert Table 3 about here  
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Model 2 shows the results for analyzing the relationship between knowledge-orientation and the level of internationalization of a CEE based SME. We had predicted a positive relationship in Hypothesis 1, but results indicate that knowledge orientation has a positive but a statistically insignificant influence on level of internationalization of a CEE based SME, after controlling for the other effects in the model. Thus, Hypothesis 1 is not supported suggesting that developing a strong knowledge base does not significantly contribute to increasing internationalization of a CEE based SME. This result is similar to that found by Mockaitis et al. (2006), regarding the importance placed on learning by Lithuanian firms. In this and the remaining models, the coefficients for Lithuania and Estonia are significantly positive.

Model 3 reports the results for the relationship between a cost-orientation and the level of internationalization of a CEE based SME. We had predicted a positive relationship in Hypothesis 2 and the results support this prediction after controlling for the other variables in the model. Thus, firms that have developed an ability to manufacture cost-competitively have, on average, higher levels of internationalization than those with a weak cost orientation. This positive relationship holds in the full model (Model 5) as well. Thus, Hypothesis 3 is supported for both the partial and the full models.

The results for the relationship between the managerial IB orientation and level of internationalization of CEE based SMEs are depicted in Model 4. We had predicted a positive relationship in Hypothesis 3 and the estimated coefficient for this independent variable is positive and significant. This positive relationship holds in Model 5 as well. Thus, Hypothesis 2 is supported, suggesting that management attitudes towards internationalization are associated with the level of internationalization that a CEE based SME achieves.

Model 5 reports the results using all of the independent variables. The coefficients of cost-orientation and managerial IB orientation continue to be positive and significant and the knowledge orientation variable continues not to contribute significantly to the model. The coefficients for Lithuania and Estonia are significantly positive and the coefficient for *Transition* continues to not be significant. To facilitate further insights, alternative theoretical explanations and limitations of our study are discussed in the next section.

## **DISCUSSION AND IMPLICATIONS**

This research helps to better understand factors that are related to the degree to which SMEs in Central and Eastern Europe internationalize. To achieve this, we developed a set of hypotheses based on different capabilities that a CEE based SME is likely to rely upon for internationalization. We found that the cost-orientation and the managerial IB orientation capabilities are positively related to the level of internationalization by a CEE based SME, whereas the knowledge orientation capability was positive but not significantly related to level of internationalization by a CEE based SME.

Perhaps the most surprising finding was that the knowledge orientation capability was not significantly related to the level of internationalization, after accounting for the control variables. Given the importance of knowledge to succeed in international markets, knowledge



orientation was predicted to have a positive impact on the level of internationalization in a CEE based SME. There may be several possible explanations for the statistical insignificance of this variable. The first reason may be related to the work of Johanson and Vahlne (1977, 1990), who posit that knowledge about foreign markets may only be acquired through working in those foreign markets. The experience gained by working in foreign countries was theorized to result in lower uncertainty and greater commitments in foreign markets. Given that SMEs in Central and Eastern Europe are relative new to international business, they may not have been able to sufficiently integrate knowledge and learning with the firm's operations, or the firms may not have developed the necessary absorptive capacity (Uhlenbruck et al., 2003). The second possible explanation is that by developing ties with foreign firms (e.g., buyers) and exploiting the cost orientation capabilities the firms already possess, SMEs are giving themselves time to develop the knowledge and learning systems needed to be successful in their future international operations. As wages in Central and Eastern Europe increase and regulatory requirements due to EU membership raise costs, the cost advantage experienced by these firms may erode. In light of other research that did not find a relationship between cost-orientation and firm survival in CEE SMEs (Lyles et al., 2004), future research may inform us whether a knowledge orientation becomes more important as the cost advantage of firms decreases.

The use of cost orientation capabilities has clear policy implications beyond the countries in our study. Although firms in emerging markets may have an initial cost advantage, that advantage may disappear over time. Thus, firms need to establish capabilities to learn and to build knowledge-based resources. Governments in emerging markets should also determine how their firms can be competitive in global markets and encourage this two-prong approach. The strategy of the Chinese government to encourage low-cost manufacturing while concurrently

encouraging or requiring firms from developed economies to undertake more value-added activities in China is one example of an emerging economy's use of such an approach.

The results regarding the positive and significant relationship between management's IB orientation and level of internationalization underline the importance of intangible resources for SMEs. Smaller firms tend to have a disadvantage in terms of physical resources and the results for the control variable *Size* suggest that, everything else held constant, larger firms tend to be more internationalized. However, a proactive view of managers, coupled with other capabilities such as a cost-orientation, may be the foundation for internationalization of SMEs in the CEE region. Also, the results indicate that not all intangible resources are equally important. For CEE based SMEs, having a managerial IB orientation appears more important than developing knowledge resources and learning capabilities. Future studies may examine this management orientation in other regions where institutional constraints may not result in such a strong influence from management attitudes and orientation.

Also interesting were the results regarding the *transition* control variable. Although previous research indicated that many Soviet era firms were slow to change to the free-market system, that constraint did not have an influence on our results (Kogut and Zander, 2000; Filatotchev et al., 2000; Hitt et al., 2000). This lack of significance may be related to our focus on SME firms or it is possible that the firms which were not able to adjust to the free-market system have already failed. It would be informative for other researchers to consider the impact of the Soviet system in countries that were more integrated within the Soviet Union and which have experienced fewer pressures to change their economic systems.

## **LIMITATIONS**

As with any research, this work has several limitations. The first is that we focused solely on the manufacturing sector. Since there were few service firms operating during the Communist period, we chose to focus on the manufacturing sector to ensure representation of firms founded during the Communist era as well as during the transition period. Future work could consider the internationalization of service sector SMEs and how they compare to the manufacturing SMEs in the region. Although age of the firm did not have a significant effect on the level of internationalization in our study (results not reported here), we did not distinguish between established firms and “new ventures.” A comparison of the internationalization activities of these categories of firms across countries would also be of interest for future studies.

In this study we focused on the current level of internationalization of firms to assess the extent to which capabilities drive the level of internationalization, but do not examine the process of internationalization itself. Many of the firms in our study rely on low cost to secure manufacturing contracts from foreign buyers in their home markets. Whether these network ties help firms to enter foreign markets on their own and whether firms are able to use their cost advantages and other resources in entering foreign markets is not known. Further research may also focus on the degree to which SMEs leverage these capabilities in their internationalization process and direction of internationalization.

## **CONCLUSION**

Despite these limitations, we believe that our study makes a few important contributions to the literature on SMEs in CEE region. First, we suggest that firm capabilities such as knowledge orientation, cost orientation and managerial IB orientation are likely to determine the level of internationalization of a CEE based SME. Second, empirical support for two of the three

capabilities suggests that Internationalization Process (IP) model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1990) may not be suitable for explaining internationalization behavior of SMEs in CEE region. Third, internationalization gains arising from low cost that were previously associated with large firms are extended to SMEs as well. Fourth, by calculating the weighted average of a firm's international operations across different countries, we develop a novel way of measuring the level of internationalization. Last but not the least, using CEE countries as a context to examine SME internationalization contributes to the growing but currently inadequate number of international studies that focus on the CEE region. In addition to the theoretical and empirical contributions stated above, our study provides a starting point to better understand how SMEs in Central and Eastern Europe are taking initial steps to internationalize. By expanding beyond their home markets, they not only have the opportunity for growth, but also the potential to be serious competitors in more developed economies. Firms and their governments should leverage capabilities such as cost orientation as much as possible when appropriate, but also consider that a cost advantage may not be sustainable. We invite other researchers to track the development of SMEs in the CEE region to determine how strategies change over time as the economies develop and competition from other regions becomes more intense.

## Notes

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<sup>1</sup> Although Sullivan (1994) offers a comprehensive measure of Degree of Internationalization and suggests using the aggregate of publicly available data (foreign sales, R&D intensity, export sales, foreign profits, foreign assets, overseas subsidiaries, top management international experience and psychic dispersion of international operations), this was not possible in our case, due to the nature of our study. Specifically, the lack of reliable company databases, hesitancy of firms to reply to "sensitive" questions, no publicly available information on SMEs and the different accounting standards used in CEE countries, made this impossible in our case. In our view, Sullivan's measure may be applied as a measure for large firms in more developed countries, where such information is transparent.

<sup>2</sup> Although Hassel et al. (2003) do not explain their reasoning for categorizing firms into low, medium and high levels of internationalization based on geographical spread, we calculated levels based on percentile frequencies.

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**TABLE 1****Response rates by country**

<b>Country</b>	<b>Czech Republic</b>	<b>Estonia</b>	<b>Lithuania</b>	<b>Poland</b>	<b>Romania</b>	<b>Slovenia</b>	<b>Total</b>
<b>N Surveys sent</b>	578	366	494	463	208	295	2404
<b>N Undeliverable</b>	94	57	76	68	11	18	324
<b>N Received</b>	72	50	85	36	12	19	274
<b>N Incomplete</b>	12	9	12	6	0	2	41
<b>N Not SMEs</b>	6	0	1	0	0	0	7
<b>N Declined participation</b>	19	9	5	5	1	0	39
<b>N Usable</b>	35	32	67	25	11	17	187
<b>Response rate</b>	14.9%	16.2%	20.8%	9.1%	6.1%	6.9%	13.2%

**TABLE 2**  
**Descriptive Statistics and Correlation Matrix (N=90)**

Variable	N	Mean	StD	1	2	3	4	5	6
<b>1. Level of Internationalization</b>	90	9.58	7.60	1.00					
<b>2. Knowledge Orientation</b>	88	3.58	0.71	0.13	1.00				
<b>3. Cost Orientation</b>	89	3.34	0.70	0.24*	0.23*	1.00			
<b>4. Pro-Active Views</b>	89	3.36	0.87	0.22*	0.34**	0.23*	1.00		
<b>5. Transition</b>	90	0.26	0.44	0.07	0.11	0.08	0.27**	1.00	
<b>6. Size</b>	90	4.24	1.10	0.24*	0.45**	0.20†	0.36**	0.44**	1.00

p<.10 = †; p<.05 = \*; p<.01 = \*\*

**TABLE 3****Results of OLS Regression. The dependent variable is ‘level of internationalization’**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
Constant	-7.15	-7.23	-20.92**	-13.58*	-24.73**
Knowledge Orientation		0.02			-0.93
Cost Orientation			3.46**		3.29*
Proactive Orientation				2.13†	2.31†
<b>Control variables</b>					
<b>Transition</b>	-0.34	-0.42	-0.95	-1.11	-1.80
<b>Size</b>	2.76**	2.76*	2.78**	2.38*	2.63*
<b>Country</b>					
CZH	2.63	2.45	3.14	3.25	3.65
EST	6.90†	6.91†	8.94*	8.42*	10.44**
LT	5.90†	6.00†	6.80*	5.96†	6.81*
POL	1.14	1.13	3.66	1.15	3.40
SLV	4.21	4.20	5.49	4.25	5.71
<b>Industry</b>					
Auto/Electric	2.08	3.17	5.73	2.44	6.44†
Machine/Metal	0.84	0.88	1.62	1.36	1.92
Plastic/Rubber	4.19	4.27	7.27*	6.24†	9.01*
Pulp/Paper	-1.94	-1.94	-0.57	-0.49	0.72
<b>N</b>	90	88	89	89	87
<b>R<sup>2</sup></b>	0.14	0.14	0.21	0.18	0.25
<b>Adjusted R<sup>2</sup></b>	0.02	0.01	0.09	0.05	0.10
<b>F-Value</b>	1.17	1.06	1.71*	1.36	1.70†

p<.10 = †; p<.05 = \*; p<.01 = \*\* using two-tailed tests

**Notes:** For countries, the omitted dummy variable is ‘Romania’. For industries, the omitted variable is ‘textile’.

## APPENDIX 1

The survey respondents were asked to indicate the extent of agreement to each statement concerning their contract manufacturing activities: 1 = completely disagree, 2 = disagree, 3 = somewhat agree, 4 = agree, 5 = completely agree.

### **Cost Orientation (alpha = 0.53)**

1. Our buyers are mainly interested in securing the lowest price
2. The orders we receive are labor-intensive
3. Low price is our main advantage

### **Knowledge Orientation (alpha = 0.75)**

1. The fact that we do business with international buyers has increased our technological know-how.
2. We have made substantial investments in order to meet delivery times demanded by our customers
3. We have invested much time in learning how to assure the quality demanded by our international customers
4. We try to increase our employee skills on a regular basis
5. We conduct employee training regularly

### **Proactive Orientation (alpha = 0.73)**

1. We aggressively pursue any opportunities for international orders
2. We regularly conduct buyer searches
3. We always try to secure orders from new companies
4. We search for buyers throughout the world.
5. We seek buyers with the intent to find potential partners for investment activities in the future.