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# SME Entry Mode Choice and Performance: A Transaction Cost Perspective

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**Although small and medium sized enterprises (SMEs) account for a significant portion of international trade, little is known about how they make international entry mode decisions. Transaction cost theory has been widely used to study entry mode selection for large firms. Here we apply the theory to SME mode choices. Further, we set out to determine if SME transaction cost mode choices provide superior performance to other mode choices. We found that transaction cost theory did a good job of explaining SME mode choice and that SMEs that used transaction cost-predicted mode choices performed significantly better than firms using other modes.**

**I**nternational entry mode choice is considered a critical strategic decision (Lu, 2002). In an attempt to understand this choice, scholars have primarily focused on transaction cost theory (Brouthers & Brouthers, 2003; Brouthers, 2002; Delios & Beamish, 1999; Erramilli & Rao, 1993; Hennart, 1991; Gatignon & Anderson, 1988; Anderson & Gatignon, 1986). Yet as Zacharakis (1997, p. 26) suggests, although these “studies demonstrate the robustness of the [Transaction Cost] model, they fail to examine how the model applies to smaller entrepreneurial firms.”

Small and medium-sized enterprises (SMEs) are not smaller versions of larger companies, but mainly due to their size they tend to interact differently with their environment (Shuman & Seeger, 1986). What differentiates SMEs from large multinational enterprises (MNEs) are their managerial style, ownership, and independence (Coviello & McAuley, 1999). Moreover, their limited resources may lead them to very different international strategic choices in comparison to larger firms (Zacharakis, 1997; Erramilli & D’Souza, 1993).

Studies of the international activities of SMEs tend to concentrate on the internationalization process (Wolff & Pett, 2000; Oviatt & McDougall, 1997; Barringer & Greening, 1998). These studies examine the characteristics, either firm or managerial, of SMEs that have decided to export abroad; their motivation for international expansion;

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the differences between international and non-international firms; the countries SMEs have entered and the modes of entry they have used; *but not the reasons for selecting a particular mode* (Coviello & McAuley, 1999; McDougall & Oviatt, 1997).

Few scholars have examined SME entry mode choice. Recent research by Nakos and Brouthers (2002), Yi-Sheng, Po-Yuk, and Wai-Sum (2001), and Brouthers, Brouthers, and Werner (1996) has applied Dunning's Eclectic Framework to SME entry mode choice. Others such as Shrader (2001), Burgel and Murray (2000), Shrader, Oviatt, and McDougall (2000), and Osborne (1996) have examined components of transaction cost theory such as R&D intensity, training costs, or country risk. However, we could identify no studies of SME entry mode choice that have examined the three main causes of transaction costs: asset specificity, behavioral uncertainties, and environmental uncertainties (Williamson, 1985).

Further, Lu and Beamish (2001) recently found that entry mode usage and SME performance are significantly related, indicating the critical importance of making the right mode choice. Despite this, few studies (including large-firm studies) have examined the relationship between entry mode choice and performance (Brouthers, 2002; Brouthers, Brouthers, & Werner, 1999).

Hence, if the entry mode decision is considered such an important strategic decision and "the success of SMEs under globalization depends in large part on the formulation and implementation of strategy" (Knight, 2000, p. 13), then the strategic behavior of smaller companies needs to be investigated. By examining the entry mode behavior of SMEs, we can determine whether they follow similar patterns as their larger counterparts and whether the strategic decision processes that influence success for larger companies have validity in smaller firms.

In this article we hope to make two important contributions to the SME international literature. First, by examining the applicability of transaction cost theory to SME international entry mode choice, we hope to extend the generalizability of transaction cost theory for entry mode choice to this large and growing sector of the global economy. Second, by exploring the normative consequences of using transaction cost theory to make SME international entry mode choices, we hope to provide additional evidence that the transaction cost model provides a normatively superior method of making this important strategic decision.

## **Transaction Costs and Mode Choice**

Transaction cost (TC) theory has been widely used in entry mode research to explain why large companies utilize different modes in expanding abroad (Brouthers & Brouthers, 2003; Delios & Beamish, 1999; Erramilli & Rao, 1993; Hennart, 1991; Gatignon & Anderson, 1988; Anderson & Gatignon, 1986). Williamson (1985) suggests that companies adopt a certain organizational structure—markets (non-equity modes) versus hierarchies (equity modes)—when expanding abroad based on how efficient one structure is compared with the alternative structure.

Transaction cost theory suggests that asset specificity, behavioral uncertainties, and environmental uncertainties create two main costs: *market transaction costs* and *control costs* (Williamson, 1985; Hennart, 1989; Williamson & Ouchi, 1981). Williamson (1985; Williamson & Ouchi, 1981) also suggests that frequency of interaction is an important determinant of transaction costs; however, in entry mode studies, transactions are considered continuous, thus precluding the need for a separate measure of frequency (e.g., Brouthers & Brouthers, 2003; Erramilli & Rao, 1993).

While a company can protect its proprietary know-how and minimize its market transaction costs by integrating its foreign operations, it also has to balance the need for integration with the costs of controlling the hierarchical structure (Erramilli & Rao, 1993; Hennart, 1989). According to Hennart (1989, p. 215) “a shift to hierarchy means that one of the parties to the exchange becomes an employer [subsidiary] to the other.” As a result, the party (the new subsidiary) is not rewarded for market performance, but for following internal managerial orders. This increases the internal control costs of the organization because the firm may incur significant bureaucratic costs in controlling the new operation. Because of these increased control costs, hierarchical equity modes of organization structure are not always superior to market-based non-equity forms. Only when internal organizational costs are lower than market transaction costs will it be efficient for a company to organize itself as a hierarchy (Hennart, 1989). Consequently, transaction cost theory suggests that firms tend to select entry modes that balance the advantages of integration with the additional costs of control.

### **Asset Specificity**

Transaction costs are partially created by the *asset specificity* of the investment required when making a new foreign entry. Asset specificity refers to the physical and human resources, which may lose value in another use, that a company employs to complete a specific task (Klein et al., 1990; Williamson, 1985; Williamson & Ouchi, 1981). A firm that possesses unique technology and know-how has to take extra precautions (and incur additional costs) in order to protect its differentiated assets from falling into the hands of competitors (Klein, 1989). Further, asset specificity may create switching costs when initial foreign agents do not perform well (McNaughton & Bell, 2001; Erramilli & Rao, 1993; Klein et al., 1990).

Transaction cost theory suggests that when asset specificity is low, firms will incur few costs in protecting their know-how from competitors (Hennart, 1989). As Anderson and Gatignon (1986, p. 13) state, “because the requisite knowledge is well codified and widely available for hire, the entrant does not need to supplement the control offered by the market mechanism.” Low asset-specific investments involve the use of generally available knowledge; hence, firms are not concerned about protecting this knowledge from competitors, since competitors already have access to the knowledge. When the specificity of the investment is low, firms face lower control-related transaction costs because the chance of dissemination of knowledge is low (Williamson & Ouchi, 1981).

Switching costs are also lower in the case of low-specificity investments. Switching costs are incurred when an investing firm needs to change agents or modes of entry in a foreign market. Switching costs may include the costs of finding, negotiating with, and training a new agent, plus the opportunity costs resulting from lost sales. When asset specificity is low, the replacement of a foreign agent can be a fairly simple task since the knowledge and/or technology involved is commonly available (Erramilli & Rao, 1993; Anderson & Gatignon, 1986). Previous transaction cost-based scholarship has found that when asset specificity is low, firms tend to use market-based non-equity modes of entry (Delios & Beamish, 1999; Erramilli & Rao, 1993; Gatignon & Anderson, 1988).

Contrary to this, when firms make high asset-specific investments, hierarchical equity modes of entry tend to be preferred. When asset specificity is high, firms are more concerned with protecting proprietary knowledge or technology from competitors (McNaughton & Bell, 2001; Erramilli & Rao, 1993). The specificity of these assets may form the basis for firm-specific competitive advantage, the dissemination of which would adversely affect the performance of the investing organization (Anderson & Gatignon,

1986). Because of this concern, firms tend to internalize foreign operations to gain greater control over the use and potential misuse of their proprietary know-how and technology (Hennart, 1991; Klein et al., 1990).

When asset specificity is high, the loss of a foreign intermediary can prove to be very costly. Foreign agents have access to proprietary knowledge and can become competitors or form ventures with competing organizations, using the knowledge they previously acquired (Anderson & Gatignon, 1986). Specific assets may also require extensive training and investment, both of which are lost if a firm is required to switch foreign agents (Contractor, 1984). Hence, previous MNE research tends to indicate that firms prefer equity modes of entry when making high asset-specific investments (Delios & Beamish, 1999; Erramilli & Rao, 1993; Gatignon & Anderson, 1988).

It is presently unclear whether asset specificity plays an important role for SMEs. Some scholars (e.g., Pavitt, Robson, & Townsend, 1987; Acs & Audretsch, 1990) have suggested that SMEs tend to rely on highly innovative products and services. In this case, asset specificity may play an important role in SME entry mode choice. Other scholars (e.g., Symeonidis, 1996; Tether, Smith, & Thwaites, 1997) tend to suggest that SME technology is less advanced than MNEs'. If this were true, then SME foreign expansion would not be influenced by an asset-specific component.

Despite this uncertainty over the innovativeness of SME products and services, there is some evidence that asset specificity may play an important role in SME entry mode choice. Several studies have shown that SMEs with greater technological advantages use different modes of entry than SMEs without such advantages. For example, Burgel and Murray (2000) found a positive relationship between R&D intensity and the use of equity modes of entry for their sample of U.K. start-up companies in high technology industries. Similarly, Osborne (1996) found that New Zealand SMEs that possessed a higher ability to develop complex technically differentiated products tended to use equity entry modes, while companies selling undifferentiated commodities used non-equity modes. Hence, although the extent of SME innovativeness is unclear, we expect that for those SMEs with proprietary know-how, asset specificity will influence their international mode choice in a manner similar to large firms:

**Hypothesis 1:** SMEs will tend to prefer non-equity modes of entry when asset specificity is low, but tend to prefer equity modes of entry when asset specificity is high.

## **Behavioral Uncertainties**

Transaction cost theory suggests firms face two types of uncertainty: behavioral and environmental (Rindfleisch & Heide, 1997; Gatignon & Anderson, 1988; Williamson, 1985). Behavioral uncertainties arise from the inability of a company to predict the behavior of individuals in a foreign country. According to transaction cost theory, behavioral uncertainty may lead to opportunistic behavior involving cheating, distortion of information, shirking of responsibility, and other forms of dishonest behavior (Williamson, 1985). In order to minimize opportunistic behavior, a company has to develop some type of control mechanisms (Klein et al., 1990; Gatignon & Anderson, 1988; Williamson, 1985). One type of control mechanism is internal control. Internal control can be achieved through hierarchical ownership that gives the firm a legal right to control the actions of foreign-based employees (Klein et al., 1990; Williamson, 1985). However, hierarchical ownership conveys the right but not the means to control a foreign operation. Controlling foreign operations is a special skill that requires time to develop and refine (Anderson & Gatignon, 1986).

Internationalization theory suggests that firms develop skills at controlling international operations through experience (e.g., Johanson & Vahlne, 1977, 1990). This line of research has found that experience creates opportunities for learning. Through learning, firms develop expertise in managing foreign operations (either independent operations like license agreements or more complex operations like wholly owned subsidiaries). The resource-based view also suggests a connection between experience and the development of firm-specific processes and systems that can be exploited internationally. Chang and Rosenzweig (2001) and Chang (1995) suggested and found that through international experience, firms developed and refined systems and processes for controlling foreign subsidiaries and hence tended to change their mode choice pattern as experience increased.

Several entry mode studies also suggest that with experience firms develop systems and processes for controlling foreign-based subsidiaries (Delios & Beamish, 1999; Luo & Peng, 1999; Hennart, 1991; Gatignon & Anderson, 1988). These studies conclude that firms with greater international experience have developed stronger internal control mechanisms and tend to rely on these mechanisms to reduce behavioral uncertainties, preferring to expand internationally through equity modes of entry (Delios & Beamish, 1999; Hennart, 1991).

Contrary to this, when a firm lacks such internal control mechanisms, it may reduce the chances of opportunistic behavior by shifting control to a foreign agent (Gatignon & Anderson, 1988; Williamson, 1985). This process reduces the control-related problems associated with behavioral uncertainty by shifting responsibility for controlling the operation to another organization, resident in the foreign market. Thus, firms lacking international control-related experience tend to prefer non-equity modes of entry, as a means of controlling the behavior-related uncertainties of foreign expansion (Gatignon & Anderson, 1988).

Behavioral uncertainties may be an especially important influencing factor for SMEs, because SMEs tend to rely on the managerial abilities of one or two entrepreneurs, and have less well-developed management teams (Oviatt & McDougall, 1997). SMEs may not have the ability or willingness to establish a competent managerial control structure in another country. While a large company may be able to extend its control structures in a foreign country by sending trusted expatriate managers, SMEs in most cases will not have the ability to send their own people to a foreign country for any extended period of time (Lu & Beamish, 2001). In addition, SMEs are generally less experienced internationally and so may not have well-developed systems and processes for managing foreign operations (Zacharakis, 1997). Therefore, behavioral uncertainties may discourage SMEs from organizing foreign operations in a hierarchical form. This may be the reason that past studies of SME internationalization have found that SMEs tend to rely on exporting as their favorite international mode of entry (e.g., Coviello & McAuley, 1999). This literature suggests that

**Hypothesis 2:** SMEs will tend to prefer non-equity modes of entry when they have not developed internal control mechanisms, but will tend to prefer equity modes of entry when they possess internal control mechanisms.

## **Environmental Uncertainties**

A second type of uncertainty also influences transaction costs: those created by the target market environment. Environmental uncertainties refer to the risks associated with a host country; for example the ability to enforce contracts and control other types

of political and legal risks (Williamson, 1985; Erramilli & Rao, 1993; Gatignon & Anderson, 1988). If a company desires increased control, it has to commit additional resources. However, by committing additional resources, a firm increases its exposure to external environmental risks (Erramilli & Rao, 1993; Klein et al., 1990; Anderson & Gatignon, 1986). In countries with high environmental uncertainty, companies may be better off selecting non-equity, low-investment entry modes. This strategy “not only avoids resource commitment but frees entrants to change partners or renegotiate contract terms and working arrangements relatively easily as circumstances develop and change” (Anderson & Gatignon, 1986, p. 15). By following a low-resource commitment strategy in an uncertain market, a company can retain flexibility and, if the need arises, switch partner organizations or exit the market entirely, if the situation so dictates.

Past research on the behavior of MNEs has provided empirical support for the relationship between environmental uncertainties and the selection of entry mode. Gatignon and Anderson (1988) found that U.S.-based manufacturing companies tended to use equity entry modes when entering markets where environmental uncertainty was low, but tended to prefer non-equity modes in more uncertain parts of the world. Erramilli and Rao (1993) also found that U.S. service firms perceiving high country risk opted for less equity-intensive entry modes.

SME research examining environmental uncertainty and entry mode choice is less clear. Burgel and Murray (2000), in their study of the market entry choices of start-up companies in high technology industries, found no significant relationship between country risk and entry mode choice. Shrader, Oviatt, and McDougall (2000), on the other hand, found a significant negative relationship between country risk and entry mode choice for their sample of U.S. high-technology start-ups. They found that firms entering countries characterized by high country risk tended to select non-equity modes of entry, while firms entering low-risk countries tended to opt for equity modes of entry. Based on both the theoretical and limited SME empirical evidence we suggest that

**Hypothesis 3:** SMEs will tend to prefer equity modes of entry when environmental uncertainty is low, but tend to prefer non-equity modes of entry when environmental uncertainty is high.

## Mode Choice and Performance

In studying the relationship between internationalization strategy and SME performance, Lu and Beamish (2001) identified a strong connection between entry mode type and performance. They found that non-equity exporting and equity-based foreign direct investment (FDI) modes of entry had different impacts on performance. Exporting companies tended to experience a negative impact on profits as their level of internationalization increased, while firms engaging in FDI experienced a non-linear relationship. Companies with low levels of FDI showed a decline in performance, but as FDI increased, the degree of internationalization exerted a positive impact on performance. This tends to indicate that, at least for SMEs, mode of entry may be an important determinant of international performance.

Other scholars have made similar observations for large firms. For example, Woodcock et al. (1994) found that MNEs using wholly owned greenfield ventures outperform those using joint ventures, and MNEs using joint ventures outperform those using wholly owned acquisitions. Nitsch et al. (1996) found that MNEs using wholly owned greenfield ventures and joint ventures tended to have higher performance compared to those

using wholly owned acquisitions. Finally, Pan, Li, and Tse (1999) found that MNEs using equity joint ventures had higher profitability in comparison to both wholly owned operations and contractual joint ventures.

While these studies contribute to our understanding of entry mode performance differences, scholars like Brouthers et al. (1999) and Brouthers (2002) suggest that these studies ignore the decision-specific nature of entry mode selection. These scholars suggest that instead of examining performance differences for different entry mode types, researchers should focus on how contingency model-based (for example transaction cost-based) mode of entry choices may differ in performance from non-contingency model-based mode choices. This additional step is important because we know there is not one best performing mode choice (otherwise all firms would always use this mode), but that managers hope to make contingency model-based mode choice decisions that they expect will provide them with the best performing mode choice.

Scholars have suggested that the transaction cost-based contingency model of mode choice can successfully predict better performing entry modes because transaction cost theory addresses the question of why companies organize internally those activities that in other cases would be pursued through markets (Roberts & Greenwood, 1997; Williamson, 1985). The basic premise of transaction cost theory is that organizations exist because “they are able to economize on the costs of exchanging goods and services in the market” (Roberts & Greenwood, 1997, p. 348). As Roberts and Greenwood (1997) note, the transaction cost explanation is a comparative-efficiency one. According to Hennart (1989, p. 214) “because each [entry] mode differs in the method it uses to organize activities, each will be more efficient in organizing a particular type of transaction.” However, previous scholarship has tended to ignore the efficiency aspect of mode choice (Brouthers, 2002; Woodcock et al., 1994).

Transaction cost theory suggests that when structuring an exchange (or in our case multiple exchanges), a firm must compare the costs of negotiated contracts using the market with the costs of internalizing the transaction within the firm. Profit-seeking companies try to adopt organizational structures that will minimize these transaction costs (Masten, 1993; Williamson, 1985). It is important to note that transaction cost theory does not suggest that equity modes of entry are always superior to markets (Hennart, 1989). In some cases equity modes may be appropriate, while under other circumstances contractual agreements negotiated through markets can be more efficient. If a company—due to erroneous managerial decision processes or because of home and host country pressures—adopted an inappropriate entry mode, it would be expected to have lower performance in comparison to a company that made its entry mode choice based on transaction cost criteria (Shrader, 2001; Masten, 1993). Hence, we suggest that:

**Hypothesis 4a:** SMEs that use equity modes of entry when transaction cost theory predicts equity modes should be used will perform better than SMEs using non-equity modes.

**Hypothesis 4b:** SMEs that use non-equity modes of entry when transaction cost theory predicts non-equity modes should be used will perform better than SMEs using equity modes.

## Methodology

Data for this study were collected with a questionnaire sent to a sample of small and medium-sized Dutch and Greek companies involved in Central and Eastern Europe

(CEE). Dutch and Greek firms were selected because the majority of firms in these countries are SMEs, they have a long history of international investment, and Dutch and Greek firms are among the most active investors in CEE (Meyer, 1995). Because we examined SMEs only from the Netherlands and Greece, our findings may not be generalizable to SMEs from other home countries. CEE target markets were examined for three reasons. First, during the 1990s CEE markets were the main location for European foreign direct investment (Uhlenbruck & De Castro, 2000). Second, scholars like McDougall and Oviatt (1997) suggest that SME research needs to be extended to the markets of CEE. Third, Uhlenbruck and De Castro (2000) maintain that CEE offers an exciting location in which existing management theories can be tested.

Reports in the Greek and international press suggest that more than one thousand Greek companies have invested in the markets of CEE. However, no complete listing of these firms exists. We developed a list of 450 Greek firms doing business in CEE by examining a variety of sources (Greek newspaper articles, magazine articles, exporter associations, as well as various government sources).

The sample of Dutch companies investing in CEE countries was developed through two main sources. The first source was the REACH CD-ROM database through which 122 Dutch companies with CEE operations were identified. The second source was a seminar for 297 Dutch companies showing an interest in investing in CEE countries. Because it was impossible to identify which companies were large or small and which were doing business in CEE and which were not, the questionnaire was mailed to all 419 Dutch companies. In the subsequent data analysis only information from companies that did business in CEE and had less than 500 employees, the prevailing cut off point of an SME, was used.

## **Questionnaire Development**

The questionnaire used in this study was originally composed in English. All Dutch companies were sent the English version of the questionnaire. For the Greek sample, the questionnaire was translated into Greek. The instrument then was back-translated to ensure its reliability. The final instrument was tested with a group of seven Greek businessmen to see whether it was easy for them to understand and to ensure that the operational measures devised in previous large-firm research studies were applicable in the context of small and medium-sized companies. Only a few small changes to the original questionnaire were necessary.

## **Dependent Variables**

Two dependent variables were used in this study. First, to test the generalizability of transaction cost mode choice theory to SMEs (hypotheses H1–H3), the dependent variable was mode of entry. We conceptualized mode of entry as a dichotomous variable: (1) market based non-equity modes, such as licensing, franchising, and exporting, and (2) hierarchical equity modes, such as wholly owned foreign subsidiaries and joint ventures. There are several reasons for using this dichotomous conceptualization. First, Williamson (1985) suggests that transaction cost theory is concerned with the choice between markets and hierarchical forms of governance, hence suggesting a dichotomous choice. Second, past entry mode research (Pan & Tse, 2000; Kwon & Konopa, 1993; Contractor, 1984) including SME research (Nakos & Brouthers, 2002; Burgel & Murray, 2000; Erramilli & D'Souza, 1993) tends to classify modes in this way. Finally, Pan and Tse (2000) found that when the dichotomous entry mode variable (equity versus non-equity) was used,

many determinants impacting entry mode choice that otherwise failed to register as significant within more differentiated classification schemes were found to be significant predictors of entry mode choice. This suggests that, at least for studies applying entry mode theory to new situations, the dichotomous mode choice may be more useful. Thus, the dependent variable was coded zero (0) for equity modes (wholly owned subsidiaries and joint ventures) and one (1) for non-equity modes (export ventures, franchising, and licensing agreements).

Our second dependent variable was performance. As others have observed, obtaining objective performance data about international subsidiary operations is fraught with difficulties (Brouthers, 2002; Brouthers et al., 1999; Nitsch et al., 1996). The main impediments are the reluctance to disclose financial data, especially from SMEs, and the incompatibility of the various accounting standards between countries. Performance measurement is even a greater problem in Greece, where many companies are privately owned and are reluctant to disclose sensitive financial information to outsiders (Hope, 1997).

As in previous international entry mode studies, we used subjective measures of performance (Brouthers, 2002; Brouthers et al., 1999). Subjective measures of performance have been found to be highly correlated with objective performance measures (Dess & Robinson, 1984; Glaister & Buckley, 1998). Hence, utilizing subjective measures may provide valuable insights on performance not attainable through objective financial measures.

Respondents were asked to rate performance on a 10-point scale (1, very dissatisfied, to 10, very satisfied) for the entry mode they used in their most recent CEE venture. A 10-point scale was used because during pretests our participating managers indicated a preference for a 10-point scale when evaluating performance. Eight performance criteria were included: sales growth of the venture, sales level, profitability, market share, marketing, distribution, reputation, and market access. Subsequently, factor analysis identified two distinct performance factors: financial and non-financial. The financial performance factor was composed of the summated scores of sales growth, sales level, and profitability (Cronbach alpha = .89). The non-financial performance factor was composed of the summated scores of market share, marketing, distribution, reputation, and market access (Cronbach alpha = .90).

## **Independent and Control Variables**

The independent variables examined in this study stemmed from Williamson's (1985) conceptualization of transaction cost theory and have been included in previous transaction cost studies that examined large-firm entry mode behavior. Transaction cost theory suggests that asset specificity, behavioral uncertainties, and environmental uncertainties all create transaction costs that influence entry mode choices (Rindfleisch & Heide, 1997; Klein, 1989; Williamson, 1985).

Asset specificity refers to the investment in physical and human capital that is transaction specific and which loses value in other uses (Williamson & Ouchi, 1981; Williamson, 1985). Physical capital includes financial, production, and research/development resources. Human capital arises from specialized training (Williamson & Ouchi, 1981; Williamson, 1985). Past studies of transaction cost mode choice tend to use R&D and advertising intensity as proxies for asset specificity (e.g., Shrader, 2001; Hennart, 1991). However, Rindfleisch and Heide (1997) suggest that these measures do not capture the physical and human capital nature of asset specificity. They maintain that multi-item scales should be used. As in Brouthers and Brouthers (2003), asset specificity

was measured using a multi-item scale of three seven-point Likert-type questions that examined the specificity of firm-specific training programs, the ability of the organization to create new products or services, and the extent of resources available for international expansion ( $\alpha = .75$ ).

As in Gatignon and Anderson (1988) and Delios and Beamish (1999), we used the level of international experience as a proxy for the existence of systems and processes of foreign subsidiary control. Luo and Peng (1999, p. 270) suggest that “experience is a prime source of learning in organizations.” Through experience, firms develop systems and processes for controlling foreign subsidiaries. Chang and Rosenzweig (2001) agree, suggesting that knowledge can be gained through exporting experience as well as more direct investment experience. Luo and Peng (1999) suggest that both diversity and intensity of experience influence learning and hence the development of control systems. Based on this literature, we included a set of three constructs that measured the intensity (number of years of experience in the CEE region and the percentage of firm sales made in the CEE region) and diversity (the number of CEE countries in which the firm has sold products) of firm experience. The responses to these three questions were standardized and summed to create a new variable: Internal Control (Cronbach’s  $\alpha = .67$ ).

Environmental uncertainty was measured, using a set of three seven-point Likert-type questions taken from Brouthers and Brouthers (2003). These questions asked about the stability of the target market’s political, social, and economic conditions, the risk of converting and repatriating income, and the risk of adverse governmental actions such as nationalization ( $\alpha = .79$ ).

We included four control variables in the transaction cost mode choice model. First, we included a control for firm size, since large-firm entry mode studies have found that firms with greater resources (larger firms) tend to prefer equity modes of entry, while firms with fewer resources (smaller firms) tend to prefer non-equity modes (Contractor, 1984). Because of inter-country differences in accounting standards, firm size was measured using the number of employees (Brouthers, 2002; Gatignon & Anderson, 1988).

Our second control variable was the level of legal restrictions on foreign firm entry mode choice in the target market. Scholars like Brouthers and Brouthers (2003) and Gatignon and Anderson (1988) suggest that firm mode choice may vary simply because of legal restrictions on the mode of operation in a specific country. Legal restrictions were measured using the single Likert-type question developed in Brouthers and Brouthers (2003).

Third, because of industry differences identified by scholars such as Brouthers and Brouthers (2003) and Erramilli and Rao (1993), we needed to control for potential entry mode decision differences between firms in different industries. We asked each respondent to disclose the industry they were investing in. Respondents represented more than 20 different industries, none of which were large enough to provide a control group. Therefore, following previous research (Brouthers & Brouthers, 2003; Brouthers, 2002), we controlled for industry type using a dichotomous variable that was given the value of zero (0) if the organization was establishing a manufacturing operation and given a value of one (1) if the organization was establishing a service operation in the CEE target market.

Fourth, we included a dichotomous variable (Nationality) to control for potential home country differences. This Nationality variable was given the value of zero (0) if the home country was Greece and assigned a value of one (1) if the home country was the Netherlands.

## Data Collection

Data were collected in 1997–1998 through a three-page questionnaire mailed to all 450 Greek and 419 Dutch companies that were identified in our sample. Thirty-two of the questionnaires were returned undeliverable to the address that we had for these companies. To help increase response rates the questionnaire was limited to three pages and Dutch questionnaires were mailed from and returned to a Dutch address, while the Greek questionnaires were mailed from and returned to a Greek address. Following three mailings to the 837 companies with reliable addresses, 293 completed questionnaires were collected, of which 209 were from SMEs. The response rate of 35 percent (32 percent Greek and 38 percent Dutch) is acceptable in comparison to similar entry mode mail surveys (e.g., Brouthers, 2002). As a test of response bias, the completed questionnaires that were returned following the first, second, and third mailing were statistically compared to discover whether a significant difference existed among the three mailings. No significant statistical differences were observed.

Respondents represented more than 20 industries including the food industry, wholesale trade, consultancy, metals, electronics, office furniture, agricultural products, international haulage, and chemicals. Firms made investments in 14 different CEE markets. The markets receiving the largest number of investments were: 31 percent in Bulgaria, 11 percent in Albania, 10 percent in Russia, 10 percent in Poland, 8 percent in Romania, 7 percent in the Czech Republic, and 7 percent in Ukraine. The other markets each received less than 5 percent of the investment activity.

## Results

As in previous large-firm studies examining mode choice and performance (Brouthers, 2002; Brouthers et al., 1999), we used a two-stage analytical method. In stage one we used logistic regression to test the transaction cost model for the international mode choice of SMEs. In stage two we used the results of the logistic regression analysis to separate respondent firms into two distinct groups. We placed all the firms whose entry modes were correctly predicted by the transaction cost model (the “Fit” group) into group one. Group two contained all the firms whose entry modes were not correctly predicted by the transaction cost model (the “Non-Fit” group). We then created a dummy variable “Entry mode fit” and assigned the value of one (1) to those firms from the “Fit” group and assigned a value of zero (0) to those firms from the “Non-fit” group. Ordinary least square regression was then used to examine the impact of the dummy variable “Entry mode fit,” and several control variables, on the two-mode performance measures.

We began the analysis by examining the correlation between the independent, control, and dependent variables (Table 1). While we found substantial variability between the measures included in this study, none of the correlations appeared to be large enough to warrant concern about multicollinearity (Hair et al., 1995).

## Entry Mode Choice

Table 2 shows the results of our stage-one analysis of the transaction cost model of SME international entry mode choice. The logistic regression was significant ( $p < .0001$ ) with a moderate chi-square (51.13), and correctly classified almost 77 percent of the entry modes. All three transaction cost variables were significantly (at  $p < .05$  or better) related to entry mode choice, in the predicted direction. One of the control variables, nationality ( $p < .01$ ), was also significantly related to mode choice. Hence, the regression

Table 1

Correlation Matrix

Variable	1	2	3	4	5	6	7	8
Mean	179	0.01	4.92	4.07	0.36	4.81	0.37	0.36
SD	178	.77	1.20	1.36	.48	1.74	.49	.48
1. Firm size	1							
2. Internal Control	.097	1						
3. Asset Specificity	.376*	.037	1					
4. Environmental Uncertainty	.150	.055	.335*	1				
5. Nationality (0—Greek, 1—Dutch)	.030	.451*	.141	.280*	1			
6. Perception of Legal Environment	.053	-.266*	.084	.259*	-.317*	1		
7. Industry Type (Manufacturer = 0, Service = 1)	-.277*	.255*	.042	-.062	.194*	-.136	1	
8. Mode of entry (non-equity—1, equity—0)	-.205*	-.137	-.348*	-.328*	.049	-.037	-.014	1

\*  $p < 0.01$

Table 2

Logistic Regression Results

	Parameter Estimates	Standard Error
<b>Transaction Cost Variables</b>		
Asset Specificity	-0.498**	.180
Environmental Uncertainty (low value high uncert.)	-0.746**	.170
Internal Control	-0.749*	.313
<b>Control Variables</b>		
Size of Firm	-0.001	.001
Industry Type (0—manufacturer, 1—service)	-0.102	.399
Nationality (0—Greek, 1—Dutch)	1.787**	.507
Legal Restrictions	0.196	.115
Constant	3.327**	.968
<i>N</i>	185	
Chi-Square	51.13	
Significance	.0001	
Correct Classification Rate	76.80%	

Notes: \*\*  $p < .01$  \*  $p < .05$  (two-tail tests), equity modes = 0

Table 3

## OLS Regression Results

	Model 1 Financial Performance (Standard Error)	Model 2 Non-financial Performance (Standard Error)
Entry mode fit	0.884 (.288)**	0.859 (.280)**
Nationality	0.867 (.275)**	0.804 (.268)**
Firm size	0.001 (.001)*	0.003 (.001)**
Entry mode type	-0.146 (.258)	-0.032 (.250)
Legal restrictions	0.291 (.071)**	0.183 (.069)**
Constant	3.786 (.512)**	3.949 (.500)**
R Square	0.182	0.228
Adjusted R Square	0.156	0.204
F-statistic	7.008**	9.467**

Two-tailed significance values indicate: \*\* $p < 0.01$  \* $p < 0.05$   $n = 165$

analysis provided support for (1) hypothesis 1; SMEs making greater asset-specific investments tended to prefer equity modes of entry; (2) hypothesis 2: SMEs with more developed internal control systems tended to prefer equity modes of entry; and (3) hypothesis 3: SMEs entering countries characterized by high environmental uncertainty tended to prefer non-equity modes of entry.

### Mode Choice and Performance

Table 3 shows the results of the second stage of our analysis. Model 1 shows the impact of the dummy variable “Entry mode fit” and four control variables (nationality, firm size, mode type, and legal restrictions) on the perceived financial performance of the subsidiary unit. Model 1 was significant ( $p < .01$ ) and had an  $R^2$  value of .182. The “Entry mode fit” variable was significantly ( $p < .01$ ) related to financial performance, with Fit firms reporting significantly higher financial performance than Non-fit firms. Nationality ( $p < .01$ ), firm size ( $p < .05$ ), and legal restrictions ( $p < .01$ ) were also significantly related to financial performance evaluations.

Model 2, Table 3, shows the impact of the dummy variable “Entry mode fit” and the control variables on non-financial performance evaluations of the target market operation. This model was also significant ( $p < .01$ ) and had an  $R^2$  value of .228, indicating that the variables included in the performance analyses explained a significant portion of the non-financial performance evaluation variance. The “Entry mode fit” variable was significantly ( $p < .01$ ) related to non-financial performance. Fit firms tended to report greater non-financial performance than did Non-fit firms. In addition, control variables nationality ( $p < .01$ ), firm size ( $p < .01$ ), and legal restrictions ( $p < .01$ ) were significantly related to non-financial performance evaluations of the target market operation.

These two regression models provided strong support for hypotheses 4a and 4b: SMEs that used equity modes of entry, when transaction cost theory predicted equity modes should be used, performed better than SMEs using non-equity modes; and SMEs

that used non-equity modes of entry, when transaction cost theory predicted non-equity modes should be used, performed better than SMEs using equity modes.

## **Discussion, Implications, and Limitations**

SMEs now play an important role in international business, yet previous SME international research and international mode of entry research tend to ignore the international mode choice determinants of SMEs (Burgel & Murray, 2000; Zacharakis, 1997). Furthermore, few studies have examined the performance implications of using a theoretically predicted international mode of entry (Brouthers et al., 1999). In this study we addressed both of these issues. First, we set out to test transaction cost theory for SME international entry mode choice, hoping to increase the generalizability of transaction cost theory and to provide a useful tool for making mode choice decisions for managers of SMEs. Second, we tested the normative value of using transaction cost-derived mode choices, increasing our understanding of the relationship between transaction cost-based decisions and organizational performance. A normatively superior model of mode choice would provide SME managers with a decision model of mode choice that could provide superior performance to existing models or non-model choices.

In general, our findings provided strong support for applying the transaction cost model to SME international entry mode choice. This indicates that the transaction cost model of international mode choice can be used by SME managers and provides a useful tool for making international business decisions. All three transaction cost variables were found to be significantly related to SME international mode choice. First, as in previous large-firm studies, we found that SMEs making greater asset-specific investments tended to prefer equity modes of entry, while SMEs making less asset-specific investments tended to prefer non-equity modes. This does not mean that SMEs have more innovative products/services, but merely shows that SMEs make different mode choices contingent on the level of specific investment required.

Second, we found that SMEs entering markets where environmental uncertainties were perceived to be high tended to prefer non-equity modes of entry, presumably to reduce or shift risks to target market organizations. When target market uncertainties were perceived to be low, equity (hierarchical) mechanisms were normally employed.

Third, we found that SMEs with more developed internal control systems preferred equity modes of entry, while those with less-developed systems preferred non-equity modes. This may be the case because firms with developed systems for controlling international operations can control geographically disperse sub-units at a low cost. However, firms without these systems of control prefer to shift control responsibility to target market-based organizations.

The only control variable that was significantly related to mode choice was Nationality. Our findings tend to indicate that Dutch firms preferred more non-equity modes of entry, compared to Greek firms.

In examining the normative value of applying transaction cost theory to the international entry mode decision for SMEs, we found that SMEs using transaction cost-predicted entry modes tended to perceive better performance (both financial and non-financial) than SMEs using entry modes that could not be predicted by the transaction cost variables. This suggests that mode performance and mode choice may be closely related. SME managers may be able to make better mode choice decisions using the three transaction cost criteria examined in this study, increasing their chances for financial and non-financial success.

Finally, we found that SME subsidiary performance (both financial and non-financial) evaluations were also influenced by nationality, firm size, and legal restrictions. Dutch firms tended to perceive their subsidiary performance greater than Greek firms. Larger SMEs tended to rate their subsidiary performance greater than did smaller SMEs. SMEs entering markets in which they perceived legal barriers to entry mode choice to be high tended to report lower performance than SMEs entering markets where the perceived legal restrictions on mode choice were low. Hence, factors in addition to theoretically predicted mode choice also tend to influence subsidiary performance.

## **Implications and Limitations**

This article has important implications for both researchers and entrepreneurs, although it does have a number of limitations. First, we examined SME mode choices in CEE markets only. It might be that investments in CEE markets differ somehow from investments in other more or less developed nations. Future studies can go a long way in improving our understanding of SME transaction cost-based entry mode choice and performance by examining SME entry into both more and less developed countries.

Second, in this study we examined only equity and non-equity modes of entry. Although examining the dichotomous choice between equity and non-equity modes of entry is consistent with past research (Pan & Tse, 2000; Kwon & Konopa, 1993; Contractor, 1984; Nakos & Brouthers, 2002; Burgel & Murray, 2000; Erramilli & D'Souza, 1993), transaction cost theory might be useful for differentiating other forms of investment. Future research may wish to examine within sector differences (for example differences between exporting, licensing, and franchising or differences between joint venture and wholly owned modes) or between sector differences (comparing multiple mode types such as exporting, licensing, joint ventures, and wholly owned modes). This can be accomplished using multinomial logit analysis, but would require a larger sample size than in the present study. Studies like these would add to our understanding of transaction cost-based mode choice and performance.

Third, while our normative test of the transaction cost-based entry mode model provided interesting results we could only explain about 20 percent of the variance in our performance measures. This tends to indicate that there are other variables, not included in this study, that impact SME international subsidiary performance. Future studies may wish to develop and test models of SME international performance that consider some of these other variables.

Fourth, as in previous transaction cost-based entry mode studies (Gatignon & Anderson, 1988; Delios & Beamish, 1999), we used a proxy—the degree of international experience—for our measure of internal control systems. Future research could make a contribution to this area by developing and testing a direct measure of internal control mechanisms. A reliable measure of this construct would be an addition to both entry mode scholarship as well as transaction cost theory.

We found that Dutch firms tended to prefer more non-equity modes of entry, compared to Greek firms. Choo and Mazzarol (2001) found that SMEs from Australia and those from Singapore also made significantly different mode choices. It might be that there is a home country cultural attribute that impacts the mode choice preference for firms from different countries. Future research might investigate this issue and help explore why SMEs from different countries make different entry mode choices.

Owners and managers of SMEs involved in or considering international expansion may benefit from the findings of this study in several ways. First, our findings tend to indicate that selecting an international mode of entry that conforms to the predictions of

transaction cost theory will result in more successful international activity than if the firm uses another entry mode. This reinforces the need for making rational, theory-based mode choice decisions. Firms that make transaction cost–predicted mode choices perform better both financially and strategically.

Second, most SMEs have limited resources that restrict search and analysis activities. Because of these restrictions, many SMEs tend to prefer non-equity modes of entry. But examining the three key transaction cost issues discussed in this study can help managers make more successful mode choice decisions. Managers need to evaluate (1) the level of specific-asset investment required in a new market, (2) the environmental uncertainty of the potential target country, and (3) the status of internal control systems and processes. If an entry requires high specific-asset investment, then equity modes of entry (joint ventures or wholly owned modes) should be considered; if the specificity of investment is low, non-equity modes (such as licensing or franchising) should be used. If the firm is thinking about doing business in a country where the economic, political, and social system is relatively stable and certain, equity modes of entry should be preferred. When there is volatility in the economic, political, and/or social environment, non-equity modes may provide a more effective way of dealing with these uncertainties. Finally, managers need to evaluate their own internal control systems and processes. Firms that possess strong internal control processes may be in a better position to take advantage of equity modes of entry compared to firms with weak internal control systems. Firms without strong control systems may benefit from relying on the control systems of partner organizations and can utilize non-equity modes of entry. Hence, by evaluating these three criteria, SME managers can make better entry mode decisions.

In summary, we found that transaction cost theory appears to be applicable to the entry mode choice of SMEs. Transaction cost relationships identified in previous large-firm studies tend to apply to SMEs as well. In addition, SMEs that used transaction cost–predicted international entry modes tended to report higher performance than did SMEs using other modes of entry. This indicates that transaction cost theory can be used to help SMEs make better entry mode decisions.

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