

1
thesis
3503

Per-Anders Havnes

Dynamics of small business internationalisation
A European panel study

A Thesis submitted for the Degree of Doctor of Philosophy

Department of Entrepreneurship
University of Stirling
Scotland

June 1998

09/02/98

*In memory of
Professor Michael G. Scott
with gratitude for being
allowed to share his wisdom
and reflections.*

ACKNOWLEDGEMENTS

Writing a thesis is an independent and lonesome task, but the result is highly dependent upon the support from others; ranging from discussion of ideas, results and drafts to encouragement when that is needed. I have been in the fortunate position to be able to discuss my work and solicit the opinions of three supervisors: Prof. Michael G. Scott and Dr. Peter Rosa of Stirling University and Prof. Jonny Holbek of Agder University College. It is a great loss and a source of sorrow that Prof. Scott died before I had the opportunity to present the final results to him.

I am also deeply indebted to my colleagues on the Interstratos project. First of all for their challenge and encouragement to take up this task, secondly for the fruitful project co-operation and stamina in five years of data collection.

Over the years I have had the opportunity to discuss my work with numerous colleagues. This has been important for the process of developing my thinking, as well as giving me inspiration to carry on the work. Without being able to name you all, I deeply appreciate the value of these encounters.

This work would not have been possible without the understanding and support from my wife, Inger. Over a long period of time I have not only been allowed to indulge myself in my own work, often at the cost of the daily chores of a family; but she has actively encouraged me to complete the task.

In view of the long and deep rooted connections between Scotland and Norway I find it appropriate also to express my gratitude in Gaelic as well as Norwegian:

Ceud mille taing! -- Tusen takk!

In spite of the positive effects of interaction with supervisors and colleagues, the modelling, analyses and conclusions - and consequently any mistakes and misinterpretations are entirely my own.

Stirling/Kristiansand, June 1998

Per-Anders Havnes

ABSTRACT

Internationalisation has become part of the daily life of most small and medium sized enterprises (SME) in Europe. The internationalisation of enterprises is a dynamic phenomenon and is in this thesis studied as one specific example of change processes in the development of SMEs.

Previous research on internationalisation has largely been explorative, most often without any modelling of causal relationships, and with insufficient definitions of concepts. The dominating dynamic models have been based on the assumption of uni-directional changes in small steps, and only cross sectional data have been used.

The present research is one of the first where longitudinal data is available for studying the process of internationalisation. The data comes from a panel consisting of 1700 SMEs from 7 countries in Europe where each firm is observed 4 or 5 times in the period 1991-95. Around 47% of the enterprises in the panel exhibit development of their export quota which can be explained by an incremental change model. Importantly, an almost equally large proportion, 45% of the enterprises, exhibit fluctuations in their export quota which can not be explained by the incremental change models. Although variations have been found, the non-incremental change patterns are significantly represented in all countries, all size classes of enterprises and in all industry sectors; and can therefore be considered to be general features -- not patterns associated with specific sub groups of enterprises.

The causal analyses of factors influencing export orientation were not able to identify a temporally stable regression model for export quota. The endogenous variable market

extension has been found to be influenced by four composite measures: external interaction (+), available capacity (-), employment (+), and manager capabilities (+).

Measured by growth in total sale, there is clear evidence that the non-regular change patterns of export quotas can not be regarded as indicators of failure. On the contrary, the results suggest that the non-regular change patterns identify enterprises which successfully use adaptation and flexibility to their competitive advantage.

An initial model was build on previous research where conceptualisation and relationships have mainly been tested with cross-sectional data. This model did not stand up to a test with longitudinal data. The discrepancy between cross sectional and longitudinal modelling indicates that there is a qualitative difference in what can be deduced from research based on one observation and multiple observations. The same conclusion can be derived from the fact that factor analyses as well as path analyses produced different results when the yearly data sets were analysed separately or concurrently.

CONTENTS

ACKNOWLEDGEMENT

ABSTRACT

1 INTRODUCTION.....	1
1.1 THE MAIN ISSUES OF THE RESEARCH	1
<i>1.1.1 Dynamics and change processes</i>	<i>1</i>
<i>1.1.2 Internationalisation and exporting.....</i>	<i>2</i>
<i>1.1.3 The small business perspective.....</i>	<i>4</i>
1.2 RELEVANCE OF THE RESEARCH TOPIC.....	4
1.3 THE PRESENTATION IN THE THESIS.....	5
2 RESEARCH OBJECTIVE.....	8
2.1 CHANGE MODELS.....	8
2.2 DOMINATION OF GRADUAL CHANGE MODELS	9
2.3 INITIAL QUESTIONS	10
3 PREVIOUS RESEARCH.....	13
3.1 THE SIZE OF THE ENTERPRISE AND INTERNATIONALISATION.....	14
<i>3.1.1 Small and medium sized enterprises.....</i>	<i>14</i>
<i>3.1.2 Internationalisation and exporting.....</i>	<i>16</i>
3.2 THEORY PERSPECTIVES	18
<i>3.2.1 Perspectives and internationalisation models</i>	<i>18</i>
<i>3.2.2 The market perspective.....</i>	<i>20</i>
<i>3.2.3 The firm perspective.....</i>	<i>24</i>
<i>3.2.4 The entrepreneur perspective</i>	<i>30</i>
3.3 SCOPE OF INTERNATIONALISATION	33
3.4 CHANGE MODELS.....	35

3.4.1	<i>Classification of change models</i>	35
3.4.2	<i>Stages of Internationalisation</i>	40
3.4.3	<i>Incremental and continuous change models</i>	41
3.5	PREVIOUS EMPIRICAL RESEARCH	42
3.5.1	<i>Review contributions</i>	42
3.5.2	<i>Research strategies</i>	43
3.6	SUMMARY.....	46
4	OPERATIONAL FRAMEWORK	48
4.1	RESEARCH MODEL	48
4.1.1	<i>Scope of internationalisation</i>	48
4.1.2	<i>Theory perspective</i>	49
4.1.3	<i>Change model</i>	51
4.1.4	<i>Change modes</i>	58
4.1.5	<i>Output oriented model</i>	59
4.2	CONCEPTUAL MODEL.....	60
4.3	DYNAMIC ANALYTIC MODEL.....	64
4.4	HYPOTHESES.....	67
4.4.1	<i>Existence of distinct change patterns</i>	68
4.4.2	<i>Factors influencing type of change pattern</i>	69
4.4.3	<i>Export orientation and ensuing change patterns</i>	73
4.4.4	<i>Export orientation and total performance</i>	74
4.4.5	<i>Opportunistic behaviour patterns</i>	75
4.5	ALTERNATIVE EXPLANATORY FACTORS.....	76
5	METHODOLOGY OF DATA COLLECTION	78
5.1	DATA REQUIREMENTS.....	78
5.2	MEETING THE DATA REQUIREMENTS.....	79
5.3	PROCEDURE FOR ESTABLISHING THE QUESTIONNAIRE	82
5.3.1	<i>Main research model</i>	82

5.3.2	<i>Main concepts</i>	83
5.3.3	<i>Measures and scales</i>	86
5.3.4	<i>Translation of the questionnaire</i>	87
5.4	DATA COLLECTING PROCEDURE.....	87
5.4.1	<i>Selection of the sample</i>	87
5.4.2	<i>Yearly national surveys</i>	88
5.5	CONSOLIDATION OF DATA.....	89
5.5.1	<i>Identification of enterprises</i>	90
5.5.2	<i>Consistency control</i>	90
5.5.3	<i>Missing countries and observations</i>	90
5.6	OUTLINE OF THE DATA SET.....	91
5.7	IDEAL VERSUS AVAILABLE DATA.....	92
6	MEASUREMENT MODEL	94
6.1	INTRODUCTION.....	94
6.2	THEORETICAL MEASUREMENT MODEL.....	96
6.2.1	<i>Enterprise/Entrepreneur (EN)</i>	96
6.2.2	<i>Export stimuli (ST)</i>	99
6.2.3	<i>External interaction (IN)</i>	100
6.2.4	<i>Export orientation (EO)</i>	102
6.2.5	<i>Performance (TP)</i>	104
6.3	DYNAMIC ASPECTS.....	104
6.3.1	<i>Continuity in measures and concepts</i>	104
6.3.2	<i>Depicting changes</i>	105
6.3.3	<i>First and second order change patterns</i>	106
6.3.4	<i>Stable enterprises</i>	107
6.3.5	<i>Handling random fluctuations</i>	108
6.3.6	<i>Factor analysis under dynamic conditions</i>	109
6.4	EXTERNAL INTERACTION.....	110
6.5	MARKET EXTENSION.....	110

6.6	HOME REGION OF ENTERPRISES	112
6.7	PERFORMANCE.....	112
7	EMPIRICAL MEASUREMENT MODEL	114
7.1	DEVELOPMENT PATTERNS IN EXPORT REGULARITY	114
7.1.1	<i>Changes in export quota.....</i>	<i>114</i>
7.1.2	<i>Changes in total export sale</i>	<i>122</i>
7.1.3	<i>Conclusion on change patterns</i>	<i>124</i>
7.1.4	<i>Dynamic patterns of entrepreneur characteristics</i>	<i>125</i>
7.1.5	<i>Interpretation of factors.....</i>	<i>129</i>
7.1.6	<i>Enterprise characteristics.....</i>	<i>166</i>
7.1.7	<i>Combined structural measurement model</i>	<i>135</i>
7.2	EXPORT STIMULI	136
7.2.1	<i>Factor analysis</i>	<i>136</i>
7.2.2	<i>Correlation between factors</i>	<i>138</i>
7.3	EXTERNAL INTERACTION	138
7.4	FINAL MEASUREMENT MODEL.....	140
7.5	CONCLUDING REMARKS.....	142
8	CAUSAL ANALYSIS	144
8.1	CATEGORIES OF ENTERPRISES AND EXPORT ORIENTATION.....	144
8.1.1	<i>Change in export quota</i>	<i>144</i>
8.1.2	<i>Change in market extension.....</i>	<i>145</i>
8.1.3	<i>Consequence for further analyses.....</i>	<i>147</i>
8.2	REDUCED SET OF VARIABLES AND EXPORT ORIENTATION.....	147
8.3	FINAL MODEL.....	150
8.3.1	<i>Total panel.....</i>	<i>151</i>
8.3.2	<i>Influence of family ownership.....</i>	<i>157</i>
8.3.3	<i>Influence of region.....</i>	<i>158</i>
8.3.4	<i>Influence of industry sector.....</i>	<i>10</i>

8.4	EXPORT ORIENTATION AND ADAPTATION OF THE ENTERPRISE	161
8.5	EXPORT ORIENTATION AND TOTAL PERFORMANCE	165
8.5.1	<i>Export regularity and export quota</i>	166
8.5.2	<i>Export regularity and market extension</i>	167
8.5.3	<i>Total sales</i>	169
8.5.4	<i>Export regularity and total sales</i>	169
9	DISCUSSION	171
9.1	VALIDITY	171
9.1.1	<i>External validity - composition of sample</i>	171
9.1.2	<i>Construct validity</i>	178
9.1.3	<i>Statistical validity</i>	186
9.1.4	<i>Model representing hypotheses</i>	189
9.2	RELIABILITY	191
9.3	SUPPORT FOR HYPOTHESES	192
9.4	INTERPRETATION OF RESULTS	198
9.4.1	<i>Total assessment of hypothesis testing</i>	19
9.4.2	<i>Gradual change model</i>	200
9.4.3	<i>Adaptation of modes</i>	201
9.4.4	<i>Individualistic and flexible SMEs</i>	202
9.4.5	<i>Other possible explanations</i>	203
10	CONCLUSION	204
10.1	RETURNING TO THE INITIAL QUESTIONS - MAIN FINDINGS	204
10.2	CONTRIBUTIONS TO THE ACADEMIC DEBATE	207
10.3	IMPLICATIONS TO METHODOLOGY	209
10.4	IMPLICATIONS TO POLICY	212
10.5	LESSONS TO THE ACADEMIC	213
10.6	LESSONS TO THE PRACTITIONER	215
10.7	EPILOGUE	216

POST SCRIPTUM.....	218
---------------------------	------------

LITERATURE	219
-------------------------	------------

APPENDICES

1 THE INTERSTRATOS PROJECT AND DATA SET	235
2 SUMMARY OF PREVIOUS RESEARCH ON INTERNATIONALISATION AND EXPORTING.....	243
3 VARIABLES USED TO MEASURE CONCEPTS.....	256
4 ANALYSIS OF EXPORT REGULARITY	264
5 DETAILS OF DESCRIPTIVE STATISTICAL ANALYSES	277
6 DETAILS OF CAUSAL STATISTICAL ANALYSES.....	301

FIGURES

Figure 1.1 Export orientation process in a hierarchy of change models.....	3
Figure 3.1 Three dimensions for discussing research on internationalisation	14
Figure 3.2 Theory perspectives of relevance for internationalisation models	19
Figure 3.3 The Uppsala model of the internationalisation process of the firm.....	25
Figure 4.1 Generalised change pattern. Uni-directional and stepwise change of internationalisation	52
Figure 4.2 First order change patterns	55
Figure 4.3 Second order change patterns.....	56
Figure 4.4 Conceptual model of export orientation.....	64
Figure 4.5 Analytical model of change in export orientation - first order change patterns	65
Figure 4.6 Analytic model of change in export orientation - second order change patterns	83
Figure 6.1 Entrepreneur characteristics, theoretical measurement model	97
Figure 6.2 Enterprise characteristics; theoretical measurement model.....	98
Figure 6.3 Export stimuli; theoretical measurement model.....	99

Figure 6.4	External interaction; theoretical measurement model	101
Figure 6.5	Export orientation, theoretical measurement model.....	103
Figure 6.6	Establishing typologies of change patterns	108
Figure 6.7	Categories of export markets.....	111
Figure 7.1	Enterprises with non-incremental growth patterns of export quota	121
Figure 7.2	Summary of stable factors of entrepreneur characteristics.....	132
Figure 7.3	Stable factors of export stimuli	137
Figure 7.4	Concepts, measures and relationships of causal model.....	141
Figure 8.1	Interaction between exogenous and endogenous variables	146
Figure 8.2	Illustration of path analysis, significant relationships. Intermediate model.	149
Figure 8.3	Variables influencing export orientation. Final model.....	153
Figure 8.4	Enterprise adaptation through export orientation.....	162
Figure 8.5	Export orientation and enterprise characteristics.	165
Figure 8.6	Average export quota and categories of change patterns	166
Figure 8.8	Average change rates of market index and categories of change patterns	167
Figure 8.7	Export regularity and growth index for total sales	169
Figure 9.1	Some alternative explanatory models for correlation between observed cause (X) and observed effect (Y)	179
Figure A5.1	Enterprise/entrepreneur characteristics. Initial measurement model.....	286
Figure A5.2	Enterprise/entrepreneur characteristics. Intermediate measurement model. 1991 data, panel firms	288
Figure A5.3	Enterprise/entrepreneur characteristics. Final measurement model.	289

TABLES

Table 3.1	Three alternative conceptualisations of ‘stages of internationalisation’	35
Table 3.2	Process models of organisational change.....	38
Table 4.1	Legend of abbreviations used in Figures 4.5 and 4.6	65
Table 5.1	Number of observed enterprises over the five years of Interstratos project.....	91

Table 5.2 Cross tabulation of size classes and industry sector - 1991 categories.	92
Table 7.1 Definitions used for first order change categories	115
Table 7.2 First order change model of export quota, two observations. Distribution of enterprises.	116
Table 7.3 Definitions of second order change categories.	118
Table 7.4 Second order change model of export quota. Influence of number of observations and delimitation of stable category.....	119
Table 7.5 Entrepreneur characteristics. Initial factor analysis.	127
Table 7.6 Variables loading significantly on factor f1 in Table 7.5	127
Table 7.7 Summary of stable factors of entrepreneurial characteristics.	129
Table 7.8 Temporally stable factors of export stimulation	137
Table 8.1 Regression between exogenous variables and export orientation measures.	148
Table 8.2 Regression between exogenous variables and export orientation measures. Final model.	151
Table 8.3 Export orientation and change in enterprise characteristics.....	164
Table 8.4 Export orientation and total sale. Main elements of regression statistics	168
Table 9.1 Responding enterprises and number of years participating	174
Table 9.2 Distribution of nationality of enterprises in panel sample	175
Table 9.3 Applied methods for assessing reliability	191
Table 9.4 Summary of hypothesis tests	199
Table A1.1 Participants of the Interstratos group	235
Table A1.2 The total Interstratos data set	236
Table A1.3 Definition of industry sectors and corresponding sector categories.....	237
Table A1.4 Consolidated international data set. Number of observed enterprises in yearly surveys	238
Table A1.5 Exporting enterprises in total sample. Number and percentage of observations.	239
Table A1.6 Applied exchange rates of national currencies to ECU.....	241
Table A2.1 Review articles on exporting and internationalisation.	243
Table A2.2 Publications of empirical research on internationalisation and exporting	246
Table A3.1 Personal characteristics of entrepreneur (EN _i).....	256
Table A3.2 Characteristics of enterprise (EN _i) - General	257
Table A3.3 Variables used to measure enterprise specialisation	258

Table A3.5 Export stimuli (ST _i).....	259
Table A3.4 Export orientation (EO _i).....	260
Table A3.6 External interaction (IN _i) - Distribution.....	260
Table A3.7 External interaction (IN _i) - Information exchange.....	261
Table A3.8 External interaction (IN _i) - Co-operation.....	262
Table A4.1 Upper and lower limiting factors for fluctuations in stable enterprises.....	265
Table A4.2 First order change pattern of export quota, two observations. Non-exporters excluded. Distribution of enterprises, percent.....	266
Table A4.3 Second order change patterns export quota and nationality of enterprises.....	267
Table A4.4 Second order change patterns export quota and industry sector of enterprises.....	268
Table A4.5 Second order change patterns export quota and size class 1991 of enterprises.....	269
Table A4.6 Second order change pattern export quota and distance to markets.....	270
Table A4.7 First order change pattern of export sales, two observations.....	271
Table A4.8 Second order change patterns of total export sales. Influence of number of observations and delimitation of stable category.....	272
Table A4.9 Second order change pattern export quota and most distant export market 1992.....	273
Table A4.10 Second order change patterns for export quota versus second order change patterns for total sales.....	275
Table A5.1 Effect of missing value of variables on calculated value of specialisation index.....	282
Table A5.2 Distribution characteristics of specialisation index (SPC _i).....	282
Table A5.3 Variables and factors of entrepreneur and enterprise characteristics.....	283
Table A5.4 Enterprise characteristics. Correlation coefficients. Panel firms.....	284
Table A5.5 Enterprise characteristics - Error terms and regression terms of initial measurement model, cf. Figure A5.1.....	287
Table A5.6 Measurement models, goodness of fit statistics.....	289
Table A5.7 Export stimuli - extraction of stable factors.....	291
Table A5.8 Temporally stable factors of export stimuli.....	292
Table A5.9 Correlation between export stimulating factors.....	293
Table A5.10 Assigning weight to scale of co-operation, ordinal scale.....	296

Table A5.11 Assigning weight to scale of distribution channel contact, ordinal scale.....	297
Table A5.12 Distribution characteristics of external interaction,(EXIN _i).....	298
Table A5.13 Most distant export market, ordinal scale.	299
Table A5.14 Most distant markets. Distribution of enterprises.	299
Table A5.15 Number of export markets. Distribution of enterprises.....	300
Table A6.1 Variable Regio	301
Table A6.2 Family ownership, Region and Industry sector versus Export orientation. One way interactions.....	302
Table A6.3 Change in export quotas. Family enterprises and region.	303
Table A6.4 Change in market extension. Family enterprise and region.....	304
Table A6.5 Change in export quotas. Industry sectors and regions.....	305
Table A6.6 Change in market extension. Industry sectors and regions.	306
Table A6.7 Change in export quotas. Industry sector and family enterprise.....	307
Table A6.8 Change in market extension. Industry sector and family enterprise.	308
Table A6.9 Export orientation and potential external factors. Correlation coefficients.	310
Table A6.10 Input to intermediate model. Correlation coefficients.	313
Table A6.11 Input to final path model. Correlation coefficients.	315
Table A6.12 Market extension and family ownership.....	317
Table A6.13 Export quota and family ownership.....	318
Table A6.14 Effect of location of enterprises.....	319
Table A6.15 Effect of industry sectors; 1991/92.	320
Table A6.16 Effect of industry sectors; 1992/93.	321
Table A6.17 Effect of industry sectors; 1993/94.	322
Table A6.18 Effect of industry sectors; 1994/95.	323
Table A6.19 Export regularity and average value of export quota.....	324
Table A6.20 Export regularity and level export quota . Analysis of variance.....	325
Table A6.21 Export regularity and average values of market extension.	326
Table A6.22 Export regularity and average values of market extension. Analysis of variance.	327
Table A6.23a Statistics of regression analysis for 1991-92.....	328

Table A6.23b	Variables for the regression equation 1991-92.....	328
Table A6.24a	Statistics of regression analysis for 1992-93.....	328
Table A6.24b	Variables for the regression equation 1992-93.....	329
Table A6.25a	Statistics of regression analysis for 1993-94.....	329
Table A6.25b	Variables for the regression equation 1993-94.....	329
Table A6.26a	Statistics of regression analysis for 1994-95.....	330
Table A6.26b	Variables for the regression equation 1994-95.....	330
Table A6.27	Average growth in total sales and categories of export regularity.....	331
Table A6.28	Normalised growth rates of total sales and categories of export regularity.....	331

1 INTRODUCTION

1.1 THE MAIN ISSUES OF THE RESEARCH

In a lecture on research strategy, the Norwegian Nobel Price Laureate in economics, Professor Trygve Haavelmo, once used a metaphor from forestry, urging his students to do more coarse logging and not concentrate their efforts solely on trimming¹. The metaphor is very appropriate for the present research setting. A large number of variables and the fact that the research leads into unmapped 'terrain' necessitate that the first step should be to explore the general structural features of the data. Once these are mapped, they provide a solid basis for further research when analysing the finer details.

1.1.1 Dynamics and change processes

The main challenge of this research endeavour is to explore the dynamics of business development. A significant part of the dynamic picture is caused by businesses adapting to random changes in their environment, and random fluctuation of their own performance. But there is also another part of the dynamic picture which is the result of an intentional or unintentional development through change processes. Some observers prefer to depict change processes in enterprises by drawing analogies to life forms. With such metaphors the notion of small businesses as enterprises that are not yet 'grown up' springs easily to mind. Small and medium-sized enterprises (SMEs) are seen as early stages of a life cycle. Other observers maintain that the change processes in enterprises have unique characteristics and follow different paths of development

¹ Communicated to the author by one of the attending students.

than any other development process. It is therefore not possible to conclude from models of life processes as to the 'normal' pattern of the development of enterprises.

No matter which perspective is chosen, the exploration of enterprise development must start by mapping the actual sequence of change. This must be the basis for gaining insight into the mechanisms that control the functioning of enterprises. The endeavour must include a model of the dynamic characteristics of change as well as the factors and mechanisms of the dynamic process. A main challenge is to distinguish between factors of a random nature and factors that are part of a sustained development process.

1.1.2 *Internationalisation and exporting*

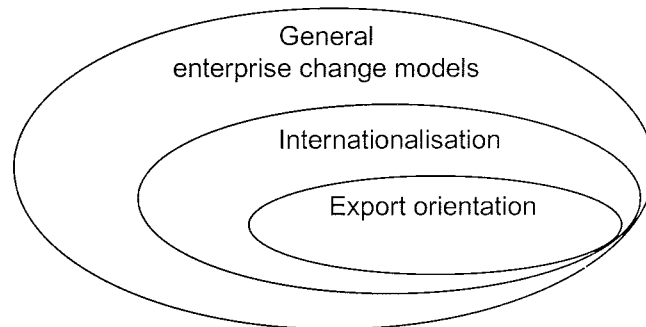
In literature on this subject the concept *internationalisation* has two different interpretations. One relates to the process of changing the focus of the enterprise from domestic to cross border venues or activities (i.a. Welch and Luostarinen, 1988). The second relates to the outcome of this process, it is a measure of the degree of international orientation of the enterprise (i.a. OECD, 1996). For both of these approaches, however, understanding depends on the ability to identify, measure and analyse the factors which precipitate and sustain the process and therefore influence the outcome.

It may be argued that internationalisation as a phenomenon is not much different and not more interesting than expansion from a local market to the distant parts of a domestic market. In both cases the enterprise must adopt new methods for obtaining information and distributing products. However, when crossing borders enterprises have to adapt to new cultural, linguistic and legal environments, which adds a new dimension to the process compared to a purely domestic expansion. Studying internationalisation therefore provides insight into a number of phenomena related to

qualitative adaptation of enterprises, not merely quantitative extensions and reorientation. The qualitative aspects are not apparent if the cross border dimension is excluded.

Internationalisation is one of many modes of transformation or change in an enterprise. The internationalisation process will always be externally oriented with internal implications. This is opposed to other types of transformation processes like organisational development or adaptation of new production technology, which are examples of internally oriented change processes with external implications. Improved understanding of the internationalisation process will therefore also contribute to better understanding of general change processes in SMEs.

Figure 1.1 Export orientation process in a hierarchy of change models



Trading is the most commonly found form of internationalisation for manufacturing SMEs (OECD, 1996; ENSR, 1996; Haahti, 1993), and very often the ultimate objective of other forms of internationalisation (ENSR, 1996). Exporting is also the form of internationalisation which is most easily and most widely documented (Miesenbock, 1988; Leonidou and Katsakis, 1996). It is therefore both relevant and meaningful to use exporting as a proxy for internationalisation, and to approach internationalisation within the general framework of change in enterprises, see Figure 1.1.

1.1.3 The small business perspective

Over the past few years an increasing number of European small and medium-sized enterprises (SMEs) have become internationally oriented in their trading and operational activities. However, most of the literature on internationalisation, educational as well as research oriented, is based on experiences from large or very large enterprises. For many purposes the options and problems of internationalisation are the same for SMEs and large firms. But, by definition SMEs will always control smaller resources and smaller information networks, and have less specialisation of internal competence. A small firm will also have less opportunity for foreign placements of key personnel for control purposes than large enterprises. These arguments are not sufficient to establish that the internationalisation process of SMEs is different from that of large enterprises. But they clearly indicate that there is no reason to assume *a priori* that the same processes and the same mechanisms of development are active in small and large enterprises.

Introducing the small business perspective into the research implies recognition of the fact that the size of the enterprises may be an important explanatory variable, and that there may be modes of operation which are typical for small business.

1.2 RELEVANCE OF THE RESEARCH TOPIC

The basic purpose of the present research is to examine and analyse the development process of enterprises. As such, the project has general relevance to the theory of firm development. However, since the development process to be studied is exporting as one manifestation of internationalisation, the results will also be of relevance to practitioners

in the business world, involved in one of the growing number of enterprises that are somehow engaged in internationalisation and exporting.

In a world where the international aspect of business transactions is also becoming a topic of growing interest to politicians and governments, the results of the research will also have relevance for policy making and supportive measures at government levels.

1.3 THE PRESENTATION IN THE THESIS

Any research report is a description of an analytic tool, and as such a perspective utilised to model and interpret a section of reality. The model gives structure to information provided by empirical data by enhancing some and subduing other features. In this research process patterns which facilitate interpretations of underlying processes and structures become visible. The validity of such interpretations depends on our understanding the intrinsic properties of the model as well as our knowing which part of reality is represented by the empirical data.

There is always a strong interaction between the research model and the research subject throughout the research process. The initial research model is based on assumptions concerning the phenomena to be studied. As the research progresses, insight into the phenomena is improved, which encourages adjustments to and improvements in the research model. This has also been the case for the present research endeavour. In order to enhance understanding of the model and thereby interpretations of the research results, the logical development of the research model is to a certain extent traced in Chapter 3, literature review, and Chapter 4, operational framework.

The literature review includes in Appendix 2 tabulated summaries of review articles and publications of empirical research on exporting. These selected publications cover a period of three decades and provide an interesting illustration of the slow progress in this academic field. Similar models, proposals for further research, and criticism are found throughout the period. This can partly be attributed to the practical restrictions on establishing data sets that allow studies of phenomena across cultures and over a sufficiently long period of time.

The work on this thesis started with the notion that the objective must be to contribute to an understanding of the phenomenon of internationalisation by verifying or refuting the correlation between internationalisation and a number of potentially influencing factors. As the work progressed, the notion of 'patterns' became more and more essential to the depiction and interpretation of the internationalisation process. These patterns can be perceived in many dimensions. There are patterns over time, where the development of enterprises or factors displays similar temporal fluctuations, process patterns. There are also patterns of which factors or parameters interact, structural patterns, which are more or less stable over time. Finally, there are also patterns which are observable only when the observation is made along the dimension of enterprises, structural patterns. Adding to the understanding of the importance of such patterns became an important objective as the work with the thesis progressed. The process patterns will typically be studied with output oriented research models. The structural patterns will typically be studied with mechanism oriented research models. As will be discussed later, the first approach has been selected for this study.

The empirical data used here is far more extensive in the number of cases and the period of observation is much longer than what is normally available in small business

research. This has been possible through international co-operation in the Interstratos project. A description of this project as well as a description of the data set is provided in Chapter 5 and Appendix 1.

In line with the ambition of mapping the main structures and features, most detailed descriptions and analyses have been presented in appendices. The main body of the text focuses on the principal elements and conclusions with frequent references to the appropriate sections of the appendices.

2 RESEARCH OBJECTIVE

2.1 CHANGE MODELS

One important aspect of business studies has always been to be able to explain how enterprises change, and what factors influence this change. Some extreme views of the associated development process hold the process as being deliberate and systematic, improvised and random, or as being cyclic, pre-programmed and similar to biological life processes. These views all represent models of the mechanisms of development and the manifestation of the resulting changes.

Since the word ‘development’ linguistically is often associated with deliberate and positive changes, the terms ‘change process’ and ‘change model’ will be used in the present context. A change model is here seen as the model of the factors and the mechanisms that lead to changes of enterprises, including the manifestation of the change as measured by performance and stage measurements. The theoretical aspects of change models will be further deliberated in Section 3.4.

To reduce the enormous complexity of studying change models at the level of the total enterprises, changes can be studied at sub-system level. One such sub-system can be defined as the interaction of the enterprise with its environment, and especially that part of the interaction that crosses borders. Changes of this sub-system, one optional definition of the internationalisation process, will lead to changes also in other sub-systems. Therefore increased knowledge on the change processes related to internationalisation will also contribute to increased knowledge on the change processes of enterprises in general.

2.2 DOMINATION OF GRADUAL CHANGE MODELS

A substantial number of models or perspectives have been proposed to describe the various aspects of transformation or change in the internationalisation of enterprises. Examples of such are network models (Johannisson, 1995; Joyce *et al.*, 1995), learning models (Haveman, 1993), resource based models (Ahokangas, 1995; Nielsen, 1994), the 'eclectic model' (Dunning, 1988, 1993), stages model of exporting (i.a. Turnbull, 1987), the Uppsala model of internationalisation (Johanson and Vahlne, 1977 and 1990), and life cycle models (Brezis *et al.*, 1993; Hanks *et al.*, 1993). These models are discussed in detail in Chapter 3, where we shall see that they all are, mostly implicitly, based on an assumption of incremental and continuous change. The notions of incremental and continuous change are characteristic for life cycle models as well as models based on deliberate and systematic mechanisms. The enterprises are assumed to:

- evolve from a low to a high degree or measure of activity, resources or commitment
- in small or large steps
- which are all assumed to be uni-directional.

In this respect these models are normative. When incremental growth is assumed to be the normal pattern of change, decreasing number of employees, decreasing sales or decreasing exports are, by definition, not normal and are taken as indicators of malfunctioning or failure.

In real life, however, one often finds enterprises which do not conform with an assumption of incremental change. Enterprises may export one year, not export the second and come back to exporting the third year. Likewise, total turnover or

employment may fluctuate independently or in consort. To some enterprises such fluctuations or irregularities are normal patterns of temporal change in activities. To other enterprises or at other times (under other conditions) stability, incremental growth or even (temporary) decline may be normal patterns of change. One major criticism of the stages models has therefore been the implicit assumption that the enterprise progresses in a uni-linear fashion through the stages (Strandskov, 1985; Turnbull, 1987; Leonidou and Katsikeas, 1995: 636).

Any model which is based upon incremental development may not recognise that there are different patterns of temporal change, and thus lose sight of or neglect information pertaining to other change patterns.

2.3 INITIAL QUESTIONS

The stimuli to start exporting may be internal and related to different factors such as excess capacity, uniqueness of the product, the personal interests and competence of the decision maker, etc. The stimuli may also be external such as a saturated home market, better prices in export markets, etc. But the most common external stimulus is the unsolicited order, indicating that the initiation of exporting was an unplanned event. For the smallest firms, external stimuli for starting exporting are more commonly found than internal stimuli (Miesenbock, 1988: 45) suggesting a reactive pattern. Miesenbock in his literature review (*op cit.*: 44) found that very commonly studies on export development suggest that enterprises proceed through several stages before being established as an experienced and stable exporter. Although challenged (Strandskov, 1985; Turnbull, 1987; Andersen, 1993; Leonidou and Katsikeas, 1996) this notion of development through stages is still used and supported by contemporary authors (Rao

and Naidu, 1992; Chetty and Hamilton, 1996; Christensen and Jacobsen, 1996; Gankema *et al*, 1996). But, what happens to the enterprise that never proceeds through these stages but continues to receive export orders irregularly? What are the factors in the surroundings of the enterprise that influence the transition from irregular to regular exporter? Are the intermittent exporters more or less successful, by other measures, than the stable exporter?

This range of questions outlines the research objective which has four major aspects:

1. to confirm the existence of other change patterns than incremental growth,
2. to analyse the relationship between export regularity and the size of the firm,
3. to identify external factors that influence export regularity, and to analyse the relationship between these factors and export regularity, and
4. to analyse how export regularity influences enterprise performance.

Underlying this objective is the assumption that small enterprises may successfully pursue a strategy that exploits flexibility in lieu of persistence. The manifestation of flexibility will be that exporting is irregular or intermittent; the manifestation of persistence will be that exporting is stable or increasing.

The research objective can be further specified by the following questions:

- What categories of change patterns can be found for exporting, and how frequently are the different patterns found?
- Which are the internal and external factors that characterise the irregular and intermittent exporters?
- Specifically, is it so that the smallest firms exploit their flexibility by persisting as irregular or intermittent exporters? If yes, is there a critical enterprise size where

