The Influence of Institutional Environments on the Early Internationalization Choices of New Technology Based Young Firms

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ABSTRACT

This paper utilizes an established dataset of new technology based firms in Germany and the United Kingdom. The data are re-examined to explore how young firms from these two countries chose to enter new country markets. The concept of 'institutional environments', which defines country-specific, formal and informal behavioral rules and heuristics, is introduced. It is used to help explain the order and logic of the pattern of market entry. We find empirical support for the influence of the institutional environment on patterns of internationalization through the concept of institutional distance. Its importance is attributed to its effect on the transaction and learning costs of the internationalizing firm.

INTRODUCTION

Studies devoted to international entrepreneurship have become of increasing importance both to academic researchers (Bollinger, Hope and Utterback, 1983; Storey and Tether, 1998; McDougall and Oviatt, 2000; Hitt, Ireland, Camp and Sexton, 2001; Burgel and Murray, 2000; Yli-Renko, Autio and Sapienza, 2001) and to government in policy related fields (Bank of England, 1996; European Commission, 1997; Department of Trade and Industry, 1998). While contemporary debates on globalization tend to center on very large multi-national businesses as the primary economic agents (Frankel 2000; Kirkbride and Karen, 2001; Derns, 2002), this focus

can obscure the important role of small & medium sized enterprises as international suppliers of high-tech goods and services.

In the specific case of new technology-based young firms (NTBFs), key strategic issues regarding internationalization choices have often to be faced very early in the firm's life cycle. (Little, 1977; Oviatt and McDougall, 1995; Murray, 1997; Madsen and Servais, 1997; Zahra, Ireland and Hitt, 2000). There are a range of competing arguments which suggest that the necessity for rapid internationalization by NTBFs may be a result of insufficient, aggregate home demand for highly specialized, i.e. 'niche' products and services (Madsen and Servais, 1997; Quince and Whittaker, 2002); or conversely, the individual firm's response to excessive domestic competition (Shrader, 2001). However, more recent work by Burgel, Fier, Licht and Murray (2001) has suggested that the early internationalization of UK and German high tech young firms is a 'pro-active' response to additional market opportunities rather than a defensive reaction to domestic competitive threats. The positive relation found by these authors between the degree of internationalization and the firm's sales growth supports this pro-active interpretation.

This present study also addresses the initial decision to internationalize by high tech young firms in Germany and the UK. The purpose of the paper is to analyze the extent to which the choice of the initial foreign market entry may be viewed as a learning strategy by which information asymmetries and other sources of risk and uncertainty are managed by the young firm. More specifically, we explore the proposition that young and inexperienced firms can be expected to prefer to initiate their internationalization activities by entering new target country markets where the 'institutional environment' is similar to that pertaining in their home country. The

term institutional environment is best viewed as a construct which encompasses both the formal and informal rules and the related governance measures by which societies attempt to create structure and stability for human interaction (North, 1990).

The data set on which the derived hypotheses are tested comes from a representative, stratified sample of independent new technology-based firms (Burgel et al, 2001). These enterprises were founded in the United Kingdom and Germany between 1987 and 1996 and had at least three employees by 1997. The first part of this paper presents the theoretical literature on which our research questions are grounded. The research methodology is then discussed. In the third part of the paper, the empirical models and results are presented prior to a discussion of both the theoretical and policy based implications of our findings.

Internationalization of Start-Ups and Institutional Environments

In entering an unfamiliar market environment, and bereft of either direct experience or vicarious experience via a supportive network of trusted relationships (Birley, 1985; Donkels and Lambrecht, 1995; Duysters and Hagedoorn, 1995), the nascent firm has to invest scarce resources in order to resolve the consequent information asymmetries (Root, 1997). The salience of the need for information and the cost of its acquisition as decision variables has been demonstrated in studies on the choice of organizational structure in the internationalization process (Buckley and Casson, 1976; Johanson and Valhne, 1997, 1990). However, the importance of information costs tends to decline with the accumulation of international experience. Recognizing the criticality of information resources at the earliest stages of the (inexperienced) firm's internationalization efforts for future success or even survival, many studies have

focused on the determinants and process of initial market entry choices. Such events represent a critical learning phase in the strategic evolution of the young firm (Anderson, 2000; Autio, Sapienza and Almeida, 2000; Lu and Beamish, 2001).

The institutional dimension of internationalization

The creation and implementation of an effective internationalization strategy represents a major strategic challenge for a young and resource constrained company (Root, 1997). Although the anticipated advantages in terms of new markets and additional revenues constitute a strong economic attraction, these must be evaluated on the basis of the additional costs and unforeseen risks which such a decision entails. As with many new initiatives, a number (but certainly not all) of the marginal costs can be determined with some degree of accuracy. For example, additional translation and registration costs are easily determined. However, the expected additional revenues may often remain highly uncertain in the short run. Thus, the decision to internationalize represents *ex ante* a highly speculative and risky activity for the young and vulnerable firm. This is particularly the case if the costs of entry are high and specific, i.e. sunk.

Entry into foreign markets typically incurs a range of new operational costs. These include physical infrastructure investments (e.g. communications facilities, branch offices, etc.) in addition to further manpower costs (e.g. travel and subsistence costs, recruitment and remuneration of local staff or agents). The occurrence of these costs are directly related to the firm's strategy of growth and the concomitant need to expand its resources to both engender and meet new demand (Penrose, 1950). The market entry barrier represented by these additional transaction costs is particularly

problematic for the young and resource rationed firm. It is therefore not surprising that the empirically based literature indicates that the size (i.e. resource endowments) of the firm is positively linked to the probability of the firm engaging in export activity particularly in its early years (Bonarcosi, 1992; Calof, 1994; Burgel et al, 2001). Larger firms have more discretionary financial resources which they can afford to hazard on important but uncertain new activities. However, the existence of a positive association between firm size and internationalization activity does not explain the direction of the causal relationship nor its dynamic.

The context in which the internationalization process occurs is of considerable importance to both individual firms and to policy makers. In particular, it is necessary to consider the geographic differences between the domestic and target countries. An aggressively growing young firm in a home country with limited domestic demand for specialist technology products could be expected to address internationalization opportunities relatively early in its life cycle. An innovative young Belgian company, for example, while located in a relatively small domestic economy has several contiguous country markets that can be tackled without incurring major logistical expenditures. In contrast, a domestic company seeking to expand in continent-wide countries such as China or the United States, will need to assume substantial additional infrastructure costs in order to extend their activity throughout their chosen home market (Pan, Li and Tse, 1999) prior to looking at export opportunities. Accordingly, *a-situational* generalizations regarding the pattern and timing of international expansion of high tech young firms remain dangerous both in theory and practice.

Therefore, it may be more fruitful to conceptualize and model the process of internationalization not exclusively as a *spatial* phenomenon but also as an *institutional* phenomenon. For a firm to internationalize its activities requires that it must, in effect, put aside part of the familiar set of behavioral rules and heuristics learned from competing in its domestic market. In order to survive and flourish, the young firm must adapt to and seek advantage from the different "rules of the game" in its target country markets (North, 1990). The country specific contexts in which these young companies strive to succeed are termed - *institutional environments*. Davis and North (1971, p. 6-7) define the institutional environment as "the set of fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution". As Aoki observes (2001, p.1), "institutions matter". They have become of increasing interest to scholars interested in the relative performance of economies and aware that markets cannot be fully understood without reference to the prevailing sets of institutional rules and practices.

While, definitions of this nature are often used by neo-institutionalist economists such as North (1990) or Williamson (1991), they represent a particular challenge in terms of their subsequent measurement and empirical validation (Scott, 1995). Davis and North's definition is too generic to operationalize easily. Proxy measurements are frequently needed. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997 and 1999) have developed an institutional classification concentrating on the *legal* dimension of the institutional environment. They observe the diversity of laws across countries and argue that this variation is in part related to different legal origins. They note that the relative power of the State vis à vis property owners can be used to discriminate between different categories of legal traditions. Their conclusions and subsequent classification are based upon an analysis of commercial law and investor rights.

These authors (La Porta et al, 2000) demonstrated the extent to which the extant legal systems of nation states can be traced back to five basic legal systems: namely, the English, French, German, Scandinavian and Socialist legal systems. They explain that English law - or the Common Law system - had historically developed as a protection by Parliament of the citizenry against the absolute power of the Sovereign. Its foundations go back to the 13th century (Glaeser and Schleifer, 2001). A major characteristic of this legal tradition is that it has been built in great part on case law precedents. By contrast, Civil Law – including the French, German and Scandinavian traditions - evolved as an instrument for the legitimization of the Sovereign's power as the chief architect of the State's political and economic prosperity. Civil law is based on a Roman legal tradition in which the legislature plays a predominant role.

La Porta et al (1999) point out that the protection of individual property rights remains greater in Common Law than in Civil Law. Thus, for the young firm seeking to internationalize at an acceptable level of risk, the legal governance of export target countries may become an important choice variable. Both the quality of law enforcement (i.e. fairness, speed, cost) and the inherent value system (primacy of the interests of the individual or state) will have direct but uncertain cost implications to the firm faced with contractual default outside its home market.

This use of a legal perspective in order to define an institutional environment is a formal approach in that it relies on the rules of written law. It remains a partial definition because the informal aspects incorporated in the Davis and North (1971) definition are absent. However, a legal operationalization of institutional environments opens up the opportunity of classifying each country into discreet

categories. La Porta, Lopez-de-Silanes, Schleifer and Vishny (2000) classify 212 countries by reference to their civil legal systems. 34.43% of the countries followed the English legal tradition; 43.39%, the French legal tradition; 3.30%, the Germanic legal tradition; and 2.36% the Scandinavian legal tradition. The remaining 16.51% of the countries were represented by some form of a Socialist legal system.

Institutional Environments and Sources of Entry Costs

For the internationalizing firm, a move from one legal system to another less familiar jurisdiction represent a major change in the 'rules of the game'. This change, *equibus paribus*, will incur additional transaction costs for the company when setting up international operations (Williamson, 1985; Teece, 1986). Particularly for the young and unknown firm (Burgel et al 2001), it is likely to be harder to find good and reliable local agents (an increase in search costs); to negotiate favorable contractual arrangements (an increase in *ex ante* negotiation costs); and effectively to monitor and police the concluded deal (an increase in *ex post* enforcement costs). The management of these contractual and governance costs will have direct economic implications. Oxley (1999) has shown empirically how specific institutional environment features affect the design of inter-firm agreements. In the present study, we endeavor to ascertain the extent to which the 'institutional distance' between the target country and the country of origin is a factor determining the path and pattern of internationalization in high-technology young firms.

Thus, it is argued that the uncertainties generated by entering a new country market exert a leverage effect increasing the transaction costs of the young firm. Management has no choice but to accept these novel costs in order to develop successfully its

activity in other country markets. Numerous studies have demonstrated that the greater the sources of uncertainty represented by the unfamiliar institutional environment of the target country market, the higher the level of additional transaction costs born by the exporting/internationalizing firm (Teece, 1986; Gomes-Casseres, 1989; Oxley, 1999). These institutional uncertainties faced by the internationalizing firm can take two forms. In absolute terms, a new institutional environment can generate uncertainty when the public decision-makers of the target country fail to create the conditions for political and social stability suitable for the successful development of new businesses (Aaker and Day, 1986; Shrader, Oviatt, McDougall, 2000). There is an established literature on 'political risk' and its effects on firm behavior (Stopford and Wells,1972; Dunning, 1993). An unfamiliar institutional environment, albeit in a stable and developed economy, can still produce uncertainty for a new entrant firm if the target market embodies widely different practices from those considered the norm in the exporting firm's domestic environment. The greater the disparity of rules and heuristics between the two institutional environments, the greater the level of uncertainty and potential costs. In the internationalization literature, this gap is commonly conceived and analyzed in terms of concepts such as 'cultural' distance (Hofstede, 1980; Kogut and Singh, 1988; Shane, 1994) 'psychic' distance (Klein and Roth, 1989; O'Grady and Lane, 1996) or 'regulatory differences' (Reynolds et al., 2001).

To analyze the economic implication of the entry of a firm into a new country, it is useful to break down the costs of internationalization into two complementary elements (Kogut and Singh, 1988). These elements define i) the cost of acquiring knowledge on a particular country regardless of the activity and ii) the cost of acquiring knowledge on the international development of a specific activity regardless

of the country. A proportion of the two costs are 'sunk' to the young firm because of their specificity. The institutional environmental knowledge and experience required in order to trade in one named country represent an investment which cannot necessarily be redeployed to another country. Similarly, the knowledge and experience acquired to develop a specialist activity cannot invariably be utilized on other activities. However, the accumulation of these highly tacit assets can generate a 'spillover effect', i.e. the knowledge and experience gained in one activity will facilitate the initiation and development of a second activity. Similarly, the introduction of the same activity in a second country will benefit from the experience accumulated in the previous country.

Given these experience curve effects, we would expect to see the average cost of internationalization declining with each successive market entry. Costs will be expected to decrease more rapidly if firms internationalize to countries within a common institutional environment. This experience effect also implies that the rational firm embarking upon a process of internationalization will have an interest in developing a strategy which maximizes the influence of learning on reducing its cost structure. The internationalizing firms could seek to exploit advantage by seeking to expand the range of its existing goods and services in markets with which it is already familiar. This is an alternative option to entering further and unfamiliar country markets in order to sell existing products and services. In the case of new technology based firms, the companies involved are primarily those committed to high levels of innovation as their source of competitive advantage (Acs and Audresch, 1990; Murray 1996). It is argued that, in the short run, they are more likely to seek to sell their primary product or service in a larger range of countries than to expand their existing product range in established country markets. The reason for this preference is a

consequence of the truncated technology trajectories in fiercely competitive markets. Burgel et al (2001) found that the majority (60%) of their UK respondents saw the lead time before they faced direct and serious competition being up to 12 months but not longer. Faced with a source of intellectual property that can generate super-normal economic rents but only over a limited period, the innovative young firm is better able to maximize short-run rents by presenting its existing products and/or services to as wide a community of potential customers as possible. This is likely to require a strategy of rapid and multi-country market entry.

HYPOTHESES DEVELOPMENT

Following the approach developed by Williamson (1999), internationalizing firms can be expected to opt for a strategy and related structure that will enable them to minimize the transaction costs of foreign sales. It can therefore be expected that the market entry choices of the internationalizing firm will incorporate, in some measure, the aim of minimization additional costs stemming from institutional factors. In this respect, the location choice for the first foreign market entry can be expected to focus on the search for a country whose "institutional distance" from the country of origin is small, thereby ensuring that existing learning/experience advantages are maximized and additional costs are minimized.

H1: High-technology young firms are more likely to initiate their internationalization activities by selecting a target country with the same institutional environment as their home country

However, as the firm accumulates international experience with each new market entry, it also moves down its learning curve. The relative transaction cost differentials which influenced the choice of the first foreign market entry will thus tend to reduce over time. However, the marginal gain of the 'n+1' market entry within the same institutional environment will also diminish as opportunities are consumed (assuming a constant technological level). Accordingly, the young firm as it accumulates internationalization experience will have less difficulty and more incentive to penetrate 'new' institutional environments further removed from that of the firm's country of origin.

H2: As an internationalizing high-technology young firm gains greater experience of entering additional countries with the same institutional environment, the probability of entering countries with different institutional environments increases

Since early location choices are influenced by the disparity of the institutional environments between the country of origin and the target country, it can be expected that the institutional provenance of the exporting firm will affect the initial direction of the its strategic development path. It can therefore be argued that start-ups from a country sharing a less common legal tradition will have greater incentives, and consequently more experience, in internationalizing to target countries with different institutional environments. Conversely, countries from a dominant institutional environment and thus having access to a larger choice of new foreign markets with similar systems, are likely to be characterized, at least initially, by their choice of target countries sharing the same institutional environment.

H3: New technology based firms originating in countries whose institutional environments are widely replicated abroad will enter countries with different institutional environments later in their internationalization process than comparable firms originating from less popular institutional environments.

The nature of the rent bearing sources of the firm's competitive advantage will have an influence on the internationalizations process. In industries dependent on highly codified and formalized information such as high-tech hardware manufacturers, limited access to local knowledge is likely to be less influential on firms' foreign market entry decisions. Best practice manufacturing systems are likely to be universal and not country specific. Conversely, for service firms exploiting highly tacit and idiosyncratic forms of knowledge (Ambrosini and Bowman, 2001), the locality in which that information is applied or sourced will influence the salience and value of such knowledge. This constraint is likely to make service firms more parochial and to inhibit the inception of their internationalization activities.

H4: New technology based firms in services industries will enter countries with different institutional environments later in their internationalization process than high-technology young firms in manufacturing industries.

In a number of cases, new technology based firms are managed by entrepreneurial founder-managers having gained previous experience abroad in their chosen markets. In these cases, it will be expected that this superior knowledge of the institutional environment of the target country market will enable these firms to identify and

exploit available foreign market opportunities more effectively. These firms are likely to be able to stay longer and more productively in known institutional environments than comparable firms without this local knowledge. Conversely, firms without experienced founder-managers are likely to move more quickly to additional countries with less familiar institutional environments in a more opportunistic and random search for new business. This situation will particularly influence service firms given the more limited role of codified knowledge in their commercial operations.

H5: New technology based firms founded by management with international experience will enter countries with different institutional environments later in their internationalization process than comparable firms managed by founder-managers without international experience.

THE CHOICE OF GERMANY AND UNITED KINGDOM

The selection of German and the United Kingdom was purposive. As two of Europe's major economic powers, the United Kingdom and Germany are broadly comparable in socio-demographic and economic terms. From an institutional environment perspective, however, the prevailing attitudes to and governance of economic organization fall into two different and quite separate historic categories (Hutton, 1994). These two countries are at the heart of two separate legal systems. They individually represent examples of an American based, free market lead governance system (the UK) and a European social democratic model of capitalism in which the State is often an active partner (Germany). For the purposes of the present research, two factors merit special consideration.

First, despite the geographic and political proximity of these two European Union member nations, their citizens are governed by legal frameworks which, as noted, have developed from quite different historical traditions. The United Kingdom has built a legal tradition on the system of "Common Law". Conversely, Germany has developed a body of law in which the legislature plays a predominant role. It can be hypothesized that the behavior of technology-based young firms will be sensitive to the commercial and operational implications of these disparate legal jurisdictions. For example, the regulatory conditions, costs and time requirements which have to be met for the formation and registration of a new company are quite different in the two countries (European Commission *Enterprise Scoreboard*, 2001)

Second, over the past three centuries, these two countries have known very different expansionist histories. The United Kingdom developed a strong imperial, and latterly, colonial presence in the world. This near global presence of the British Empire lasting over more than one hundred years resulted in the substitution of local law by English law in many countries (for example, India, Pakistan, Malaysia and Kenya) or in the direct implantation *de novo* of English law in areas such as the United States of America, Canada, Australia and New Zealand. In contrast, Germany's expansionist policy was much more limited in the 19th and 20th Centuries and especially after its defeat in World War I. This explains in large part the relatively smaller number of countries that share a German rather than a British legal tradition

RESEARCH DESIGN AND METHODOLOGY

In order to test our hypotheses, we use an extant database created to study the internationalization behavior of British and German high-technology young firms over

the period 1987-96. This database was constructed between 1997 and 1998 on the basis of a postal questionnaire sent to stratified sample of 2,000 independent and high-tech companies in each country. Importantly, the original data set allowed for the matching sampling of UK and German firms which had internationalized or stayed exclusively domestic in their sales activities. (See Burgel, Fier, Licht and Murray, 2001 for a detailed description of the original survey methodology.) The cleaned sample of returned questionnaires met several tests of representativeness despite the survey response rate being higher in the United Kingdom (24%) than in Germany (14%)[1].

The creation of the original data set required rigorous definitional clarification of both the terms (1) a young firm and (2) high-technology (Storey and Tether, 1998). On these two technical but important points, the following criteria were adopted:

1. A start-up was taken to be 'a legally independent company formed within the ten years preceding the survey', i.e. in the 1987-1996 period. The age criterion here is broader than in other studies. Zahra, Ireland and Hitt (2000), for example, establish the threshold at six years maximum while Shrader (2001) elects to use five years. In contrast, Storey and Tether (1998), and Autio, Sapienza and Almeida (2000) free themselves of the restriction of the age criterion to study the emergence of high-technology firms in Europe and the international growth of Finnish entrepreneurial firms, respectively. Our aim in this present research, however, was to find a defensible balance between research objectives and the limitations of young firm definitions. In Europe, the imposition of excessively restrictive age criteria would have seriously

[1] The procedures followed to develop a representative sample can be provided by the authors on request.

reduced the population available. Ten years was judged as an appropriate trade-off to allow for a sufficient internationalization history while still legitimately being seen as a young firm.

2. To define the high-technology sector, Burgel et al (op cit) adopted the pragmatic definition proposed by Butchart (1987), i.e. "those sectors whose R&D expenses expressed as a percentage of sales exceeds the average or those sectors which employed significantly more 'scientists and graduate engineers' than other sectors". Because of the increasing blurring of the borders between production and service sectors in the field of high technology, Burgel et al included high tech services[2] in addition to manufacturing firms in their survey. Over all, the sectors selected cover the following recognized 'high-tech' industries: software; information technology and telecommunications equipment; engineering; life sciences and medical sciences (Table 1). A broadly comparable classification is used by Venture Economics Inc. to classify the technology investment activities of venture capital firms. One possible limitation of this method of selection is that it ignores genuinely high-technology firms that are classified in non-high-technology sectors – a Type II error bias. Type I biases, i.e. the acceptance of low tech firms sourced from high tech NACE categories was addressed by a manual appraisal of the description of every firm record isolated from the Dun & Bradstreet (UK) and Creditreform (German) databases. By such means, firms in, for example, retail or wholesale activities were all removed from the final sample.

< insert table 1 >

These methodological choices made it possible to identify populations of 2,671 start-ups in the United Kingdom and 5,045 equivalent companies in Germany. A stratified random sample of 2,000 firms was drawn from each of the two databases. Accordingly, after circulating a postal questionnaire and filtering the returned surveys, a clean sample of 362 firms in the United Kingdom and 232 companies in Germany was achieved. Because some companies had not yet made any foreign sales, the sub-sample of interest was 241 internationalizing firms in England and 134 firms in Germany. However, for the purposes of the present study, our unit of analysis is not the firm per se but the firm's *decision* to develop its sales activities beyond the country of origin. The respondent questionnaire provided information on the *first five* foreign market entries for each company including the identities of the target countries and the dates of first entry. Reconfiguring the data set accordingly allowed information on 945 foreign market entries by the British companies and 451 foreign market entries by the German companies - a total of 1,396 observations.

THE DEPENDENT VARIABLE

In the present research, we endeavor to identify and understand those factors which influence the order in which high technology young firms choose to enter new foreign country markets. This approach also allows us to determine the importance of institutional environment factors on such an ordering choice. This dependent variable can be assigned one of five values for each of the firms: "1" for an initial market entry up to "5" for a fifth market entry. As it is oriented towards companies, not towards countries *per se*, the research instrument does not furnish information on the orders of

[2] This, for example, allowed the inclusion of appropriate high-tech consultancy services while still excluding services such as retail or wholesaling.

entry in any one named country. Nor does the research seek to shed light on the strategic reasoning of management for the choice of initial foreign market entry (Chang and Rozensweig, 2001). However, the research design does make it possible to appraise the internationalization learning process of the respondent firms with reference to their individual sequence and comparative pattern of foreign market entries.

EXPLANATORY AND CONTROL VARIABLES

Legal Origin of Foreign Country Market

The first independent variable selected indicates the legal origin of the foreign country market. As noted, this variable is a proxy for the institutional environment pertaining in the selected country. It is based upon the typology suggested by La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000). There are five legal categorizations identified representing the major domains - English, French, German, Scandinavian and Socialist. Each legal identity is indicated by a separate dummy variable.

Change of Institutional Environment

We also introduce alternatively a second dummy variable reflecting the firm's decision to go beyond its known institutional environment, i.e. the legal system operating in its country of origin. Entry into the market of a target country with a different legal system is coded "1". Conversely, if the new market remains within the same legal domain as the country of origin, it is coded "0".

Year of Market Entry

The year in which the first entry into a new foreign market was made (between 1987 and 1996) is noted for each respondent firm for each of its first five choices. Time series data make it possible to control for any cyclical economic effects which, for a given period, may make certain countries or regions more attractive areas for inward development than others.

Country Risk

The variable Risk is used as an ordinal measure of "country political risk". It is compiled from information provided by investor rating agencies. It indicates the extent to which the actions of incumbent governments of the target countries generate uncertainty which may imperil the future value of investments. Here we use the notation employed by the agency “Institutional Investor”. Introducing this variable in our analysis makes it possible to control for country risk in the selection choice of the young firms.

Economic Size of Target Countries

A fifth variable, annual Gross Domestic Product, was matched to the year of entry in the target country. The variable was expressed in US$ billions and calculated logarithmically. It provides an approximation measure of the size and thus potential attractiveness of the target market. It could have been possible to select a more refined criterion that indicates not the size of the economy as a whole but the size of the industry in which the entering firm operates (for example, the software industry). However, such a measure arguably provides more of an assessment of the scale of the companies already established in the target country rather than the future sales potential for the internationalizing firm. In order to reduce the effect of short run

variation in economic output, the GDP figure was also calculated as a three year geometric average and substituted in the model.

Membership of the European Union

The European Union is the single largest trading area in the world. The aggregate GDP of its fifteen members is presently larger than that of the United States. The binary variable (EU member = "1", other countries = "0") is introduced into the model in order to take account of the existence and influence of the European Union as a common trading area of which both the United Kingdom and Germany are members. This variable has an additional legitimacy within the context of institutional environments as there is an integrating Union-wide legal framework covering economic as well as social and political dimensions to which all member states are increasingly bound (McAllister, 1997).

UK or German Firms

Given that we are comparing high tech young firms from two separate nations with different institutional legal frameworks, the sample is divided, when necessary, on the individual nationality of the respondent firms.

Manufacturing or Service industries

In order to find evidence on H4 concerning the nature of the industry, we are led to divide the sample into two sub-samples. 290 cases are in service industries; 1106 in manufacturing industries (details in table 1).

Previous experience in international business

In order to find evidence on H5 concerning the influence of the experience of the management team in international business, we are led to divide the sample into two

sub-samples. The first sub-sample gathers companies where founders declare a "work experience abroad". There are 785 cases. The second sub-sample gathers companies managed by founders without any previous international experience. There are 611 cases.

DATA ANALYSIS AND RESULTS

Descriptive Results

Before testing our model and the related theoretical hypotheses, an initial descriptive appraisal provides interesting preliminary elements for analysis. Table 2 gives a cross-tabulation of the countries of origin of the exporting firms (England or Germany) and the legal system of the country markets entered. The table aggregates data from all five initial foreign market entries. A chi-square test shows that the Null hypothesis (i.e. that there is a homogeneous distribution of the foreign markets entered by German and UK NTBFs) is rejected at the 1% threshold.

< insert table 2 >

The analysis of the case distribution preliminary insights on our expectations. The percentage of export operations conducted by the UK firms in target countries with a British legal environment is substantially greater than the equivalent actions of the German firms (33% versus 18%). Conversely, the percentage of operations conducted by the German firms in a German legal environment is substantially greater than that of the British firms (29% versus 19%). On the other hand, in the case of the market entries in Scandinavian and French environments, the percentages of German and UK

internationalizing firms are much closer to one another, i.e. around 10% and 35%, respectively.

Where the institutional environment of the foreign country market is different and unfamiliar for both the British and the German firms alike, we find a homogeneous distribution for the entries into these non-related foreign markets. However, the case of UK and German entries into Socialist markets represents a separate and special case. Over the period of the original data collection 1987-96, the majority of such (primarily Central and Eastern European) target countries had entered into a rapid transition phase culminating in the near universal renunciation of a Socialist paradigm. The enormity of this transition, moreover, means that it still remains difficult to identify a stable succeeding form of legal system. In addition, the political re-unification of Germany starting at the end of 1989 also contributed to creating a historical institutional closeness (*i.e* a less psychic distance) between Germany as a whole and the European countries still or formerly classed as Socialist. These factors taken together make it possible to understand the greater proportion of entries into Socialist markets by German firms than by British firms.

Table 3 presents the same data at Table 2, but only for the *first* foreign market entry. At the time of first entry, most firms have yet to build up a store of operational experience in the internationalization process. As expected, the observations made about the results of Table 2 are born out even more strongly when it is the first act of internationalization that is under examination. The only qualification is that the presence of British firms in the Scandinavian environment is nearly three times greater, whereas German firms are proportionately more common in the French

environment. However, the Anglo-German differences in the French market are much less pronounced.

< insert table 3 >

Statistical Analysis

In order to test the hypotheses we have formulated, we run a series of regression models. For H1, we use a binary logistic model on panel data with the first entry coded "0", and subsequent entries coded "1". For Hypotheses 2 to 5, we focus our attention on the ordering of all five entry decisions by each firm. We thus employ an ordered logistic regression model, as our explained variable is ordinal. Several models are tested on the whole sample or specific sub-samples. In order to help interpret our results, a summary of the research plan and statistical analyses for this paper is given in Table 4.

< insert table 4 >

A logistic regression model is used in Table 5 to test whether, in the first entry abroad, the nature of the institutional environment of the entered country matters more than in following entries (model 1). As a reminder of H1, we expect to find that the likelihood to enter the same institutional environment is higher in the first entry than afterwards. The coefficient linked to the "Different legal system" variable should be with a negative sign. In complement to the regression model 1 on the whole sample, regressions are run separately for both the British firms (models 2a and 2b) and the German firms (models 3a and 3b). When all inputs are included (model 1), the coefficient is negative as expected, indicating a higher probability of entering a similar

institutional environment compared to the environment of the firm's home market. This first result is strongly confirmed for the British firms (model 2a). Albeit not significant, the coefficient indicates the same direction for German firms (model 3a). The regression models with the dummies on the legal origins (models 2b and 3b) provide further insights. For both British and German companies, the domestic legal environment clearly appears as the favorite one at the entry abroad. In particular, the British firms appear more reluctant to start abroad through the French or the German environments. By contrast, the German firms seem less attracted by the Scandinavian, French or the English environment. These results are especially striking for German companies if we keep in mind how the scope of the German environment is narrow. In terms of "acultural" business drivers, both the English and the French environment gather almost the totality of the most developed countries. The fact that German start-ups maintain a preference for a country with a German legal origin strongly supports the idea that start-ups prefer to initiate their internationalization process into a rather familiar institutional environment. This result supports the thesis that the nature of the institutional environment matters in the internationalization process when choosing the location. It confirms that the 'transfer cost' from one institutional environment to another is relative and not absolute barrier. There is nothing unique to either of the institutional environments which would make it more attractive to transfer[3].

< insert table 5 >

[3] In such a comment, we keep apart the case of the Socialist countries for several reasons. Firstly, the number of cases is often too limited to draw sound conclusions from our sample (tables 2 and 3). Secondly, as precised above, many countries in this area have entered a phase of economic and legal transition, especially Eastern European countries generally targeted by the German companies. Nevertheless we do not drop out these cases from the sample in order to keep intact the series of entries for each firm.

H2 is supported too (table 6). The positive and significant coefficient of the "Different legal system" variable indicates that the exporting firms are more prone to switch into another institutional environment after acquiring experience through entries in close environments (model 4).

In the same line, H3 finds empirical supports (table 6). As previously, the situation is more pronounced for the British firms than the German ones (models 5a and 6a). When looking at the legal origins for the British companies (model 5b), it appears that the rate of penetration (indicated by the coefficient)[4] is the lowest for the French origin, despite the large number of countries concerned. Then follows the Scandinavian legal origin. Even if these countries can take a privileged place in the first entry decision, there is no more specificity when considering the sequence of entries. By contrast, the German legal environment is the first "foreign" (i.e. non-English) environment to be entered by British firms. As regards German companies (model 6b), they appear, as expected, more prone to expand throughout different institutional environments. Surprisingly, they enter more lately countries with a Scandinavian origin, albeit they are geographically so close. As regards the case of Socialist countries, the negative and significant sign of the coefficient can be interpreted as the exceptional phenomenon of openness of Eastern European countries during the period 1987-1997 and its strong attractiveness for German countries – some of them being set up in the former German Democratic Republic.

The comparison of coefficients for the "Different legal system" variable shows a higher value for service industries than manufacturing ones (table 7, models 7a and

[4] The higher the value of the coefficient, the later the entry into the instittuional environment. This is why the coefficient can be inversely interpreted as an indicator of the rate of penetration.

7b). This was expected from H4. When business is more dependant upon tacit knowledge, the legal rules are more complex to understand and difficult to enforce. Consequently, firms will stay longer in the same institutional environment to reduce risks involved by institutional distance.

< insert table 6 >

The test of H5 presents striking results (table 7, models 8a and 8b). At a first glance, the superior and positive coefficient for the firms managed by experienced founders provides support for our hypothesis. Experienced managers are more aware of an institutional distance in international business and choose a more cautious process of internationalization. By contrast, inexperienced managers do not perceive such intangible barriers and are likely to "pay the price of their inexperience" afterwards. But, more basically, any of the explanatory variables are significant, except for the purely technical variable "Year". This seems to meet that there is no systematic drivers in the internationalization process: nor the institutional distance, nor the business attractiveness, nor the political risk are influential. It is as if such firms catch up opportunities but have not any strategy of development. Of course, it is still possible to replicate that these managers decide on the basis of factors not included in the models. Anyway, the results are more likely to plea in favor of the importance of having a previous experience in international business.

We can add complementary comments about the other variables in the models. Logically the political risk has the most often an impact of the location choice, the risky countries being entered more lately. By contrast, the GDP variable is not significant. The size of the entered country does not really matter in the first entry

choices. As regards the "EU country" variable, the results are rarely significant, indicating that this "meta-legal" construction of a unified business environment has not managed to generate positive spillovers within the EU on a whole.

< insert table 7 >

DISCUSSION AND CONCLUSIONS

The empirical results confirm the deduced direction of each of the five proposed hypotheses. They confirm that the introduction of institutional environment variables allows us to better understand and predict the pattern of choices taken by new technology based firms when entering foreign markets. The findings are robust for both UK and German firms. However, there are significant differences in behavior between representatives of the two nationalities. After the first two foreign countries entered, there is a divergence in behavior. The German firms go on to typically enter a greater *diversity* of institutional environments than the equivalent British firms, although German sample firms typically enter a small number of foreign markets overall (Burgel et al, 2001). The expansionist firm has little choice but to eventually enter new institutional environments. This is particularly the case for German firms which have an 'institutional space' that is much more constrained than that of their British counterparts. This situation will tend to generate, at least initially, a higher learning cost for German firms. Certainly, we know from Burgel et al's 2001 study that the incidence of internationalization is significantly lower for German firms. However, for those that can overcome this barrier, the cost is compensated by the greater value of the experienced gained and the richer consequent source of new country market opportunities.

This institutional environment effect that we are describing here is *in addition* to other factors more traditionally cited in studies of internationalization (see Fig. 1). It should not be confused with political risk. The latter does exert an especially significant influence on the two dependent variables tested. Regardless of the institutional environment, start-ups remain particularly sensitive to this factor. Nevertheless, these two elements - the definition of the 'rules of the game' and the uncertainty concerning governmental policy matters - remain relatively independent[5].

A similar observation can be made as regards the variables on the size of the target country (GDP) and markets that are members of the European Union (EU). Other than for the first entry (Table 5), GDP is not seen to be significant in determining choice of country market entered. If the target country is a fellow member of the European Union, both Germany and the UK are more likely to enter that country than if it was not an EU member. However, the influence of the EU as a variable is only significant for Germany (not the UK) in explaining the order of internationalization.

The juxtaposition of these related and significant variables suggests a possible generic pattern of internationalization. It could be argued that firms make the decision to internationalize in a *two-stage decision process*. First, the institutional environment is chosen (i.e. similar or different to the home country market). Secondly, after this decision is made, the choice is refined by determining the specific market to enter on the basis of an assessment of the prevailing economic and political conditions (i.e GDP and country risk variables

[5] It is significant, moreover, that in the statistical models tested, the goodness of fit is better when they are present together and that the residual is thus reduced.

In order to test this stage model rigorously, it would be necessary to define a more complete polynomial model. The available secondary data do not make this possible. However, stage models are well known although not without criticism in the internationalization literature. For example, similar approaches have already been developed to explain the entry behavior of multinational firms on the basis of: i) entering solely or in partnership and ii) the share to be granted in the cooperative effort to the prospective partner (Gatignon and Anderson, 1988).

Conclusions

To our knowledge, the approach that we are proposing regarding the explanatory role of the institutional environment is new to the strategy literature. Our results support pursuing a closer interest in the dynamic influence of the institutional environment on the young firm's logic and pattern of internationalization. The introduction of the institutional environment as a means of better understanding how firms manage the costs of learning in unfamiliar environments with significant new transaction costs commitments is also novel in its use of a legal dimension to model institutional complexity. Our analysis supports and augments earlier work which has studied the impact of the environment on the process of internationalization of firms through more competitive notions specific to the firm (Hymer, 1972); more competitive behavior by individual nations (Porter, 1990); notions of political risk (Reeb, Kwok and Baek, 1998); and of cultural difference (Hofstede, 1980; Shane, 1994).

Given the rapidity of onset of the internationalization process (McDougall and Oviat, ,2000; Burgel et al 2001b), the high-technology young firm may be especially sensitive to parameters related to its institutional environment for at least two reasons.

First, being at the start of the internationalization learning process, the high tech young firm does not yet have the experience, managerial competencies nor heuristics that enables it to deal effectively with the increase in uncertainty and environmental complexity concomitant on starting foreign sales. Whatever its relative competitive strengths, the resource rationed young firm may prefer an 'known' market with familiar 'house rules' to a market with stronger sales potential but rules difficult and costly to understand or implement. Of course, these two factors of familiarity and scale can on occasion come together[6].

Secondly, it is known that one of the major problems in internationalization is that of protection from the risks of appropriation (Buckley and Casson, 1976; Oxley, 1997). These risks are especially great if the business is located in an innovative sector involving the rapid growth and mobilization of scarce, knowledge-based assets and capabilities. In these circumstances, the risks concerning the definition, control and protection of property rights can be substantial (Oxley, 1999). The high-technology young firm will therefore have a clear interest in selecting foreign markets where such risks are known, lower and/or more manageable. The firm's choice will likely favor familiar environments and known institutions where it is able to concentrate its economic resources on valued adding rather than value protecting activities (Teece, 1986).

Limitations and Extensions of the Study

[6] The greater tendency of UK high tech young firms to go earlier and more extensively to the US market than their German equivalents may be directly influenced by the apparently greater relative familiarity Britons feel with US modes of business.

First, we acknowledge that certain information which would enhance our analysis is unfortunately lacking. This is a frequent cost of using secondary data designed for a different purpose and set of questions. We do not actually possess information on the characteristics of the entrepreneur, especially his/her nationality and/or the countries in which he/she may have worked previously (Anderson, 2000). Nor do we know what mode of internationalization channel (e.g. direct exporting or use of an occasional or regular intermediary) is employed in entering a new country market (Burgel and Murray, 2001). Lastly, we lack information that would enable us to know whether or not the growth of the start-up has been assisted by membership of one or more business networks. It is now recognized that the embeddedness of the entrepreneur within key commercial and related social systems can strongly guide the developmental path and subsequent performance of the entrepreneurial young firm (Martin, Swaminathan and Mitchell, 1999).

Second, it is acknowledged that our empirical operationalization of the concept of the institutional environment is relatively rudimentary. As we have pointed out earlier, what we are examining is a complex, multi-faceted concept. It is therefore simplistic to limit the inquiry to a variable which concentrates exclusively on a formal classification of history of civil legislation. It is even more heroic to aggregate 212 countries together under only five categories.

Finally, even though we include a YEAR variable, we do not really take into account the dynamics of the internationalization process, i.e. the full effects of possible institutional changes on the young firms. Such changes have been significant during the period under examination. Many countries of the former Socialist bloc have undertaken the difficult process of institutional reform and are currently in a process

of long-run and profound 'transition'. This is likely to reduce the authority of the results regarding market entry into transition economics.

Future Research Work

In terms of future work to extend this line of enquiry, it would be interesting to see the extent to which different internationalization paths influence the performance of these companies over the longer term. For example, for the rapidly internationalizing firm, is it better to build up internal resources by staying local or remaining in contiguous countries before embarking on a major escalation of sales via the entry into a major foreign market. The work conducted by Burgel, Fier, Licht and Murray (2001) on the original database has indicated that the German firms were significantly less international (when measured by percentage of total sales: 24.8% versus 38.4%, respectively) than their British equivalents – at least over the first five years of their existence. It would be unwise to draw the conclusion that this outcome is exclusively a result of their differing institutional environments. It is possible, however, to note the combination of factors and to interpret them as giving some empirical support to this thesis.

The present study has aimed to explore the still little known links between international expansion and institutional diversity. It has tested theory on a contemporary sample of German and UK high-technology young firms. This category of enterprise is deemed to play a key role in a developed country's growth dynamic. The aim of this study has been to test the utility of institutional environmental measures as a means for understanding better the internationalization process. We can

suggest, as a result of our present findings, certain prospective paths for future research that may prove fruitful.

Our first suggestion is for the examination of young, high technology new firms whose countries of origin represents not only English and German legal environments. In a European context, French and Scandinavian systems are also extremely important. Because of their respective paths of geographic expansion, it would be especially rewarding to see whether we find behavioral similarities between firms rooted in an English and French legal environment. These are the two most widespread legal environments. Additionally, the same question could be posed as regards firms rooted in the German legal environment and those rooted in the Scandinavian legal environment, two less widespread legal environments.

One could further explore whether comparable high tech young firms from "small countries" react in the same manner as those from the "large countries" (Great Britain and Germany falling within the latter category). Such firms without the legacy of a dominant legal institutional environment may have certain advantages. For example, their more intense international culture (or a culture of internationalization) may enable them to be more open to exchanges and more adaptive to novel environments. It could be asked whether their experiences and cultures translate into greater entrepreneurial behavior thus providing them with a greater ability to manage the learning curve of internationalization.

Lastly, as pointed out in the previous section, we need develop our knowledge of the influence on performance of the networks formed or joined by those entrepreneurs who internationalize rapidly their activities. Entrepreneurs often have to survive long

periods when external resources including finance are scarce, and where their personal reputations are still being built. The network(s) employed during this phase therefore may play a decisive role in the actions and success of these firms (Yli-Renko, Autio and Sapienza, 2000).

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Table 1 Industrial classification of high-tech firms

Industries	Sectors	Sigles	European classification (NACE)
Service	Software	SOFTWARES	7220, 7260
Manufacturing	IT and communications hardware	IT & COMM HARD.	3001, 3002, 3220, 3230
	Engineering	ENGINEERING	3320, 3330, 3340
	Life Science and Medical Technology	LIFE SCI. & MED	2441, 2442, 3310
	Other (mainly electronics components)	OTHER	3110, 3120, 3210, 3530, 2416, 2417

Source : Burgel et Murray (2000)

Table 2. Breakdown by legal environment of first five foreign market entries

	No. of foreign market entries by UK firms	No. of foreign market entries by German firms	Total
Into a Scandinavian legal environment	104	43	147
Percentage	11.0%	9.6%	10.5%
In to a Socialist legal environment	25	42	67
Percentage	2.6%	9.3%	4.8%
In to a French legal environment	338	153	491
Percentage	35.8%	34.0%	35.2%
In to a German legal environment	163	129	292
Percentage	17.2%	28.7%	20.9%
In to a English legal environment	315	83	398
Percentage	33.3%	18.4%	28.5%
Total	945	450	1395
Percentage	100.0%	100.0%	100.0%

Note : The percentage indicates the share of entries by legal environment for both UK and German start-ups.

Table 3. Breakdown by legal environment of first foreign market entries

	First foreign market entry by UK start-ups	First foreign market entry by German start-ups	Total
In to a Scandinavian legal environment	26	5	31
Percentage	10.8%	3.7%	8.3%
In to a Socialist legal environment	3	11	14
Percentage	1.2%	8.2%	3.7%
In to a French legal environment	68	47	115
Percentage	28.2%	35.1%	30.7%
In to a German legal environment	39	48	87
Percentage	16.2%	35.8%	23.2%
In to a English legal environment	105	23	128
Percentage	43.6%	17.2%	34.1%
Total	241	134	375
Percentage	100.0%	100.0%	100.0%

Note : The percentage indicate the share of entries by legal environment for both UK and German start-ups.

Table 4 Methodology of the research strategy

Hypothesis number	Models and samples	Expected results
H1 "High-technology start-ups are more likely to initiate their internationalization activities by selecting a target country with the same institutional environment"	Logistic regressions (1, 2a & 2b – 3a & 3b) Whole sample German - UK samples	A negative coefficient for variable LEG_DIFF ; negative coefficients for legal origins by reference to the legal origin of the home country.
H2 "As an internationalizing firm gains greater experience of entering countries with the same institutional environment, the barriers against entering countries with different institutional environments decrease"	Ordered logit regressions (4) Whole sample	A negative coefficient for variable LEG_DIFF
H3 "High-technology start-ups originating in countries whose institutional environments are widely replicated abroad will	Ordered logit regressions (5a & 5b; 6a & 6b) German - UK	A lower positive coefficient with the German sample for both the variable LEG_DIFF and the legal origins (by reference to the legal origin of the home country)

enter countries with different institutional environments later in their internationalization process than comparable firms originating from less popular institutional environments."	samples	
H4 "High-technology start-ups in services industries will enter countries with different institutional environments later in their internationalization process than coming from manufacturing industries"	Ordered logit regressions (7a & 7b) By industry	A lower positive coefficient for service industries on LEG_DIFF
H5 "High-tech start-ups managed by CEOs with international experience will enter countries with different institutional environments later in their internationalization process than other CEOs"	Ordered logit regressions (8a & 8b) By CEO's international experience	A lower positive coefficient for service industries on LEG_DIFF

Table 5. Likelihood of first foreign market entry (binary logistic regression)

	All cases (1)	UK cases (2a)	UK cases (2b)	German cases (3a)	German cases (3b)
	β	β	β	β	β
Different legal system	-0.391* (0.161)	-0.381* (0.204)	-	-0.327 (0.276)	-
French origin			-0.873** (0.278)		-0.589° (0.351)
Scandinavian origin			-0.411 (0.314)		-1.628** (0.568)
Socialist origin			-0.946 (0.677)		0.653 (0.660)
English origin			Ref.		-0.650° (0.391)
German origin			-0.757** (0.271)		Ref.
GDP(lg)	0.079° (0.046)	0.086 (0.063)	0.128° (0.071)	0.100 (0.077)	0.166° (0.098)
YEAR	-0.120*** (0.021)	-0.114*** (0.023)	-0.113*** (0.023)	-0.166*** (0.045)	-0.184*** (0.044)
Political risk	-0.005 (0.006)	-0.006 (0.007)	-0.006 (0.009)	-0.003 (0.010)	-0.013 (0.013)
EU COUNTRY	0.073 (0.170)	0.114 (0.211)	0.190 (0.253)	0.378 (0.283)	0.671* (0.307)
Constant	9.898*** (2.008)	9.323*** (2.301)	9.131*** (2.347)	14.058*** (4.134)	15.585*** (4.068)
Log likelihood	-790.84	-520.10	-514.27	-265.46	-257.49
Wald Chi2	55.85***	43.55***	52.03***	19.74**	35.25***
Number of cases	1396	945	945	451	451

Coefficient (β) significant at 1‰ (***) ; 1% (**) ; 5% (*) ; 10% (°).

(Robust standard errors in brackets)

Table 6. Entry order into foreign countries by national features (ordered logistic regression)

	All cases (4)	UK cases (5a)	UK cases (5b)	German cases (6a)	German cases (6b)
	β	β	β	β	β
Different legal system	0.345** (0.120)	0.393** (0.150)	-	0.175 (0.206)	-
French origin			0.642*** (0.187)		0.315 (0.464)
Scandinavian origin			0.505* (0.242)		0.941** (0.366)
Socialist origin			0.236 (0.347)		-0.772° (0.464)
English origin			*Ref.*		0.263 (0.321)
German origin			0.372* (0.184)		*Ref.*
GDP(lg)	-0.150 (0.036)	-0.068 (0.049)	-0.074 (0.049)	0.056 (0.059)	0.050 (0.068)
YEAR	0.115*** (0.021)	0.096*** (0.023)	0.099*** (0.024)	0.191*** (0.045)	0.208*** (0.043)
Political risk	0.011** (0.004)	0.009 (0.006)	0.011° (0.006)	0.013* (0.007)	0.023** (0.008)
EU COUNTRY	-0.102 (0.120)	-0.069 (0.157)	-0.207 (0.163)	-0.233 (0.190)	-0.503** (0.217)
Log likelihood	-2179.11	-1481.76	-514.27	-689.64	-682.10
Wald Chi2	77.31***	57.13***	52.03***	30.08**	50.47***
Number of cases	1396	945	945	451	451

Coefficient (β) significant at 1‰ (***) ; 1% (**) ; 5% (*) ; 10% (°).

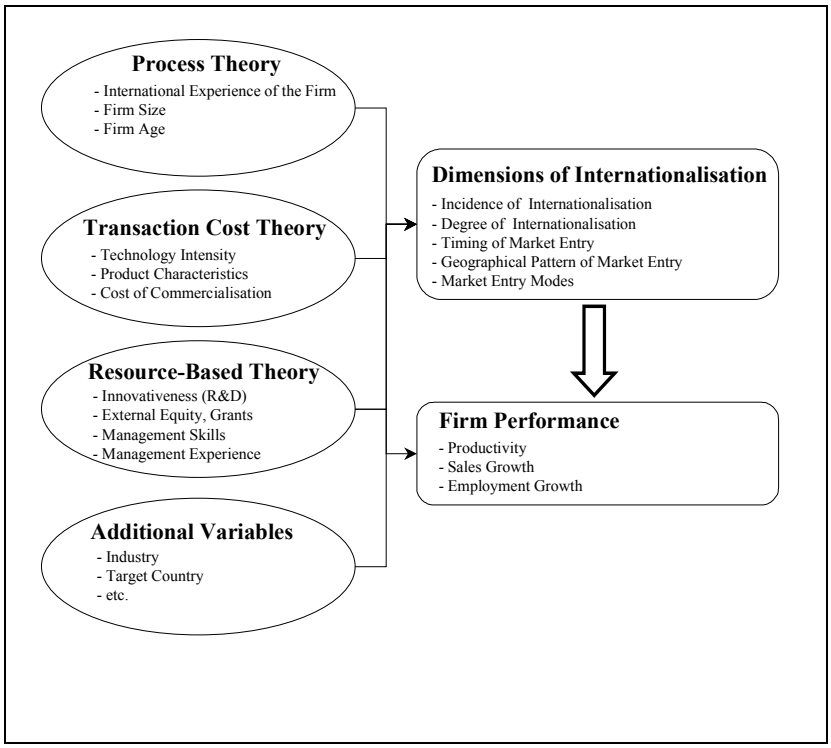
(Robust standard errors in brackets; cut points not reproduced)

Table 7. Entry order into foreign countries classified by business features (ordered logistic regression)

	Service industries (7a)	Manufacturing industries (7b)	Experienced founders (8a)	Inexperienced founders (8b)
	β	β	β	β
Different legal system	0.459°	0.312*	0.438**	0.227
	(0.278)	(0.135)	(0.155)	(0.183)
GDP(lg)	0.032	-0.032	-0.023	-0.010
	(0.070)	(0.042)	(0.047)	(0.056)
YEAR	0.135**	0.110***	0.124***	0.112***
	(0.050)	(0.023)	(0.028)	(0.035)
Political risk	0.011**	0.011*	0.016**	0.006
	(0.004)	(0.005)	(0.006)	(0.006)
EU COUNTRY	-0.190	-0.075	-0.049	-0.144
	(0.278)	(0.137)	(0.163)	(0.174)
Log likelihood	-445.27	-1732.19	-1224.43	-949.31
Wald Chi2	18.43**	59.64***	58.96***	20.14**
Number of cases	290	1106	785	611

Coefficient (β) significant at 1‰ (***) ; 1% (**) ; 5% (*) ; 10% (°).

(Robust standard errors in brackets; cut points not reproduced)



Institutional Environment →

Fig 1. Summary of Internationalization Theories and their Operationalization (ex Burgel et al, 2001)