UNDERSTANDING ACCELERATED INTERNATIONALISATION:
INTEGRATING THEORIES FOR ANALYSING
INTERNATIONALISATION PATHS

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Abstract

The objective of the paper is to determine the possibilities of combining different theories for explaining the accelerated internationalisation. For that purpose the underlying assumptions of knowledge-based incremental internationalisation are analysed and compared with other theories and current research results. The key determinants of modified internationalisation process are used for analysing accelerated internationalisation of two Estonian origin knowledge intensive companies. Comparison and integration of different internationalisation theories and perspectives is based on literature review and application of logical diagram analysis. Longitudinal case study method is used for analysing cases of two knowledge-intensive Estonian companies. The analysis of cases supports the applicability of theory integration approach to researching accelerated internationalisation. Implications for managers and suggestions for further research are made.

Keywords: accelerated internationalisation, Born Global, International New Venture, International Entrepreneurship, theories of internationalisation.

Introduction

International entrepreneurship (IE) (McDougall and Oviatt, 2000) is a young research field and has little theoretical background due to its phenomenological nature. The main research objective of the IE studies is to understand the phenomenon of accelerated internationalisation, which contradicts with knowledge-based and incremental internationalisation process described by U-models (Johanson & Vahlne, 1977) and I-models (Bilkey & Tesar, 1977). The incremental view suggests step-by-step internationalisation from home market to more psychically distant markets after the company has acquired sufficient knowledge about the foreign market. Yet researchers have found that enterprises either start as global companies or use multitude of market entry modes simultaneously (Andersson & Wictor, 2003; Crick & Jones, 2000; McDougall et al., 2003).

The objective of the paper is to determine the possibilities of combining different theories for explaining the accelerated internationalisation phenomenon. The research problem is the gap between several theories applied for explaining the accelerated internationalisation phenomenon. The research methods are comparative analysis of literature using logical diagrams and longitudinal case study method.

Longitudinal case study method is used for analysing cases of two knowledge-intensive Estonian companies. Case companies were chosen due to their relative success in internationalisation and different internationalisation paths. Substantial volume of publicly available information from newspapers, the company’s homepages, and the commercial register, including the company's annual reports, were gathered and analysed. Public information, including interviews with CEOs available in the Estonian newspapers and journals were also used.

The generally accessible public information permitted mapping of the main facts of the company’s history. The study of the balance sheets and management reports allowed determining the main decisions taken and the resulting developments. It was also possible to derive from the public data the major milestones, strategy, organisation structure, technology, skills and knowledge in every period. In addition to publicly available data, transcripts of several interviews were used. The main task of the interviews was to ascertain the historical facts and the roles of the key figures.

The final text was completed after a critical comparison and analysis of different sources: annual reports, interviews, newspapers, web pages and students’ graduate theses.

The scientific novelty. The paper is an attempt to validate assumptions of different internationalisation theories through a logical structure and causal relationships. Cases studies are used for testing the proposed relationships and key elements. The results of the paper allow better understanding of rapid internationalisation, and building stronger theoretical framework for research.
Assumptions of theoretical frameworks applied in IE

Keupp and Gassmann (2009) analysed 179 papers published in 16 peer-reviewed journals and concluded that most articles do not use any theoretical frameworks. Most common are the incremental models (internationalization theory), foreign direct investments models (OLI paradigm), network theory, and resource-based view (see Table 1).

Table 1. Theoretical frameworks used by authors of IE papers (Keupp & Gassmann, 2009). Note: “None or not specified” includes literature reviews and editorial articles.

<table>
<thead>
<tr>
<th>Theory</th>
<th># of papers</th>
</tr>
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<tbody>
<tr>
<td>None or not specified</td>
<td>82</td>
</tr>
<tr>
<td>Internationalization theory</td>
<td>23</td>
</tr>
<tr>
<td>Organizational learning</td>
<td>11</td>
</tr>
<tr>
<td>Eclectic (aka OLI) paradigm (Dunning)</td>
<td>10</td>
</tr>
<tr>
<td>Alliance or interfirm network theory</td>
<td>8</td>
</tr>
<tr>
<td>Resource-based view</td>
<td>8</td>
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<tr>
<td>Transaction cost theory</td>
<td>7</td>
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<td>Experiential learning</td>
<td>6</td>
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<td>Foreign direct investment theory</td>
<td>5</td>
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<td>Social network theory</td>
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<td>Industrial economics</td>
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<td>International new venture framework</td>
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<td>Entrepreneurial orientation</td>
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<td>Social cognition</td>
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</tbody>
</table>

In recent papers following approaches are dominating: internationalisation theory (also called knowledge-based view: see Freeman, 2009; Mele’n & Nordman, 2009), phenomenological statements based on results of International Entrepreneurship research, resource-based view, and organisational learning theory. Due to wide usage of internationalisation theory it is chosen as a base for analysis of assumptions. Figure 2 represents the assumptions of original internationalisation theory presented by Johanson and Vahlne (1977). The original assumptions are marked with “tick mark boxes”. added by challenged by International Entrepreneurship literature are marked with “question marks”. Supportive assumptions in “boxes with rounded corners” are added by the author in order to fill the gaps in the causal logic and disclose the hidden assumptions. The boxes are numbered for easier reference, the sequence of numbers has no other purpose or meaning. The logic should be read from the bottom to top using “If…and..then” sentences and following arrows. For example: IF (10) “Markets with smaller psychical distance have lower perceived risk levels” AND (5) “The firm is willing to make commitment decisions, which have acceptable risk level”, THEN (11) “The firm prefers to commit to psychically closer markets”. The ellipse over arrows represents sufficiency: all statements linked by ellipse have to hold in order to cause the effect (the statement at the end of the arrows). One result can be caused by several independent causes. For example statement 14 is caused alone by statement 11 and also together by statements 13, 9 and 12.

Although several statements or assumptions of U-model still hold (for example 1, 2, 3 etc), several assumptions (nr. 4, 11, 6, 7, 8, 9) have been challenged and countered by other theories.

Forsgren (2002) challenges the assumptions 4, 7 and 11. Forsgren claims that that in addition to risk from low market specific knowledge, the firm also considers the risk of not making the investment. Even in case of having low market knowledge, the risk of not investing can be considered by a company as a very high risk activity.

Mele’n and Nordman (2009) challenge the assumptions 6, 8 and 9. They have found that companies can be divided into categories according to their commitment behaviour (see figure 1). Not all companies
need to increase their commitment (in terms of moving from export or distributor model towards office or manufacturing in foreign country) in order to grow and increase profitability. Such companies are labelled low committers. Incremental committers follow more traditional route as they go from exporting activities step-by-step to high commitment activities such as strategic partnerships or alliances. In case of the latter, it seems that for some companies higher commitment might not mean higher profitability and they have decreased their commitment over time (for example dismissing distributors). The high committers on the other hand use several commitment levels for different countries at once. But the high committers do not increase their commitment rapidly over time. It seems that time and additional effort is needed for making the instant commitments actually to work and only then the company can move on.

**Figure 2.** Causal logic of International theory
*(based on Johanson & Vahlne, 1977; Brennan & Garvey, 2009)*
Data collection and research method

Empirical research is based on analysing the longitudinal cases according to identified theoretical assumptions about accelerated internationalisation. The key determinants are: pre-history, speed of internationalisation, increase in commitment level, and determinants decreasing perceived risk. Main criteria for selection of a company for case study were the following:

- Estonian origin of the company or/and tight relations to Estonia;
- The company should be relevant to a success story, i.e. it should be already global;
- The main development track of the company could be observed;
- Main part of knowledge and technology is created in Estonia;
- The companies represent technologies of different fields.

Out of the limited number of suitable case candidates the more well-known Estonian companies were selected for the study. Current case studies are based on secondary data and personal interviews. First of all, search for research publications was carried out using Google Scholar®. That gave possibility to learn the aspects researchers already covered about the case companies. Then historical facts and general overviews were collected from previous researches (Kodres, 2006; Vissak, 2007; Mets, 2008) and press (for example Reach-U, 2009). After that web-pages and annual reports of the companies were studied. The facts collected during the previous studies as well as current research were evaluated in the context of research questions. The aspects not covered before and newer trends were mapped, also some interpretations were checked in interviews.

Cases of Estonian companies

Case of Asper Biotech – small global biotech company (based on Kaarna & Mets (2009), Leego (2009), Mets (2009b), Vissak (2007), Quattromed AS (2001-2007), Quattromed (2009), Icosagen (2009), Ustav (2009)). Founding. Asper Biotech AS was founded in 1999 by prof. Andres Metspalu and Jaanus Pikani, former CEO of University Clinics. Initial product was novel genotyping technology APEX (instrumentation, software and bioinformatics solution) and service for identifying genetic components of human disease, mostly customers of R&D field. Pre-history period: 1996-1999, prof. Metspalu worked in the universities in France and USA working out a particular genotyping technology and building personal network among scientists. Globalisation intention. Founders saw their market as global. First sales were made to US and France in 2001, practically no domestic market. Commitment. Going from low to medium/high. At first sales representative agreements were signed in Japan, USA, Norway and Italy (2001-2002) for selling the APEX machine; 2003-2004, focus turned on direct contacts and shifted from product to services; 2009: service clients in more than 40 countries. Network. Initially based on personal contacts of the professor Metspalu. Difficulties going beyond personal contacts. Larger client network was established through academic networks, conferences, and fairs. Financial leverage. Academic organizations were used for covering patenting costs in early stages; US origin risk capital fund SEAIF in 2000, and later Baltic Small Equity Fund (BSEF) for product development and organizational expansion; European Union Framework Program funding of several projects. Changes in business model. From product based value proposition (novel technology for genotyping) to service based value proposition (globally unique genetic analysis for eye diseases). Also sales target shifted from research labs and genetic testing organizations to doctors, genetic consultants and patient organizations. The APEX technology sale was moved to Asper Group subsidiary Genorama Ltd.

Case of Regio – mobile positioning software company (based on Kaarna & Mets (2009); Mets (2008, 2009a); Regio (2001-2008); Reach-U (2009), Uustalo (2009)). Founding. State-owned firm was founded in 1988 under the rules of Soviet Union. In 1990 the company was privatized. Founders were geographers Jüri Jagomägi, Rivo Noorkõiv, and Madis Michelson. Initial product. Privatized company started with R&D services (regional studies), map and postcard production. Pre-history period: in case of Regio the prehistory period overlaps with domestic period. In 1992 Regio mediation of Intergraph software; 1993, Teet Jagomägi (23) appointed the CEO after training in 3D programming in USA; implementation of the geo-information system (GIS); the first Estonian sea-map after Soviet occupation in 1940; 1994, complete digital map technology using GPS; 1998, CD-Atlas. Globalisation intention. The company had an intention to grow global since 1992. Yet it took them several years before they had a globally marketable product. First attempts to export were made in 1992-1993. In 1999 Regio won the tender from Ericsson AB for mobile
positioning software (MPS), which became the breakthrough for globalization. **Commitment.** Regio has used high commitment approach. In 2000, the company merged with the Finnish listed corporation Digital Open Network Environment OY (DONE); 2001, drastic growth of exports to one fourth of sales; 2002, bankruptcy of parent company; management buy-out of the company. In 2004 global reselling agreement with Ericsson was signed. Partnering with Ericsson meant possibility to offer Regio’s software in countries, where Ericsson had sold the infrastructure. In 2005 Regio delivered location based services (LBS) middleware to Saudi Arabia, in 2006 to North Africa, and in 2008 entered the market in Mexico. Signing the contracts with end clients still means negotiation and competing with other software providers. Regio’s employees spend months in foreign countries for building client tailored software solutions. **Network.** Use of network of Ericsson clients. Yet a lot of time and effort is spent for building strong personal contacts with end users. **Financial leverage.** First, founders mortgaged their homes for bank loan on very unfavorable conditions in 1993-1994. In 1998 Baltic Small Equity Fund (BSEF) became risk capital partner for Regio; 2000, merger with DONE (funding product development). In 2001 management buyout of the company from DONE. **Changes in business model.** Shifting from post-cards and maps (B2C) to GIS, digital maps and LBS (B2B).

**Conclusions**

Despite heavy criticism the original Internationa lisation process theory (Johanson & Vahlne, 1977) is based on assumptions, which still hold. Changing the assumptions, which have become invalid, adding new assumptions from other theories and models enhances the understanding of accelerated internationalisation phenomenon.

The cases support the view that knowledge intensive SMEs can leverage their financial and other resources (such as network, general market knowledge) in order to become global from the start. On the other hand both cases prove that “pre-history” is important aspect for understanding accelerated internationalisation. In case of Asper, the global product development and network building happened before the initiation of the company. It took 6 years (1995-2001) to build technical knowledge base, develop a globally competitive product, and make first sales. In case of Regio the network building and product development took 7 years (1992-1999) before first international sales were made based on globally competitive products. Only major difference with Asper is that Regio was already established during the network and product building phase.

The cases support the view that companies can be divided into categories according to their commitment behaviour. There are companies, which business model does not need further commitment beyond distributor stage (Asper), and there are companies, who start with high commitment partnership contracts (Regio). The cases also show the need to redefine the low or high commitment. If higher commitment should enable obtaining higher level in market specific knowledge, then the highest commitment is direct and intensive partnership with end users on foreign markets. For many industries and business models such intensive contact does not necessary mean sales office or manufacturing plant on foreign market. Therefore there is a need for differentiating direct contacts used for exporting activities (offering little possibilities for obtaining market specific knowledge) and direct contacts with high potential for experiential learning.

The main implication for company managers is to identify their business model and determine the necessary commitment level for successful operations. Establishing the commitment is important, but equally important is utilisation and maintaining the commitment level. In addition, the cases suggest that making changes in commitment levels might not be sufficient and in some instances the changes is the business model itself are necessary.

In current paper only the assumptions of knowledge-based internationalisation theory were (in)validated and based on this key determinants were identified. Further research is necessary for building a model based on integration of different theories and conducting empirical research to validate the integrated model.

**References**