

University of Fribourg (Switzerland)  
Faculty of Economics and Social Sciences

**Internationalization of Swiss SMEs:  
State, Performance &  
Influencing Factors**

**Thesis**

presented to the Faculty of Economics and Social Sciences  
at the University of Fribourg (Switzerland)  
to obtain the doctoral degree in Economics and Social Sciences

By

**Marie BRECHBÜHLER PEŠKOVÁ**  
from Srstice (Czech Republic)

Accepted by the Faculty of Economics and Social Sciences  
on 17<sup>th</sup> October 2006

on the recommendation of  
Prof. Dr. Rudolf GRUENIG (First Advisor) &  
Prof. Dr. Eric DAVOINE (Second Advisor)

Fribourg (Switzerland)  
2006

The Faculty of Economics and Social Sciences at the University of Fribourg neither approves nor disapproves the opinions expressed in a doctoral dissertation. They are to be considered those of the author.  
(Decision of the Faculty Council of 23 January 1990).

To the memory of my father, Vlastimil Pešek  
and of my grandfather, Karel Pešek

## **Acknowledgements**

Throughout my work on this thesis, many people have supported and helped me in various ways. My thank goes to all of them.

I wish to thank all those who participated in the empirical study of this thesis. Without the information they shared, this study would not have been possible. On the one hand, my thanks go to all those SMEs who were ready to participate in this study. On the other hand I wish to thank the three interviewed experts (Gabriela Kleiner, Alfred Rechsteiner, and Daniel Heuer) who shared their detailed, rich knowledge and experience with me. Their insight has greatly enriched my understanding of internationalization and improved the study.

I would like to thank my first advisor, Prof. Dr. Rudolf Grünig, for having accepted me as a doctoral student and assistant to the Chair of Management. From the start, he provided me with many critical but also helpful comments on my work. I am especially grateful for his careful lecture and the subsequent exchange of ideas on a first draft of this thesis. Furthermore, many thanks must be given to my second advisor, Prof. Dr. Eric Davoine for his valuable questions and remarks on this thesis. I greatly appreciated his care for methodological accurateness.

I wish to give special thanks to Dr. Hans Ulrich Pestalozzi, former CEO of Bayer International S.A., Fribourg (Switzerland) for supporting the work on this thesis financially. For numerous discussions of methodological and statistical matters and his invaluable input I would like to thank Dr. Alex Fischer. I would also like to acknowledge my brother Karel Pešek and Jan Vratný for elaborating the online questionnaire and for making the data available in a format suitable for statistical analysis.

My heartfelt thanks go to my Swiss family for the careful proofreading this thesis carefully and for their valuable hints at misleading expressions and presentations.

In closing I believe that no words could express my deepest appreciation for my husband Matthias, his unconditional support and willingness to think hard about solutions of tough scientific issues.

# Table of Contents

<b>1 Introduction.....</b>	<b>1</b>
1.1 Relevance of the Topic.....	1
1.2 Objectives.....	4
1.3 Research Methodology.....	5
1.4 Structure of the Thesis.....	7
<b>2 Literature Relevant for SMEs' Internationalization.....</b>	<b>9</b>
2.1 Overview.....	9
2.2 SMEs.....	10
2.3 Internationalization.....	13
2.4 SME Internationalization Framework.....	17
2.5 Internationalization Theories.....	21
2.6 Empirical Studies Regarding Internationalization of SMEs.....	29
2.7 Empirical Studies Regarding the Internationalization of Swiss SMEs .....	43
2.8 Conclusions.....	50
<b>3 Conceptual Framework, Research Hypotheses and International Performance Measure.....</b>	<b>52</b>
3.1 Overview.....	52
3.2 Conceptual Framework.....	52
3.3 Research Hypotheses .....	58
3.4 Measure of Internationalization Performance.....	71
<b>4 Empirical Study.....</b>	<b>74</b>
4.1 Overview.....	74
4.2 Research Design.....	75
4.3 Quantitative Study.....	77
4.4 Qualitative Interviews.....	111
<b>5 Results of the Empirical Study.....</b>	<b>115</b>
5.1 Overview.....	115
5.2 Quantitative Study.....	115

5.3 Qualitative Interviews.....	186
<b>6 Conclusions.....</b>	<b>202</b>
6.1 Overview.....	202
6.2 Key findings of the Thesis put into Context with Current Academic Knowledge.....	202
6.3 Implications for Swiss SME Managers.....	214
<b>7 Final Remarks.....</b>	<b>222</b>
<b>8 Bibliography.....</b>	<b>224</b>
<b>Appendix.....</b>	<b>235</b>

# Table of Contents

<b>1 Introduction.....</b>	<b>1</b>
1.1 Relevance of the Topic.....	1
1.2 Objectives.....	4
1.3 Research Methodology.....	5
1.4 Structure of the Thesis.....	7
<b>2 Literature Relevant for SMEs' Internationalization.....</b>	<b>9</b>
2.1 Overview.....	9
2.2 SMEs.....	10
2.3 Internationalization.....	13
2.3.1 Exporting.....	15
2.3.2 Direct Investment.....	16
2.3.3 License.....	16
2.3.4 Joint Venture.....	17
2.4 SME Internationalization Framework.....	17
2.5 Internationalization Theories.....	21
2.5.1 Classical and Neoclassical Theories of International Trade.....	21
2.5.2 The Stage Model of Internationalization.....	23
2.5.3 Contingency Theories.....	26
2.5.3.1 Transaction Costs Theory.....	26
2.5.3.2 Eclectic Paradigm.....	28
2.6 Empirical Studies Regarding Internationalization of SMEs.....	29
2.6.1 Descriptive Studies.....	30
2.6.1.1 Interstratos Project.....	31
2.6.1.2 OECD Study Regarding SMEs and globalization.....	32
2.6.1.3 The European Observatory for SMEs.....	32
2.6.2 Influencing Factors Studies.....	33
2.6.3 Case Studies.....	34
2.6.4 Profile Studies.....	36
2.6.5 Performance Studies.....	38
2.7 Empirical Studies Regarding the Internationalization of Swiss SMEs.....	43
2.7.1 Osec Study.....	45
2.7.2 Interstratos Project.....	46
2.7.3 OECD Study.....	47
2.7.4 The European Observatory for SMEs.....	48
2.7.5 SFSO Study.....	48

2.7.6 Summary of the Quantitative Findings Regarding Swiss SME Internationalization .....	49
2.8 Conclusions.....	50
<b>3 Conceptual Framework, Research Hypotheses and International Performance Measure.....</b>	<b>52</b>
3.1 Overview.....	52
3.2 Conceptual Framework.....	52
3.3 Research Hypotheses .....	58
3.3.1 Hypotheses with Regard to the Characteristics of the Company.....	60
3.3.2 Hypotheses with Regard to the Characteristics of the Internationalized Product .....	61
3.3.3 Hypotheses with Regard to Management Decisions.....	64
3.3.4 Hypotheses with Regard to International Experience .....	68
3.3.5 Hypotheses with Regard to the Characteristics of the Target Market.....	69
3.4 Measure of Internationalization Performance.....	71
3.4.1 Objective Achievement.....	72
3.4.2 Management Satisfaction.....	72
3.4.3 Absolute Profitability.....	72
3.4.4 Relative Profitability.....	73
3.4.5 Intensity.....	73
<b>4 Empirical Study.....</b>	<b>74</b>
4.1 Overview.....	74
4.2 Research Design.....	75
4.3 Quantitative Study.....	77
4.3.1 Research Questions.....	78
4.3.1.1 The First Research Question: The Actual State of Internationalization of Swiss SMEs.....	79
4.3.1.2 The Second Research Question: How Successful are the International Activities of Swiss SMEs?.....	79
4.3.1.3 The Third Research Question: Which Internal Factors of Swiss SMEs are Associated with Their Internationalization Performance?.....	80
4.3.2 Research Subject.....	80
4.3.2.1 The First Research Subject: The Swiss SME .....	80
4.3.2.2 The Second Research Subject: The Swiss SME's Internationalization Case.....	80
4.3.3 Research Sample.....	81
4.3.3.1 The First Research Sample: Swiss SMEs.....	81
4.3.3.2 The Second Research Sample: Internationalized Swiss SMEs.....	82
4.3.4 Operationalization of Research Hypotheses.....	82
4.3.4.1 Operationalization of the Dependent Variable.....	83



4.3.4.2 Operationalization of the Independent Variables.....	86
4.3.5 Questionnaire.....	99
4.3.6 Pilot Study.....	101
4.3.7 Data Collection.....	101
4.3.8 Data Processing.....	103
4.3.9 Data Analysis.....	104
4.3.9.1 Evaluation Concept.....	104
4.3.9.2 Methods Used in the First Evaluation Stage.....	107
4.3.9.3 Methods Used in the Second and the Third Evaluation Stage.....	108
4.4 Qualitative Interviews.....	111
4.4.1 Research Objectives.....	112
4.4.2 Research Sample.....	112
4.4.3 Questionnaire .....	113
4.4.4 Data Collection.....	113
4.4.5 Data Processing and Analysis.....	114
<b>5 Results of the Empirical Study.....</b>	<b>115</b>
5.1 Overview.....	115
5.2 Quantitative Study.....	115
5.2.1 General Remarks.....	115
5.2.1.1 The Structure of the Sample of Swiss SMEs.....	117
5.2.1.2 The Structure of the Sample of Internationalization Cases of Swiss SMEs.....	118
5.2.2 Descriptive Results.....	121
5.2.2.1 The State of Internationalization of Swiss SMEs .....	121
5.2.2.2 The International Performance of Swiss SMEs.....	142
5.2.3 Relational Results.....	158
5.2.3.1 Exporting.....	158
5.2.3.2 Direct Investment.....	173
5.3 Qualitative Interviews.....	186
5.3.1 The State of Internationalization of Swiss SMEs.....	186
5.3.2 The International Performance of Swiss SME.....	187
5.3.3 Relational Results .....	188
5.3.3.1 Exporting.....	188
5.3.3.2 Direct Investment.....	194
5.3.3.3 Summary of the Results Validation by Experts.....	199
<b>6 Conclusions.....</b>	<b>202</b>
6.1 Overview.....	202
6.2 Key findings of the Thesis put into Context with Current Academic Knowledge.....	202
6.2.1 The State of Internationalization of Swiss SMEs.....	202

6.2.2 The International Performance of Swiss SME.....	205
6.2.3 Identification of Associations between the Internal Factors of a Swiss SME and its Internationalization Performance.....	207
6.2.3.1 Identification of Associations between the Internal Factors of Swiss SMEs and Their Export Performance.....	208
6.2.3.2 Identification of Associations between the Internal Factors of Swiss SMEs and Their Direct Investment Performance.....	211
6.2.3.3 Comparison of the Internal Factors Associated with Export and Direct Investment Performance of Swiss SMEs.....	213
6.3 Implications for Swiss SME Managers.....	214
6.3.1 General Implication for Swiss SME Internationalization.....	214
6.3.2 Implications for Swiss SME Exporting.....	215
6.3.3 Implications for Swiss SME Direct Investment.....	218
<b>7 Final Remarks.....</b>	<b>222</b>
<b>8 Bibliography.....</b>	<b>224</b>
<b>Appendix A.....</b>	<b>235</b>
<b>Appendix B.....</b>	<b>258</b>
<b>Appendix C.....</b>	<b>269</b>
<b>Appendix D.....</b>	<b>270</b>
<b>Appendix E.....</b>	<b>272</b>

## List of Tables

Table 1: Size Categories of SMEs.....	11
Table 2: Size Categories of Swiss Enterprises.....	13
Table 3: Overview of the Case Studies in the Field of SME Internationalization.....	35
Table 4: Overview of Profile Studies in the Field of SME Internationalization.....	37
Table 5: Overview of Performance Studies in the Field of SME Internationalization.....	40
Table 6: Summary of Quantitative Findings Regarding Swiss SME Internationalization.....	49
Table 7: Overview of Quantitative and Qualitative Research Approaches .....	76
Table 8: Scoring Model of Internationalization Performance.....	86
Table 9: Operationalization of the Hypotheses with Regard to Company Characteristics .....	87
Table 10: Operationalization of Hypotheses with Regard to Internationalized Product Characteristics .....	88
Table 11: Operationalization of Hypotheses with Regard to Management Decisions.....	92
Table 12: Operationalization of the Hypothesis with Regard to International Experience .....	94
Table 13: Operationalization of the Hypotheses with Regard to Target Market Characteristics.....	95
Table 14 Overview of Operationalization Hypotheses.....	98
Table 15: Response Rates of Empirical Surveys.....	103
Table 16: Link Functions of Ordinal Regression.....	110
Table 17: Structure of the Sample of Swiss SMEs.....	118
Table 18: The Origin of the Sample of Swiss SME Internationalization Cases.....	118
Table 19: Structure of the Sample of Swiss SME Internationalization Cases .....	120
Table 20: Correlations between Swiss SME Characteristics and Their International Activity.....	125
Table 21: Internationalization Forms of Swiss SMEs.....	126

Table 22: Characteristics of Swiss SMEs Export Cases.....	129
Table 23: Characteristics of Swiss SME Direct Investment Cases.....	133
Table 24: Characteristics of Swiss SME Licensing Cases.....	137
Table 25: Characteristics of Swiss SMEs Joint Venture Cases.....	141
Table 26: Swiss SME Export Performance.....	146
Table 27: Swiss SME Direct Investment Performance.....	150
Table 28: Swiss SME Licensing Performance.....	153
Table 29: Swiss SME Joint Venture Performance.....	156
Table 30: Overview of Swiss SME Internationalization Performance.....	157
Table 31: Overview of Relationship Results of Swiss SME Export Cases .....	159
Table 32: Overview of Relational Results of Swiss SME Direct Investment Cases.....	174
Table 33: Experts' Estimates of Internationalization Forms of Swiss SMEs .....	186
Table 34: Experts' Estimates of SME Internationalization Performance.	187
Table 35: Experts' Indications of Export Performance Influences.....	190
Table 36: Experts' Indications of Direct Investment Performance Influences.....	195
Table 37: Overview of Hypotheses Test and Its Validation by Experts...	201
Table 38: Comparison of SMEs' Internationalization Studies.....	203
Table 39: International Performance of Swiss SMEs.....	206
Table 40: Exporting Models OLS Assumption Tests.....	267
Table 41: Direct Investment Models OLS Assumption Tests.....	268

## List of Figures

Figure 1: Objectives of the Thesis.....	4
Figure 2: Research Methodology of the Thesis.....	6
Figure 3: Structure of the Thesis.....	7
Figure 4: Model of Export Performance.....	19
Figure 5: Model of Export Success.....	20
Figure 6: Conceptual Framework for Export Development Strategy and Performance.....	20
Figure 7: Conceptual Model of the Role of Export Strategy on Export Performance.....	21
Figure 8: Conceptual Framework of Export Performance.....	21
Figure 9: Comparison of Stage Models.....	27
Figure 10: Factors Influencing SME Internationalization.....	34
Figure 11: Conceptual Framework of the Thesis.....	56
Figure 12: Hypotheses Groups in the Context of the Conceptual Framework of the Thesis.....	59
Figure 13: Overview of the Research Design.....	77
Figure 14: Quantitative Study Process.....	78
Figure 15: Evaluation Concept of the Thesis.....	106
Figure 16: Empirical Surveys and Research Questions of the Thesis.....	117
Figure 17: State of Internationalization of Swiss SMEs.....	121
Figure 18: Age of Internationalized SMEs.....	122
Figure 19: Age of Domestic SMEs.....	122
Figure 20: Size (number of employees) of Internationalized SMEs.....	122
Figure 21: Size (number of employees) of Domestic SMEs.....	122
Figure 22: Size (Average Turnover) of Internationalized SMEs.....	123
Figure 23: Size (Average Turnover) of Domestic SMEs.....	123
Figure 24: Industry Sector of Internationalized SMEs.....	123
Figure 25: Industry Sector of Domestic SMEs.....	123
Figure 26: Legal Forms of Internationalized SMEs.....	124
Figure 27: Legal Forms of Domestic SMEs.....	124
Figure 28: Internationalization Forms of Swiss SMEs.....	126

Figure 29: Objective Achievement of Swiss SME Export Cases.....	143
Figure 30: Management Satisfaction with Swiss SME Export Cases.....	143
Figure 31: Absolute Profitability of Swiss SME Export Cases.....	144
Figure 32: Relative Profitability of Swiss SME Export Cases.....	144
Figure 33: Intensity of Swiss SME Export Cases.....	145
Figure 34: Overall Performance of Swiss SME Export cases.....	145
Figure 35: Histogram of Overall Performance of Swiss SME Export Cases .....	145
Figure 36: Objective Achievement of Swiss SME Direct Investment Cases .....	147
Figure 37: Management Satisfaction with Swiss SME Direct Investment Cases.....	147
Figure 38: Absolute Profitability of Swiss SME Direct Investment Cases .....	148
Figure 39: Relative Profitability of Swiss SME Direct Investment Cases 148	
Figure 40: Intensity of Swiss SME Direct Investment Cases.....	148
Figure 41: Overall Performance of Swiss SME Direct Investment Cases .....	149
Figure 42: Histogram of Overall Performance of Swiss SME Direct Investment Cases.....	149
Figure 43: Objective Achievement of Swiss SME Licensing Cases.....	150
Figure 44: Management Satisfaction with Swiss SME Licensing Cases.	150
Figure 45: Relative Profitability of Swiss SME Licensing Cases.....	151
Figure 46: Intensity of Swiss SME Licensing Cases.....	151
Figure 47: Overall Performance of Swiss SME Licensing Cases.....	152
Figure 48: Histogram of Overall Performance of Swiss SME Licensing Cases.....	152
Figure 49: Objective Achievement of Swiss SME Joint Venture Cases..	153
Figure 50: Management Satisfaction with Swiss SME Joint Venture Cases .....	153
Figure 51: Absolute Profitability of Swiss SME Joint Venture Cases.....	154
Figure 52: Relative Profitability of Swiss SME Joint Venture Cases.....	154
Figure 53: Intensity of Swiss SME Joint Venture Cases.....	155
Figure 54: Overall Performance of Swiss SME Joint Venture Cases.....	155

Figure 55: Histogram of Overall Performance of Swiss SME Joint Venture Cases.....	155
Figure 56: International Experience vs. Geographical Scope of Export Cases .....	170
Figure 57: International Experience vs. Internationalization Scope of Export Cases.....	170
Figure 58: International Experience vs. Overall Performance of Export Cases.....	173
Figure 59: Performance of Direct Investment Cases Relying on Quality and Price of Product.....	177
Figure 60: Performance of Direct Investment Cases Relying on Homogenous Customers' Needs and Price of the Product.....	177
Figure 61: Performance of Direct Investment Cases and International Experience.....	184

**List of Abbreviations**

CAN	Canada
Eurostat	Statistical Office of the European Communities
E1-E3	First Expert - Third Expert
DEN	Denmark
FIN	Finland
GBR	Great Britain
IND	India
IRL	Ireland
ISO-9000	International quality standards
ITA	Italy
M1-M7	First Model - Seventh Model
MNE	Multinational enterprises
NED	Netherlands
NOR	Norway
NZL	New Zealand
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary least square method
Osec	Osec Business Network Switzerland
$R^2$	Regression coefficient
R&D	Research and development
SIN	Singapore
SME	Small and middle sized enterprises
SFSO	Swiss Federal Statistical Office
SWE	Sweden
SWZ	Swaziland
USA	United States of America



# 1 Introduction

## 1.1 Relevance of the Topic

Globalization is the current trend. It is driven by multiple factors. On one hand there are considerable advances in production, transportation and communication technologies. On the other hand, globalization is supported by politically driven processes: the rapid growth and integration of Asian Pacific countries, the development of new market economies – particularly in Eastern Europe – and the formation and strengthening of regional trading blocks such as the European Union, the North American Free Trade Agreement, Mercosur, etc. In fact, the concept of “interlinked economies” has become reality; where regional blocks, by removing many of the market entry and exit barriers become more powerful than nation states (Etemad, 200, p. 2).

All this leads to an increasing homogeneity of markets. This has a twofold effect: Globalization has removed the barriers that segmented the national and international markets and separated small and large firms' competitive space (Etemad, 200, p. 1). As a consequence, all firms are facing the effects of increased international competition (Havens, 2002, p. 296) in increasingly “interlinked” markets (Etemad, 200, p. 2).

However, the same increasing homogeneity of the markets creates suitable conditions for the internationalization of firms (Porter, 1990). It produces new opportunities for the majority of firms, irrespective of their size, industry sector or market orientation. Consequently, “the internationalization of firms is occurring at an ever increasing pace (Malhotra/Agarwal/Ulgado, 2003, p. 1) – and the internationalization process is also becoming increasingly important for small and medium-sized enterprises (SMEs) (Havens, 2002, p. 296). This trend has also been registered by the Organization for Economic Co-operation and Development (OECD). As the OECD reports, SMEs are becoming increasingly international. An estimated 20 to 25% of manufacturing SMEs worldwide are currently involved in international activity on a regular basis (OECD, 1998, p.7), contributing about 25 to 35% to the world's manufacturing exports (OECD, 2000, p. 6).

Of course, these trends are also making their effects felt in Switzerland – due to the relatively small Swiss home market maybe even more than elsewhere.

Lehmann (2002) confirms that the increasing internationalization of Swiss SMEs is caused by higher competition in the home market as well as by rising opportunities in globalized markets. Emphasizing that “internationalization is not only a matter for big firms”, he calls for “further research and governmental policies in the field of internationalization of Swiss SMEs” (Lehmann, 2002, p. 10).

It is evident that many Swiss SMEs recognized the opportunity of going international. This has also been confirmed by empirical data<sup>1</sup> (Habersaart/Schönenberg/Weber, 2002, p. 53). However, it seems that only a small group of Swiss SMEs succeeds in international markets. According to the Swiss Federal Statistical Office (SFSO), only 4% of Swiss SMEs have exports that contribute more than 2/3 to their annual turnover (Jaeger, 1999). Even if there are no empirical data available regarding the success of Swiss SME internationalization, some authors such as Kages, Hürlimann and Cosi (2002, p. 15) as well as Hermann and Kotsch (2005, p.22) refer to a considerable number of unsuccessful internationalization attempts on the part of Swiss SMEs.

Similarly, Keng and Jiuan (1988) argue that “many small firms do not appear to be fully maximizing their potential gains from international business” (p. 27) – despite the obvious advantages and assumptions that SMEs possess. As worldwide providers of technological innovation, being able to adopt to environmental changes and being generally more flexible than large corporations, SMEs should be a good competitive force in international markets (Keng/Jiuan, 1988, p. 27).

Consequently, there is a need for researchers to focus on acquiring knowledge in the field of a firm's internationalization that enables them to draw normative implications for managers wishing to expand successfully into international markets (Aaby/Slater, 1989, p. 8; Dhanaraj/Beamish, 2003, p. 242).

Even though the phenomenon of internationalization is not new to the scientific world, the prevailing thrust of the developed body of literature is focused on large multinational enterprises (MNEs) as the unit of research. Nevertheless, awareness of the need to also extensively investigate the SME aspects of internationalization is growing (Chetty/Campbell-Hunt, 2003, p. 796).

---

<sup>1</sup> The census of enterprises of the Swiss Federal Statistical Office (SFSO) showed that an increasing number of Swiss SMEs were involved in exports. The data of the census of enterprises of 1995 confirmed that 11.26 % of Swiss SMEs were exporting (Jaeger, 1999).

After a substantial concentration of research on MNE and their internationalization during the last several decades, it is necessary to focus the investigations on SMEs (Kohn, 1997, p. 46). It is evident that there are major differences between SMEs and MNEs regarding their management and operations. These, as well as other factors such as limited financial and managerial resources have an impact on internationalization which consequently takes a different path than that of MNEs (Baird/Lyles/Orris, 1994).

Further, Porter's theory of national advantage states that the home nation is the source of the skills, the technology, etc. underpinning a firm's international competitive advantage. The differences in the national economic structure, values, cultures, institutions, and histories contribute profoundly to international competitive success (Porter, 1990, p. 19). Accordingly, it is necessary to focus the investigation on Swiss SMEs, as their international success depends on "the specific competitive advantage created and sustained through a highly localized process" (Porter, 1990, p.19).

However, the number of works conducted with regard to Swiss SMEs internationalization is limited. The research literature focused on the international behaviour of Swiss SMEs can be divided into two groups:

The first group of research conducted regarding the internationalization of Swiss SMEs includes mainly individual research projects or dissertations. These studies focus on specific aspects of internationalization (such as financial or cultural management) and the medium-sized firm prevails as the investigated research subject.<sup>2</sup>

The second group of research can be characterized as descriptive studies. These studies aim to contribute to a better understanding of SME internationalization. The majority of them were international research projects involving either European or OECD countries with Switzerland being one of the participants. The objectives of these research projects, their research subjects and investigated populations vary a lot.

Although all of the former studies contributed to a better understanding of Swiss SMEs' internationalization, the provided findings do not result in a current and complete picture of the state of Swiss SME internationalization. Furthermore, none of the previously-performed studies involved either the assessment of success of the international

---

<sup>2</sup> (Steiner, 1995), (Piller, 2000) and (Löser, 2000).

activities of Swiss SMEs, nor did they try to identify the factors that influence Swiss SMEs' success with internationalization<sup>3</sup>.

## 1.2 Objectives

This dissertation aims to explore the internationalization of Swiss SMEs. Figure 1 depicts three objectives defined for the thesis. The first two research objectives are descriptive, the third research objective is of a relational nature.

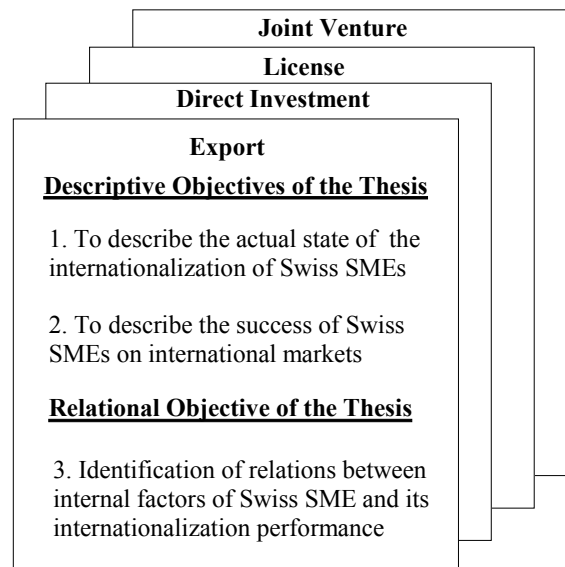


Figure 1: Objectives of the Thesis

First, this thesis aims to describe the actual state of internationalization of Swiss SMEs. Its intention is to compare the current state of Swiss SMEs' internationalization with the previously acquired data in order to be able to identify a trend.

Second, this thesis aims to describe the success of Swiss SMEs in their endeavors at internationalization. In other words, the thesis aims to measure the success of Swiss SMEs' in foreign markets. Thus, the dissertation intends to fill the current research gap regarding the internationalization performance of Swiss SMEs and aims to add a precious piece of knowledge to the scientific literature in this field. The thesis shall provide the first empirical findings regarding the international performance of Swiss SMEs.

<sup>3</sup> In fact, one of the international descriptive studies of SMEs, Interstratos, collected data regarding the success factors of internationalization. However, the respondents of the study were asked to pick the most important success factors from a list. No analysis of the association of these factors and internationalization performance was conducted in the Interstratos study.

The third objective of the thesis focuses on the identification of the relationships between the internal factors of a Swiss SME and its international performance. As such, it also aims at providing a piece of knowledge regarding the association of stable internal factors (such as the characteristics of the firm and its internationalized product) as well as unstable internal factors (such as target market characteristics, management decisions and international experience) with firms' international performance.

Moreover, this thesis aims to investigate four different forms of internationalization. These are exporting, foreign direct investment, licensing and joint venture. As shown in Figure 1 all three objectives of the thesis consider these four internationalization forms. In other words, the thesis intends to describe the internationalization of Swiss SMEs and their performance, distinguishing the internationalization forms of exporting, direct investment, licensing and joint ventures. Accordingly, it aims to identify the associations between the internal factors and the international performance of the four investigated internationalization forms and the differences between them.

### **1.3 Research Methodology**

The research methodology applied in the thesis is inspired by the research methodology suggested by Ulrich (1981, p. 20). As Figure 2 illustrates, the research process consists of the five steps described below:

Ulrich proposes to start the research process with the identification and comprehension of a practical problem. As described in section 1.1, p. 1, the current knowledge regarding Swiss SMEs' internationalization is insufficient. Therefore, this thesis aims to provide helpful implications for Swiss SME managers wishing to expand more successfully into international markets.

In the second step, literary research is conducted in order to acquire a thorough knowledge and comprehension of the existing theories of internationalization and the findings of empirical studies focused on SMEs. Special attention is dedicated to the secondary data collection of earlier empirical findings concerning Swiss SMEs.

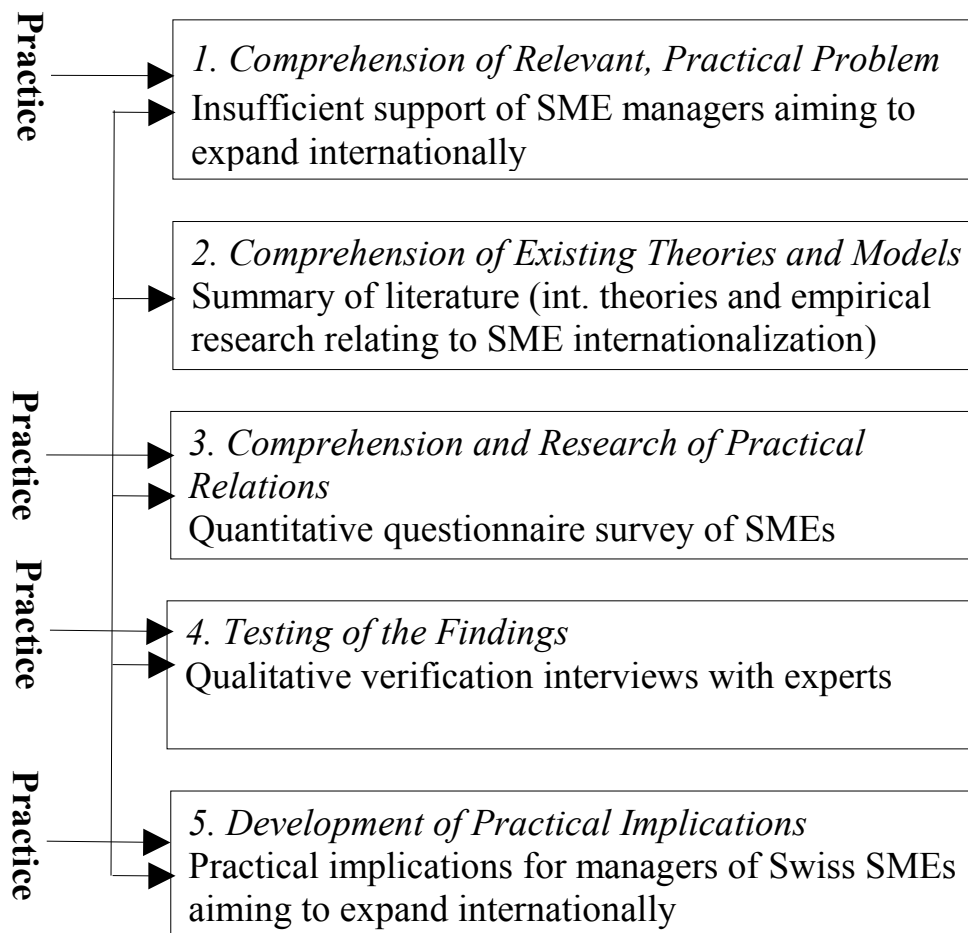


Figure 2: Research Methodology of the Thesis

The third step of the research process focuses on the comprehension of the actual state of Swiss SMEs' internationalization. Therefore, an empirical study of Swiss SMEs is conducted. A quantitative questionnaire survey enabling the investigation of large research samples is chosen as the appropriate method for data collection. In order to achieve the objectives of the thesis, an empirical study of Swiss SMEs as well as an empirical study of internationally active Swiss SMEs is realized. By means of the first study comprising all Swiss SMEs, the first objective of the study can be achieved. The study findings describe the actual state of the internationalization of Swiss SMEs. The second study focusing on Swiss internationally active SMEs delivers the data needed to investigate the second and third objectives of this thesis (i.e. the description of Swiss SME internationalization performance and the identification of relationships between the internal factors of Swiss SMEs and their international performance).

A further step of the research process Ulrich (1981, p. 20) suggests testing the acquired results in practice. A practical test of the findings, which would be very demanding and time consuming, is replaced by validation

interviews with experts in the current thesis research methodology. The qualitative cross-checking interviews with experts in the field of SME internationalization are believed to be an effective means of validating acquired descriptive and relational findings.

In the last step of the research process, the practical implications for Swiss SME managers are drawn from the acquired theoretical knowledge, the empirical findings and the cross-checking interviews with the experts. The implications developed are intended to help managers expand more successfully into international markets.

## 1.4 Structure of the Thesis

The structure of the presented thesis is shown in Figure 3.

<i>Chapter 1</i> Introduction
<i>Chapter 2</i> Literature Relevant for SMEs' Internationalization
<i>Chapter 3</i> Conceptual Framework, Research Hypotheses and International Performance Measure
<i>Chapter 4</i> Empirical Study
<i>Chapter 5</i> Results of the Empirical Study
<i>Chapter 6</i> Conclusion
<i>Chapter 7</i> Final Remarks

Figure 3: Structure of the Thesis

The first chapter of the thesis introduces the research problem. It shows the relevance of the topic, defines the objectives of the thesis and describes its research methodology.

The second chapter focuses on the review of the relevant literature in the field of SME internationalization. First, the main terms used in the thesis are defined, subsequently the relevant frameworks of SME internationalization and internationalization theories are presented. Finally, earlier empirical findings with regard to SME internationalization and especially to Swiss SME internationalization are analyzed.

The conceptual framework developed in order to help structure the investigations of the thesis is presented in the third chapter. Furthermore, the development of hypotheses that will be tested by the empirical study is presented.

The fourth chapter describes the design of both parts of the empirical study. First the design of the quantitative study and thereafter one of the qualitative interviews is discussed. The integral parts of the quantitative study, such as the research questions and objectives, the definitions of research subjects and samples, the operationalization of the hypotheses, the questionnaire design, the data collection and the data evaluation concept are described. Both empirical surveys conducted, i.e. the first survey concentrating all Swiss SMEs together and the second survey focusing on Swiss internationally active SMEs are reported in this chapter. Furthermore, the qualitative interviews, their objectives, samples, the questionnaire design as well as the data collection and analysis are described.

In the fifth chapter, the empirical findings of the thesis are presented. The results of the quantitative questionnaire survey as well as the qualitative cross-checking interviews are outlined.

The sixth chapter draws the conclusions of the thesis. It summarizes the key findings and puts them in context of current academic knowledge. Further, it deduces the practical implications for Swiss SME managers.

The final chapter assesses the achievement of the thesis's objectives and provides suggestions for future research.



## **2 Literature Relevant for SMEs' Internationalization**

### **2.1 Overview**

The second chapter is devoted to the theoretical background of the current thesis research topic – the internationalization of SMEs.

The chapter begins with the definitions of the crucial terms of the thesis and with the presentation of their background. First, Section 2.2, p. 10 outlines the different definitions of 'SME' used in the literature. Afterwards, the Swiss SME as the subject of the thesis research is defined. Consequently, the importance of SMEs for the Swiss economy is discussed.

Further, Section 2.3, p. 13 presents the various approaches taken by current literature to the term, 'internationalization'. The understanding of 'internationalization' within this thesis is revealed. Finally, the section concludes with definitions of the internationalization forms relevant to SMEs and investigated within the scope of this thesis.

Section 2.4, p. 17 deals with SME internationalization frameworks. An overview of the relevant frameworks is provided. The frameworks and models developed by Aaby/Slater (1989), Bijmolt/Zwart (1994), Naidu/Prasad (1994), Madsen (1989) and Cooper/Kleinschmidt (1985) are discussed thoroughly.

Subsequently, an overview of the relevant internationalization literature is provided. The body of scientific literature in the field of internationalization is very well developed. The views and approaches of the researchers in this area vary considerably. After an extensive review of internationalization literature, a limited number of theories are assessed to be relevant to the topic of this thesis. Consequently, the literature overview presented in this chapter only involves the work pertinent to SME internationalization. They can be divided into the following three groups: theoretical work, empirical studies focused on SME internationalization in general, and empirical studies focused on Swiss SME internationalization.

First, the relevant internationalization theories are presented. A number of theories were developed, aiming to describe the internationalization of companies during the last several decades. However, the majority of researchers focused on MNEs in their work. The overview of the most

important internationalization theories relevant to SMEs is presented in Section 2.5, p. 21.

Section 2.6, p. 29 covers the second group of the relevant works – the empirical studies focusing on SME internationalization. This very heterogeneous group consists of studies regarding various aspects of SME internationalization performed worldwide. These relevant studies are grouped into the following five categories: 'descriptive studies', 'influence factors studies', 'case studies', 'profile studies' and 'performance studies'.

The empirical studies focusing on Switzerland, i.e. on the internationalization of Swiss SMEs, are analyzed in Section 2.7, p. 43.

The final section of this chapter summarizes the contribution of the relevant theories and empirical findings to the understanding of Swiss SME internationalization. Consequently, Section 2.8, p. 50 draws conclusions for the purpose of the current thesis.

## 2.2 SMEs

As already mentioned above, this thesis deals with Swiss SMEs and their internationalization. Though, the definition of this research subject does not appear to be an easy task – at least not as long as there is no official Swiss definition of an SME (Habersaat/Schönenberg/Weber, 2002, p. 10). Additionally, the SME definitions used in literature and applied by the empirical research vary substantially.

The majority of the studies performed in Switzerland as well as abroad limit the definition of SME to the criterion of the number of employees. However, there is a certain development observed in connection to the definition of SME. It appears that in cases of studies conducted earlier (approximately before 1990), an SME is considered to be a firm employing less than 500 people<sup>4</sup> (Habersaat/Schönenberg/Weber, 2002, p. 11). The more recent research<sup>5</sup> (approximately since 1990) however, seems to apply a new threshold for SMEs – a firm employing less than 250 employees.

Additionally, there is a number of researchers using the same criterion of 'number of employees' in order to define an SME, but applying alternative thresholds. Madsen (1989), for example, defines an SME as a firm employing 20-200 people; Bijmolt/Zwart (1994), who also investigate

<sup>4</sup> Naidu/Prasad (1994) or Bonaccorsi (1992) apply the threshold of 500 employees as a criterion for SME in their studies.

<sup>5</sup> Boter/Holmquist (1996) or The European observatory for SMEs (1999) apply the threshold of 250 employees as a criterion for SME in their studies.

SMEs, defined them as firms with 5-200 employees. Keng/Jiuan (1988) as well as Magagula/Obben (2001) applied the threshold of 100 employees for SMEs in their work.

Rarely, there are also different criteria applied in empirical research in order to define an SME. If another criterion is used, it usually corresponds with the topic of the particular study. For example financial data (such as turnover or balance sheet data) used as a criterion to define an SME can be found in work focused on financing (e.g. Piller, 2000).

Despite the variety of definitions in literature, the currently appearing framework in order to define an SME, seems to be the definition of the European Union. It considers a company being defined as an SME, if it 'employs fewer than 250 people, has a turnover of less than EUR 40 million per annum or net balance sheet assets of less than EUR 27 million and is less than 25% owned by a larger company or companies (Habersaat/Schönenberg/Weber, 2002, p. 10).

It is assumed that the definition of the European Union is rapidly becoming the generally accepted framework for SME research. Especially as long as it is applied by the Statistical Office of the European Community (Eurostat) as well as various European research projects. Thereby, the definition is modified and the turnover and balance sheet criteria are left aside for reasons of practicability (Habersaat/Schönenberg/Weber, 2002, p.11).

Further, the large population of SMEs is often divided into three groups following the criterion of the number of employees. The categories presented by the SFSO and Eurostat (see Table 1) are commonly applied in literature (Habersaat/Schönenberg/Weber, 2002 and Jaeger/Helwig/Oleschak, 2003).

<b>Number of Employees</b>	<b>Category of SMEs</b>
1-9	smallest enterprises
10-49	small enterprises
50-249	medium enterprises

Table 1: Size Categories of SMEs

When studying SME internationalization, some of the researchers focused either on one of the size categories of the SMEs (e.g. Madsen, 1989), or they excluded the category of the smallest enterprises from their sample (e.g. Naidu/Prasad, 1994).

The smallest enterprises, which represent the most numerous group of SMEs, have been excluded from the scope of this thesis. This is justified by the lower probability of finding internationalized SMEs within this size category.

Consequently, the definition of SMEs used for the purpose of this thesis, is based on the definition of the European Union. It excludes the financial criteria, simplifies the ownership criterion for practicability reasons and excludes the category of the smallest enterprises as this is less relevant to the topic of this thesis. Further this thesis's definition focuses on the geographical region of German speaking part of Switzerland.

There are two reasons why the definition of the research subject – the Swiss SME – is restricted to the relatively small region of the German speaking part of Switzerland. First, it is argued that the firms within a same region execute their international activities under similar environmental conditions and complexity (Wolff/Pett, 2000, p. 39). Second the language border is respected within this study in order to limit problems with translations.

Accordingly, the definition of an SME for the purpose of this thesis reads as follows: The research subject is an independent firm with an annual average number of employees higher than 10 but not exceeding 249, being headquartered in the German speaking part of Switzerland.

Nevertheless, the review of the internationalization literature and especially the reports about the empirical research are performed regardless of the SME definitions used. It means that none of the literary sources is excluded due to differing definitions of the research subject. Consequently, the definitions of SME in the presented studies can differ substantially and therefore they are not directly comparable.

Similarly as in other European economies Switzerland is also dominated by SMEs. More than 99% of the enterprises in Switzerland employ less than 250 people. This proportion of enterprises' size categories has not changed significantly since 1985. According to the census of enterprises, conducted in 2001 by the SFSO, 99.7% of Swiss enterprises are SMEs (Jaeger/Helwig/Oleschak, 2003, p. 28). The development of the enterprises' size categories in the years 1985 to 2001 is depicted in Table 2.

	<b>Smallest &gt; 10 Employees</b>	<b>Small 10-49 Employees</b>	<b>Medium 50-249 Employees</b>	<b>SME &gt; 250 Employees</b>	<b>Large &lt; 249 Employees</b>
<b>1985</b>	85.00%	12.30%	2.30%	99.60%	0.40%
<b>1991</b>	85.80%	11.70%	2.10%	99.60%	0.40%
<b>1995</b>	86.90%	10.80%	1.90%	99.60%	0.40%
<b>1998</b>	88.20%	9.80%	1.70%	99.70%	0.30%
<b>2001</b>	87.90%	9.90%	1.80%	99.70%	0.30%

Table 2: Size Categories of Swiss Enterprises (Jaeger/Helwig/Oleschak, 2003, p.30)

According to the data of the SFSO from the year 2001, SMEs are not only the dominating group of Swiss enterprises (99.7%), they also ensure approximately two thirds of total employment. Thereby, approximately 60% of the total employment is held by the 'small enterprises' and the 'medium enterprises', i.e. firms employing 10-249 employees (SFSO, 2003, p. 278-280). Similarly, this group of enterprises dominates employment in the following European countries: Austria, Denmark, Luxembourg, Portugal, Norway and Island (OECD, 1998, p. 7).

It is evident that SMEs in Switzerland as well as worldwide account for a substantial share of current employment. Their importance with regard to economic growth, job creation as well as a number of social and society-connected issues is acknowledged by the scientific literature in the last decade (Knight, 2000, p. 12).

Moreover, the internationalization of Swiss economy is advancing. The increase of the inbound and outbound flows of goods and capital makes it evident. The volume of the cross-border flows is continuously increasing. The in- and outbound flows has grown by 60% and 50% respectively during 1991 - 2001 (SFSO, 2003, p. 278-280). This development not only affects large firms, the involvement of SMEs in the internationalization process is becoming more and more important.

As discussed in Section 1.1, p. 1, currently SMEs are also impacted by globalization trends. The growing interdependence of national economies and increasing competition, both leading to the loss of protected markets, as well as the new opportunities in international markets belong among the current effects of globalization. Consequently, Swiss SMEs are searching for ways to successfully internationalize in order to assure their sustainable growth.

## 2.3 Internationalization

There is no common consensus on the definition of 'internationalization' in the academic debate (Andersen, 1997, p. 28). Chetty and Campbell-Hunt

(2003) conclude that this term "...is ambiguous and the definitions vary" within the scientific literature (p. 798). Subsequently, several views on the definition of the 'internationalization of a firm' is provided.

Calof and Beamish (1995, p. 116) defined 'internationalization' from a procedural and organizational point of view as "the process of adapting a firm's operations (strategy, structure, resources, etc.) to international environments." It is evident that the authors' view emphasizes the internationalization path of MNEs rather than SMEs.

Further, a broadly used view involving both sides of the internationalization process, i.e. outward and inward flows, is the one of Welch and Luostarinen. They define 'internationalization' simply as "the process of increasing involvement in international operations" (Welch/Luostarinen, 1988, p. 36). However, this broad view does not correspond with the focus of this thesis, which emphasizes only outward internationalization. The reason for this is the focus on the expanding elements of SME internationalization. The findings of the thesis aim to lead to practical implications for managers of SMEs expanding in foreign markets.

In this respect the view of Chryssochoidis, Millar and Clegg (1997), focused only on the international expansion, corresponds more closely to the objectives of the thesis. They defined 'the internationalization' of a firm as "...entering and initially developing operations in another country" (Chryssochoidis/ Millar/Clegg, 1997, p. 3).

Another example of the definition of the outward internationalization of a firm is the one launched by the OECD. It states that 'internationalization' is a process in which a firm is "...seeking to compete beyond its national borders" (OECD, 1998, p.7).

In leaving the scope and the extent of the international activities open, the OECD approach seems to concur the best with the SME path of internationalization. Consequently, it also corresponds the best to the objectives of this thesis.

This is why internationalization within the scope of this thesis is understood as that defined by the OECD (OECD, 1998, p.7).

As stated above, this thesis focuses on the outward internationalization as defined above. Consequently, the investigations in the scope of this thesis deal with the expanding forms of internationalization and leave the typical inward international activity such as imports aside.

SMEs aiming to internationalize, meaning to enter a foreign market, need to select the particular, best fitting form for doing so. This 'way' is called 'the internationalization form', 'entry mode' (Root, 1994) or 'entry strategy' within international business literature. Regardless of the variety of the terms, the phenomenon can be defined as “an institutional agreement that makes possible the entry of a company's products, technology, human skills, management or other resources into a foreign country” (Root, 1994, p. 5). The term 'internationalization form' is used in the scope of this thesis.

Hill (1999) defines the following six internationalization forms: exporting, licensing, establishing a joint venture with a target country partner, direct investment in production sites in the target market, turnkey projects and franchising. The two last named forms are not considered to be suitable for SME internationalization, therefore they are not included in the investigations of this thesis. The other four internationalization forms are considered to be relevant for SME internationalization. Below they are described in detail and their definitions for the scope of the current thesis are provided.

### **2.3.1 Exporting**

Wolff and Pett (2002, p. 34) state that exports are the primary internationalization form of SMEs because they fit their capabilities by offering a great degree of flexibility combined with the minimal resource commitment.

According to Buckle (1898, p. 70) "exporting covers the indirect export of goods, through agents, distributors, merchant houses, trading companies, and a variety of other intermediaries, as well as the direct export of goods and services, i.e. delivery to final customers or exportation with the help of their own representation or a branch office". Its essential feature is that production activities are carried out in the home country whereas the marketing activities may be carried out in the host country. SMEs prefer to choose exporting at the beginning of their internationalization as it avoids significant costs and commitment. The main problem areas connected to exporting are represented transportation costs and tariff barriers (Buckle, 1989, p. 70). Both can make exporting uneconomical, especially in the case of bulk products.

Similarly to Buckley (1989), this thesis understands exports as both, direct and indirect exports. As such the focus is put on the production function which is performed in the home country in the case of exports. Furthermore, it is believed that the fact whether the SME performs the sales function on its own or not depends on the type of product and the

industry in which the company operates. Therefore, we believe that it is not necessary to distinguish between direct and indirect exports in the case of an investigation focusing on SMEs in all branches.

Consequently, exporting is defined as the indirect export of goods or services, through distributors, agents or any other kind of intermediaries as well as the direct export of goods or services through a firm's own representative office or subsidiary or the upright delivery to the final customer.

### **2.3.2 Direct Investment**

Hill (1999, p. 442) defines direct investment as an investment in a wholly-owned subsidiary, where a firm holds 100% of a stock. This can either be obtained by acquiring an existing firm or by setting up a new site in a target country. 'Direct investment' is also called 'foreign direct investment' in the internationalization literature, e.g. Root (1990) or Jaeger (2003).

The main advantages of direct investment are the full control over the operations and know-how competency. On the other hand this is the most costly and risky form of internationalization (Hill, 1999).

In the context of this thesis, direct investment is considered to be a production activity in the foreign country possibly combined with the sale function. Thereby the sales activity can either be performed only in the market of the production site or also in additional markets.

### **2.3.3 License**

According to Hill (1990, p. 436) licensing is an arrangement whereby a licensor grants intangible property rights to another entity, called the licensee, for a specified period and in return, the licensor receives a royalty fee as compensation for the rights to the intangible property from the licensee.

Licensing is an internationalization form offering advantages to both the licensee and the licensor. The licensee gains access to developed intellectual property and the licensor does not bear the costs and risks associated with the setting up of new operations. This can be very attractive in situations where the firm is not willing to commit its capital, or when it has a lack of it, or when the target country places any kind of barriers. The disadvantage of a licensing agreement for the owner of the



property is the limited control over its know-how and its use (Hill, 1999, p. 437).

Licensing is defined as follows for the purpose of this thesis: Licensing is granting the production and/or sales know-how (intellectual property) to a foreign partner (licensee entity) abroad in return for a licensing fee.

### **2.3.4 Joint Venture**

A joint venture entails establishing a firm that is jointly owned by two or more otherwise independent firms, typically in different countries. Joint ventures can be established in order to perform various functions, e.g. production, selling, marketing or research and development (R&D) activities. Each of the parties holds a participation stake in a new firm. The ownership proportion as well as other possible conditions are subject to an agreement (Hill, 1999, p. 440).

According to Hill (1990) the joint venture offers a number of benefits to a firm interested in performing a particular activity in a foreign country. The joint venture is recommended especially when the cultural distance of the country is big, because the local partner is familiar with the environment, the culture and the language. However, the disadvantages of a joint venture are similar to those of a license. The firm does not have perfect control over its know-how. Furthermore, the joint venture is a partnership with shared ownership which brings a potential risk of conflicts.

For the purpose of this thesis a joint venture is defined as a project jointly financed and owned with a foreign partner or partners abroad. The shared project can focus on various business and business related activities, such as production, marketing, sales or R&D.

## **2.4 SME Internationalization Framework**

A conceptual framework indicates how a researcher perceives an investigated phenomena and which factors and how they influence the phenomena. Several conceptual frameworks describing the phenomena of internationalization of firm can be found in the literature. Even if Andersen (1997, p. 30) states that concerning firm's internationalisation, there is "... not a general agreement on what should be labelled as a theory, conceptual framework or paradigm".

Taking the topic of this thesis into consideration, the existing frameworks focusing on the internationalization performance of SMEs are reviewed

thoroughly. All such frameworks found in the internationalization literature focus on exports. They explain the influences of different factors on export performance<sup>6</sup>. The following should provide an overview on the most important frameworks of export performance.

Based on a comprehensive review of the empirical findings in the field of a firm's internationalization, Aaby and Slater (1989) develop a model of export performance identifying its influencing factors. Their model is understood to be a synthesis of contemporary knowledge. They argue that "...in order to organise and focus export research efforts, the current export knowledge should be synthesised at two broad levels: the environmental level and the firm's business strategy and functional level" (Aaby/ Slater, 1989, p. 7).

Similarly, Reuber and Fischer (2002) conclude that the outcome of SME internationalization is affected by a range of factors related to the environment as well as to the firm's specific resources and capabilities (Reuber/Fischer, 2002, p. 30).

Thus, broad agreement regarding the categorization of the influencing factors as 'external'<sup>7</sup> and 'internal'<sup>8</sup> can be found in internationalization literature (e.g. Cooper/Kleinschmidt, 1985; Chetty/Campbell-Hunt, 2003 and Reuber/Fischer, 2002). However, the perceived importance of the particular influencing factors of and within these two groups varies a lot.

Nevertheless, the export performance model developed by Aaby and Slater (1989, p. 9) can be taken as a generic basis (Bijmolt/Zwart, 1994, p. 70). In addition to the external influences, Aaby/Slater (1989) include the internal influences in their framework which are depicted in Figure 4. They divided the internal factors into the three following categories: a firm's characteristics, competencies and strategy. The 'firm characteristics' category involves factors such as a firm's size and management's commitment to exporting. The following indicators are classified as a firm's competencies: technology, market knowledge and planning. Finally, the export strategy group of indicators includes, e.g. market selection, pricing and distribution.

---

<sup>6</sup> Consequently, some authors (such as Aaby and Slater, 1989 and Bijmolt and Zwart, 1994) call their framework 'export performance models'.

<sup>7</sup> The external factors of internationalization performance are also called 'environmental factors' in internationalization literature (Aaby/Slater, 1989; Reuber/Fischer, 2002).

<sup>8</sup> The internal factors of internationalization performance are also called 'firm factors', 'strategy factors' or 'managerial factors' in internationalization literature (Aaby/Slater, 1989).

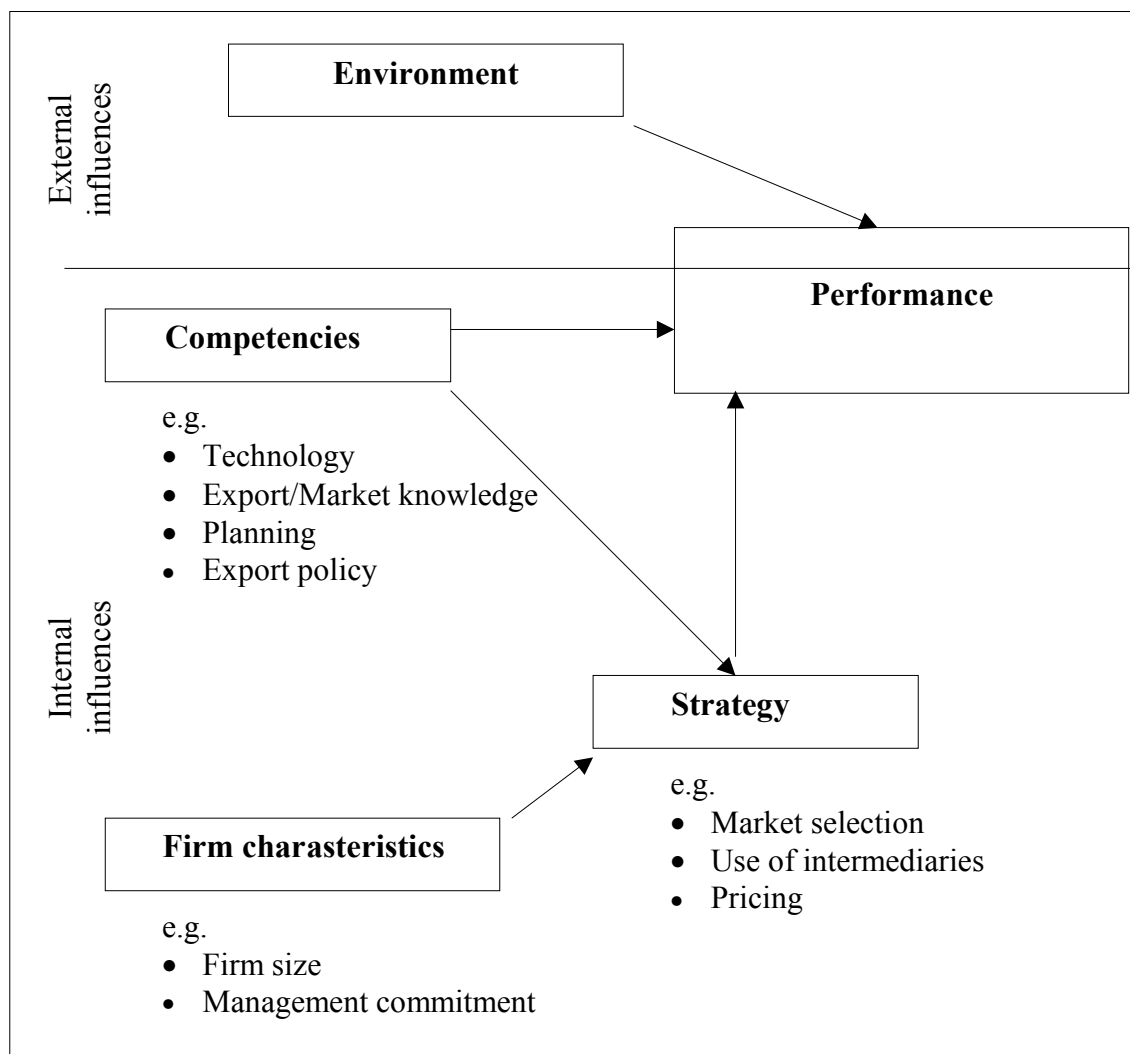


Figure 4: Model of Export Performance (Aaby/ Slater, 1989, p. 9)

Despite the acknowledgment of Aaby and Slater's export performance model, Bijmolt/Zwart (1994) criticize the grouping of internal influencing factors. They argue that when classifying internal factors, a primary distinction has to be made with regard to constancy. The indicators that are more or less constant (e.g. firm's size) have to be differentiated from the indicators that can be interpreted as export policy instruments (e.g. management attitudes towards exporting) (Bijmolt/Zwart, 1994, p. 71). Accordingly, Bijmolt and Zwart suggest an alternative categorization taking the constancy criterion into account. Their categorization of the influencing factors differentiating the more constant 'firm characteristics' and less constant 'export policy characteristics' is applied also by other researchers (e.g. Naidu/Prasad, 1994; Madsen, 1989).

The models of internal influencing factors of exporting developed by Bijmolt/Zwart (1994) and Naidu/Prasad (1994) are very similar. Both of them assume that the characteristics of a firm (i.e. its resources and competences) exert the major influence on that firm's export policy / export

development (strategy). Consequently, the export policy<sup>9</sup> leads to export performance. Bijmolt/Zwart's (1994) model of export success is depicted in Figure 5 and Naidu/Prasad's (1994) conceptual framework for export development strategy and performance is shown in Figure 6. Comparing Figure 5 and Figure 6 it is obvious, that whereas Bijmolt/Zwart (1994) keep their model limited and focus only on the internal influencing factors of export performance, Naidu/Prasad (1994) also consider the influences of external factors.

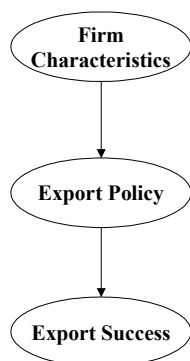


Figure 5: Model of Export Success (Bijmolt/Zwart, 1994, p. 79)

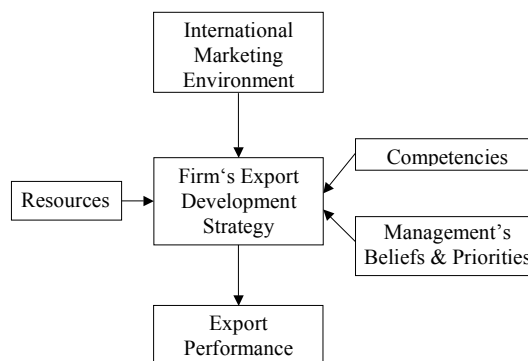


Figure 6: Conceptual Framework for Export Development Strategy and Performance (Naidu/Prasad, 1994, p. 110)

The frameworks suggested by Cooper/Kleinschmidt (1985, p. 39) and Madsen (1989, p. 43) are also very similar to the ones presented in Figure 5 and Figure 6. They assume that the three following groups of factors have an impact on export performance: the characteristics of a firm, its export policy/strategy and the target market.

In fact, the main difference between the work of Bijmolt/Zwart (1994), Naidu/Prasad (1994), Cooper/Kleinschmidt (1985) and Madsen (1989) concerns the influence of target market characteristics. Whereas the first two works include target market characteristics into the category of export policy, the later ones add a separate category regarding target market characteristics into their models. The conceptual model of the role of export strategy on export performance developed by Cooper/Kleinschmidt (1985) is shown in Figure 7 and the conceptual framework of export performance developed by Madsen (1989) in Figure 8.

<sup>9</sup> Whereas Bijmon/Zwart (1994) use the term 'export policy', it is called 'export development strategy' by Naidu/Prasad (1994).

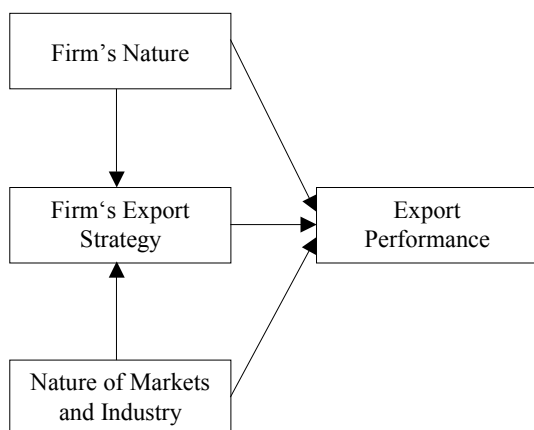


Figure 7: Conceptual Model of the Role of Export Strategy on Export Performance (Cooper/Kleinschmidt, 1985, p. 39)

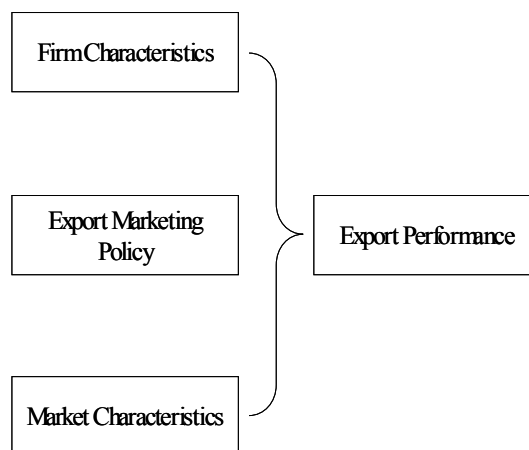


Figure 8: Conceptual Framework of Export Performance (Madsen, 1989, p. 43)

## 2.5 Internationalization Theories

According to Johnson/Vahle (1990, p. 22) the internationalization process is the result of a mixture of strategic thinking and actions, emerging developments, chance and necessity. Due to the tremendous complexity of the phenomenon, researchers face difficulties in developing a common concept for the internationalization process. In order to understand the internationalization process, knowledge has to be drawn from several theoretical fields; such as economic theory, organizational theory and marketing theory.

Despite the great complexity of the phenomenon referred to by Johnson/Vahle (1990), a respectable number of researchers have attempted to develop a common theory of internationalization. However, an extensive review of internationalization literature reveals that a majority of the developed theories focus on MNE rather than on SMEs. Therefore, only those theories that are at least partially relevant to the SMEs' internationalisation, are included in the following overview.

These theories can be divided into four main groups: classical and neoclassical theories of international trade, stage models, contingency theories and network theories.

### 2.5.1 Classical and Neoclassical Theories of International Trade

Classical and neo-classical economists focused on the mechanism of international trade and the theory of gain from the trade. From the body of

internationalization theories, the early economic literature of Smith (1776) and Ricardo (1870) represent the first discussions of the phenomena. They describe internationalization from the perspective of nations (Ohlen, 2002, p. 47).

The classical school of thought of Adam Smith explains international trade between countries through the absolute cost advantage. David Ricardo's school describes a comparative cost advantage as a trigger for international trade. Both of these theories assume immobile production factors and markets that operate efficiently (Root, 1994, p. 38). Due to the violation of these crucial assumptions of the classical schools in practice, their contribution to the understanding of internationalization is rather limited. Nonetheless these theories serve researchers as a basis for their further works.

For instance the neoclassical theory of international trade, developed by Hecker and Ohlin, is based on the classical theories. This approach asserts that countries specialize in the production of goods which require relatively large inputs of resources with which they are comparatively well endowed, and export these goods in exchange for others which require relatively large inputs with which they are poorly endowed (Root, 1994, p. 56).

The Hecker-Ohlin theorem is, however, not confirmed by empirical findings. The most often quoted study in this perspective is by Wassily Leontief<sup>10</sup>, published in 1953. It reveals that the lion's share of trade takes place between countries with similar degrees of industrialisation and not between countries with different factor advantages (Root, 1994, p. 56; Ohlen, 2002, p. 63).

The classical and neoclassical theories are economic in nature and as such are further developed within the discipline of international trade. However, the majority of more recent approaches to internationalization have focused on the internationalization process and, correspondingly, on behavioral theory regarding the internationalization of a firm (Fillis, 2001, p. 773). The classical and the neoclassical theories of international trade do not directly contribute to the understanding of SME internationalization, but they serve as a base for some further theories and models.

---

<sup>10</sup> In internationalization literature the study is also known as 'Leontief's Paradox'.

## 2.5.2 The Stage Model of Internationalization

The 'stage model'<sup>11</sup> is the predominant, best known and the most widely-used internationalization theory today (Johnson/Vahlne, 1990). Over the last several decades it has been generally used within internationalization literature and research as a contemporary paradigm.

The original 'Uppsala Model' of Johnson and Vahle (1977) is reviewed and improved continuously by the authors as well as by other researchers. Therefore a number of adaptations of the stage models can be found in internationalization literature. These 'versions' may vary with regard to the number of stages and their definition. However, the basic idea behind the model does not change. This approach is based on learning stages. The theory states that the internationalization of a company is an orderly, sequential process, the movement from one stage to the next is based on learning and the accumulation of experience from the previous stage (Johnson/Vahlne, 1977, 1990).

The stage models are commonly divided into two slightly different schools. The first of them is represented by the Swedish 'Uppsala Internationalization Model', the second one is the American 'Innovation Related Internationalization Model'. Both models share the view that the internationalization process is a slow and incremental one where firms increase their international activities in stages, i.e. by gaining experiential knowledge. Lack of this knowledge is seen by both schools as a dominant barrier to entering foreign markets. These two stage models differ significantly with respect to the initial phase of internationalization, i.e. the internationalization triggers.

The Uppsala school does not deal with the question of the triggers of the internationalization process at all. It states that the model does not intend to explain why firms start exporting (Johanson/Wiedersheim-Paul, 1975, p. 306).

The innovation models aim to identify the triggers of the internationalization process. However, the empirical results found in this field are not very consistent. Whereas Cavusgil (1980) affirms the role of internal firm factors, other studies propose the role of the entrepreneur (Brady/Bearden, 1979; Axinn, 1988) or the external factors (Aspelund/Moen, 2005) as the main motives of a firm's internationalization.

---

<sup>11</sup> A variety of names are used with respect to the stage model of internationalization in literature. The alternative names such as the 'stage theory', 'process model' or 'Uppsala school' can be found.

The master model of the Uppsala school assumes that internationalization is a consequence of a series of incremental decisions and that a company first develops in the domestic market before expanding into foreign markets (Johanson/Wiedersheim-Paul, 1975, p. 307). It distinguishes the following four stages of internationalization: 'no regular export activities', 'exporting via an independent representative such as an agent', 'sales subsidiary' and 'production abroad' (see Figure 9). The degree of involvement and commitment of the firm in the foreign market grows with the increasing stages. The model assumes that firms start in their home market and afterwards gradually internationalize in a stepwise manner. This allows the organization to build up its knowledge regarding cultures, languages, political systems, levels of industrial development, etc. (Johanson/Wiedersheim-Paul, 1975, p. 307).

Bilkey/Tesar (1977) belong to the group of authors modifying the original stage model based on their empirical findings. They identify six stages of the export process in the study of Wisconsin-based small and medium-sized manufacturing firms. According to their results the firms pertain to one of the following groups: 'the unwilling firm', 'the uninterested firm', 'the interested firm', 'the experimenting exporter', 'the semi-experienced exporter' or 'the experienced large exporter'.

Cavusgil (1980), who also adopts the original model of Johnson/Vahl (1977) based on empirical findings, has a different approach. He reviews and synthesizes the findings of a number of studies performed in the field of a firm's internationalization. Based on these findings he identifies the following generic stages of internationalization: 'domestic activity', 'pre-export stage', 'experimental involvement' and 'committed involvement'.

The comparison of the original stage model of Johanson/Vahle (1977, 1990) with the modified models of Bilkey/Tesar (1977) and Cavusgil (1980) is depicted in Figure 9.

In addition, some researchers attempt to develop the initial Uppsala stage model further (Chetty/Campbell-Hunt, 2003, p. 798). These attempts are represented for example by 'The management decision making process towards internationalization', published by Reid (1981), 'The evolution of a manufacturer's decision on entry mode' suggested by Root (1994) and 'The innovation-adoption internalization model' presented by Andersen (1993).

It was already mentioned that the stage model is considered to be the predominant internationalization theory. Therefore it is not surprising that its validity is continuously being questioned. Whereas most empirical studies seem to validate the stage theory of internationalization (e.g.



Rao/Naidu, 1992, p. 165; Cavusgil, 1984; p. 19, Su/Poisson, 1998, p. 9) others argue that their empirical findings do not support it (e.g. Chetty/Campbell-Hunt, 2003; Anderson, 2004). Additionally, other researchers find only limited support for the theory. For instance, Benito and Gripsrud (1992) and Forsgren (1989) argue that the stage model is relevant rather in the early stages of an internationalization process, when the lack of market knowledge and market resources are still constraining factors (Anderson, 2004, p. 855).

Further, a group of researchers focused on 'born globals'<sup>12</sup> (e.g. Kundu/Katz, 2003) or 'new ventures'<sup>13</sup> (e.g. Chandler/Hanks, 1994; Keogh/Evans, 1995; Kandasaami, 1998) present critiques of the stage model of internationalization. The above-named authors provide empirical evidence that a number of small companies are able to compete in international markets right from their foundation. In contrast to the stage theory assumption, they do not initially develop in their domestic markets and so they do not wait to gain experience prior to commencing their global commitment.

Fillis (2001, p. 774) summarizes the main limits of the stage theory identified by researchers in the following three points:

- Firms with large resources available experience smaller consequences of their international commitment and are able to take larger internationalization steps than suggested by the stage model.
- Firms who have gained experience in one market can generalize it to other markets with similar conditions rather than proceeding stages from the beginning.
- If the market conditions are stable and homogeneous, the information needed might also be captured by means other than experience

Though all the above-mentioned limitations of the theory are subsequently accepted by its authors, they published them as exceptions to the stage model in their more recent paper (Johnson/Vahlne, 1990, p. 12).

In summary, there is a common agreement that the stage model is not able to fully explain the international activities of a firm. Moreover the meaningful limits appear with regard to SME internationalization (Andersson/Gabrielsson/Wictor, 2004, p.23), which is the subject of this

<sup>12</sup> 'Born globals' are defined as firms that from their inception pursue a vision of becoming global and often globalize rapidly without any preceding long term domestic or internationalization period (Luostarinen/Gabrielsson, 2004).

<sup>13</sup> 'New ventures' is used as a synonym to 'born globals' in the literature (Conractor/Hsun/Kundu, 2005).

thesis. Nevertheless the stage model is currently perceived to be the most dominant and powerful paradigm of internationalization (Fillis, 2001, p. 774; Anderson, 2004, p. 856).

## 2.5.3 Contingency Theories

By developing contingency theories of internationalization, the authors' are partly driven by the need for an alternative to the dominant stage theories. The main concern of the contingency theories is to show that the internationalization process is dependent on the environment. This means that it is influenced by various factors such as market conditions, industry structure, company resources etc.. Contingency theories imply that the company is an open system, influenced by its environment. Consequently, there is no 'best way' for a company to internationalize.

A company's resources, opportunities and threats of its environment need to be analyzed first, in order to identify the most suitable internationalization pattern.

Consequently, two contingency theories are presented: Firstly the fundamental transaction costs theory with regard to a firm's internationalization and then the eclectic paradigm are described.

### 2.5.3.1 Transaction Costs Theory

The transaction costs theory assumes a bounded reality<sup>14</sup> and the potential opportunism of economic agents which prevents the market from working efficiently. In addition it states that using a market price mechanism generates costs. These costs are called 'transactional costs' and include both, 'ex ante costs' and 'ex post costs'. Whereas the finding of a correct price or negotiating contracts represent typical 'ex ante costs', monitoring and enforcing agreements fall under 'ex post costs'. According to the transaction costs theory, the costs of conducting an economic exchange may exceed the costs of organizing the exchange internally (within the firm). Consequently, if the transaction costs are high enough the firm prefers to internalize the activity instead of using market transactions (Root, 1994, p. 56; Malhotra/Agarwal/Ulgado, 2003, p. 5; Ohlen, 2002, p. 64).

---

<sup>14</sup> 'Bounded reality' is understood as the natural limitations in the cognitive abilities of economic agents to resolve complex situations (van Houtum, 1998, p. 64).

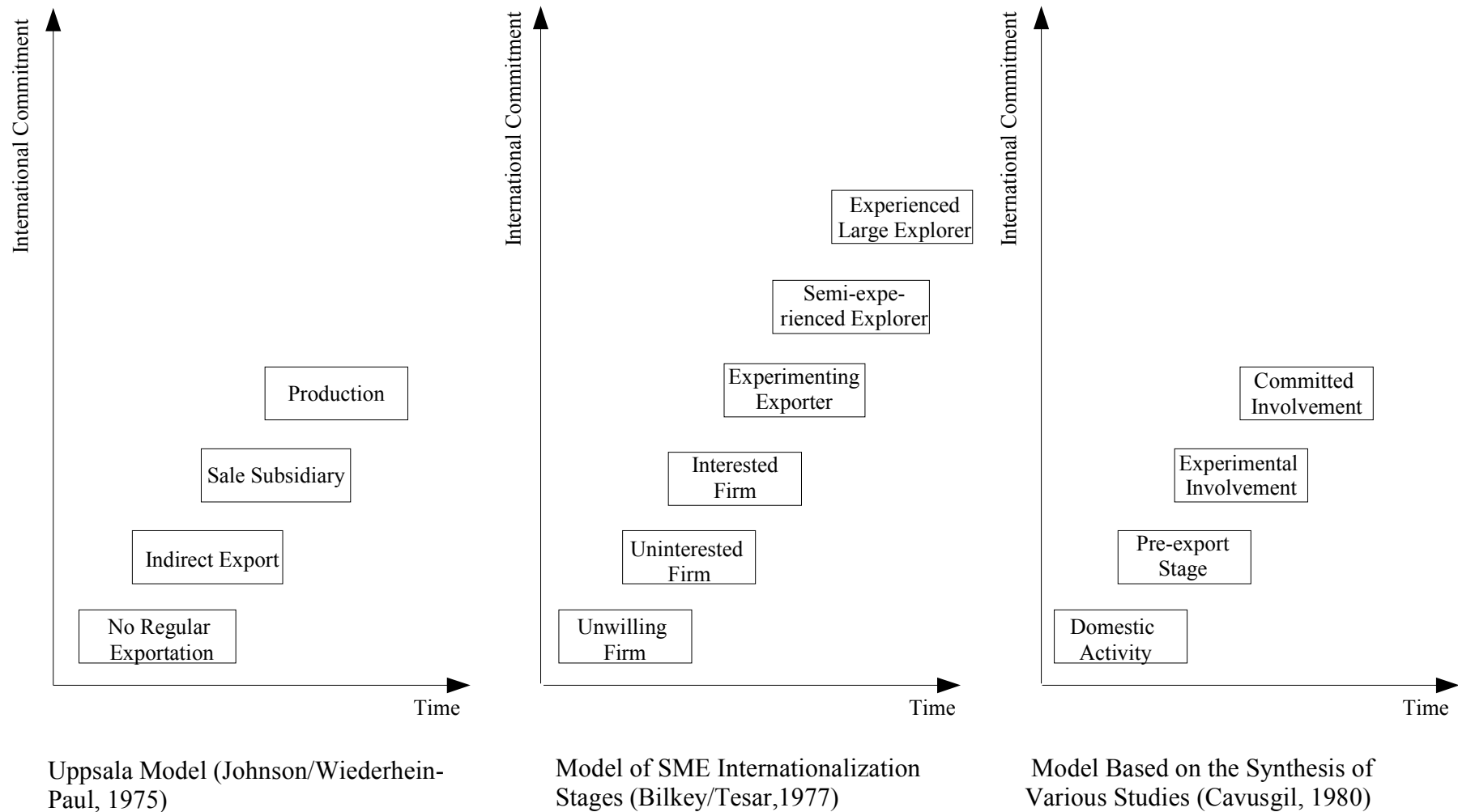


Figure 9: Comparison of Stage Models

The popularity of this theory has increased over the past decade. The approach has been broadened and also applied in connection with a firm's choice of foreign market entry modes. Malhotra, Agarwal and Ulgado (2003) suggest the use of the transactional theory when choosing the mode of internationalization (i.e. the internationalization form). They state that “while choosing the entry mode, a company needs to judge the value of control against the costs of resource commitment” (Malhotra/Agarwal/Ulgado, 2003, p. 6). This means that when transaction costs are low firms tend to rely on the market to deliver required target market benefits, but as costs increase they tend to switch to more hierarchical internationalization forms e.g. wholly-owned subsidiaries.

### 2.5.3.2 Eclectic Paradigm

John Dunning's work integrates the industrial organization theory, the international trade and location theory as well as the transaction cost theory into a multi-theoretical framework called the eclectic paradigm for foreign direct investment (Andersen, 1997, p. 35).

With the eclectic paradigm, Dunning tries to answer the following fundamental question: “When will a firm internalize an activity?”<sup>15</sup> The theorem provides a so-called 'OLI – formula'. It states that a company invests abroad if it possesses the ownership (O), the locational (L) and the internalization (I) advantage. Subsequently, each of the advantages, i.e. elements of the 'OLI - formula' is described (Dunning, 1988, p. 127-129):

- The ownership advantage considers the proprietary rights which provide a competitive advantage. The ownership advantage is a precondition for a firm to go international.
- The location specific advantage is derived from superior factor or demand endowment in the foreign country. The location specific advantage is a precondition for establishing production abroad.
- The internalization advantage, resulting from the transaction costs theory, assumes that it is more beneficial for the firm to exploit the ownership advantages internally, rather than to sell or to license them to a foreign entity. The internalization advantage is a precondition for investing abroad.

Thus, the eclectic paradigm defines the internationalization forms of exporting, license or foreign direct investment depending on the

---

<sup>15</sup> 'Internalized activity' means international activity. In other words, the question can be read this way: Under what conditions would a firm decide for a foreign direct investment?

availability of the 'OLI' advantages named above. However, in developing the eclectic paradigm, Dunning primarily considered the foreign direct investment activities of MNEs.

Fillis (2001, p. 774) states that "...given that many small firms do not progress beyond a certain stage, this framework will be largely redundant in explaining their [SMEs] internationalization behavior". He summarizes further that, in the case of SMEs, the contribution of the eclectic and transactional costs approaches is relevant rather at the later stages of the internationalization process.

## **2.6 Empirical Studies Regarding Internationalization of SMEs**

Empirical research in the field of internationalization is very heterogeneous. The variety of applied concepts and methods indicates that there is no common theoretical basis in this field.

The path of academic research of the internationalization phenomenon starts with the focus on entire countries, markets or industries (Smith, Ricardo, Hecker-Ohlin) rather than on an individual firm. Later the interest of researchers moves towards the firm level of internationalization and it is soon dominated by the investigations of MNEs. The majority of the studies focus on large US-based enterprises expanding internationally (e.g. Axinn, 1988; Root, 1994 and Hill, 1999). Subsequently, the researchers interest broadens further and currently it covers firms of all size categories and all geographical locations<sup>16</sup>.

A certain uniformity of empirical research in the field of a firm's internationalization persists with respect to the investigated internationalization forms, i.e. the overwhelming majority of the studies concentrate on exporting as the most common internationalization form. The research performed with regard to other internationalization forms is rather limited, in the case of SMEs almost non existent.

A review of empirical work is carried out in order to determine the investigated topics, research questions, research subjects, adopted methodologies as well as the research findings and conclusions of previously conducted research in the field of SME internationalization. The following sections are meant to provide a summary of current knowledge regarding SME internationalization. However it is neither

---

<sup>16</sup> However the focus of the research literature on the developed (i.e. Northern, Western) part of the world is obvious.

possible nor intended, to provide an entire review of the empirical studies performed in this field.

The body of empirical research on different issues of SME internationalization is sizable and well developed. Aiming to describe and to categorize the empirical work, the following interests of the researchers can be identified: The first group of studies aims to describe the international activities of an SME, either of a single country or a bigger region. The second group of studies is focused on factors influencing the internationalization decisions of SMEs. The researchers investigated the motives, drivers, decision-making factors as well as barriers and risks in order to help to develop policies to promote SME internationalization. The third group of studies covers a broad scope of interests, though it applies the same methodology. These studies are based on the qualitative method of 'case study' research, providing in-depth analysis of the different aspects of SME internationalization. The fourth group of studies investigates differences between exporting and non-exporting companies, elaborating on the profiles of the respective groups. Consequently, these works are often called profile studies. The final and also the smallest group of studies measures the export performance of SMEs. This group includes the empirical work most relevant to the context of this thesis. Additionally to the measurement of export performance, most of the authors also identify export success factors. These five respective groups of empirical research on SME internationalization are described in more detail below.

### 2.6.1 Descriptive Studies

Typically, this work aims to describe the internationalization behavior of SMEs in a particular country. Additionally, those projects with greater geographical scope were launched during the last decade. These projects are conducted by the international and/or regional organizations such as the OECD or the European Union. Regardless of their scope, descriptive studies intend to provide answers to the following fundamental research questions:

- What proportion of SMEs is internationally active?<sup>17</sup>
- How intensive are the international activities of SMEs? How important are international activities to SMEs?
- What are the typical target markets, their number, their physical and cultural distance?

---

<sup>17</sup> The overwhelming majority of the studies only examined the export activities of SMEs, leaving the other internationalization forms aside.

As mentioned above, the descriptive studies can be distinguished with regard to their geographical scope. Whereas most of the researchers focus on SMEs in a single country, other research projects overlap a country's borders. Such a single country study is conducted, e.g. by Wolter (1999) who focused on Brazilian SME internationalization in the context of Mercosur. In addition, Boocock/Anderson (2003) investigate the internationalization of English SMEs, its reasons, readiness and the roles of governmental support. European examples of regional studies are the Interstratos Project and The European Observatory for SMEs. The scope of the OECD study on SME globalization extends beyond the border of Europe.

Furthermore, only the projects with broader geographical scope are discussed in detail. These projects provide general knowledge regarding SME internationalization, which is more relevant to this thesis than the findings of the particular country studies. Additionally, the contribution of the international research projects to the understanding of Swiss SME internationalization is discussed in Section 2.7, p. 43.

### 2.6.1.1 Interstratos Project

Interstratos stands for the Internationalization of Strategic Orientations of European Small and Medium Enterprises. The purpose of the Interstratos Project is to study the internationalization strategies of small and medium-sized European manufacturing enterprises. One of the main interests is to explore the influence of environmental changes (such as the creation of the European Union in 1992) on the internationalization strategies of European SMEs. The survey has been conducted repeatedly from 1991 until 1995. Eight European countries are participating in the project<sup>18</sup>. The sample of SMEs for the purpose of the Interstratos Project is drawn from a group of companies from five selected manufacturing industries that employ less than 500 people<sup>19</sup>. The comparative study is focused on the following topics:

- the development of the values, perspectives and objectives of the entrepreneurs
- the development of the competitive advantages and product/market strategies of SMEs

---

<sup>18</sup> The countries participating in the Interstratos Project are Austria, Belgium, Finland, Norway, Sweden, Great Britain, Switzerland and the Netherlands.

<sup>19</sup> The research subject of the Interstratos Project is defined as a company with 1 to 499 employees active in one of the following industries: textiles and clothing, electronics, food proceeding, metals and machinery and furniture making.

- the administrative burden of SMEs
- the use of external support programmes
- changes in the SME environment, work force, suppliers, customers, financing, etc.

Switzerland is one of the countries participating in the Interstratos Project. The relevant findings of the study regarding the internationalization of Swiss manufacturing SMEs are discussed in detail in Section 2.7.2, p. 46.

### **2.6.1.2 OECD Study Regarding SMEs and globalization**

The OECD project aims to examine SME globalization in order to provide implications for governmental policies regarding SME internationalization. The study focuses on the pattern, i.e. structure and development of the outward internationalization of SMEs in 18 OECD countries<sup>20</sup>. The investigated enterprises employ less than 500 people<sup>21</sup>. The purpose of the study is to provide recommendations for governmental support of SME internationalization.

The findings show that the majority of SMEs internationalize in a more or less passive and reactive way. Most successful SMEs seem to use the strategic options suited to their market, their product, their operations and their management capability (OECD, 1998 p. 7).

Further conclusions of the investigation regarding Swiss SME internationalization are discussed in detail in Section 2.7.3. p. 47.

### **2.6.1.3 The European Observatory for SMEs**

The European Observatory for SMEs is a project of the European Commission established in 1992. The objective of the project is to provide an independent structured and up-to-date overview of European SMEs. The geographical scope of the project has increasing since its inauguration. Currently all member countries of the European Economic Area and Switzerland participate in an annual survey<sup>22</sup>. This is conducted by the

---

<sup>20</sup> The countries participating in the OECD study regarding SME globalization are Australia, Belgium, Canada, Denmark, Greece, Ireland, Italy, Japan, the Netherlands, Portugal, Spain, Switzerland, the United Kingdom and the United States of America.

<sup>21</sup> The study employed a broad definition of the research subject: An SME is a company with less than 500 employees. Further the sample does not include agricultural or extractive industry SMEs.

<sup>22</sup> The countries participating in the European Observatory for SMEs were Austria, Belgium, Denmark, Germany, Greece, Spain, France, Finland, Ireland, Italy,



European Network for SME Research, which is a network of leading national organizations, specialized on the research of SMEs. The project investigates a wide range of different aspects of small and medium businesses in Europe. One issue included on the agenda of the European Observatory for SMEs is SME internationalization. Although the project does is not primarily focused on SME internationalization, it provides some relevant findings in the 1999 and 2001 annual reports. These findings, considering Swiss SME internationalization, are presented in Section 2.7.4, p. 48.

## 2.6.2 Influencing Factors Studies

A number of researchers focus on the identification of the factors affecting an SME's internationalization decision. Some researchers investigated the internal and external motives<sup>23</sup> (e.g. Cavugsgil/Nevin, 1981; Etemad, 2001; Chetty/Campbell-Hunt, 2003). Others also emphasized the barriers and risks of internationalization (e.g. Welch/Luostarinen, 1988).

Most of the authors aim to identify the motives for the internationalization of SMEs as well as the barriers or risks in order to increase their insight into the SME internationalization process. Consequently, they intend to provide implications to policy makers in order to stimulate SME internationalization<sup>24</sup>. Bijmolt/Zwart (1994), Czinkota/Crick (1995), Reid (1984), Lavigne (1994) and Keng/Jiuan (1988) address the different aspects of the internationalization of SMEs in connection with government export policies.

Even if the findings of the studies are not fully consistent, they can be summarized in a checklist of internal push factors, external pull factors, barriers and risks. It is depicted in Figure 10, based on the findings of Cavugsgil/Nevin (1981), Welch/Luostarinen (1988), Keng/Jiuan (1988), Etemad (2001) and Chetty/Campbell-Hunt (2003).

---

Luxembourg, Portugal, Sweden, United Kingdom, Iceland, Liechtenstein, Norway, and Switzerland.

<sup>23</sup> The 'motives' of internationalization are also called 'drivers' in the internationalization literature.

<sup>24</sup> The overwhelming majority of government policies and promotion programs with regard to the international activities of SMEs are focused on stimulating exports.

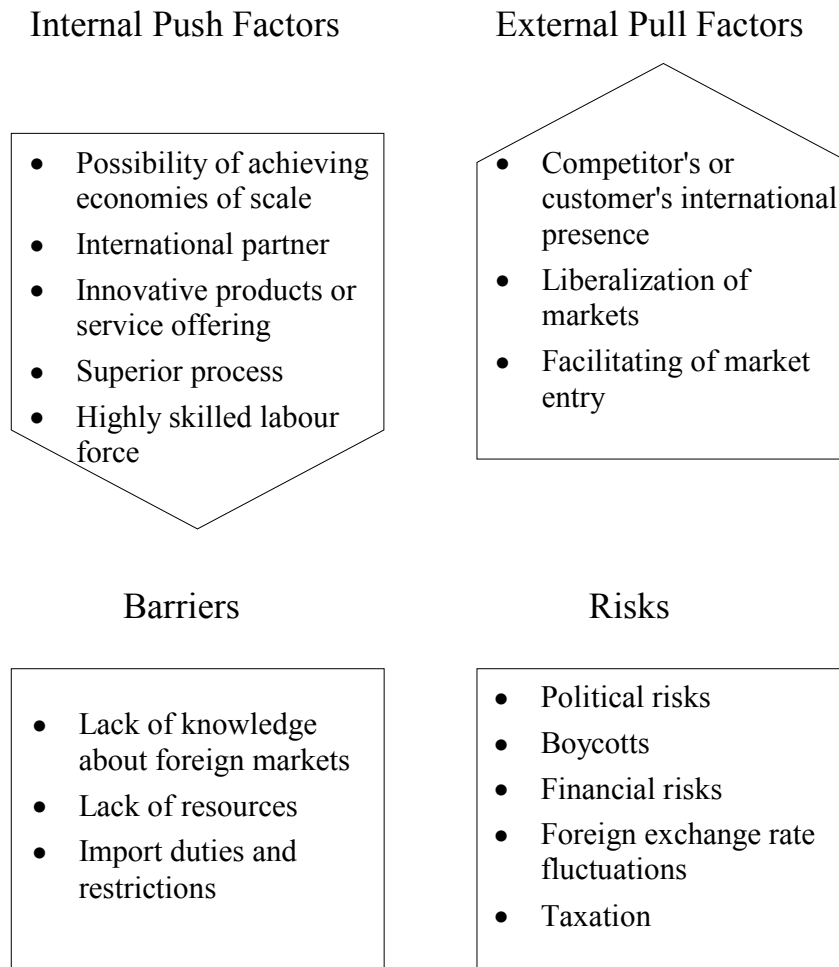


Figure 10: Factors Influencing SME Internationalization

### 2.6.3 Case Studies

A considerable number of research work in the field of SMEs' internationalization is based on the case study method. These studies provide in-depth insights into various aspects of SME internationalization.

The body of case study work covers a broad field of different subjects. A typical case study describes and analyzes the internationalization path of a particular kind of firm<sup>25</sup> or the firms of a particular industry<sup>26</sup>.

<sup>25</sup> Boter and Holmquist (1996) defined two different kinds of SMEs for the purpose of their investigation; the conventional and the innovative SMEs. In their study 'Industry characteristics and the internationalization process in small firms', they tried to show the different internationalization patterns used by these two groups of SMEs.

<sup>26</sup> Zaby (1999) focuses on dynamic high-tech enterprises and their internationalization in his dissertation 'The Internationalization of High Technology Firms'. Similarly, Ohlen (2002) chooses a dynamic industry for his study on business-to-business electronic marketplaces. His dissertation is called 'Internationalizing in the Digital Economy: A Pan-European Study of Business-to-Business Electronic Marketplaces'.

Author(s) Year of Publ.	Land	Research object SME definition	Topic	Results
Fillis 2000	GBR, IRL	British and Irish Micro craft enterprises	Internationalization process of the small craft firms	Innovation, risk taking and proactiveness are skills of successful internationalization behavior.
Coviello/ Ghuri/Martin 1998	NZL	Engineering consultant and software companies < 500 employees	Internationalization competitiveness measure used by SME managers	The competitiveness measure consists of the performance, process and potential. The performance measures used by the firms in practice are sales and profit(ability) oriented.
Chetty/ Campbell- Hunt 2003	NZL	Successful exporters, export award winners, manufacturing firms < 300 employees	Path of internationalization	Firm's choose between the global and regional path of internationalization. Management's attitude is an important factor influencing the internationalization of an SME.
Boter/ Holmquist 1996	NOR, SWE, FIN	Conventional and innovative exporting SME < 250 employees	Internationalization process in two different types of SMEs; conventional and innovative companies	The two distinct forms of internationalization process were found. The innovative companies' approach to internationalization as a global focus; they structure their business activities, firm functions and forms freely. The conventional companies' approach is a local focus; they undertake a stepwise behavior, selling in neighboring countries.
Havens 2002	NOR	Norwegian SMEs <100 employees	Development patterns for SME internationalization and their influence factors	Strategic planning as well as entrepreneurial paradigm are both the approaches to a firm's development. However, the export performance while altering the patterns, does not change.

Table 3: Overview of the Case Studies in the Field of SME Internationalization

Other case studies deal with various aspects of SME internationalization such as a firm's corporate cultural management<sup>27</sup>, measurements of internationalization competitiveness<sup>28</sup> etc.

Even if all of these studies contribute significantly to the current knowledge in the field of the internationalization of a firm, not all of them have the same relevance for this thesis. Therefore, only the works dealing with topics connected to this thesis are included in the following overview. Table 3 provides the author, the year, the country of origin and the topics of the study. Additional information regarding the research subject's definition and a brief summary of results are also included in the overview.

Looking at Table 3, it is evident that the scope of interest of the presented case studies is very broad. Even if the findings are often difficult to generalize, they offer valuable facts which can be used as a basis for further research. The relevant findings of the case studies will be analyzed in more detail in Section 3.3, p. 58.

## 2.6.4 Profile Studies

Some of the authors, e.g. Kohn (1997), Keng/Jiuan (1988), and Magagula/Obben (2001) aim to develop a profile of the characteristics that differentiate internationally active from domestic SMEs. These studies are also called 'profile studies' in the literature (Aaby/Slater, 1989, p. 16).

The researchers traditionally compare the set of chosen indicators of exporting and non exporting firms (e.g. Keng/Jiuan, 1988 and Magagula/Obben, 2001). However, the approach of Kohn (1997) is different. He compares the characteristics of US exporters with the characteristics of the overall population of US firms.

Some of the profile studies (e.g. Magagula/Obben, 2001) aspire to identify the success factors of internationalization. This is done under the assumption that the international activity of SMEs is per se a sufficient indicator of their success. Aaby and Slater (1989, p. 16) criticize this approach and point out that "...grouping all exporters into one category assumes that the characteristics of poorly performing export programmes are as important as those of highly successful programmes".

---

<sup>27</sup> Steiner (1995) deals with internationalized middle-sized companies and their cultural management from the point of view of the parent entity in his dissertation 'Internationalisierung mittelständischer Unternehmen: Das Kulturmanagement aus Sicht des Stammhauses'.

<sup>28</sup> Coviello, Ghauri and Martin (1998) study the measurements of international competitiveness used by practitioners in SMEs.

Author(s) Year of Publ.	Land	Research object SME definition	Sample Size	Topic	Independent variable	Dependant variable	Method	Results
Kohn 1997	USA	SME <500 employees		Strategies used by internationalization of the US based SMEs	Exporting firms versus all firms	Industry maturity, consumer intensity, R&D intensity, foreign affiliates	Comparison	US based SMEs use specific strategies, such as a 'deep niche' strategy; they focus on producer goods, market dominance and technological leadership and have lower-than- expected tendency to form minority-owned affiliates abroad.
Keng/Jiuan 1988	SIN	SME manufacturers <100 employees		Differences between exporting and non- exporting firms	Exporting, non- exporting	Firm size, years in business, perceived importance of marketing activities, firm's competitive advantage	Cross classification analysis and t-test	Exporters tend to be larger firms with well-educated owner or chief officer, they have positive attitudes towards export marketing.
Magagula/ Obben 2001	SWZ	SME manufacturers in food and textile industries; handicrafts <100 employees		Distinguishing between exporting and non exporting SMEs in Swaziland	Exporting, non- exporting	Firm characteristics: Firm size, firm age, % of female employees, Managerial characteristics: level of education, age, language proficiency, number of business related trips to a foreign country, perception	Logit analysis	Foreign language proficiency, number of foreign business related trips and risk perception showed a positive relationship with export activity.

Table 4: Overview of Profile Studies in the Field of SME Internationalization

Despite the criticism, we believe that some of the 'profile studies' deliver valuable findings and contribute to the understanding of SME internationalization. (e.g. Keng/Jiuan, 1988 and Magagula/Obben, 2001). The relevant findings of the case studies will be analyzed in more detailed in Section 3.3, p. 58.

The overview of the profile studies, including the specification of the author, the date, the country of origin, the research subject definition, the dependent variable (i.e. the measure of a firm's success), the independent variables (i.e. explanatory variables involved in the study), the data assessment method used and the summary of results is provided in Table 4.

### **2.6.5 Performance Studies**

The group of authors measuring SME performance in foreign markets and investigating the factors influencing this performance is not numerous. In addition to research focusing on SMEs there is a significantly larger body of research conducted with regard to MNE internationalization performance (e.g. Axinn, 1988; Cooper/Kleinschmidt, 1985 and Cavusgil, 1984). Though these studies provide valuable results for MNEs, their contribution with respect to SMEs is rather limited. Kirpalani and Macintosh (1980) conclude that the findings regarding the factors influencing the export performance for the SMEs differ significantly from those that apply to large multinational enterprises (p. 89). Their judgment is easy to understand, especially when the typical success factors of MNE internationalization are named 'high technology', 'sophisticated marketing' and 'advanced forms of organizational structure'. It is evident that SMEs, which are characterized by limited resources, achieve their international success, at least partly, by different means.

The overview of the work, focusing on SME internationalization performance and its influencing factors, is provided in Table 5. The table presents the author, the country of origin, the research subject definition, the sample size, the topic, the dependent as well as independent variables included in the analysis, the data assessment method used and the main results of the studies.

The performed studies vary a lot in their approaches, objectives and applied methodologies. Though they can be classified according to the criteria of 'the investigated influencing factors' and 'the purpose of the study' (Bijmolt/Zwart, 1994, p. 70).

Author(s) Year of Publ.	Land	Research Object SME Definition	Sample Size	Topic	Independent variable	Dependant variable	Method	Results
Wolff/Pett 2000	USA	SMEs < 500 employees	157	Examination of competitive export patterns and the relationship between firm size and export performance	Export intensity (export as % of total sales)	Firm size	ANOVA	No relations between firm size and export intensity was found. The study shows that different size groups of SMEs use different patterns.
Bonaccorsi 1992	ITA	SMEs < 500 employees	?	Influence of firm size on export intensity	Export intensity (export as % of total sales)	Firm size	ANOVA	No relation between firm size and export intensity was found.
Bijmolt/Zwart 1994	NED	SMEs 5-200 employees		Impact of managerial factors on the export success	Export intensity (export as % of total sales), growth, relative profitability of export, satisfaction of the exporter	Firm characteristics, export policy (export planning, organization structure, export attitudes)	Latent structure model with causal relationships incorporated in LISREL program	Positive effect of export planning, organizational adjustments and attitudes on export.
Namiki 1988	USA	Computer hardware manufacturers SMEs <250 employees	63	Identification of export strategies of SMEs and their impact on export performance	Subjective measure of degree of overall success in export	Importance of competitive methods, such as customer service, brand identification and new product development used for exporting	Factor and cluster analysis and analysis of variance	The strategies of differentiation focus and innovative differentiation were identified as the high performance strategies.
Naidu/Prasad 1994	USA	SMEs 15-500 employees	?	Predictors for export strategy and performance of SMEs	Classification of the firms as 'sporadic' or 'regular' exporters, based on export volume, export sales, profitability as well as on overall export performance	Firm resources and competences, international market focus	Cross tabulation, logistic regression	Management priority for international business, length of experience, size of firm and the perceived attractiveness of export were identified as factors differentiating regular from sporadic exporters.

Author(s) Year of Publ.	Land	Research Object SME Definition	Sample Size	Topic	Independent Variable	Dependant Variable	Method	Results
Madsen 1989	DEN	Experienced exporters SMEs 20-200 employees	134	Cross-sectional empirical export performance study	Export sales, growth, profitability	Firm characteristics, export marketing strategy, market characteristics	Multiple regression	Product strength, export experience and attractiveness of export markets have a significant impact on export performance.
Dhanaraj/ Beamish 2003	USA, CAN	SMEs < 500 employees	70 USA, 87 CAN	A resource-based approach to the study of export performance	Firm's overall profit, growth, and market share	Firm size, technological intensiveness and enterprise (technological leader, innovation, commitment)	Multiple group analysis	The firm's size, technological intensity and 'the enterprise' (i.e. technological leadership, innovation and commitment) are good predictors of degree of internationalization (intensity and diversity) which has been shown to influence positively the firm's performance.
Kundu/Katz 2003	IND	Software born globals SMEs	47	Impact of innovation and resources on firm and individual level on export performance	Export intensity (export as % of total sales), % growth rate for exports, absolute export sales, export profitability	Resources (education, international experience), intention (foreign marker coverage)	Multiple regression	Technological innovativeness of the product and the educational background of the founder have a positive impact on the export performance of born global Indian firms.

Table 5: Overview of Performance Studies in the Field of SME Internationalization



The first classification of the studies is based on their emphasis on the investigated influencing factors. Typically, the studies comprise either external or internal influencing factors. In exceptional cases, they deal with both kinds of factor (e.g. Madsen, 1989 and Kirpalani/Macintosh, 1980).

- Rao/Erramilli/Ganesh (1990) focus on the impact of external factors on export performance. They suggest that a domestic recession has a significant impact on the export activities of a firm. Furthermore, they present tentative evidence that exporters increased their exports to areas of the world less affected by recession.
- Though the majority of studies emphasize internal influence factors, as these appear to have a stronger impact on export success (Bijmolt/Zwart, 1994, p. 70). The interest of this thesis rests on internal influencing factors; therefore the following analysis emphasizes the studies focusing on these factors.

The second classification of empirical work is based on their purpose. There are twofold aims of these studies. Either they intend 'to describe' or 'to explain'. The descriptive studies often cluster firms according to their success. Subsequently, they describe the successful and unsuccessful firms based on a set of common characteristics (e.g. Namiki, 1988). Contrary to them, explanatory studies (e.g. Naidu/Prasad, 1994) aim to determine the influence of independent factors on export success (Bijmolt/Zwart, 1994, p. 70).

The approaches, objectives, methodologies and results of SME internationalization performance studies presented in Table 5 are discussed further.

All the analyzed performance studies focus on the exporting of SMEs; none of them considers any other form of internationalization employed by SMEs, such as direct investment, licensing or joint ventures. Additionally, only a few of the researchers provided implications for SME managers. Generally, if any practical implications of the research results are drawn, they are focused on policy makers (e.g. Madsen, 1989 and Dhanaraj/Beamish, 2003).

The studies use different approaches and follow different objectives. While some of the studies emphasize only the influences on export performance (e.g. Bijmolt/Zwart, 1994 and Madsen, 1989), others are interested in additional related topics. Wolff/Pett (2000) for instance look for different export competitive patterns of SMEs, Naidu/Prasad (1994) include the international quality standards, ISO-9000, into their study design. And

Dhanaraj/Beamish (2003) try to ground their export research in the theory of the firm.

The specification (i.e. the set of independent variables used) of the investigations also varies significantly. Bonaccorsi (1992) and Wolff/Pett (2000) focus entirely on the influence of a firm's size on the export performance. Dhanaraj/Beamish (2003), Madsen (1989) and Bijmolt/Zwart (1994) employ a broader model of indicators, including characteristics of the firm as well as a firm's exporting policy/strategy.

In addition, the authors used different measurements of export performance. Some authors bank on a single export success measurement; typically it is the quantitative indicator of 'export intensity', i.e. the share of turnover generated by sales abroad (e.g. Bonaccorsi, 1992 and Wolff/Pett, 2000). Other researchers (e.g. Madsen, 1989; Bijmolt/Zwart, 1994 and Kundu/Katz, 2003) add further quantitative dimensions of export success, e.g. 'export profitability' or 'export growth'. The study of Naidu/Prasad (1994) is the only one that applies an objective qualitative indicator in addition to the quantitative ones. Namiky (1988) on the other hand relies only on subjective success indicators in his investigation and leaves the commonly used objective indicators aside. An alternative measure of export performance is suggested by Dhanaraj/Beamish (2003). They use firms' overall performance measures of profit growth and also overall market share as an indicator of export success. This measure might be suitable for particular research questions, but it is not advantageous to be applied as a measure of a firm's internationalization performance within a particular market.

Looking at Table 5, it is evident that the majority of researchers do not follow the recommendations of international business literature (Aaby/Slater, 1989) to use a multidimensional measure of export performance including both objective as well as subjective indicators.

Despite the limited comparability of the studies, the findings can be summarized as follows:

- The most often investigated predictor of export performance is a firm's size. However, the findings of the studies are mixed. Whereas Bonaccorsi (1992) and Wolff/Pett (2000) find no relation between performance and the size of a firm, Naidu/Prasad (1994) and Dhanaraj/Beamish (2003) state that there is a positive correlation between size and a firm's export performance.
- Broader agreement can be found with regard to the positive relationship

between management's attitudes towards exporting and performance. Bijmolt/Zwart (1994), Naidu/Prasad (1994) and Dhanaraj/Beamish (2003) suggest the existence of this relationship.

- The positive impact of a firm's experience in the foreign market on export performance is declared by Madsen (1989) and also by Naidu/Prasad (1994).
- The characteristics of the exported product are not generally considered in the presented studies. Only Madsen (1989) concludes that 'product strength' has a positive impact on export performance. Kundu/Katz (2003) suggest a positive relationship between the technological innovativeness of Indian software 'born globals' and their export performance. However, the generalization of these findings is evidently a weakness of this study.

To summarize, it is evident that the narrow focus of researchers on exporting results in a lack of findings regarding other internationalization forms. Moreover, the scope of indicators involved in the analysis is often quite limited, which does not correspond with the complexity of the phenomena of firms' internationalization. Similarly, adequate multidimensional performance measures are not often used (Aaby/Slater, 1989, p.16).

## **2.7 Empirical Studies Regarding the Internationalization of Swiss SMEs**

This section summarizes the current knowledge about the internationalization of Swiss SMEs. The empirical research conducted in order to understand the international behaviour of Swiss SMEs can be divided into two groups.

The first group of research includes individual research projects and dissertations, dealing with the specific aspects of Swiss SME internationalization. The majority of the work focused on investigating the characteristics of internationalized medium-sized Swiss enterprises, e.g. their cultural management (Steiner, 1995), their financial management (Piller, 2000) or their strategic networks (Löser, 2000).

Even if the contribution of these studies to the understanding of the internationalization of Swiss medium-sized enterprises is beyond any doubt, they are less relevant for the current thesis. Therefore these studies are not analyzed in detail in the scope of this thesis.

The second group of empirical works aims to describe the internationalization activities of Swiss SMEs and to contribute to their better understanding.

The following five studies dealing with the internationalization of Swiss SMEs were performed within the last three decades:

- The Osec Business Network Switzerland (Osec)<sup>29</sup> Study: 'Kleine und Mittlere Industrielle Unternehmungen im Internationalen Wettbewerb' (Brauchlin, 1989)
- Interstratos Projects: 'Auslandorientierung und Unternehmungspolitik schweizerischer Klein- und Mittelunternehmungen' (Brunner/Habersaat, 1994)
- OECD Study: 'Small and medium sized enterprises: Local strength, global reach' (OECD, 2000)
- The European Observatory for SMEs: The reports of 1999 and 2001 (European Commission, 2000; European Commission, 2002 a)
- SFSO Study: 'The Census of Enterprises' (Jaeger, 1999; Jaeger/Helwig/Oleschak, 2003)

Whereas three of the studies (the OECD Study, The European Observatory for SMEs and the Interstratos Project) belong among international research programmes, the other two (the Osec Study and the SFSO Study) are conducted only in Switzerland.

The objectives of the investigations, their research subjects and the investigated population vary a lot within this group of studies. The Interstratos Project and the SFSO Census of Enterprises are the only studies focusing on the sample of the whole population of SMEs, i.e. internationally active as well as domestic firms. The other studies emphasize the description of the group of internationally active SMEs, leaving their domestic counterparts out of the study design. The Interstratos Projects concentrates, however, only on the SMEs of the five chosen manufacturing branches, which limits the generalizability of the findings significantly.

Furthermore, the studies differ with regard to the definition of the research subject. Whereas The European Observatory for SMEs and the Census of Enterprises of the SFSO use the European definition of an SME (i.e. an enterprise with less than 250 employees, for details see Section 2.2, p. 10),

---

<sup>29</sup> The Osec Business Network Switzerland is a governmental organization supporting and promoting the internationalization of Swiss enterprises.

the Osec Study, the OECD Study and the Interstratos Project investigated companies with less than 500 employees.

The findings of the studies regarding Swiss SME internationalization are presented in detail below.

### 2.7.1 Osec Study

The study was conducted by Osec in cooperation with the University of St. Gallen in 1986. It aims to describe the 'state-of-the art' of the international activities of Swiss SMEs. However, the research sample includes only internationally active industrial SMEs. Consequently, the study does not provide the proportion of internationally active and domestic Swiss SMEs. The research subject is defined as a firm having less than 500 employees worldwide that is selling, producing or licensing its products. The study focuses on the following industries: textiles, food, machinery, chemicals, furniture making or watch making. In order to compare the findings, the survey is simultaneously conducted on a sample of large Swiss companies (Brauchlin, 1989, p. 9-11). It emphasized the following fundamental questions:

- Why do the firms internationalize?
- In which countries are they active?
- Which internationalization form do they choose?

The empirical findings of the Osec Study provide the first contribution to the understanding of the internationalization of Swiss industrial SMEs. In answering the fundamental questions, it provides valuable knowledge which can be summarized as follows:

- Exporting is the most important internationalization form of Swiss SMEs. Almost all internationally active firms (i.e. firms involved in the study) export their products, 98% of internationalized Swiss industrial SMEs exported in 1986 (Brauchlin, 1989, p. 35).
- The majority of Swiss industrial SMEs are exporting with the help of a foreign agent, while the large firms prefer to export directly, using their own branches or representation offices (Brauchlin, 1989, p.35).
- Foreign direct investment is dominated by large firms (i.e. companies employing more than 500 people). Whereas 61% of them have a production site abroad, only 13% of the smallest firms (i.e. 1 to 49 employees), 15% of small firms (i.e. 50 to 99 employees) and 28% of medium-sized firms (i.e. with 100 to 499 employees) have invested in a foreign production site. A positive relationship between a firm's size and

its foreign direct investment is suggested by the authors (Brauchlin, 1989, p. 49).

- Half of the SMEs' foreign direct investment is situated in Europe; other locations are North America and Asia (Brauchlin, 1989, p. 55).
- When assessing the achievement of the direct investment's expectations, 20% of respondents state that these are fully met, another 50% evaluates them as achieved at a high level and only 30% are said to be unsuccessfully meeting expectations (Brauchlin, 1989, p. 67).
- Swiss SMEs do not consider licensing to be a very important internationalization form. (Brauchlin, 1989, p. 70).
- The authors suggest an association between a firm's size and the number of target markets. The bigger the company the higher the number of target markets (Brauchlin, 1989, p. 123).
- Swiss SMEs are more concentrated in the region of 'Western' Europe than their bigger counterparts. The strongest trading partner is Germany (Brauchlin, 1989, p.123).

### **2.7.2 Interstratos Project**

Interstratos is a European comparative research project, conducted in the years 1991-1995. As such the empirical findings of the project provide the state of the internationalization of European as well as Swiss SMEs (enterprises with less than 500 employees) in five manufacturing branches (textiles and clothing, electronics, food, metal and machinery and furniture making) (Brunner/Habersaat, 1994, p. 7-10). The Interstaros findings regarding Swiss SMEs' internationalization can be summarized as follows:

- The study reports the increasing orientation of Swiss SMEs toward international markets.
- More than 80% of the SMEs investigated buy foreign goods either directly from foreign suppliers or from a local importer. The bigger the company, the higher the share of direct imports from a foreign supplier. On average, a Swiss SME imports 40% of its supplies (Brunner/Habersaat, 1994, p. 44).
- More than 60% of the SMEs investigated export their products. Approximately 17% of the exporting SMEs have a representation office or a branch office in the target country. The average exporting Swiss SME attains almost 58% of its total turnover in this manner (Brunner/Habersaat, 1994, p. 45-47).
- 9.2% of SMEs invest into their own production site abroad which, on

average, this generates 53.7% of their overall turnover (Brunner/Habersaat, 1994, p. 48).

- About 10% of SMEs issue a licence to a foreign firm abroad. The royalties of foreign licences contributed, on average, 36.8% to their overall turnover (Brunner/Habersaat, 1994, p. 47).
- Approximately 9% of Swiss SMEs manage a joint venture with a foreign partner. On average, this contributes almost 40% to their overall turnover (Brunner/Habersaat, 1994, p. 69).
- The intention to grow and gain access to the larger markets are the two most often named motives behind Swiss SME internationalization. Most SMEs see the border formalities as the most important barrier to internationalization (Brunner/Habersaat, 1994, p.69).
- Swiss SMEs identify the quality of the product as their most important competitive advantage and also the most important success factor (Brunner/Habersaat, 1994, p. 17).
- The internationally active firms consider the product (e.g. technological intensity and innovation) and the personnel (e.g. quality of management and sales staff) as more important success factors than their domestic counterparts (Brunner/Habersaat, 1994, p. 16).

### 2.7.3 OECD Study

The OECD study 'Small and Medium-sized enterprises: Local Strength, Global Reach' was conducted in 1994. The research subject of the study is defined as a company with less than 500 employees. The study was conducted in fourteen OECD countries. The findings regarding Swiss SME internationalization, though quite limited, can be summarized as follows:

- There seemed to be a trend towards an increasing number of Swiss SMEs generating a substantial part of their turnover abroad. The study states that 37% of Swiss internationalized SMEs achieve more than two thirds of their turnover abroad (OECD, 2000, p. 34).
- The main impacts of globalization named by Swiss SMEs are increasing imports and the intensity of competition in domestic markets. (OECD, 2000, p. 42).
- Internationally active Swiss SMEs tend to keep their management and their financial functions based in Switzerland (OECD, 2000, p. 51).
- Swiss SMEs tend to identify the obstacles of internationalization as externals, even if the internationally active Swiss SMEs assess these obstacles as minor (OECD, 2000, p. 64).

- The internationalization of Swiss SMEs is described as a 'progression of the phases'. Exporting is both a dominant internationalization form of Swiss SMEs and the absolutely dominant initial form of internationalization. Only approximately 2% of Swiss SMEs choose the global approach from the beginning of their internationalization and only approximately 4% establish production abroad without initial exportation.
- Swiss SMEs perceive internationalization as a 'long-term strategy' and within a certain time they move towards foreign production and other commitments abroad (OECD, 2000, p. 76).
- The main target markets of Swiss SMEs are Europe, followed by North America, Asia and Japan (OECD, 2000, p. 77).

#### **2.7.4 The European Observatory for SMEs**

The European network for SME research performs a longitudinal research project regarding European SMEs: The European Observatory for SMEs. In addition to the countries of the European Union, Switzerland and Norway are involved in the investigations. The project covers a wide range of the topics concerning SMEs. Nevertheless, the internationalization of SMEs did not belong to the main interests of the research until 2003. The findings regarding the internationalization of Swiss SMEs provided in the 1999 and 2001 project reports can be summarized as follows:

- The growing international engagement of SMEs is observed in all the investigated countries. Whereas in the year 1999 approximately 28% of Swiss SMEs stated that their international business contacts had been increasing in the last 5 years, approximately 32% of them agreed to this statement in 2001 (European Commission, 2002a, p. 15).
- The bigger companies as well as the exporting companies assess the changes towards a common European market as positive, whereas their domestic counterparts are more aware of the disadvantages of this development (European Commission, 2000, p. 381).

#### **2.7.5 SFSO Study**

The SFSO conducts a census of Swiss enterprises regularly. However, the questions regarding the international activities of Swiss enterprises was incorporated into the questionnaire for the first time in the year 1995. The findings of this census of enterprises provide the first empirical data with regard to Swiss SME exporting and foreign investment. Whereas the census of the year 1995 the exports and imports of SMEs, that of 2001



focuses on their foreign investments. The findings of the SFSO can be summarized as follows:

- More than 80% of Swiss SMEs (less than 250 employees) are not involved at all in exporting in the year 1995 (Jaeger, 1999).
- The authors of the study conclude that the bigger the company the higher the proportion of turnover generated by exporting (Jaeger, 1999).
- Similarly, the number of companies investing abroad increases significantly with the increasing size of the firm. Only approximately 1% of the smallest and 4% of the small enterprises, but 15.3% of the medium-sized and 34.59% of the big enterprises manage a direct investment abroad (Jaeger, 1999).
- The authors suggest an interesting relation: The smaller the firm investing in the production site abroad the bigger the growth of its domestic number of employees after the investment (Jaeger/Helwig/Oleschak, 2003, p. 69). Furthermore, the authors assume that SMEs are less focused on cost-oriented foreign investments than the large companies. This implies that, as opposed to large firms, SMEs do not tend to shift their employment abroad (Jaeger/Helwig/Oleschak, 2003, p. 70).

### 2.7.6 Summary of the Quantitative Findings Regarding Swiss SME Internationalization

The summary of the quantitative findings of the empirical studies focusing on the internationalization of Swiss SMEs is provided in Table 6.

Research project	Year	Research object definition	Results of the studies showing the percentage of Swiss SMEs involved in the respective international activity				
			Internationally active	Exporting	Foreign direct investment	Joint venture	Licensing
Interstratos (Brunner, 1994)	1993	SME (0-499 employees) in five manufacturing branches	-	58.6% <sup>a</sup>	9.2%	9.2%	10.0%
Interstratos (Habesart, 2000)	1995	SME (0-499 employees) in five manufacturing branches	-	61% <sup>a</sup>	15%	-	13%
Interstratos (Habesart, 2000)	1999	SME (0-499 employees) in five manufacturing branches	-	61% <sup>a</sup>	18%	-	13%
The census of enterprises SFSO <sup>b</sup> (Jaeger, 1999)	1995	SME (10-249 employees)	-	23.9%	22.6% <sup>c</sup>		-
The census of enterprises SFSO <sup>b</sup> (Jaeger, 2003)	2001	SME (10-249 employees)	-	-	5.3% <sup>c</sup>	-	-

<sup>a</sup> Only direct export, i.e. supply to foreign customer, as the dominating form of export is considered.

<sup>b</sup> The definition of direct investment in scope of census of enterprises includes all investments in own or foreign enterprises abroad increasing the participation of more than 10%.

<sup>c</sup> The figure involves all foreign investments including participations of more than 10%.

Table 6: Summary of Quantitative Findings Regarding Swiss SME Internationalization

Looking at the available empirical findings it is obvious that the picture of the state of the internationalization of Swiss SMEs is neither current nor

complete. A further problem appears with the comparability of the findings. It appears that the different definitions of the investigated subjects and samples applied by the studies do not contribute to the better understanding of Swiss SME internationalization.

## **2.8 Conclusions**

The presented internationalization theories (i.e. the classical and neoclassical theories of international trade, the stage model of Johnson/Vahlne and the Eclectic paradigm of Dunning) represent the different approaches of a firm's internationalization. The theories are developed at different points of time and their authors are driven by different motives. According to McDougall/Oviatt (2000) they perceive the phenomena of a firm's internationalization from the point of view of the large mature firm rather than that of an SME and an entrepreneur. Consequently, it is concluded that the majority of the developed theories fail to readily explain the small firm's internationalization behavior (Fillis, 2001, p. 783).

Aaby and Slater, who reviewed the recent research in the field of exporting state that the "...current exporting research is balkanized and knowledge on how to make firms effective exporters is underdeveloped" (Aaby/Slater, 1989, p. 7). More than a decade later Reuber/Fischer (2002) agree with that statement and call for the establishment of a direct relationship between small firms' internationalization and their performance, as this aspect is absent from the previous research (Reuber/Fischer, 2002, p. 29).

The review of the empirical studies conducted in the field of SME internationalization leads to the conclusion that there are valuable findings in place, but also that there are meaningful opportunities to improve the current knowledge, especially with regard to successful international practices (Andersson/Gabrielsson/Wictor, 2004, p. 23).

Dhanaraj/Beamish (2003) also summarize the outputs of theoretical knowledge and conclude that even if "...the significance of exporting is broadly acknowledged, theoretical developments in this field have not yet matched the developments in practice. For over three decades, scholars have presented various explanation models and theories as well as lists of various influencing factors. But with the dynamic changing of environments and growing interest in internationalization by firm managers, the research focus needs to move towards the development of a normative model and drawing normative implications for the managers of firms" (Dhanaraj/Beamish, 2003, p. 242-245).

Consequently, it is evident that, despite the contribution of the internationalization theories, they cannot serve a huge benefit to SME managers aiming to commence the internationalization of their firm. Aaby and Slater (1989) arrive at the same conclusion. According to them, knowledge concerning the relationships between internal and external influencing factors and internationalization performance "...appears to be a prerequisite ... for managements that may want to enhance their firm's export performance and for the establishment of a sound macro export policy" (Aaby/Slater, 1989, p. 8).

Even if there is limited research conducted in the suggested field of export performance in the last decades, the studies usually do not aim to provide knowledge about how to make a firm a good exporter (see Table 5), even though the gaps in current knowledge can be identified quite easily. As exporting is argued to be a primary internationalization form of SMEs (Wolff/Pett, 2000, p. 34), the researchers tend to focus on it and neglect the other forms of SME internationalization. Consequently, there is a very limited body of literature dealing with internationalization forms other than exporting. Additionally, none of the performance studies conducted is focused on Swiss SMEs.

Nevertheless, there is a number of studies regarding Swiss SME internationalization performed in the past decades (see Section 2.7, p. 43). Despite the valuable findings they provided, these do not result in a complete and current picture of the internationalization of Swiss SMEs. Moreover, the conducted studies did not deal with the internationalization performance of Swiss SMEs and its influencing factors.

To sum up, despite the fact that the research on internationalization has expanded during the last three decades and despite the variety of approaches to the topic, little work has been done with regard to the internationalization of Swiss SMEs, their international performance and its influencing factors. The review and analysis of the literature therefore implies that the defined objectives of the thesis make sense.

## **3 Conceptual Framework, Research Hypotheses and International Performance Measure**

### **3.1 Overview**

There are three objectives defined in the scope of the current thesis. The first two are of a descriptive nature: This thesis aims to describe the state of internationalization Swiss SMEs and their success in foreign markets. The third objective focuses on the relationship between Swiss SMEs' internal factors and their internationalization performance.

The current chapter presents the theoretical framework needed in order to reach the third objective of the thesis.

The conceptual framework developed for the purpose of this thesis and its justification are presented in Section 3.2, p. 52. The framework is developed in order to help structure the investigation with regard to third – relational objective of this thesis.

Section 3.3, p. 58. presents the research hypotheses. The hypotheses are defined after an extensive review of internationalization literature and research conducted in the field. Furthermore, the hypotheses for the empirical study are based on a conceptual framework. The section is organized into five defined hypothesis groups; hypotheses with regard to company characteristics, internationalized product characteristics, management decisions, international experience and target market characteristics.

Section 3.4, p. 71 of the chapter presents a measure of the hypotheses dependent variables. An index is developed in order to measure the degree of success of Swiss SME internationalization. The measure is multidimensional and integrates both objective and subjective success indicators as suggested by internationalization literature (Reid, 1984; Aaby/Slater, 1989; Bijmolt/Zwart, 1994 and Coviello/Ghauri/Martin, 1998). The individual success indicators used are described in detail.

### **3.2 Conceptual Framework**

The investigation in the scope of this thesis is governed by the conceptual framework presented in Figure 11. It strives to provide a broad and comprehensive model of internationalization performance influences.

However, the developed framework still represents a significant simplification of the real-world situation.

The current conceptual framework of internationalization performance is based on the frameworks and models of export performance developed by Aaby/Slater, 1989; Madsen, 1989; Bijmolt/Zwart, 1994; Naidu/Prasad, 1994 and Cooper/Kleinschmidt, 1985. These are presented and discussed in detail in section 2.4, p 17.

The conceptual framework of this thesis differs from previously developed models with respect to the model's specification and to the variety of internationalization forms involved. Unlike several earlier works focusing on individual influences of international performance (e.g. Wolff/Pett, 2000 and Benaccorsi, 1992), the conceptual framework of this thesis provides a broader model specification. This means that a broad set of the explanatory variables relating to the external and internal influencing factors are included into the framework.

In contrast to all previously developed frameworks and models (e.g. Namiki, 1988; Aaby/Slater, 1989; Bijmolt/Zwart, 1994; Naidu/Prasad, 1994 and Chandler/Hanks, 1994), this framework is not limited only to exports and export performance. It emphasizes all four internationalization forms relevant for SMEs. These are exporting, direct investment, licensing and joint ventures (Hill, 1999)<sup>30</sup>.

The conceptual framework of the thesis builds on previously developed export performance models distinguishing between two main categories of international performance influencing factors; the internal and the external influencing factors (Aaby/Slater, 1989; Naidu/Prasad, 1994).

The external influencing factors cover the macro-economic, social, physical, cultural and political aspects of a firm's environment. All these factors affect the international performance and behaviour of a firm (Aaby/Slater, 1989, p.7). Nevertheless, the empirical findings presented by MacIntosh (1980) and Madsen (1988) show that the impact of external influencing factors on export performance is not very great, especially in comparison with the impact of the internal influencing factors (Bijmolt/Zwart, 1994, p.70).

In addition, individual firms, especially SMEs, can only influence external factors to a very limited extent. They essentially have to treat these macro parameters as given constraints.

---

<sup>30</sup> The definitions of internationalization forms are provided in Section 2.3, p. 27.

This is why the investigation of this thesis does not focus on the external influencing factors, even if they undoubtedly represent an integral part of the conceptual framework of the international performance of SMEs.

In order to acquire the knowledge useful for managers aiming to expand abroad, the focus is put on the factors that can be influenced more easily by them. Consequently, the internal influencing factors of a firm's international performance represent the core of the conceptual framework and the main interest of the investigation of this thesis'.

Internationalization literature uses various terms for internal influencing factors of firm's international performance as well as various approaches to their grouping. Whereas for example Aaby/Slater (1989) apply the term 'firm's business strategy and functional factors', others use the term 'managerially controllable factors' (e.g. Fillis, 2001) or 'internal managerial factors' (e.g. Bijmolt/Zwart, 1994; Namiki, 1988 and Cavusgil, 1984). Though, it can be concluded that regardless of the terms used, internal influencing factors include the resources, capabilities, competencies and business policies that are under the control of the firm and that may have an impact on the success of its international activities.

The conceptual framework of this thesis uses the term 'internal influence factors' and adopts their categorisation according to the constancy as suggested by Bijmolt/Zwart (1994). However, there is no consensus in the internationalization literature regarding the term used for the internal stable and less stable influencing factors<sup>31</sup>.

With regard to stable influences, most of the research is limited to the company characteristics. Regarding the less stable influences, most of the authors tried to use one consolidated term for those factors, such as 'export strategy' (Naidu/Prasad, 1994) or 'export policy' (Bijmolt/Zwart, 1994; Madsen, 1989) – even if such terminology does not seem to be appropriate. Apparently, there are also unstable influence factors, such as experience, that do not belong to the group of policy or strategy.

Looking at Figure 11, it is evident that in the conceptual framework of this thesis the term 'internal stable factors' is used for the more or less stable points with regard to internationalization and the term 'internal unstable factors' for the factors that can relatively easily change within the internationalization process of the firm.

---

<sup>31</sup> Bijmolt/Zwart (1994. p. 71) who suggested the categorisation according to the factor constancy distinguish between the “more or less constant starting points” (i.e. stable factors) and the “export policy instruments” (i.e. unstable factors).

Figure 11 shows that the influences appearing on the right side of the framework are considered to be more stable with regard to a firm's internationalization than the ones appearing on the left side. Consequently, the term 'stable internal influences' (i.e. the characteristics of the company and of the internationalized products) and 'unstable internal influences' (i.e. management decisions, international experience and target market characteristics<sup>32</sup>) are used within this thesis.

The choice of the internal influence factors (stable and unstable) included in the conceptual framework (and in the investigation of this thesis) is inspired by the knowledge acquired from internationalization literature. Further, it is driven by the objectives of the thesis to provide the scientific world and managers with useful knowledge regarding SME internationalization. Consequently, the following normative questions with regard to SME internationalization will be addressed:

- WHO Which companies are internationally successful?
- WHAT What kind of product is internationally successful?
- HOW How does a firm internationalize successfully?

In order to answer these fundamental questions, the following factors (grouped according to their constancy within the internationalization) are involved in the conceptual framework and the investigation of this thesis (see Figure 12):

- internal stable influencing factors of international performance
  - company characteristics
  - internationalized product characteristics
- internal unstable influencing factors of international performance
  - management decisions
  - international experience
  - target market characteristics (i.e. the choice of target markets having particular characteristics)

---

<sup>32</sup> More precisely, the target market characteristics are meant as a choice of target market with particular characteristics as an internal factor of SME's internationalization.

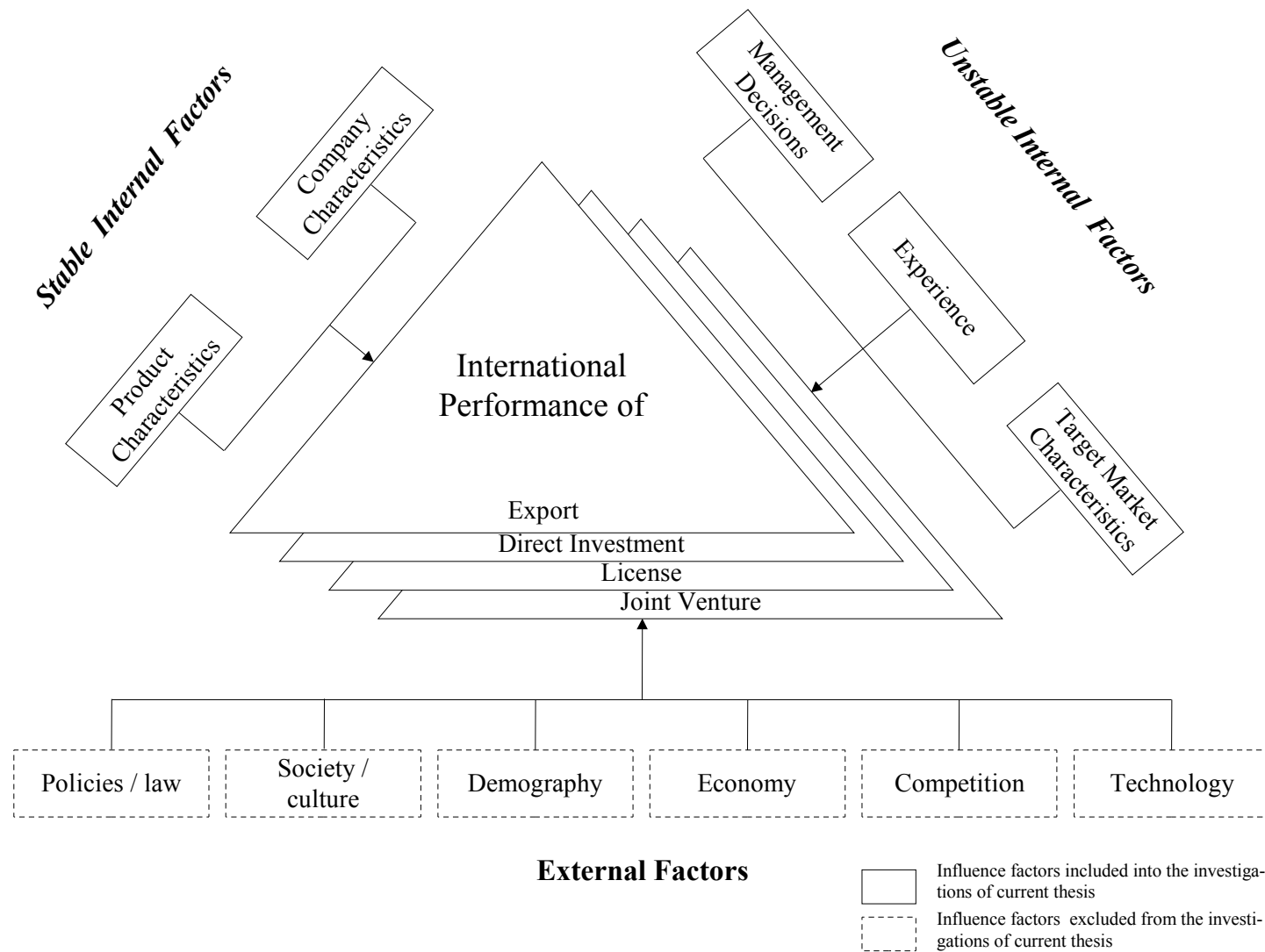


Figure 11: Conceptual Framework of the Thesis



Whereas several authors acknowledged the company (e.g. Johanson/Vahle, 1977; Cavusgil, 1984; Rao/Naidu, 1992), management decisions (e.g. Aaby/Slater, 1989; Brunner/Habersaat, 1994; Kohn, 1997 and Namiki, 1988), international experience (e.g. Johanson/Vahle, 1977; Aaby/Slater, 1989 and Madsen, 1989) and target market characteristics (Johanson/Vahle, 1977; Dunning, 1988 and Hill, 1990) as factors influencing international performance, the factors concerning internationalized product characteristics are absent in the majority of internationalization literature and earlier research.

Nevertheless, we argue that the internationalized product characteristics belong to the internal influencing factors of international performance. We base our argument on Jaeger's suggestions of 'advantages of location' and Porter's theory of competitive advantages of nations (see Section 3.3.2, p. 61). Further, the work of Calof (1994) and Madsen (1989) support the argument when concluding that a product's specific characteristic can be more or less favorable for international markets.

Consequently, international performance is influenced by the characteristics of the internationalized products. If, for example, buyer uncertainty represents a major barrier to choosing a foreign product (Madsen, 1989, p. 49), some product characteristics can contribute to a reduction of this uncertainty and lead to better performance.

All the associations between internal influencing factors and international performance assumed by the conceptual framework are further discussed and justified in Section 3.3, p. 58.

As mentioned above, the selection of the particular influencing factors included in the conceptual framework is based on the review of internationalization literature and earlier research findings. The following aspects and objectives are taken into consideration when choosing the particular influencing factors to be added into the conceptual framework and into the investigation of this thesis:

- testing the most important potential internal influencing factors of SME international performance;
- testing the internal influencing factors of SME international performance with contradictory results being reported by previous research;
- comparability of the findings concerning the investigated internationalization forms (exporting, direct investment, licensing and joint ventures);

- requirements and possibilities of the data collection method;
- keeping the number of tested variables and consequently, the length of the questionnaire reasonable in order not to overload the respondents and to achieve a satisfactorily response rate.

### **3.3 Research Hypotheses**

Based on a review of current literature, the empirical research findings and based on a conceptual framework (see Figure 12) the following five hypothesis groups are developed:

- Hypotheses concerning the association of company characteristics with international performance.
- Hypotheses concerning the association of internationalized product characteristics with international performance.
- Hypotheses concerning the association of management decisions with international performance.
- Hypothesis concerning the association of international experience with international performance
- Hypotheses concerning the association of target market characteristics with international performance

The hypothesis groups are presented in the following sections. Each hypothesis group is governed by a leading hypothesis, i.e. hypothesis 1 to 5. In addition, a number of hypotheses within the particular group need to be formulated in order to comprehensively express the associations tested.

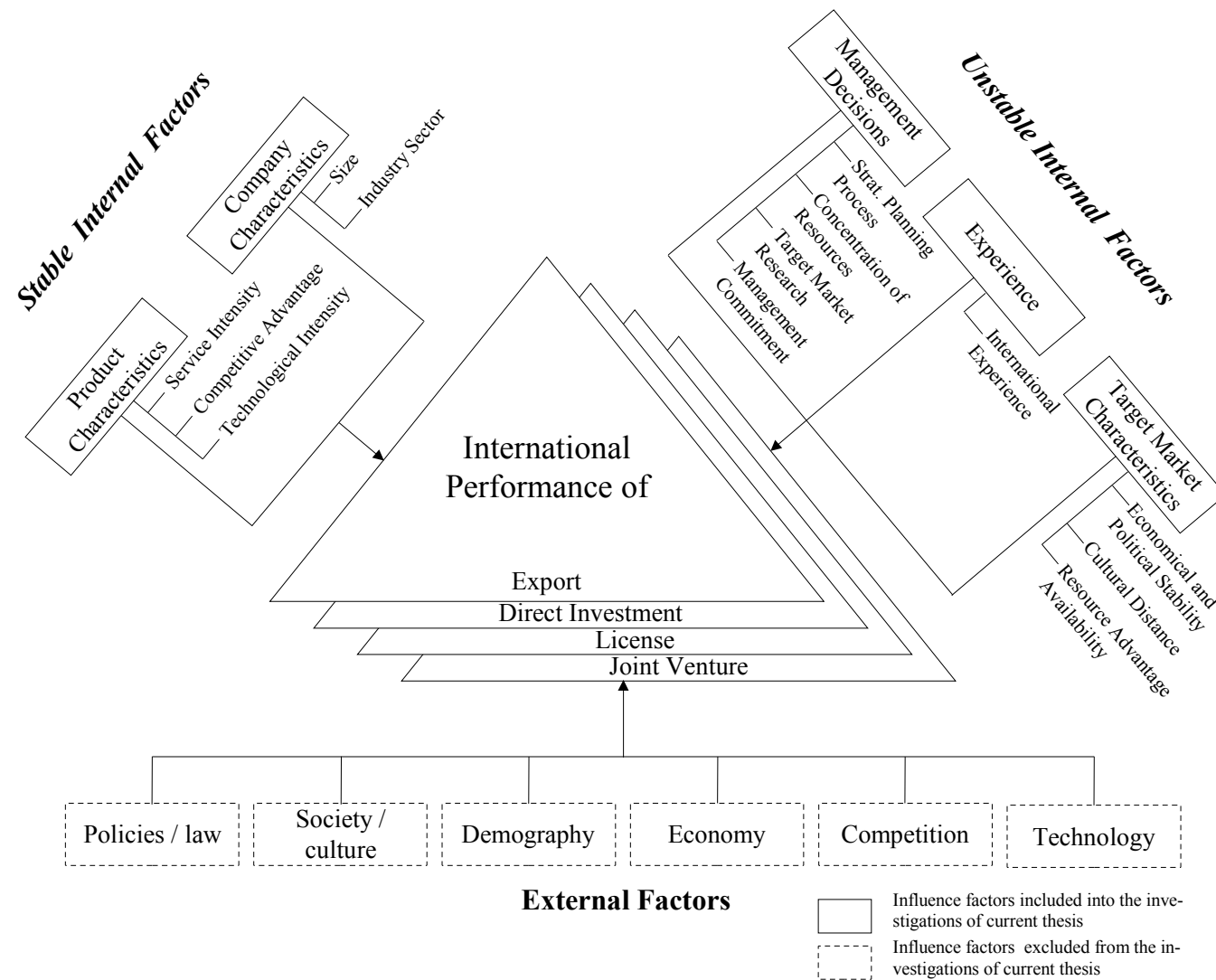


Figure 12: Hypotheses Groups in the Context of the Conceptual Framework of the Thesis

### 3.3.1 Hypotheses with Regard to the Characteristics of the Company

After reviewing relevant literature on international business and the empirical findings, we argue that the internationalization performance of companies with diverse attributes differs and state the following hypothesis.

Hypothesis 1                      Company characteristics have an impact on the international performance of the SME.

Company size and its effect on internationalization performance or its propensity to move internationally is surely the most intensively studied firm-related indicator. The most common hypothesis proposes that larger companies have size-related advantages which enable them to export more effectively (Aaby/ Slater, 1989, p. 17). Additionally, the stage theory suggests that there is a need for a critical size in order to internationalize (Johnson/Vahlne, 1977). Company size is connected to a firm's availability of and control over resources and correspondingly, economies of scale. Hence, the larger the firm, the more resources available for a firm's international activities (Andersson/Gabrielsson/Wictor, 2004, p. 24).

Despite the high interest of researchers in the suggested relationship, the evidence of the impact of a firm's size on its international performance is inconclusive. Summarizing the present findings, the picture regarding the relationship between a firm's size and its internationalization propensity or performance appears to be mixed (Aaby/ Slater, 1989). Whereas Cavusgil (1984), Rao/Naidu (1992) and Reuber/Fischer (1997) confirm the existence of a positive association, Bilkey/Tesar (1977) and Bonaccorsi (1992) purport to find no relationship between the size of a company and its export performance.

Nevertheless, based on the theoretical arguments stated above, and despite the contradicting results of former studies, we suggest that the size of the firm is positively correlated to its internationalization performance. The following hypothesis is to be tested:

Hypothesis 1.1                      There is a positive relationship between the size of an SME and its international performance.

Czikota/Ursic (1984) suggest a positive relationship between a firm's age and its internationalization performance. They argue that over time companies face more competition in their domestic markets, look for new

opportunities and are able to commit more resources to activities in foreign countries (Czinkota/Ursic, 1984).

The stage model can also be interpreted as supporting such a positive relationship. Johnson/Vahlne (1977, 1990) state that a company first develops in the domestic market before expanding into foreign markets. One reason for this is the high cost of new market entry. Understanding new cultures, languages, and distribution systems is time-consuming. Once the adequate knowledge is acquired, the international commitment finds a solid base. This high commitment consequently leads to better internationalization performance (Johnson/Vahlne, 1977,1990).

On the other hand there is a strong countervailing argument describing the behavior of so-called 'born global' SMEs. Kundu/Katz (2003) and Keogh/ Evans (1995) show that these firms are typically entering the international marketplace at the time of their commencement or close to it. Another study suggests that younger firms tend to perform better internationally as they tend to be managed by a younger management with more aggressive approaches towards internationalization (Aaby/ Slater, 1989).

However, the empirical findings of the OECD suggest that only very few Swiss SMEs can be named 'born globals' (OECD, 2000, p.76). That is why based on the theoretical arguments stated above the following hypothesis is suggested:

Hypothesis 1.2                      There is a positive relationship between the age of an SME and its international performance.

### **3.3.2 Hypotheses with Regard to the Characteristics of the Internationalized Product**

When analyzing empirical studies in the field of internationalization performance, only very few findings regarding product characteristics can be found. Some authors suggest a positive relationship between a particular product feature and the internationalization performance of the SME. According to Madsen (1989) the suggestion that buyer uncertainty represents a major barrier to choosing a foreign supplier or product can often be found in literature. Thus, some product characteristics can reduce uncertainty and endow the seller with a certain degree of credibility and reliability (Madsen, 1989, p. 49). Fillis (2001) believes that the customization and the innovation of SME products increases their internationalization performance.

Nevertheless, the empirical results are contradictory. While there is a positive relationship found in one study (Cavusgil, 1984), a second study shows no relationship between the same indicators (Suzman/Wortzel, 1984). Consequently, there is no general evidence of a particular exported product characteristics leading to the better export performance of SMEs.

Despite the mixed empirical evidence, it is believed that a Swiss SME's product with particular features (e.g. quality, innovation etc.) marketed internationally performs better than a product with other features. Porter's theory of competitive advantage of nations and Jaeger's suggestion regarding location-specific advantages is understood as supporting this statement.

Porter (1990) states that the national environment plays a vital role in the competitive success of firms. He emphasizes that there is a striking regularity found with which firms from one nation achieve disproportionate worldwide success in particular industries. This is caused by the competitive advantages of the nation. The decisive characteristics of a nation allow its firms to create and sustain competitive advantages in particular fields. These competitive advantages are created and sustained through a highly localized process. Differences in national economic structures, values, cultures, institutions, and histories contribute profoundly to these competitive advantages of firms and subsequently to their competitive success (Porter, 1990, p.19). Thus, the product which mirrors and adopts the nation's competitive advantages is expected to perform better on foreign markets than other products.

Accordingly, Jaeger (1999, p. 94) proposes that Swiss SMEs exporting products based on the location-specific advantages of Switzerland should be more successful than others.

We argue that Swiss SME products reflecting the competitive advantage named by Porter or the location-specific advantages proposed by Jaeger perform better than others. Moreover, in agreement with Madsen (1989) we believe that products with particular characteristics (e.g. quality, innovation etc.) tend to perform better in foreign markets. Consequently, the following hypothesis is stated.

Hypothesis 2	The characteristics of the internationalized product have an impact on the international performance of the SME.
--------------	--

As stated above, there are only very few empirical studies considering the impact of product characteristics on internationalization performance (Joynt, 1982; Madsen, 1989; Cavusgil, 1984). Regrettably, none of them is focused on Swiss SMEs.

Porter's view of Swiss competitive advantages can easily be understood from the following: "Swiss prosperity is the result of a national competitive advantage in a surprisingly wide range of advanced manufacturing and service industries ... Swiss firms have been able to achieve and sustain a competitive advantage in a remarkably broad range of industries ... Swiss firms sought out the high-quality, differentiated segments of industries. A pool of highly trained and highly skilled people have provided the capabilities to upgrade the advantage over time ... unusually broad demand advantages for a nation of Switzerland's size have supported success in a sophisticated segment in a wide range of industries" (Porter, 1990, p. 307-329).

Jaeger (1999, p. 94) also proposed that products based on Swiss location-specific advantages should be exported more successfully. He indicates the following location-specific advantages: manpower qualification, capital availability, developed infrastructure and central geographic location.

The suggestions of Porter and Jaeger imply that internationally successful Swiss products are capital intensive, technologically intensive and developed/produced by well educated manpower.

These theoretical suggestions are supported by the empirical findings: The Interstratos research project reports that internationally active Swiss SMEs indicate 'product technology intensity' and 'product innovation' as success factors for internationalization. Furthermore, Swiss SMEs identified the 'product quality' as the most important source of their competitive advantage (Brunner/Habersaat, 1994, p.16).

Despite the fact that the study is focused only on five manufacturing branches, we believe that these findings can be applied to the whole population of Swiss SMEs. Additionally, the product characteristics identified by the practitioners correspond to the advantages named by Porter (1990) and Jaeger (1999).

Consequently, we believe that product quality, innovation and technological intensity as identified by Swiss SMEs (Brunner/Habersaat, 1994, p. 16) and as a result of Swiss national

competitive advantages (Porter, 1990) and Swiss location-specific advantages (Jaeger, 1999) are crucial to be successful on foreign markets.

Based on the theoretical arguments stated above, the following hypotheses are stated:

Hypothesis 2.1      There is a positive relationship between the technological intensity of the internationalized product and the international performance of the SME.

Hypothesis 2.2      There is a positive relationship between the premium quality of the internationalized product and the international performance of the SME.

Hypothesis 2.3      There is a positive relationship between the innovativeness of the internationalized product and the international performance of the SMEs.

In addition to the positive association presented above it is argued that some product features are less favorable with regard to an international expansion. Root (1990, p. 15) argues that if the product requires an array of special customer services such as pre- and post-purchase (after-sales) services, its marketing at a distance should be rather difficult. In fact, in the case of service intensive products the proximity to the customers is required in order to fully satisfy their needs.

In agreement with Root (1990) we state the following hypothesis. However we believe it applies only with regard to exports, because the proximity to the customers is fulfilled in the case of the other internationalization forms.

Hypothesis 2.4      There is a negative relationship between the service intensity of the exported product and the export performance of the SME.

### **3.3.3 Hypotheses with Regard to Management Decisions**

Many aspects connected to the management decisions and attitudes that are assumed to be associated with the international performance of the firm can be found in internationalization literature. Most of the authors suggest a link between management decisions with regard to export strategy and the international performance of the firm (e.g. Cooper/ Kleinschmiedt,



1985; Aaby/Slater, 1989 and Calof, 1994). Nevertheless, there are also other aspects, such as management attitudes (Chetty/Campbell-Hunt, 2003) or management decisions regarding target market research (Cavusgil, 1984) that are considered to be important factors influencing the internationalization of SMEs.

Consequently, in agreement with Calof (1994), who states that the firm wanting to attain international success has to have decision makers who choose the appropriate strategy and who have the appropriate attitudes (Calof, 1994, p. 370), the following hypothesis is stated:

Hypothesis 3                      Management decisions with regard to internationalization have an impact on the international performance of the SME.

Strategic decisions and planning are two management decisions playing crucial roles in the internationalization of a firm. Bijmolt/Zwart (1994) suggest that export planning as part of the export policy has an impact on export success.

The authors of the Interstratos study conclude that an enterprise's international competitiveness can be ensured only when its flexible market orientation is based on the firm's strategic planning and decisions, formulated into appropriate objectives and implemented (Brunner/Habersaat, 1994, p. 67).

Aaby and Slater (1989) also suggest that unless a firm's management has an international vision, consistent export goals as well as positive attitudes towards exporting, the firm is not likely to become a successful exporter (Aaby/ Slater, 1989, p. 21).

Suzman/Wortzel (1984) summarize the previous research on the internationalization of firms and draw the following rigid conclusion: "...if a firm is to be a successful exporter, it must develop an explicit strategy for doing so" (Suzman/Wortzel, 1984, p. 183). Even if Suzman/Wortzel (1984) did not focus on small business, other authors (e.g. Aaby/Slater, 1989; Brunner/Habersaat, 1994; Kohn, 1997; Namiki, 1988)<sup>33</sup> acknowledge the importance of strategic planning for SME internationalization.

---

<sup>33</sup> Namiki (1988) and Kohn (1997) in their investigation focused on identifying the internationalization strategy patterns used by SMEs.

In addition to that Aaby/Slater (1989) also mention that small firms tend to devote a lot of time and attention to product development and operations while substantially less time and attention is dedicated to strategic decisions and planning regarding new market opportunities for their products.

Empirical evidence of a lack of the strategic planning within SMEs is also shown by Martinez (2000) and Bassen/Behnam/Gilbert (2001). Their empirical findings show that there is often no clear strategy in the initial phase of an SME's internationalization. The first international activities, most often exports, happen in response to sporadic demand from foreign markets (Martinez, 2000 and OECD, 2000). Nevertheless, the empirical data imply that SMEs acknowledge the importance of strategic management regarding the internationalization process. Still a large proportion of SMEs fail to implement a strategic planning process (Bassen/Behman/Gilbert, 2001).

To sum up, broad agreement can be found in internationalization literature regarding the importance of the strategic planning process of a firm (e.g. Snodgrass/Sakaran, 1989; Kühn/Grünig, 2001). The same also applies to SMEs and their internationalization. Furthermore, researchers assume that there is a positive relationship between the strategic planning process and internationalization (Aaby/Slater, 1989; Brunner/Habersaat, 1994; Kohn, 1997; Namiki, 1988). Additionally, the empirical evidence shows a lack of strategic planning activities within SME internationalization (Martinez, 2000; Bassen/Behman/Gilbert, 2001).

Despite the agreement among the authors, there is no empirical evidence of the proposed association yet. That is why the following hypothesis is stated:

Hypothesis 3.1      There is a positive relationship between the existence of a strategic planning process of internationalization and the international performance of the SME.

Investigating the internationalization of enterprises, Suzman/Wortzel (1984, p. 193) suggest that in the case of "... smaller companies with fewer resources ... it is feasible to focus on particular foreign markets or customer needs as a viable strategy". In agreement with Suzman and

Wortzel we argue that the approach of 'concentration of resources'<sup>34</sup> has a positive influence on SME internationalization performance.

In addition to Suzman/Wortzel (1984) Naidu/Prasad (1994) argue that the limited resources of SMEs should be concentrated rather than spread thinly (Naidu/Prasad, 1994, p. 113). This hypothesis can further be substantiated by the increasing translation costs connected with the expansion into a new market as well as launching new entry modes.

Based on the theoretical arguments stated above, the following hypothesis is stated:

Hypothesis 3.2            There is a positive relationship between the concentration of resources and the international performance of the SME.

Gaining information and knowledge about the foreign market reduces the (perceived) risk of operating in it (Johnson/Vahlne, 1977). Consequently, this can not only lead to an expansion of activities, but also to better performance. In addition, Knight (2000) states that internationalization preparation is positively related to a firm's financial performance.

Even though a positive relationship between the market research done and internationalization performance realized is suggested by a number of authors (Hadley/Wilson, 2003), the empirical evidence is mixed. Whereas Madsen (1989) finds no supporting evidence in his data, the empirical findings presented by Cavusgil (1984) confirm the positive relationship.

Despite the mixed empirical findings we argue that – based on the theoretical arguments of Johnson/Vahle (1977) stated above – the a priori market research of the target market is positively associated with internationalization performance. A priori market research indicates to what extent a firm performs an analysis of the target market indicators (i.e. market size, growth, competitors etc.). The following hypothesis is stated:

Hypothesis 3.3            There is a positive relationship between the intensity of prior target market research and the international performance of the SME.

---

<sup>34</sup> By 'concentration of resources' the focus on a limited number of foreign markets and a limited variety of internationalization forms is understood within this thesis.

The management commitment<sup>35</sup> towards internationalization is cited as an important success factor of internationalization by Cavusgil/Nevin (1981); Suzman/Wortzel (1984); Keng/Jiuan (1988); Bijmolt/Zwart (1994) and Magagula/Obben (2001).

Aaby/Slater (1989, p. 21) conclude that a firm is likely to become a successful exporter if its management has an international vision, consistent export goals, favorable perceptions and attitudes towards exporting and is willing to take risks. Consequently, they believe that firms whose management is firmly committed to exporting, tend to achieve better export performance.

In addition it is suggested that frequent personal contact increases the understanding of the target market players, customers, channel members, customer behavior and needs, which in turn leads to better international performance (Madsen, 1989, p. 50).

Based on the theoretical arguments stated, above the following hypothesis is stated:

Hypothesis 3.4            There is a positive relationship between the management commitment towards an SME's international activities and the internationalization performance of the SME.

### **3.3.4 Hypotheses with Regard to International Experience**

Aaby and Slater (1989) suggest that export experience is important for international success. Firms that have already gained some experience in a foreign market are likely to perform better than firms that have just entered. Additionally, Madsen (1989) states that the increasing country specific experience results in a better understanding of the market, its networks and its players. This leads to the improved decisions and better performance of the firm.

In agreement with Aaby and Slater's as well as Madsen's arguments stated above, we believe that the experience of a firm gained within a market over time has a positive impact on the firm's internationalization performance. Therefore, the following hypothesis is to be stated:

---

<sup>35</sup> The terms 'management commitment' and or 'management attitudes' towards internationalization are used as synonyms in the internationalization literature.

Hypothesis 4                      There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.

### **3.3.5 Hypotheses with Regard to the Characteristics of the Target Market**

According to Hill (1999) the attractiveness of a potential market depends on the balance between the benefits, costs and risks associated with doing business in a particular country. We believe that the performance of a firm in a particular target market is also influenced by these benefits, costs and risks. Consequently, we state the following hypothesis regarding the characteristics of the chosen target market:

Hypothesis 5                      The characteristics of the target market have an impact on the international performance of the SME.

The long run economic benefits offered by a particular target market can be expressed as a function of the market size, that is the present and the likely future wealth of the customers in the market. The risks and costs associated with the market differ from country to country. Generally, these tend to be lower in developed, politically and economically stable countries (Hill, 1999, p. 429). Accordingly, as both risks and costs tend to be lower in politically and economically stable countries, the benefits tend to be higher in such countries.

Furthermore, it is believed that direct investment (requiring a high level of commitment on the part of the SME) performs better in markets offering a lower level of risks, costs and a higher level of benefits. Consequently, the following hypothesis is to be tested:

Hypothesis 5.1                      There is a positive relationship between the economic and political stability of the target country of an SME's direct investment and its performance.

Johanson/Vahle (1990) define the cultural distance of the market in terms of the factors that disturb the flow of information between the company and the market. The different language, culture, political system etc. are understood as such factors (Johnson/Vahlne, 1990, p. 13).

Additionally, the cultural distance of the target market is considered to be an important influencing factor of a firm's internationalization. The stage model of internationalization (Johnson/Vahlne, 1977, 1990) states, that firms first enter culturally closer markets and only later move to culturally more distant ones.

Similarly as in the case of political and economical stability, culturally closer markets are understood more clearly and their uncertainty is perceived as lower. Consequently, especially in the case of SME direct investment, a firm performs better in markets offering lower levels of risks, costs and higher levels of benefits. Additionally, we argue that in the culturally distant markets, joint ventures with the involvement of a local partner perform better than direct investments.

Therefore the following hypotheses are stated:

Hypothesis 5.2            There is a negative relationship between the cultural distance of the target country of an SME's direct investment and its performance.

Hypothesis 5.3            If there is a large cultural distance between the target and the home country, then a joint venture performs better than a direct investment of an SME.

Dunning's eclectic paradigm states the conditions of a firm's internationalization (see Section 2.5.3, p. 26). The location-specific advantage, i.e. the advantage derived from superior factor endowment in the foreign country, is a precondition for establishing production in the foreign country (Dunning, 2001a, p. 173).

Based on Dunning's arguments stated above, we argue that the availability of a location-specific advantage – understood less broadly as a resource advantage in the target market – has a positive relationship with a foreign investment's performance. The following hypothesis is stated:

Hypothesis 5.4            There is a positive relationship between the availability of a resource advantage in the target country of an SME's direct investment and its performance.

### 3.4 Measure of Internationalization Performance

As discussed in section 2.6 (p. 29), the majority of empirical work conducted with regard to the internationalization of SMEs is focused on exporting. Accordingly, the research dealing with the measurement of the success or the performance in the target market also emphasizes the success or performance of exporting. It is traditionally measured with the help of a single success indicator. There are two predominant approaches to measuring export success in literature. Either the categorization of exporters and non-exporters is used in the studies (e.g. Keng and Juan, 1988; Konh, 1997) or the export intensity measure is used as a success indicator (Axinn, 1988; Bonaccorsi, 1992; Wolff/Pett, 2000).

The categorization of exporters and non-exporters is criticized by Aaby/Slater (1989) because it automatically perceives all export activities as successful. The export intensity indicators measuring the proportion of export sales in total turnover, is criticized by Dhanaraj/Beamish (2003). They point out that the share of turnover generated by export activity indicates 'only' the intensity of the export activity, leaving the profits or any other benefits uncovered. Consequently, the use of a single indicator of export intensity is not very suitable (Dhanaraj/Beamish, 2003).

Consequently, the use of a multiple criteria model of export performance is suggested (Aaby/Slater, 1989, p. 22). Similarly, Reid (1984), Bijmolt and Zwart (1994) and Coviello, Ghauri and Martin (1998) also criticize the use of a single variable as measurement of the complex issue of internationalization performance. It is concluded that "...single measure can not fully capture all the relevant elements of the issue. ...it is more in accordance with the complexity of export success to construct a scale from a set of variables" (Coviello/Ghauri/Martin, 1998, p. 8).

Moreover, Bijmolt/Zwart (1994, p. 70) state that multidimensional measurements tend to be more reliable and have less errors than single indicator measurements. However, it is important that the indicators of the multidimensional measurement are balanced against each other. In addition to the universal views of performance (e.g. intensity, profitability) the individual firm's specific assessment should be reflected (Coviello/Ghauri/Martin, 1998, p. 24).

Internationalization performance literature suggests the use of a composite performance measurement of profitability, growth and market share referring to MNEs' internationalization (Dhanaraj/Beamish, 2003, p. 247).

Coviello/Ghauri/Martin (1998) investigate the international performance indicators used by SME practitioners. According to their findings, SME managers measure their internationalization performance with the help of sales and profitability orientated indicators. They conclude that the measurements suggested for large firms (i.e. profit over sales, sales growth, market share) are not suitable for SMEs (Coviello/Ghauri/Martin, 1998).

The above presented suggestions of Coviello/Ghauri/Martin (1998); Reid (1984); Aaby/Slater (1989) and Bijmolt/Zwart (1994) are considered, when developing the multidimensional measurement of the internationalization performance of Swiss SMEs for the purpose of this thesis.

The internationalization performance of Swiss SMEs is reflected from both an objective and a subjective point of view. The objective view of performance is represented by the quantitative indicators of a firm's internationalization intensity and profitability. The subjective view leaves space for the firm's specific assessment (Coviello/Ghauri/Martin, 1998, p. 24). For this purpose two qualitative indicators regarding objective achievement and management's assessment are added. The five individual success indicators used in the scope of this thesis are described below.

### **3.4.1 Objective Achievement**

The first subjective indicator within the multidimensional measure of the internationalization performance is management's assessment as to what extent the international activities achieved their objectives. Aaby and Slater (1989) suggest including a measurement of the progress made towards the defined objectives.

### **3.4.2 Management Satisfaction**

The second subjective measurement included is the indicator of management's level of satisfaction with the international activities. This success indicator assesses the success of internationalization in the context of the operating environment, i.e. industry, sector or firm specific issues (Coviello/Ghauri/Martin, 1998, p.24).

### **3.4.3 Absolute Profitability**

The profitability of international activities is identified as an important success indicator for SME managers (Coviello/Ghauri/ Martin, 1998). Two



dimensions of these measurements are included in the internationalization performance measurement. First, absolute profitability stands for the sustainability of the international activity.

### **3.4.4 Relative Profitability**

The second indicator of international activity profitability, i.e. relative profitability, enables a comparison between international and the domestic activities. It aims to rank the domestic and international activities with regard to their profitability. The relative profitability is the more rigid success indicator than the absolute one. It distinguishes outstanding internationalization performance.

### **3.4.5 Intensity**

The intensity of international activities is the most often used indicator in previous research (Bijmolt/ Zwart,1994). It is measured as a share of a company's turnover created by international activity. The intensity indicator differentiates between firms with substantial international activities and those with minor ones.

## 4 Empirical Study

### 4.1 Overview

The fourth chapter is devoted to the empirical study conducted.

Section 4.2 outlines the chosen research design. It also summarizes the advantages and disadvantages of the quantitative and qualitative research approaches. Furthermore, both the quantitative and the qualitative parts of the study are described in detail.

Section 4.3 outlines the quantitative empirical study, i.e. the questionnaire surveys of Swiss SMEs and Swiss international active SMEs. The following aspects of the quantitative study are discussed in detail:

- research questions;
- the research subject;
- the research sample;
- the operationalization of the research hypotheses, the operationalization of Swiss SME international performance as well as the operationalization of the explanatory variables of the hypotheses;
- the questionnaire as a data collection tool;
- the pilot study conducted;
- data collection;
- data processing;
- data analysis, including a discussion of the methods applied at each evaluation stage.

Section 4.4 outlines the qualitative part of the research design – the cross-checking interviews with experts in the field of Swiss SME internationalization. The following aspects of the qualitative interviews are described in detail:

- research objectives;
- the research sample;
- the semi-structured questionnaire for the interviews;
- data collection;
- data processing and analysis.

## 4.2 Research Design

There are two fundamental methodological approaches to studying real world relations in academic research: the quantitative and the qualitative approach (Diekman, 1996; Dayman/Hollway, 2002). The debate over which approach is superior to the other is controversial.

Most researchers prefer one or the other methodological approach. Their preference is partly determined by the nature of the research problem and the research questions, but also often by the researchers' conventions and research areas (Ohlen, 2002, p. 90). Each approach conforms to different research objectives and questions and provides a different kind of findings. Both approaches are characterized by different strengths and weaknesses.

Bartunek, Bobko and Venkatraman (1993) argue that neither method is clearly superior to the other. It is significantly more important what the applied method can reveal about the particular problem and how well it is executed. Table 7 provides a summary of the fundamental differences between quantitative and qualitative research approaches according to Ohlen (2002).

Some researchers (e.g. Harrigan, 1983, p. 400; Bartunek/Bobko/Venkatraman, 1993, p. 1365) believe that the combination of both research approaches (i.e. the multiple research approach) can provide valuable contributions to the research problem. In addition, Scandure and Williams (2000, p. 1252) argue that the multiple approach improves the internal and external validity of the research design, because the limitations of one method are compensated by the strengths of the other.

Whereas the generalization of the findings is usually limited in the case of qualitative methods, the quantitative methods may miss some important aspects of the phenomena they study. Each research approach "...provides a distinctive kind of evidence and used together they can offer a powerful source to inform and illuminate policy and practice" (Harrigan, 1983, p. 400).

Additionally, Harrigan (1983) and Bartunek/Bobko/Venkatraman (1993) recommend a multiplicity of data sources. They see the benefits of the approach in acquiring different knowledge and in obtaining higher validity associated with the multiple data sources. Moreover Harrigan (1983, p. 400) suggests that using multiple informants as well as measuring phenomena provides a cross-check on data accuracy and leads to the enrichment of researcher conclusions.

Following the recommendations mentioned above, a multiple research design has been developed for the purpose of this thesis. It also aims to acquire differentiated views of the investigated phenomena of Swiss SME internationalization by different sources (i.e. first by the survey of SMEs and second by the cross-checking interviews with experts). In addition, it applies the quantitative and qualitative methods and aspires to limit the disadvantages of either single research approach.

	Quantitative Research	Qualitative Research
<b>Aim of Inquiry</b>	explanation	understanding
<b>Relationship Between Researcher and Subject</b>	distant	close
<b>Research Approach</b>	rigid, structured	flexible, open
<b>Nature of Data</b>	hard, reliable	rich, deep
<b>Data Analysis</b>	reductive, explanatory	explicative, explorative
<b>Scope of Findings</b>	nomothetic	ideographic
<b>Strengths</b>	<ul style="list-style-type: none"> <li>- generalizability of results</li> <li>- inquiry of large samples possible</li> <li>- relatively easy replication</li> </ul>	<ul style="list-style-type: none"> <li>- depth of inquiry and richness of data</li> <li>- focus on events in natural settings</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>- low on realism of contextual factors</li> <li>- static approach</li> </ul>	<ul style="list-style-type: none"> <li>- lack of generalizability</li> <li>- susceptibility to researcher bias</li> <li>- difficult replication</li> </ul>

Table 7: Overview of Quantitative and Qualitative Research Approaches (Ohlen, 2002, p. 92)

The three-stage research design developed for this thesis is depicted in Figure 13. These three research activities are conducted in order to reach the objectives of the thesis. After acquiring theoretical knowledge about the phenomena (i.e. by desk research) the empirical study is conducted in order to achieve the descriptive and the relational research objective. Subsequently, the quantitative findings are validated and reflected with the help of qualitative expert interviews.

The following sections are dedicated to a detailed description of both quantitative and qualitative research stages. First, the quantitative empirical study and thereafter the qualitative interview design are discussed.

Desk Research	Quantitative Research		Qualitative Research
Literature review	Empirical Survey		Expert Interviews
	Descriptive	Relational	
Internationalization literature  Empirical studies performed in the field of firms' internationalization  Empirical studies performed in the field of SMEs and especially Swiss SMEs' internationalization	Empirical survey of Swiss SMEs  State of the internationalization of Swiss SMEs  Successfulness of Swiss SMEs internationalization	Survey of the internationalized Swiss SMEs  Identification of relationships between internal factors of Swiss SMEs and their internationalization performance	Cross-check of the quantitative findings Exploration of the social realities behind the identified trends

Figure 13: Overview of the Research Design

### 4.3 Quantitative Study

The majority of the empirical investigations of this thesis are quantitative in nature. A quantitative study of Swiss SMEs is conducted in order to achieve the descriptive and the relational objectives of the thesis.

The quantitative empirical study is selected as the leading method. The main reasons for this choice is its time and cost effectiveness in generating a large amount of the data required for this thesis.

The data collection technique is selected based on similar criteria. The use of a questionnaire appears to be the most efficient and effective way to acquire the data needed. It is faster and more cost efficient than other data collection techniques. Moreover, the questionnaire is considered to be a good research tool for obtaining responses to 'how' and 'what' research questions. Its use ensures that the research is carried out consistently and that the results are collected in a form facilitating their analysis (West, 1999, p.79).

The questionnaire as a primary data collection tool of empirical studies is used in a variety of research situations and contexts. As such, postal or self-administrated questionnaires and interview schedules (administrated face to face or by telephone) are understood under the general rubric of questionnaire (Oppenheim, 1992, p. 100).

The questionnaire format used depends on the type and amount of data to be collected and the method of analysis. Typically, large quantitative surveys generally employ shorter, highly structured questionnaires. Qualitative surveys, on the other hand, are based on longer (sometimes semi-structured) questionnaires (West, 1999, p. 79).

For the purposes of this thesis postal and online questionnaires are used simultaneously as the most suitable data collection technique. The purpose of the survey is to collect a large sample of mainly quantitative data. Therefore, a highly structured questionnaire is designed.

The quantitative study is conducted in the nine steps depicted in Figure 14. Each step of the research process is described in one of the following subsections.

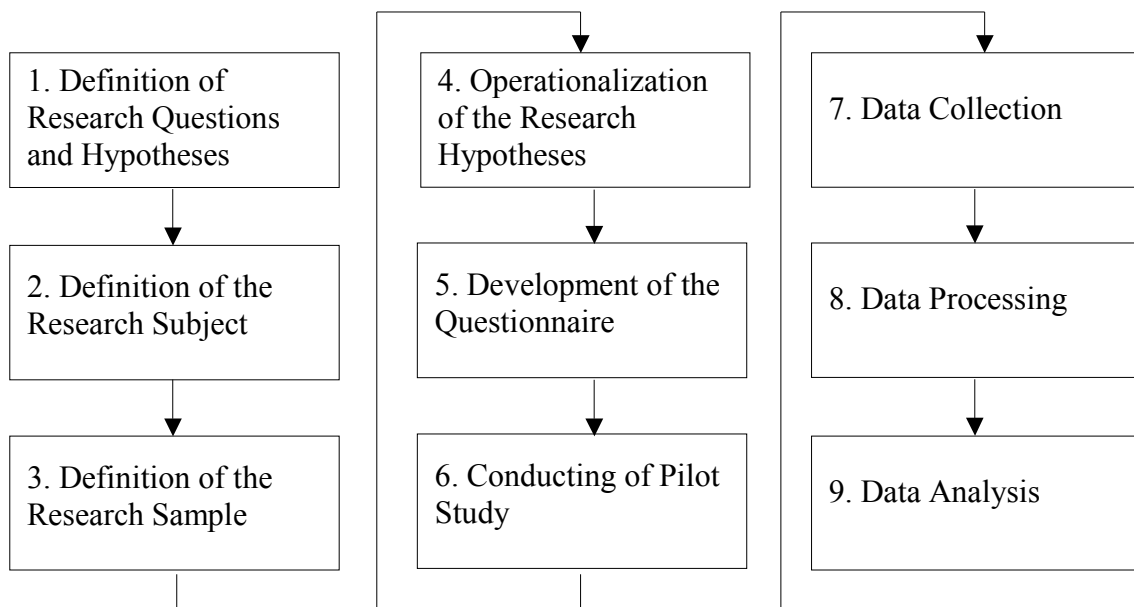


Figure 14: Quantitative Study Process

### 4.3.1 Research Questions

Corresponding with the objectives of the thesis, the following research questions are defined for the purpose of this thesis. The first and the second research questions deal with the state of the internationalization of Swiss SMEs and their success in foreign markets respectively. The third research question is relational; it focuses on identifying the associations between the internal factors of a Swiss SME and its internationalization success. Below, each research question is discussed in detail.

#### **4.3.1.1 The First Research Question: The Actual State of Internationalization of Swiss SMEs**

The first intention of the empirical study is to present the actual state of Swiss SME internationalization. Thereby, the four forms of SMEs' internationalization are investigated (i.e. exporting, foreign direct investment, licensing and joint ventures). The empirical study aims to answer the following fundamental questions:

- How many Swiss SMEs are internationally active?
- What kind of international activities (i.e internationalization forms) do Swiss SMEs perform?
- Do the internationally active Swiss SMEs differ from their domestic counterparts in terms of company characteristics (i.e. size, age, industry sector and legal form)?

By answering these fundamental questions, the thesis aims to provide a picture of the actual state of internationalization of Swiss SMEs. Furthermore, the acquired descriptive findings regarding the internationalized Swiss SMEs and the differences between their domestic counterparts contribute to a more comprehensive understanding of Swiss SME internationalization.

#### **4.3.1.2 The Second Research Question: How Successful are the International Activities of Swiss SMEs?**

The empirical study also intends to report on the success of Swiss SMEs in foreign markets. In order to answer the second research question, the degree of success of Swiss SME internationalization is measured. As suggested by Coviello/Ghauri/Martin (1998); Reid (1984); Aaby/Slater (1989) and Bijmolt/Zwart (1994), internationalization performance is understood to be a complex phenomenon and it is investigated with the help of multiple indicators (for details see Section 3.4, p. 71). The empirical study aims to measure the performance of four internationalization forms (i.e. exporting, direct investment, licensing and joint ventures).

Answering the second research question of the thesis aims to close the knowledge gap regarding the degree of success of Swiss SMEs' internationalization. Additionally, as in the case of the first research question, the answer on the second one contributes to a greater understanding Swiss SME internationalization.

### **4.3.1.3 The Third Research Question: Which Internal Factors of Swiss SMEs are Associated with Their Internationalization Performance?**

The study further concentrates on the identification of associations between the internal factors of Swiss SMEs and their internationalization performance. In this regard the conducted empirical study is seen as an investigation with a broad specification model. It aims to identify the relevant influencing factors, while considering a wide set of indicators relevant to the four investigated internationalization forms. Additionally, the empirical study aims to report on differences between the relevant influences of the investigated internationalization forms.

Similarly to both descriptive research questions, the relational findings of the thesis aim to contribute to a better understanding of the internationalization of Swiss SMEs. Additionally, the intention is to derive practical implications for Swiss SME managers aspiring to the international expansion of their firm.

## **4.3.2 Research Subject**

Due to the multiple research question, there are twofold research subjects defined for the quantitative study of this thesis.

### **4.3.2.1 The First Research Subject: The Swiss SME**

The first research subject – Swiss SMEs – is defined in section 2.2, p. 10. The Swiss SME is used as an entity of investigation with regard to the first descriptive research question of the thesis – the state of internationalization of Swiss SMEs.

### **4.3.2.2 The Second Research Subject: The Swiss SME's Internationalization Case**

The second research subject – the internationalization business cases of Swiss SMEs - is defined as the realization of a particular product in a particular foreign country by a Swiss SME. Thereby it is possible that there are several internationalization cases per SME<sup>36</sup>. Similarly to Madsen (1989), the internationalization case is used as a unit of investigation, with regard to the measurement of Swiss SMEs' success in foreign markets and

<sup>36</sup> The export of machines to Germany by company A is understood as an export case within this thesis. The production of spare parts in China by company A is understood as a direct investment case within this thesis.



with regard to the identification of associations between the internal factors of Swiss SMEs' and their internationalization performance.

The internationalization cases are further divided into Swiss SME export, direct investment, licensing and joint venture cases. In order to achieve the second and third objectives of the thesis, these groups are analyzed separately.

### **4.3.3 Research Sample**

Corresponding with the research questions (defined in Section 4.3.1, p. 78) and the research subjects (defined in Section 4.3.2, p. 80), twofold research samples are defined for the quantitative study of this thesis.

#### **4.3.3.1 The First Research Sample: Swiss SMEs**

In order to provide the answer to the first research question of the thesis – the state of the internationalization of Swiss SMEs – a proportional quantitative survey is conducted. The research subjects, Swiss SMEs, are identified out of the whole population of Swiss SMEs.

The subjects included into the proportional research sample of Swiss SMEs are selected with the help of the simple random sampling method. This sampling technique identifies the subject to be included into the sample without any bias. This is achieved under the condition that each member of the population has the same chance of being selected into the sample (Dafinoiu/Lungu, 2003).

A proportional research sample<sup>37</sup> of 750 randomly selected independent Swiss SMEs is obtained from the SFSO. A Swiss SME is understood as an independent enterprise with 10-249 employees located in the German speaking part of Switzerland (defined in Section 2.2, p. 10).

Consequently, the first empirical survey (i.e. the proportional survey) aiming to answer the first research question of the thesis is conducted by using the proportional research sample of Swiss SMEs described above.

---

<sup>37</sup> The acquired research sample is proportional in terms of its quality, i.e. it is randomly chosen out of the whole population of Swiss SMEs. However, it cannot be considered representative in terms of quantity. Due to the limited resources available for the empirical study the size of the sample was limited to 750 subjects.

### 4.3.3.2 The Second Research Sample: Internationalized Swiss SMEs

In order to answer the second research question (regarding the degree of success of Swiss SME internationalization) and the third research question (regarding the identification of associations between Swiss SME internal factors and their internationalization performance) an additional sample is required.

A research sample of internationally active Swiss SMEs has to be generated and a second empirical survey has to be conducted. This is necessary because the number of questionnaire answers of internationally active Swiss SMEs acquired in the first empirical survey was not sufficient in order to perform the data analysis and to answer the research questions. Therefore a second empirical survey, focused only on the internationally active Swiss SMEs, is conducted.

The only accessible source of addresses of Swiss internationalized SMEs is the Osec<sup>38</sup> which maintains a database of internationally active Swiss SMEs, called the 'Swiss Export Directory'. This database is a source of research samples of internationally active Swiss SMEs. All independent Swiss SMEs with 10-249 employees, located in the German speaking part of Switzerland and identified in the 'Swiss Export Directory' database are included in the sample of Swiss internationalized SMEs for the purpose of this thesis.

Consequently, the second empirical survey (i.e. a survey of internationalized Swiss SMEs) aiming to answer the second and third research questions, is conducted by using the research sample of internationalized Swiss SMEs described above.

### 4.3.4 Operationalization of Research Hypotheses

Operationalization can be defined as the specification of measurable empirical reference points for abstract hypotheses or concepts. The operationalization presented below aims to devise valid and reliable empirical indicators for the concepts outlined in the hypotheses (see Section 3.3, p. 58).

---

<sup>38</sup> The Osec Business Network Switzerland is a governmental organization supporting and promoting the internationalization of Swiss enterprises.

#### **4.3.4.1 Operationalization of the Dependent Variable**

This section is devoted to the operationalization of the dependent variable of the hypotheses – the success of Swiss SME internationalization. As described and substantiated in Section 3.4, p. 71, the multidimensional measurement of Swiss SME internationalization performance is constructed for the purpose of the thesis. The set of objective and subjective, respectively quantitative and qualitative success indicators is used. First the operationalization of the objective and thereafter the subjective success indicators is described. Afterwards the model for creating the measurement of overall internationalization performance is depicted.

##### ***Intensity***

As mentioned in Section 3.4, p. 71, the intensity of internationalization activity is operationalized as the share of a firm's turnover generated by international activity. It means that the contribution of a firm's international activity (i.e. exporting, direct investment, joint ventures or licensing) to the overall firm's turnover is measured. This contribution is indicated as the three-year average percentage of overall turnover. The three-year average is used in order to dampen the potential distortive effects of a single year's over- or under-performance.

The indicator of intensity is a scaled metric. No transformation of the data is needed for data analysis.

##### ***The Absolute Profitability***

Absolute profitability is operationalized as the internationalization activity resulting in a profit or in no profit. The profit is understood as the positive result remaining after the deduction of all associated costs from all associated incomes of an international activity. Accordingly, a negative result is understood as no profit.

The success indicator of absolute profitability has two outcome categories: 'profitable' and 'not profitable'. For purposes of data analysis, the 'not profitable' is coded '0' and profitable '2'.

##### ***The Relative Profitability***

The indicator of the relative profitability of internationalization activities is operationalized as a comparison of a firm's international and domestic

profitability. The international and the domestic activities achieve either the same profitability or one of the activities is more profitable.

This success indicator is measured on an ordinal scale. For purposes of data analysis, the 'domestic activity is more profitable than international activity' finding is coded '0', the 'both activities achieve the same level of profitability' finding is coded '1' and the 'international activity is more profitable than domestic activity' finding is coded '2'.

### ***Objective Achievement***

The objective indicator of international performance assesses the level of achievement of the objectives defined for internationalization. The level of achievement is measured with the help of the following Likert response scale (Dafinoiu, 2003, p. 116): 'failed to reach the defined objectives', 'small proportion of the defined objectives achieved', 'large proportion of the defined objectives achieved' and 'all the defined objectives achieved'.

For purposes of data analysis the outcome is coded as follows: '1' for 'failed to reach the defined objectives', '2' for 'small proportion of the defined objectives achieved', '3' for 'large proportion of the defined objectives achieved' and '4' for 'all the defined objectives achieved'.

### ***Management Satisfaction***

The second subjective indicator aims to measure the general opinion of an SME's managers on the degree of success of the firms' internationalization. The respondents are asked to categorize their internationalization activity into one of the following success groups: 'not successful', 'not yet successful, but developing promisingly' and 'successful'.

This success indicator is coded as follows '0' for 'not successful', '1' for 'not yet successful, but developing promisingly' and '2' for 'successful' for the purpose of the data analysis.

### ***Overall Performance***

The multiple indicator measurement of international performance is an additive index of the above discussed success indicators. The scoring model shown in Table 8 depicts how the overall internationalization performance outcome<sup>39</sup> is created.

---

<sup>39</sup> For reasons of simplicity, the term 'internationalization performance' is used within this thesis.

First the observations are assessed and grouped into three success categories<sup>40</sup> ('very successful', 'successful' and 'unsuccessful') with regard to each success indicator. An observation achieving the category of 'very successful' scores 2 points, 'successful' observations obtain 1 point and 'unsuccessful' cases, no points.

In the second step, the sum of the five success indicators scores is calculated for each observation. The sum represents the overall internationalization performance of each observation. The maximum overall performance of an internationalization case reaches 10 points. This is when the observation is assessed as 'very successful' by all five success indicators.

The acquired multidimensional measurement of overall internationalization performance serves two different purposes. First, the international performance measurement is used to present the degree of success of the international activities of Swiss SMEs. Second, it represents the dependent variable of Swiss SMEs internationalization for purposes of statistical analysis. The analysis is conducted in order to identify the relationships between the internal factors of Swiss SMEs and their internationalization performance.

- For the first purpose – the presentation of the degree of success of Swiss SME internationalization – the observations are again grouped into three success categories. A similar approach to this categorization is also used by Kurtzemann (2003, p. 171). The high-performing cases (i.e. achieving 8 and more points) are classified as 'very successful', the well-performing cases (i.e. achieving 5-7 points) as 'successful' and the cases achieving less than half of the points (i.e. less than 5 points) are said to be 'unsuccessful' with regard to their internationalization (see Table 8).
- For the purpose of the statistically analyzing the relationships, overall internationalization performance as a sum of the reached scores (see Table 8) is used. Consequently, the dependent variable of internationalization performance is ordinally scaled.

---

<sup>40</sup> The grouping into three success categories follows the interest of the study to differentiate between high performing, well performing and average-to-low performing firms.

				Success Indicators					Score	Overall Internationalization Performance - Success Classification	Overall Internationalization Performance - Statistical Analysis
				Subjective		Objective					
				Objective Achievement	Management Satisfaction	Absolute Profitability	Relative Profitability	Intensity			
Exporting	Direct Investment	Joint Venture	very successful	all the defined objectives achieved	successfull	profitable	international activity more profitable than domestic activity	share of turnover ≤ 30%	2	sum of the success indicators scores <8;10>	sum of the scores of success indicators
			successful	large proportion of the defined objectives achieved	developing promisingly		same profitability of international and domestic activities	share of turnover <10%; 30%)	1	sum of the success indicators scores <5;7> points	
			unsuccessful	small proportion of objectives achieved and failed by reaching the objectives	not successful	not profitable	international activity less profitable than domestic activity	share of turnover >10%	0	sum of the success indicators scores > 5 points	
Licence			very successful	all the defined objectives achieved	successfull	profitable	international activity more profitable than domestic activity	share of turnover ≤ 6%	2	sum of the success indicators scores <6;8>	sum of the scores of success indicators
			successful	large proportion of the defined objectives achieved	developing promisingly		same profitability of international and domestic activities	share of turnover <2%; 6%)	1	sum of the success indicators scores <3;5> points	
			unsuccessful	small proportion of objectives achieved and failed by reaching the objectives	not successful	not profitable	international activity less profitable than domestic activity	share of turnover >2%	0	sum of the success indicators scores > 3 points	

Table 8: Scoring Model of Internationalization Performance

#### 4.3.4.2 Operationalization of the Independent Variables

The operationalization of the independent variables of the hypotheses is grouped according to five hypotheses groups, i.e hypotheses with regard to company characteristics, internationalized product characteristics, management decisions, international experience and target market characteristics.

##### *Operationalization of Hypotheses with Regard to Company Characteristics*

The operationalization of hypotheses with regard to company characteristics is depicted in Table 9. Looking at Table 9, it is evident that the indicators of the company's 'size', 'age' and 'industry sector' are used in order to operationalize the hypotheses with regards to company characteristics. The operationalization of the individual hypotheses is described below.

Hypothesis 1.1 assumes a positive association between the size of a company and the international performances of the SME. The size of the company is operationalized with the help of two different measures; the number of employees and the annual turnover. Both indicators are broadly

used as a measurement of a firm's size in internationalization literature (e.g. Dhanaraj/Beamish, 2003). In order to ensure a high level of comparability of observations, the number of employees is measured as the average annual number of full-time employees. Both variables indicating the size of the firm are metrically scaled. No transformation is required; the real values are entered into the data analysis.

Hypothesis		Operationalization
1. The characteristics of an SME have an impact on its international performance.	1.1. There is a positive relationship between the size of an SME and its international performance.	Number of employees Annual turnover
	1.2. There is a positive relationship between the age of an SME and its international performance.	Age of the firm
	-	Sector of the firm

Table 9: Operationalization of the Hypotheses with Regard to Company Characteristics

Hypothesis 1.2 assumes a positive association between the age of a company and the international performance of the SME. The measurement of a company's age is based on an indication of the firm's year of foundation. The age of the company is calculated and entered as a metrically scaled variable in the data analysis.

The last indicator operationalizing Hypothesis 1 assuming the impact of company characteristics on international performance is the industry sector the company operates in. The production and the service sectors are understood as the industry sectors within this thesis. The respondents are asked whether their firm markets products, services or both. The variable industry sector of a company is a nominal variable. For analysis purposes, it is transformed into three dichotomy variables: a product company, a services company and a company marketing products and services. Each of the variables is coded '1' for a positive and '0' for a negative answer.

### ***Operationalization of the Hypotheses with Regard to Internationalized Product Characteristics***

The operationalization of the hypotheses with regard to internationalized product characteristics is depicted in Table 10. Looking at Table 10, it is

Hypothesis		Operationalization
2. The characteristics of the internationalized product have an impact on the international performance of the SME.	2.1. There is a positive relationship between the technological intensity of the internationalized product and the international performance of the SME.	Technological intensiveness
	2.2. There is a positive relationship between the premium quality of the internationalized product and the international performance of the SME.	Competitive advantage identification
	2.3. There is a positive relationship between the innovativeness of the internationalized product and the international performance of the SME.	Competitive advantage identification
	2.4. There is a negative relationship between the service intensity of the exported product and the export performance of the SME.	Service intensity
	-	Standardization of production
	-	Type of customer needs

Table 10: Operationalization of Hypotheses with Regard to Internationalized Product Characteristics

evident that the indicators of a product's 'technological intensity', 'competitive advantage', 'standardization', 'type of customer needs' and 'service intensity' are used in order to operationalize the hypotheses with regards to internationalized product characteristics. The operationalization of the individual hypotheses is described below.

Hypothesis 2.2 assumes the positive association between the premium quality of an internationalized product and the international performance of the SME. Furthermore, Hypothesis 2.3 assumes a positive association



between its internationalized product innovativeness and the international performance of the SME. Both, the premium quality and the innovativeness of the internationalized product are operationalized with the help of the source of competitive advantage. The respondents are asked to identify the source of their product's competitive advantage from a given list<sup>41</sup>. The nominal variable of a product's competitive advantage is transformed into individual dichotomy variables for each of the given competitive advantage sources. Consequently, the product is considered premium quality or innovative if the respondent identified the appropriate feature as the source of product's competitive advantage.

Hypothesis 2.4 assumes a negative association between the service intensity of the internationalized product and the international performance of the SME. The indicator of service intensity of an exported product is understood as the need for service or assistance beyond the common guarantee service. A service intensive product is expected to require special assistance such as pre- and after-sales service. This indicator is added to the analysis as a dummy variable. The service intensive product is coded as '1' and, accordingly, the product that is not service intensive as '0'.

Hypothesis 2.1. assumes a positive association between the technological intensity of the internationalized product and the international performance of the SME. The indicators of a product's technological intensity similarly to the standardization of its production and the type of customer needs are measured with the help of the four-level Likert Response Scale (Dafinoiu, 2003, p.116). The responses are transformed into a numerical scale as follows: '1' stands for 'very low' (respectively 'very heterogeneous' in the case of customer needs), '2' for 'low', '3' for 'high' and '4' = 'very high' (respectively 'very homogenous' customer needs). The indicators, standardization of production and the type of customer's needs are used as further operationalization of Hypothesis 2, assuming the impact of internationalized product characteristics on the international performance of the SME.

### ***Operationalization of the Hypotheses with Regard to Management Decisions***

The operationalization of the hypotheses with regard to management decisions is depicted in Table 11. Looking at Table 11, it is evident that the indicators of 'choice of generic business strategy', 'definition of target market segment', 'definition of verifiable objectives', 'number of target

<sup>41</sup> The respondents are given the following option in order to identify their product's competitive advantage: 'price', 'brand name/image', 'quality', 'customer service', 'delivery conditions', 'innovation', 'cost reduction for customers' and 'other'.

markets', number of internationalization forms', amount of information categories about the target market' and 'number of management's business trips into the target market' are used in order to operationalize the hypotheses with regard to management decisions. There are four hypotheses defined within the management decisions hypotheses group. The operationalization of the individual hypotheses is described below.

Hypothesis 3.1. assumes a positive association between the existence of a strategic planning process of internationalization and the international performance of the SME. However, it is very difficult to test the existence of a highly complex strategic planning process within a company. The strategic planning process is part of strategic management. It comprises the areas of 'strategic planning', 'implementation of strategies' and 'strategic control' (Kühn/Grünig, 2001, p. 16).

For practical reasons with regard to hypothesis testing, we assume that if a strategic planning process is identified in a company, the implementation of the strategies and their control are in place as well. Consequently, we focus on 'strategic planning' and leave the implementation and control phase aside.

The crucial part of the strategic planning process is the development of corporate and business strategies. In fact, the overall corporate strategy is amplified into a number of business strategies. Typically, even an SME operates within more than one single business area and therefore requires more than one business strategy (Kühn/Grünig, 2001, p. 32).

The development of a business strategy consists of two dimensions: the choice of competitive positioning (i.e. the generic business strategy) and the choice of market positioning (i.e. the served market segment) (Kühn, Grünig, 2001, p. 47). Thereby it is crucial that the choice is made clearly and explicitly as the business strategy provides the framework within which the concrete competitive advantages are determined (Kühn/Grünig, 2001, p. 185).

The above discussion shows that strategic planning as part of strategic management is a very complex process. Consequently, it is very difficult to collect the appropriate empirical data to measure it. Despite the complexity of the phenomena and the difficulties with its measurement, the following three indicators are assumed to be good predictors of the existing strategic planning process. The first two indicators are intended to control the choice of the business strategy (i.e. competitive positioning) and the definition of the target market segment (i.e. market positioning). The third

indicator checks the definition of verifiable objectives for the international activities.

The choice of the generic business strategy is one of the indicators used in order to operationalize the strategic planning process. However, this is not easy to measure, considering the empirical findings which confirm the acknowledgment of the importance of strategic planning by SMEs and, at the same time, its lacking implementation by managers (Bassen, Behman, Gilbert, 2001).

That is why a plausibility test is designed instead of simply asking the firms whether they choose their generic business strategy. The test is based on a comparison of the identified source of the product's competitive advantage and the identification of the chosen generic business strategy. Thereby the chosen generic business strategy has to correspond with the identified source of competitive advantage in order to pass the plausibility test. Consequently, the outcome of the dichotomy variable 'definition of generic business strategy' depends on the results of the plausibility test. If consistency is assured, then the company is considered to choose its generic business strategy of the internationalization explicitly.

The plausibility test is based on the definitions of the generic business strategies (see Grünig/Kühn, 2001, p.189). If the 'broad scope price strategy' or 'niche focus price strategy'<sup>42</sup> (Grünig/Kühn,2001, p.187) and the 'price' as a source of competitive advantage are identified simultaneously, then the generic business strategy is considered to be defined consciously. The same applies, if the 'broad scope differentiation strategy' or 'focus differentiation strategy' and the 'brand name/image' or 'quality' or 'innovation' as a source of competitive advantage are identified simultaneously. The following formula for the variable 'definition of generic business strategy' is developed:

*'definition of generic business strategy' = '1' if the source of competitive advantage = price + the identified generic strategy = 'cost leadership' or 'cost focus' or if the source of competitive advantage ≠ price + identified strategy = 'differentiation' or 'differentiation focus'*

<sup>42</sup> The terms 'cost leadership' and 'cost focus strategy' are also employed in the literature (Porter, 1985) instead of 'broad scope price strategy' and 'niche focus price strategy' (Grünig/Kühn,2001) used in this thesis.

Hypothesis		Operationalization
3. Management decisions with regard to internationalization have an impact on the international performance of the SME.	3.1. There is a positive relationship between the existence of a strategic planning process of internationalization and the international performance of the SME.	Plausibility test of the correspondence of the chosen generic business strategy and the identified competitive advantage of the product
		Plausibility test of the availability of the information on the target market and the identification of the target market segment
		Indication of the objectives defined for the internationalization, plausibility check of the verifiability of the objectives
	3.2. There is a positive relationship between the concentration of resources and the international performance of the SME.	Number of target markets
		Number of internationalization forms practiced
	3.3. There is a positive relationship between the intensity of prior target market research and the inter-national performance of the SME.	Number of collected and analyzed target market indicators prior to the commencement of the internationalization activities.
	3.4. There is a positive relationship between the management commitment towards an SME's inter-national activities and the internationalization performance of the SME.	Average number of management business trips to the target market

Table 11: Operationalization of Hypotheses with Regard to Management Decisions

A further indicator of strategic planning is the definition of the target market segment. This variable represents, in addition to the choice of the generic business strategy, a further dimension of the strategic planning process. Consequently, a similar plausibility test is also developed for this variable. It is based on the kind of analyzed target market indicators and on the identification of the market presence. Consequently, the outcome of the dichotomy variable 'definition of target market segment' depends on the results of the plausibility test. The firm is considered to define its market segment, if it analyzes at least one indicator of each dimension (i.e. market, customers and competitors) and identifies its market presence simultaneously. The following formula for the variable 'definition of target market segment' is developed:

*'definition of generic business strategy' = '1' if the kind of information acquired prior to the engagement in the market = 'customer segment' +*

*'volume of the market' or 'market growth' + 'competitor's market shares' or 'competitors products' + market presence = 'whole market' or 'market segment' or 'market niche'*

The last indicator of strategic planning is the definition of the verifiable objectives of internationalization. Respondents are asked to identify the objectives that are defined for the internationalization activity. A firm is considered to have defined its objectives, if at least one of the listed objectives of internationalization is considered to be verifiable. As the two previously discussed variables, also the 'definition of verifiable objectives' variable is dichotomous and it enters the data analysis as a dummy variable, coded '1' for 'the objectives defined' and '0' for 'no objectives defined'.

Hypothesis 3.2 assumes a positive association between the concentration of resources and the international performance of the SME. The concentration of resources is understood as comprising the following two dimensions: concentration on a limited geographical scope of internationalization and concentration on a limited number of internationalization forms. These two indicators are used to operationalize Hypothesis 3.2. are described below.

The geographical scope of internationalization is understood as the number of target markets the firm is operating in at one time. The variable is metrically scaled and no transformation is needed.

The second dimension of the concentration of resources is understood as the number of internationalization forms the firm is practicing. The variable is metrically scaled and no transformation is needed.

Hypothesis 3.3 assumes a positive association between the intensity of prior target market research and the international performance of the SME. The intensity of prior market research is operationalized with the help of a number of target market indicators, collected and analyzed by a firm prior to its foreign engagement. Consequently, the sum of target market indicators, shown by a firm as being analyzed before commencing its international activities, is used as an interval scale variable. No transformation for purposes of data analysis is needed.

Hypothesis 3.4 assumes a positive association between management's commitment to international activities and the international performance of the SME. Management commitment is operationalized with the help of an average number of management business trips, related to the internationalization of the particular product into a particular target market.

Similar to the study of Magagula/Obben (2001, p. 6), the management business trips indicator is used as a proxy for management commitment. It is argued that, even if the number of business trips to a target market can not cover all the aspects of management commitment towards internationalization, it is a good and well measurable predictor. Additionally, the three-year (2000-2002) average number of management trips to the target market is used in order to dampen the effect of any single year. The commitment of the management measured by the number of related business trips is a metrically scaled variable.

### ***Operationalization of Hypotheses with Regard to International Experience***

The operationalization of Hypothesis 4, assuming a positive association between the company's experience with a particular internationalization form in a particular country and the international performance of the SME is depicted in Table 12.

The indicator of experience with internationalization is operationalized with the help of the duration of the particular international activity within the particular target market. Firms are asked about the beginning of their particular international activity in a particular target market. Consequently, the number of years 'in business' expresses the firm's experience with the particular activity in that particular market. The variable is metrically scaled and no transformation is needed.

Hypothesis	Operationalization
4. There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.	Duration (in years) of the particular international activity within the particular market

Table 12: Operationalization of the Hypothesis with Regard to International Experience

### ***Operationalization of Hypotheses with Regard to Target Market Characteristics***

The operationalization of hypotheses with regard to target market characteristics is depicted in Table 13. Looking at Table 13, it is evident that the indicators of 'Coface country rating', 'Hofstete's cultural distance of countries' and 'Indication of resource advantage' are used in order to operationalize the hypotheses with regards to target market characteristics.

There are four hypothesis defined within the target market characteristics hypotheses group. The operationalization of the individual hypotheses is described below.

Hypothesis		Operationalization
5. The characteristics of the target market have an impact on the international performance of the SME.	5.1. There is a positive relationship between the economic and political stability of the target country of an SME's direct investment and its performance.	Coface country rating
	5.2. There is a negative relationship between the cultural distance of the target country of an SME's direct investment and its performance.	Hofstete's cultural distance of a target market and Switzerland
	5.3. If there is a large cultural distance between the target and the home country, then a joint venture performs better than a direct investment of an SME.	Hofstete's cultural distance of a target market and Switzerland
	5.4. There is a positive relationship between the availability of a resource advantage in the target country of an SME's direct investment and its performance.	Indication of the resource advantage in the target country of direct investment

Table 13: Operationalization of the Hypotheses with Regard to Target Market Characteristics

Hypothesis 5.1. assumes a positive association between the economic and political stability of the target country of an SME's direct investment and its performance. The target market's economic and political stability is operationalized by the country rating of Coface<sup>43</sup>. The rating reflects the extent to which a country's economic, financial and political outlook influences the financial commitments of local companies. This measurement is chosen due to its comprehensive approach to the country rating. The rating is based on macroeconomic as well as microeconomic expertises. A battery of macroeconomic financial and political indicators as well as the microeconomic indicators are used to assess country risk. The indicators are grouped into the following seven areas:

- Growth vulnerability
- Foreign currency liquidity crisis
- External over indebtedness

<sup>43</sup> Coface is a reputable French export credit underwriter, performing comprehensive country ratings.

- Sovereign financial vulnerability
- Banking sector fragility
- Political and institutional instability
- Companies' payment behavior

Based on the above indicators the rated-country ranks at one of these seven risk levels:

- A1: The steady political and economic environment has a positive effect on the already good payment record of companies. Very weak default probability.
- A2: The default probability is still weak, although the country's political and economic environment or the payment record of companies is not as good as in A1-rated countries.
- A3: Adverse political or economic circumstances may lead to a worsening payment record, which is already lower than in the previous categories. The probability of a payment default is, however, still low.
- A4: An already patchy payment record could be further worsened by the deteriorating political and economic environment. Nevertheless, the probability of a default is still acceptable.
- B: The unsteady political and economic environment is likely to further affect an already poor payment record.
- C: The very unsteady political and economic environment could deteriorate an already bad payment record.
- D: The high risk profile of a country's economic and political environment is further worsening a generally very bad payment record.

The target country's economic and political stability is given by the Coface rating risk level. The Coface risk level is transformed into a seven-level scale for purposes of data analysis. The lowest risk level category A1 corresponds to the transformed highest level (7 points) of the target market's economic and political stability. Accordingly, the D category of high risk corresponds to the lowest level of economic and political stability.

Hypotheses 5.2 and 5.3 assume the association between the cultural distance of the target country and the international performance of the SME. The cultural distance of a target market is operationalized by Hofstede's measures of cultural difference. The Hofstede system is broadly used by internationalization studies involving the phenomenon of cultural



distance between countries (Snodgrass/Sakaran, 1989). Based on Hofstede's cultural dimension scores (Hofstede, 2003), the cultural distance between Switzerland and a particular target market is calculated. There is no need to transform the created metric variable for the purpose of data analysis.

Hypothesis 5.4. assumes a positive association between the availability of a resource advantage and the international performance of the SME. The availability of a resource advantage in the target country of foreign direct investment is operationalized by the sources' indication of such an advantage. Afterwards a plausibility check of the answers is conducted. If the indicated advantage can be considered as a true resource advantages (e.g. lower costs of resources or labor force, highly qualified labor force, etc.) the dichotomy variable is coded '1' = 'the resource advantage in the target market available'.

Table 14 provides a summary of the hypotheses and their operationalization of hypotheses.

Hypothesis		Operationalization
1. The characteristics of an SME have an impact on its international performance.	1.1. There is a positive relationship between the size of an SME and its international performance.	Number of employees Annual turnover
	1.2. There is a positive relationship between the age of an SME and its international performance.	Age of the firm
	-	Sector of the firm
2. The characteristics of the internationalized product have an impact on the international performance of the SME.	2.1. There is a positive relationship between the technological intensity of the internationalized product and the international performance of the SME.	Technological intensiveness
	2.2. There is a positive relationship between the premium quality of the internationalized product and the international performance of the SME.	Competitive advantage identification
	2.3. There is a positive relationship between the innovativeness of the internationalized product and the international performance of the SME.	Competitive advantage identification
	2.4. There is a negative relationship between the service intensity of the exported product and the export performance of the SME.	Service intensity
	-	Standardization of production
	-	Type of customer needs

Hypothesis		Operationalization
3. Management decisions with regard to internationalization have an impact on the international performance of the SME.	3.1. There is a positive relationship between the existence of a strategic planning process of internationalization and the international performance of the SME.	Plausibility test of the correspondence of the chosen generic business strategy and the identified competitive advantage of the product
		Plausibility test of the availability of the information on the target market and the identification of the served market segment
		Indication of the objectives defined for the internationalization, plausibility check of the verifiability of the objectives.
	3.2. There is a positive relationship between the concentration of resources and the international performance of the SME.	Number of target markets
		Number of internationalization forms practiced
	3.3. There is a positive relationship between the intensity of prior target market research and the inter-national performance of the SME.	Number of collected and analyzed target market indicators prior to the commencement of the internationalization activities.
	3.4. There is a positive relationship between the management commitment towards an SME's inter-national activities and the internationalization performance of the SME.	Average number of management business trips to the target market
	4. There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.	Duration (in years) of the particular international activity within the particular market
5. The characteristics of the target market have an impact on the international performance of the SME.	5.1. There is a positive relationship between the economic and political stability of the target country of an SME's direct investment and its performance.	Coface country rating
	5.2. There is a negative relationship between the cultural distance of the target country of an SME's direct investment and its performance.	Hofstete's cultural distance of a target market and Switzerland
	5.3. If there is a large cultural distance between the target and the home country, then a joint venture performs better than a direct investment of an SME.	Hofstete's cultural distance of a target market and Switzerland
	5.4. There is a positive relationship between the availability of a resource advantage in the target country of an SME's direct investment and its performance.	Indication of the resource advantage in the target country of direct investment

Table 14 Overview of Operationalization Hypotheses

### 4.3.5 Questionnaire

As discussed in Section 4.3, p. 77, the questionnaire is chosen as an appropriate data collection tool for the empirical study. A highly structured questionnaire is developed in order to acquire the needed data regarding Swiss SMEs.

The content of the questionnaire reflects the tested associations, the developed hypotheses and their operationalization, discussed on the basis of the review of the internationalization literature. The wording of the questions is cautiously and consciously elected. The questionnaire design process is carefully done in the following four steps:

- Defining the questions to be asked
- Determining the structure of the questionnaire
- Formulating the questions
- Assembling the questionnaire

The resulting questionnaire is divided into seven sections. Thereby the second part and the last part are devoted to the general questions regarding the respondent's company and its international activities. Each of the sections in the middle part of the questionnaire (i.e. Sections II.-V.) focuses on one of the investigated internationalization forms. The questionnaire has the following structure:

- 0. Introduction
- I. General Questions
- II. Exporting
- III. Direct Investment
- IV. Licensing
- V. Joint Venture
- VI. Company and Respondent Data

The introduction gives instructions regarding the completion of the questionnaire, the deadline for answering and calls the respondents attention to the alternative of the online questionnaire. In addition, the definitions of the investigated internationalization forms and the assurance of confidentiality are provided in the introduction.

Section I of the questionnaire includes the filtering questions to identify the internationally active and the domestic SMEs. After answering the questions of whether they used to be internationally active in the past and what reasons there were for discontinuing the activity, the domestic firms are instructed to pass to the final part of the questionnaire (VI. Company and Respondent Data). The internationalized SMEs continue with further filtering questions regarding the kind of international activities they are engaged in. The respondents are asked to complete all parts of the questionnaire relevant to their company (i.e. the sections dealing with the internationalization forms the firm is practicing).

Sections II to V are organized in the same way. They deal with the questions regarding particular internationalization forms. Each company is asked to complete only the relevant sections of the questionnaire, i.e. those corresponding with the internationalization forms the firm is practicing. In each section relevant for a particular firm, it is asked to identify the three most important target markets, followed by the identification of the most important product in each market.

The respondents are further asked to provide information with regard to the indicated target market and marketed product. The questions are grouped into three categories:

- Part A deals with the characteristics of the internationally marketed product. The basic characteristics of the internationalized products, such as its competitive advantage, technological or service intensity etc. are asked in this section.
- Part B deals with the questions regarding management decisions, international experience and the target market of the given internationalization case.
- Part C deals with the indicators of international performance. The given internationalization case is assessed with the help of the defined set of performance indicators.
- Part D deals with the information about the company and the particular responding person. All respondents are asked to answer this closing part of the questionnaire and to provide information about their company such as the year of foundation, number of employees, legal form etc.

The original text of the questionnaire is in German. It is provided in Appendix A.

### 4.3.6 Pilot Study

A pilot study has been conducted in order to discover the potential problems with the questionnaire such as ambiguities or misunderstandings, before conducting the empirical study. A limited number of questionnaires was distributed, collected and analyzed in order to test if the questions are understood and interpreted in a right way.

Eight senior executives of SMEs agreed to collaborate on a pilot study. The analysis of the completed questionnaires and especially the discussions with the respondents has lead to a few minor adjustments of the questionnaire.

### 4.3.7 Data Collection

As discussed in Section 4.3.3, p. 81, there are two empirical survey conducted in the scope of this thesis: The first one is a proportional survey of Swiss SMEs and the second one is a focused survey of internationalized Swiss SMEs.

The first empirical survey aims to answer the descriptive research questions. Additionally, the data of internationalized Swiss SMEs acquired in the first proportional survey are used in order to investigate the relationship research question. The data of the proportional survey of Swiss SMEs is collected with the help of the traditional data collection tool – a questionnaire distributed via mail. In addition, respondents are offered to provide their answers via the Internet with the help of an online questionnaire. Nevertheless, all the respondents are contacted via mail. The questionnaire is mailed to 750 Swiss SMEs. In the cover letter the respondents are provided with a link to the Internet-based questionnaire, which is seen as an alternative to the traditional paper questionnaire. The respondents are free to chose how to provide their answers.

The second empirical survey, i.e. the survey focused only on internationally active Swiss SMEs, aims to acquire additional data for relationship analysis. Consequently, the second empirical survey is conducted in order to investigate the second and the third research questions of the thesis. The data is collected with the help of the Internet-based questionnaire. The respondents are contacted by a personalized email which provides them with a link to the Internet-based questionnaire.

As opposed to the first empirical survey, the second survey abandons the mailing via traditional post data collection technique. In contrast to the

proportional sample of Swiss SMEs applied in the first survey, the respondents of the internationally active SMEs sample are expected to use the Internet in their every-day business. Consequently, it is assumed that all of them dispose of the necessary technical equipment and skill needed in order to answer the Internet-based questionnaire. That's why the second empirical survey is based only on the Internet-based questionnaire. This approach is chosen also due to its convenience and cost effectiveness. Additional benefit of the Internet-based survey are the data entry that takes place as the respondent completes the questionnaire and the better possibilities to provide the respondent with directions, explanations, definitions, etc.

The online questionnaire tool for the purpose of this thesis is developed in PHP<sup>44</sup>, the application is hosted on the server of the University of Fribourg. The content of the paper and Internet-based questionnaire is the same. The introducing section of the Internet-based questionnaire provides a short description, the purpose of the survey and the directions of how to answer the questions. The definitions of the used terms can be recalled at any spot of the questionnaire.

Table 15 provides an overview of both surveys. Looking at the table it is evident that 750 and 513 questionnaires are sent out in the first and second empirical survey respectively. Whereas 2.3% of the posted questionnaires appeared to be undeliverable (first survey), the same applies to 4.1% of the emailed once (second survey). Furthermore, the feedback of another 78 respondents (10.4%) of the first study and 45 respondents of the second survey (8.8%) shows that these can not be considered Swiss SMEs according to the definition applied within this thesis (see Section 2.3, p. 13). These subjects appear to be either employing more or less than 10-249 people or to be related to another corporation. Consequently, the effective number of questionnaires sent out is 655 (87.3 % of the gross sent out) and 447 (87.1%) for the first and second surveys respectively.

Looking at Table 15, it is evident that both of the conducted empirical survey achieved a highly comparable response rate, regardless of the different data collection techniques (post and Internet-based questionnaire vs. Internet based questionnaire) and the research samples (proportional sample of Swis SMEs vs. internationally active Swiss SMEs) used. The response rate of the first and second empirical survey, 28.9% and 27.8% respectively, is also considered to be comparable to similar empirical surveys conducted by other researchers. For instance Schreiner (2004, p. 120) and Peyinghaus (2004. p. 38), who conducted a proportional

<sup>44</sup> PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML.

survey of software and automotive industry firms, achieve the response rate of 14.7% and 19.5% respectively. Further, Piller (2000, p. 155) investigating Swiss internationally active middle-sized enterprises achieved a response rate of 21%.

In addition to the information of the response rate of the empirical surveys, Table 15 provides the number of acquired answers of internationally active and domestic Swiss SMEs. In addition, it shows the proportion of the answers that are considered to be sufficiently completed for purposes of statistical analysis.

	1 <sup>st</sup> Empirical Survey of Swiss SMEs (Proportional Survey)		2 <sup>nd</sup> Empirical Survey of Internationalized Swiss SMEs (Focused Survey)	
	N	%	N	%
Sent out	750	100.0%	513	100.0%
Delivery failed	17	2.3%	21	4.1%
Answers by firms not matching the thesis' definition of Swiss SMEs <sup>a</sup>	78	10.4%	45	8.8%
Effectively sent out	655	100.0%	447	100.0%
Answers returned per post	93	14.2%		
Answers returned per Internet / completed online	96	14.7%	123	27.5%
<b>Total of answers returned / Response rate</b>	<b>189</b>	<b>28.9%</b>	<b>123</b>	<b>27.5%</b>
Answers by domestic SMEs	133		3	
Answers by internationalized SMEs	56	100.0%	120	100.0%
Incomplete answers <sup>b</sup>	23	41.1%	31	25.8%
<b>Total of answers by internationalized SMEs</b>	<b>33</b>	<b>58.9%</b>	<b>89</b>	<b>74.2%</b>
<sup>a</sup> The answers by firms that are not considered to be Swiss SMEs according to the definition applied in this thesis (i.e. firms that are not independent or firms employing either less or more than 10-249 people) <sup>b</sup> The answers with missing data regarding the success indicators are excluded from the statistical data analysis				

Table 15: Response Rates of Empirical Surveys

### 4.3.8 Data Processing

After the deadline closing of the survey, the received paper questionnaires are checked for completeness<sup>45</sup> and consistency. It is especially verified

<sup>45</sup> The answer is considered to be completed sufficiently for the purposes of the statistical analysis when data regarding the success indicators is not missing.

whether the answering entity is considered to be a 'Swiss SME' as defined for the purposes of this thesis. Furthermore, the completeness of the answers is examined. Afterwards the data is coded and entered into an excel spreadsheet. Data cleaning, i.e. a second check of the data, is performed in order to ensure accuracy (Dafinoiu/Lungu,2003, p. 123).

The answers of the internet-based questionnaire are pre-coded and saved into a database. After the closing of the survey, the data are transferred into an excel spreadsheet from the database. Similarly to the case of the paper questionnaires, the data are checked for completeness and consistency. Thanks to the pre-coding there is only little additional coding needed.

### **4.3.9 Data Analysis**

The data acquired from the empirical study are analyzed in order to answer the defined research questions of the thesis. The first and second research questions are descriptive in nature. Consequently, simple descriptive statistics are used in order to analyze the data and provide the corresponding answers. On the other hand, in order to answer the third relational research question, more sophisticated data analysis needs to be performed.

The following sections are dedicated to data evaluation. First the developed evaluation concept is described and further, the methods used for evaluating the data of each stage are discussed.

#### **4.3.9.1 Evaluation Concept**

A four stage evaluation concept is developed for the purpose of analyzing the collected data. The concept is depicted in Figure 15. The zero stage is dedicated to absolute data evaluation in order to provide the answers to the first and second research questions that are descriptive in nature. In the three further evaluation stages the relationships between the dependent and independent variables are assessed. These evaluation stages result in answering the third research question of this thesis which is relational in nature.

Further, looking at Figure 15 it is evident that the first and second evaluation stage are classified as statistical data pre-evaluation. This means that hypothesis testing is performed in the last evaluation stage.

In the zero stage, absolute data evaluation is performed. First, the number of internationally active SMEs and the number SMEs active in each of the investigated internationalization forms are provided. Furthermore, the



univariate statistic<sup>46</sup> of the performance indicators, overall performance index as well as of the independent variables are calculated.

In the first stage the relationship between the individual independent variable and the dependent variable is analyzed. At this stage the influence of the other variables is excluded from the evaluation. The first evaluation stage focuses on the bivariate correlation. It means the association of two variables: one independent (i.e. internal influence indicator) and one dependent variable (i.e. international performance). The bivariate correlations serve as empirical indications of a possible relationship between variables, they represent a good indication, but they do not control for intervening (mediating) variables (Garson, 2002; Yaffee, 2003, p.1). That is why this stage is seen as a pre-evaluation stage which does not serve the hypotheses test directly. Intervening variable effects are accounted for in additional evaluation stages.

The second evaluation stage considers all the independent variables of a particular hypotheses group (i.e. company, internationalized product, management decisions, international experience or target market). It estimates the multivariate model of each group of the indicators. The estimated multivariate model indicates the relationships between the independent and the dependent variables. The relationships identified by the multivariate model in the second stage of evaluation are more robust than the ones of the first stage. This is because the effects of the other variables within the particular group are taken into consideration. However, not all of the variables are included in the analysis, therefore the second stage is considered to be a pre-evaluation stage which does not serve the hypotheses test directly.

---

<sup>46</sup> The univariate statistics, such as mean, median, etc. are calculated.

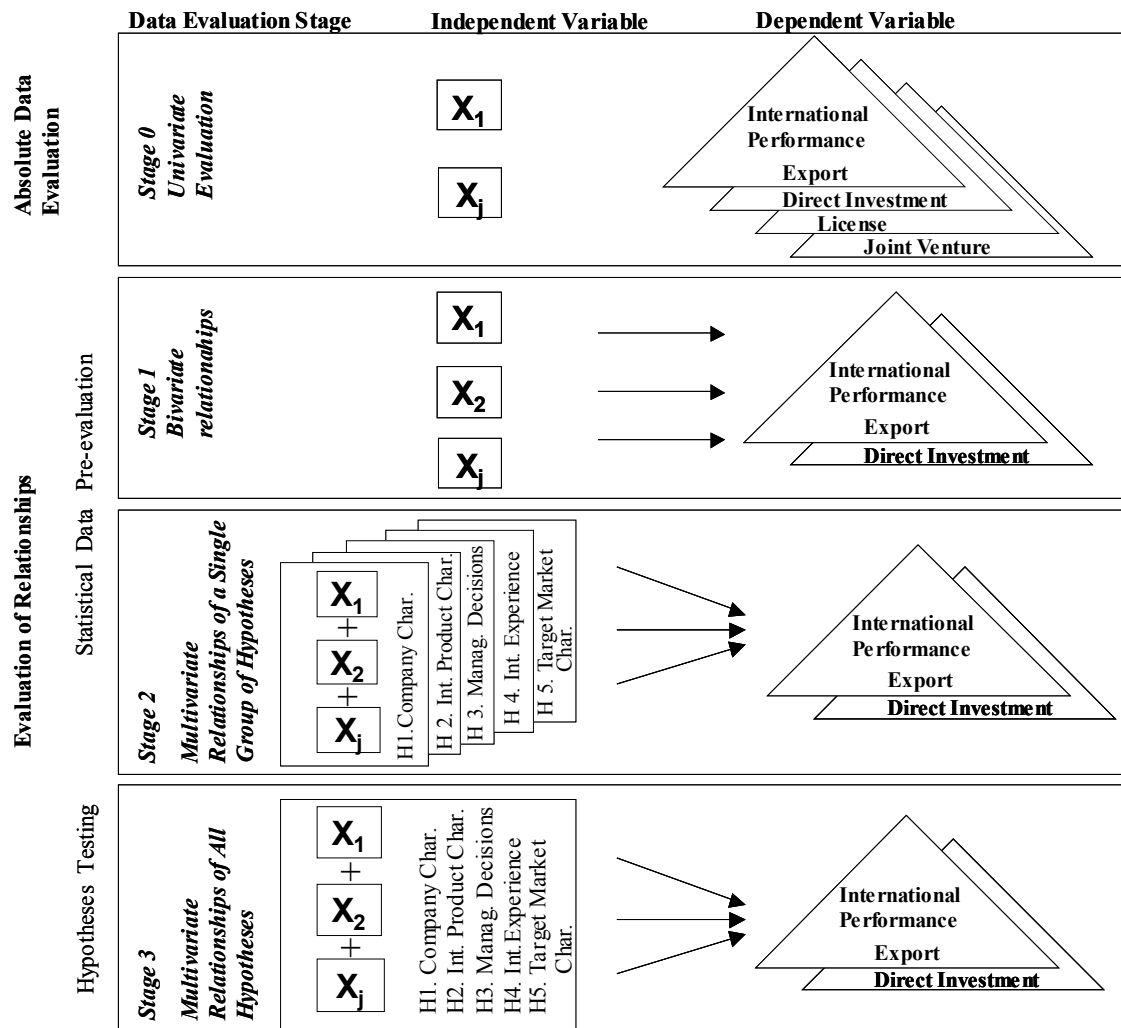


Figure 15: Evaluation Concept of the Thesis

The third stage of the evaluation considers an even broader model. It involves the independent variables from all hypothesis groups, i.e. all indicators. As such it provides the most robust results regarding the identification of relationships between the independent variables and the dependent variable<sup>47</sup>. This is because the effects of all other (relevant) variables are taken into consideration. This evaluation stage therefore serves the hypotheses test.

Each of the evaluation stages uses an appropriate statistical method in order to evaluate the relationships between the variables. There are two convenient statistical methods identified for each evaluation stage. The analyses are performed using both of the defined methods, thereafter their

<sup>47</sup> However, due to the relatively small sample of the evaluated data, the number of variables entering the model is limited. Consequently, not all the variables of all the groups can be entered into the model. Though every independent variable that proves the relationship with the dependent variable in the second evaluation stage is added into the model estimated in the third evaluation stage.

results are compared. Subsequently, the applied methods are described in more detail.

Unfortunately, it is not possible to conduct the proposed statistical evaluation of all the collected data. The acquired data of licensing and joint ventures is not enough in order to perform a statistical analysis. That's why the statistical data analysis aiming to identify the relationships and the test of the hypothesis is performed only for the two most frequent forms of Swiss SME internationalization: exporting and direct investment.

#### **4.3.9.2 Methods Used in the First Evaluation Stage**

Aiming to indicate a possible association between the variables with the help of bivariate correlation, it is necessary to apply the appropriate method. The kind of variables (i.e. their level of measurement) need to be considered when choosing the method for an analysis of a particular data set (Yaffee, 2003, p.2). The dependent variable of this thesis (i.e. the internationalization performance) is ordinally scaled. The independent variables are differently scaled, including dichotomous, ordinal and interval scales.

That is why the nonparametric correlation providing the distribution free correlation coefficients (Yaffee, 2003, p.4) is the appropriate method for purposes of bivariate relationship analysis.

However, as stated by the evaluation concept, the bivariate relationships between the independent variables and the dependent variable of internationalization performance are evaluated with the help of two different methods. This is done in order to compare the acquired results and to confirm the method resistance of the findings. The methods applied in the first stage of evaluation are Kendall's tau b coefficient and binary linear regression. According to the suggestions of Garson (2002) and Yaffee (2003) Kendall's tau b, a nonparametric correlation, is selected as a best fit method for the bivariate relationships analysis of the acquired data set. Binary linear regression is applied as the second method at the first evaluation stage.

##### ***Kendall's Tau B***

Kendall's tau b is a nonparametric measurement of correlation for ordinal or ranked variables that takes ties into account (Yaffee, 2003, p.5; Norusis, 2004). It is based on the measurement of monotonicity, which means that one variable changes in the same direction as the other variable. If both variables change in the same direction, a concordance is found. If one

variable changes in one direction while the other variable changes in the opposite direction, a discordance is found. The total number of concordances and the total number of discordances for all pairs of observations are counted (Denuit/Dhaene, 2003, p.7; Yaffee, 2003, p.5). Correlation coefficients range in value from  $-1$  (a perfect negative relationship) and  $+1$  (a perfect positive relationship). A value of 0 indicates no linear relationship. Consequently the sign of the coefficient indicates the direction of the relationship, and its absolute value indicates the strength. The larger absolute values indicate stronger relationships. The significance of the correlation coefficients is measured at the 5% and 1% level (Norusis, 2004).

The main advantages of using Kendall's tau b are the possibility of the direct interpretation of Kendall's tau b in terms of the probabilities of observing concordant and discordant pairs. It additionally reflects the strength of the relationship and it is sensitive to some types of independence which can not be detected by other methods (Conover, 1980).

### ***Binary Linear Regression***

Linear regression that considers either bivariate or multivariate relationships is one of the most popular statistical methods used in the social sciences. The method is praised as a flexible tool of statistical estimation, which is applied in order to provide a quantitative description of the associations between one dependent and one or more independent variables (Backhaus et al, 2000, p.46; Lewis-Beck, 1990, p.9; Berry/Feldman, 1985, p. 5). Due to the high awareness of the method in the academic world, the substance of the method is not described in detail (see e.g. Lewis-Beck, 1990).

Binary linear regression is selected as the second method of bivariate association analysis in the first evaluation stage because it is based on a different substance than the nonparametric correlation chosen as the best fit method. This leads to a check of the method resistance of the acquired results. Additionally, linear regression provides information on the share of the explained dependent variable variance by the particular independent one.

### **4.3.9.3 Methods Used in the Second and the Third Evaluation Stage**

For an assessment of the multivariate relationships in the second and third stages of data evaluation, two methods are used in order to compare the

results and to show their method resistance. The methods used are the generalized linear model (i.e. ordinal regression) and the linear regression (i.e. ordinary least square method).

### ***Ordinal Regression***

The ordinal regression model, introduced by McCullagh (1980), is an extension of the general linear model to ordinal categorical data (Norusis, 2004, p. 69; Chen/Hughes, 2004, p.1). The ordinal regression procedure is named PLUM (Polytomous Universal Model) in the statistical software package SPSS. Norusis (2004, p. 83) summarizes that “the model is based on the assumption that the observed ordinal outcome arises from discretizing the underlying continuum into ordered groups. The link function is the function of the probabilities that results in linear model parameters ... it is a link between the random component on the left side of the equation and the systematic component on the right”. Different link functions can be specified depending on the distribution of the cumulative probabilities. Table 16 shows the functions available in SPSS and their typical application.

Ordinal regression is chosen as the best fit method for the multivariate analysis of the associations in the second and third evaluation stages, because it corresponds the best with the given variables scales (the dependent variable and a number of independent variables are ordinally scaled). However, due to the frequent problem of general linear models for ordinal or dichotomous dependent variables, the problem of 'data separation' appearing in the acquired data set, the method can not be applied.

The problem of 'data separation' occurs when one independent variable or the combination of more dependent variables (perfectly or quasi perfectly) predicts the outcome of the observations or of the subgroup of observations. From an estimation perspective, the data separation leads to infinite coefficients and standard errors. The problem of data separation appears typically in general linear models such as ordinal regression or logistic regression in case of the small samples and/or sparse data (Zorn, 2005).

The data set and the single variables are examined in order to diagnose the variable causing the data separation problem. However, in the case of the analyzed data set, it is most probably a combination of variables predicting partially (not perfectly) a subgroup of observations. Due to that, it is not possible to exclude a cause of the problem.

Function	Form	Typical Application
Logit	$\log\left(\frac{\gamma}{1-\gamma}\right)$	evenly distributed categories
Complementary log - log	$\log(-\log(1-\gamma))$	higher categories more probable
Negative log - log	$-\log(-\log(\gamma))$	lower categories more probable
Probit	$\Phi^{-1}(\gamma)$	latent variable is normally distributed
Cauchit (inverse Cauchy)	$\tan(\pi(\gamma - 0.5))$	latent variable has many extreme values

Table 16: Link Functions of Ordinal Regression

That is why the best fit method (i.e. ordinal regression) has to be abandoned and the data analysis in the second and third evaluation stages are based on a single method (i.e. the multivariate linear regression).

### ***Multivariate Linear Regression***

The multivariate linear regression method, also called the ordinary least square method (OLS) in literature (Lewis-Beck, 1990; Berry/Feldman, 1985; Garson, 2002) is chosen to be applied in the second and third evaluation stages. Similarly as with bivariate regression, multivariate linear regression is also one of the most popular statistical methods used in the social sciences (Backhaus et al, 2000, p.46; Lewis-Beck, 1990, p.9; Berry/Feldman, 1985,p.5). It is also the most often used method with regard to the identification of the internationalization performance predictors (Aaby/ Slater, 1989,p.16).

Due to the high awareness of the method in the academic world we refer to Lewis-Beck (1990) or Backhaus et al. (2000) for the substance of the method.

When applying the linear regression models in order to test the hypotheses about the values of model parameters, consequently in order to be able to make accurate inferences about the population relationships, the regression model should meet certain assumptions (Berry/Feldman, 1985, p.10; Lewis-Beck, 1990, p. 26; Backhaus et al, 2000, p. 78; Garson, 2002 ) The linear regression model requires the fulfillment of the following assumptions of the analyzed data set:

- The relationship between dependent and independent variables is linear and that the effects of the independent variables are additive.
- Proper specification of the model, i.e. all variables are measured at the interval level and without error.
- The error term has a normal distribution with a mean of 0.
- The variance of the error term is constant across cases (homoscedastic) An error term with non-constant variance is said to be heteroscedastic.
- Each independent variable is uncorrelated with the error term.
- The values of the error term are not correlated with each other (no autocorrelation).
- No independent variable is perfectly linearly related to one or more of the other independent variables in the model (no perfect multicollinearity).

The possible violation of each of the OLS assumptions is tested by each of the twelve multivariate models estimated within this thesis. All the assumptions of the OLS method are tested very carefully, especially because the OLS method is not identified as the best fit method for the given data analysis. However, the performed tests do not reveal any meaningful violation of the assumptions. The complete tests of the assumptions, the discussion of their results including possible consequences on the violation of the assumptions are provided in Appendix B.

## 4.4 Qualitative Interviews

The second part of the empirical investigation is based on the qualitative method. Expert interviews are conducted in order to cross-check the findings of the empirical study. The interviews are in general the best means of acquiring in-depth information. The method is also chosen because of its flexibility. It enables the changing of the wording of the question if necessary, clarifying doubts and ensuring that the answers are correctly understood. In addition, the participation of experts in the research can improve the accuracy of the researcher's findings (Harrigan, 1983, p.401).

The in-depth interviews are intended to combine structure with flexibility. It allows the researcher to follow the prepared structure sufficiently flexibly in order to leave space for explanations, issues that spontaneously come up, etc. Additionally, the interview is interactive in nature, so the

data material is generated through the interaction of the researcher and the interviewee.

Consequently, the in-depth interview is selected as the best fit method for the verification of the empirical study findings, their interpretation and the drawing of the practical implications.

#### **4.4.1 Research Objectives**

The main objective of the qualitative expert interviews is to cross-check the evidence acquired by the quantitative empirical research. A further objective is to explore the social realities behind the identified relationships, i.e. the interpretation of the findings and the drawn practical implications.

#### **4.4.2 Research Sample**

As opposed to the quantitative study, the qualitative research methods apply non-probability sampling. The non-probability approach aims to reflect particular features of a sampled population, it does not intend to be statistically representative. It means, the chances of selection of each element are unknown, but the characteristics of the population are used as the basis of selection (Ritchie/Lewis, 2003, p.78). However, for some degree of generalization to be made, it is necessary for the non-probability sampling process to be conceptualized and documented.

The purposive sampling approach is chosen for the purpose of determining the participants of qualitative interviews. In this approach, the selection of participants is purposive, i.e. the sample units are chosen based on the particular characteristics they correspond to (Ritchie/Lewis, 2003, p.78).

The sampling framework including the characteristics of the background of the experts is chosen in order to determine the participants of the expert interviews. It means that one participating expert is selected being familiar with one of the following backgrounds: expertise in any of the associations focused on Swiss SME internationalization, expertise in an institutional approach to the SMEs internationalization, i.e. the governmental support programs and the practical expertise in Swiss SME internationalization.

It is expected to achieve a broad coverage of the different views on the phenomenon of SME internationalization by the proposed sampling.



### 4.4.3 Questionnaire

The semi-structured questionnaire for the expert interviews was developed. Correspondingly with the objectives of the qualitative survey, it is divided into three sections, each of which is focused on one research question, cross-checking the answers acquired from empirical data analysis. Each section of the semi-structured questionnaire is organized as follows: First the expert is asked to provide his/her answers and estimates regarding a particular research question. Afterwards they are asked to comment on the answers provided by the empirical data analysis. The semi-structured questionnaire is provided in Appendix A.

### 4.4.4 Data Collection

The interviews were conducted during January 2006. The questionnaire is sent to the interviewees one week before the interview is conducted. The interviews are recorded and the research notes are written up within 24 hours after the interview. The stages of the performed interviews can be described as follows (Ritchie/Lewis, 2003, p.143):

- Stage One – Introduction of the research project regarding Swiss SMEs internationalization including its objectives, research questions and the design of the empirical study.
- Stage Two – Beginning the interview. The structure of the interview is presented and the background of the interviewee in connection to the research topic is discussed.
- Stage Three – Cross-checking of the quantitative research findings. The validation of the findings, their interpretation and the drawn practical implications is the main part of the interview. It is organized according to the research questions and subsequently according to the investigated internationalization forms. Generally, the experts are first asked to provide their estimates or answers regarding the particular research questions. Only thereafter are they asked to comment on the acquired empirical findings.
- Stage Four – Ending the interview. At the end of the interview the experts are thanked for the participation, their contribution to the research results is emphasized and they are reassured that the interview data are going to be used only for the research purposes of this thesis.

### **4.4.5 Data Processing and Analysis**

A qualitative analysis of interview transcripts is provided. The answers of the three experts on each of the questions are summarized and conclusions with regard to the empirical results validation, interpretation and practical implications are drawn.

## 5 Results of the Empirical Study

### 5.1 Overview

Similarly to the previous chapter, Chapter 5 is also divided into two main parts: Section 5.2. providing the results of the quantitative study and Section 5.3. providing the results of the qualitative study.

Before presenting the quantitative study findings, the general remarks section depicts the structure of the acquired research samples. Thereafter, the empirical findings are discussed. The section is organized according to the research questions. The descriptive research results (i.e. the state of internationalization of Swiss SMEs and their international performance) are provided first. Thereafter, the results of relational data evaluation are presented. The hypotheses with regard to export and direct investment performance influences are discussed in detail.

Section 5.3. presents the results of the qualitative part of the empirical study – the expert interviews. The section is also organized according to the research questions. Accordingly, first the expert opinions regarding the descriptive empirical findings are outlined. Thereafter their comment's on the relational results (i.e the associations between Swiss SME internal factors and their internationalization performance) is discussed. Thereby, each section first presents the estimates of the experts, followed by their comments on the empirical findings and consequences for practical implications.

### 5.2 Quantitative Study

The quantitative study follows the objectives of the thesis. It aims to answer the descriptive as well as the relational research questions. The respective results are outlined and discussed in the following sections.

#### 5.2.1 General Remarks

In order to achieve the first objective of this thesis (a description of the actual state of the internationalization of Swiss SMEs<sup>48</sup>), the first empirical survey<sup>49</sup>, based on a proportional research sample of Swiss SMEs, is

<sup>48</sup> The term 'Swiss SME' is understood as defined in Section 2.2, p. 10 (i.e. an independent firm with an annual average number of employees higher than 10 but not exceeding 249, being headquartered in the German speaking part of Switzerland).

<sup>49</sup> The 1<sup>st</sup> empirical survey is an empirical survey based on a random sample of SMEs acquired from the SFSO (see Section 4.3.3., p. 81).

conducted. The findings of the first empirical survey, based on the acquired sample of Swiss SMEs (1<sup>st</sup> research sample) provide the answer to the first descriptive research question of the thesis. The descriptive results are discussed further in this chapter (see Section 5.2.2.1, p. 121).

In order to achieve the additional objectives of this thesis, the second descriptive objective (a description of the international performance of Swiss SMEs) and the third relational objective (identification of the associations between the internal factors and the international performance of Swiss SMEs), a sample of internationally active Swiss SMEs needs to be investigated. Therefore a second survey is conducted focusing on Swiss internationally active SMEs. Consequently, all available responses of internationally active Swiss SMEs, i.e. the answers acquired from the 1<sup>st</sup> and 2<sup>nd</sup> empirical survey<sup>50</sup>, create the sample of internationally active Swiss SME (the 2<sup>nd</sup> research sample).

The analysis of the data of the 2<sup>nd</sup> research sample provide the answer to the second descriptive research question (discussed in Section 5.2.2.2, p. 142) and the third relational research question (discussed in Section 5.2.3, p. 158).

Whereas in case of the first research question the unit of investigation is an SME, it is the SME's internationalization case in case of the second and third research questions. Within this thesis, an internationalization case is understood as a particular international activity (internationalization form) performed by a firm in a particular country.

To sum up, the above means that the three research questions of this thesis are answered based on an analysis of two different research samples, the 1<sup>st</sup> sample of Swiss SMEs and the 2<sup>nd</sup> sample of the internationalization cases of Swiss SMEs (see Figure 16). A detailed description of both research samples is provided in the following section.

---

<sup>50</sup> The 2<sup>nd</sup> empirical survey of internationally active Swiss SMEs was conducted on a sample acquired from Osec's Swiss Export Directory.

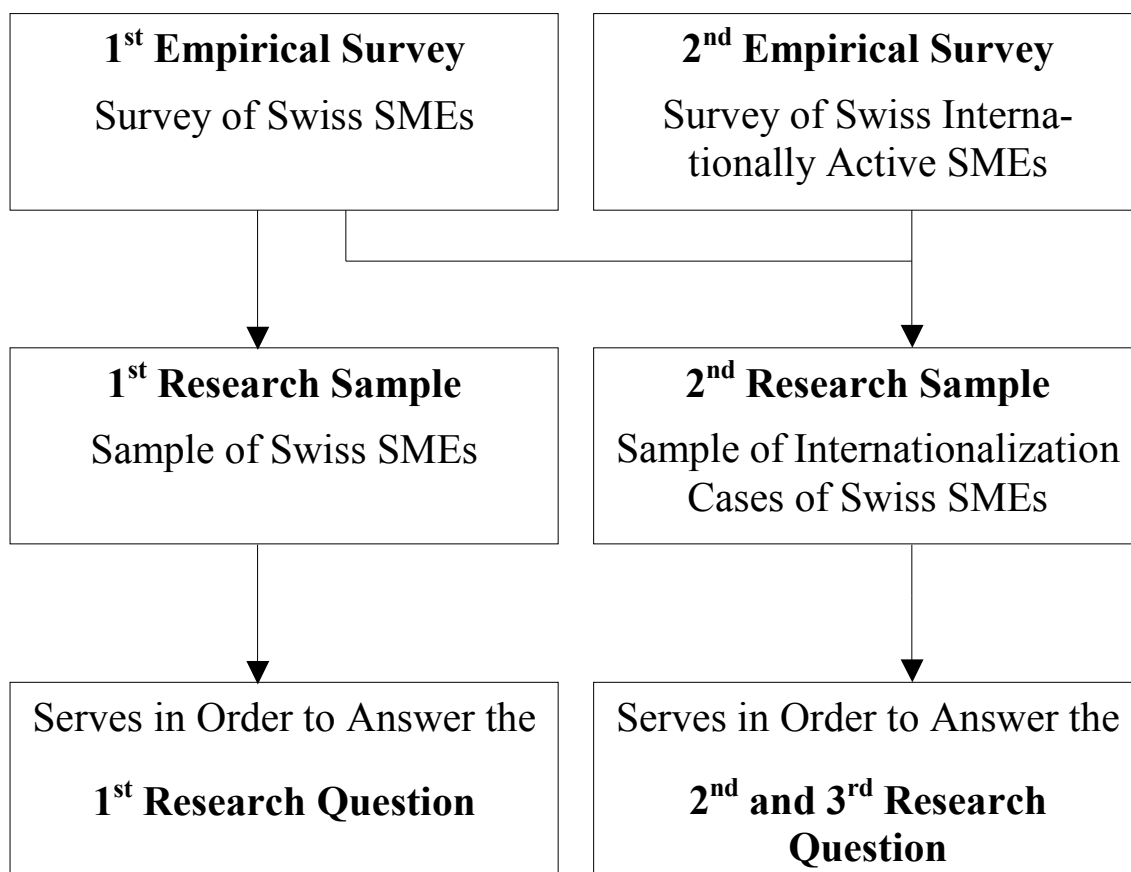


Figure 16: Empirical Surveys and Research Questions of the Thesis

### 5.2.1.1 The Structure of the Sample of Swiss SMEs

The structure of the 1<sup>st</sup> research sample of Swiss SMEs obtained from the first empirical survey performed in the scope of this thesis, is depicted in Table 17.

As mentioned above, based on an evaluation of the data of the 1<sup>st</sup> research sample, the actual state of internationalization of Swiss SMEs is described. The answers of 189 SMEs were collected in the 1<sup>st</sup> empirical study (see Section 4.3.7, p. 101). It was intended to compare the structure of the acquired sample with the structure of the Swiss SME population. Unfortunately, data regarding the structure of the population of Swiss SMEs (i.e. their size in terms of the firm's turnover, age, legal form and industry sector structure) was not available. Consequently, it was not possible to assess the representativeness of the acquired sample.

Size		Legal Form	
Small SMEs (10 - 49 employees)	67%	Ordinary partnership	2.96%
Medium sized SMEs (50 - 249 employees)	33%	Limited liability company	34.91%
		Join-stock corporation	56.21%
		Cooperative	3.55%
		Other	2.37%
Age		Turnover (3-year average)	
< 10 years	12.35%	< 10 M.	59.35%
10 - 50 years	49.38%	10 - 100 M.	36.59%
> 50 years	38.27%	< 100 M.	4.07%
Sector		Turnover (3-year average)	
Production	25.15%	Information missing	35%
Services	20.96%	Information provided	65%
Production and services	53.89%		

Table 17: Structure of the Sample of Swiss SMEs

Further descriptive statistics regarding the number of employees, average turnover and age of Swiss SMEs in the sample are provided in Appendix C.

### 5.2.1.2 The Structure of the Sample of Internationalization Cases of Swiss SMEs

The origin of the data of the 2<sup>nd</sup> research sample of Swiss SMEs' internationalization cases is depicted in Table 18. The data of the 2<sup>nd</sup> research sample are the answers of internationally active Swiss SMEs acquired from both empirical surveys performed.

	Number of Answers by Internationally Active Firms	Number of Analyzable Answers by Internationally Active Firms	Number of the Analyzable Internationalization Cases <sup>a</sup>	Average number of Cases per Analyzable Answer
Exporting	161	112	263	2.35
Direct Investment	34	22	38	1.73
License	17	10	10	1.00
Joint Venture	14	7	13	1.86
Total Number of Firms <sup>b</sup>	176	122	not applicable	not applicable

<sup>a</sup> Within this study several internationalization forms per firm/questionnaire are possible.

<sup>b</sup> Within this study the internationalization case is understood as one firm's particular product/service within a particular market.

Table 18: The Origin of the Sample of Swiss SME Internationalization Cases

Table 18 shows the number of SMEs of a particular internationalization form. Thereby, it is possible that one SME operates in more than one internationalization form.

Furthermore, respondents were asked to provide answers with regard to the three most important target markets they operate in. Consequently, an SME active in a particular internationalization form (i.e. export) and in a particular country (i.e. Sweden) represents an internationalization case (i.e. an SME's exports to Sweden) as the unit of investigation. The analysis of the internationalization performance of Swiss SMEs as well as the identification of the factors associated with the international performance is done based on internationalization cases.

Table 18 provides both the number of acquired internationalization cases per internationalization form and the average number of cases per SME.

Looking at Table 18, it is evident that the group of export cases is the most numerous. The acquired samples of the other three internationalization forms are rather limited. It is not surprising that the exporting SMEs provide the highest number of cases per SME. On average each exporting SME answering the questionnaire, provided data with regard to 2.35 target markets, i.e. 2.35 export cases.

The structure of the sample of Swiss SME internationalization cases is depicted in Table 19. Characteristics regarding SME size by number of employees, size by average turnover<sup>51</sup>, age, legal form and industry sector are outlined separately for each of the investigated internationalization forms.

---

<sup>51</sup> A significant number of responding SMEs did not provide data regarding their turnover. Consequently, a number of missing values appeared in the sample with regard to companies turnover. The share of these missing values is indicated in Table 19.

Exporting	Direct Investment	License	Joint Venture
<b>Size</b>	<b>Size</b>	<b>Size</b>	<b>Size</b>
Small SMEs (10 - 49 employees) 54%	Small SMEs (10 - 49 employees) 12%	Small SMEs (10 - 49 employees) 0%	Small SMEs (10 - 49 employees) 29%
Medium sized SMEs (50 - 249 employees) 46%	Medium sized SMEs (50 - 249 employees) 88%	Medium sized SMEs (50 - 249 employees) 100%	Medium sized SMEs (50 - 249 employees) 71%
<b>Age</b>	<b>Age</b>	<b>Age</b>	<b>Age</b>
< 10 years 6.28%	< 10 years 0.00%	< 10 years 0.00%	< 10 years 0.00%
10 - 50 years 44.93%	10 - 50 years 13.33%	10 - 50 years 50.00%	10 - 50 years 100.00%
> 50 years 48.79%	> 50 years 86.67%	> 50 years 50.00%	> 50 years 0.00%
<b>Sector</b>	<b>Sector</b>	<b>Sector</b>	<b>Sector</b>
Production 51.38%	Production 54.84%	Production 70.00%	Production 40.00%
Services 2.21%	Services 0.00%	Services 0.00%	Services 0.00%
Production and Services 46.41%	Production and Services 45.16%	Production and Services 30.00%	Production and Services 60.00%
<b>Legal Form</b>	<b>Legal Form</b>	<b>Legal Form</b>	<b>Legal Form</b>
Ordinary partnership 2.90%	Ordinary partnership 0.00%	Ordinary partnership 0.00%	Ordinary partnership 0.00%
Limited liability company 33.82%	Limited liability company 0.00%	Limited liability company 0.00%	Limited liability company 0.00%
Join-stock corporation 62.32%	Join-stock corporation 100.00%	Join-stock corporation 100.00%	Join-stock corporation 100.00%
Cooperative 0.97%	Cooperative 0.00%	Cooperative 0.00%	Cooperative 0.00%
Other 0.00%	Other 0.00%	Other 0.00%	Other 0.00%
<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>
< 10 M. 55.86%	< 10 M. 0.00%	< 10 M. 0.00%	< 10 M. 0.00%
10 - 100 M. 42.76%	10 - 100 M. 66.67%	10 - 100 M. 50.00%	10 - 100 M. 80.00%
< 100 M. 1.38%	< 100 M. 33.33%	< 100 M. 50.00%	< 100 M. 20.00%
<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>	<b>Turnover (3-year average)</b>
Information missing 45%	Information missing 57%	Information missing 20%	Information missing 50%
Information provided 55%	Information provided 43%	Information provided 80%	Information provided 50%

Table 19: Structure of the Sample of Swiss SME Internationalization Cases



## 5.2.2 Descriptive Results

### 5.2.2.1 The State of Internationalization of Swiss SMEs

By addressing the first objective of the thesis, the first empirical survey explored the actual state of internationalization of Swiss SMEs. The following section provides the answers to the following questions:

- How many Swiss SMEs are internationally active?
- Do the internationally active SMEs differ from the domestic SMEs in terms of company size, age, industry sector or legal form?
- What kind of international activities do Swiss SMEs perform?

#### *Domestic versus Internationally Active SMEs*

The analysis of the acquired data of 189 Swiss SMEs shows that 56 companies were internationally active, whereas 133 of them were only operating in the domestic Swiss market in 2002. Accordingly, the share of Swiss SMEs that were internationalized in the year 2002 was nearly 30% (see Figure 17).

The acquired sample included only 3.1% of domestic SMEs that reported to have initiated (then later abandoned) international activity in the past. All of these SMEs stated that they had been exporting in the past and indicated that their activities had been planned to last only for a limited period of time.

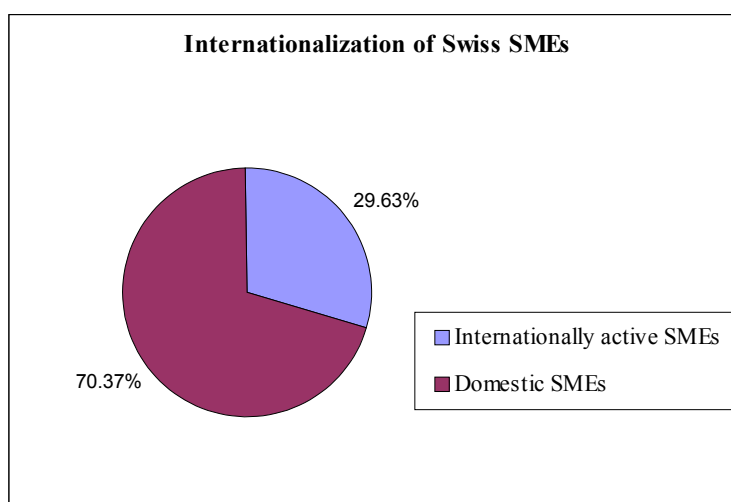


Figure 17: State of Internationalization of Swiss SMEs

Additionally, an analysis of the group of internationalized and domestic Swiss SMEs, based on the collected empirical data, is provided.

The age structure of internationally active and domestic SMEs is depicted in Figure 18 and in Figure 19. Dividing SME's into age-groups reveals a high similarity of both company groups of SMEs. The median age of internationalized companies is 45 years whereas it is 10 years less for domestic ones (for further descriptive statistics regarding the age of SMEs see Appendix C). However, the internationalization of the firm and its age are not correlated (see Table 20, p. 125).

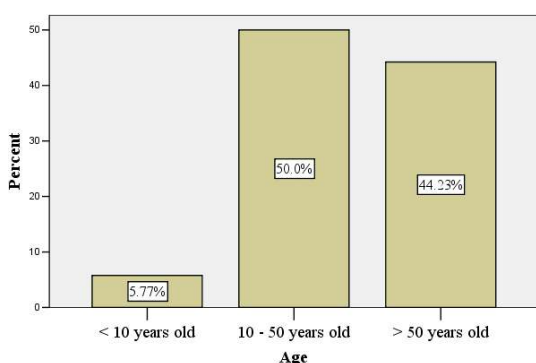


Figure 18: Age of Internationalized SMEs

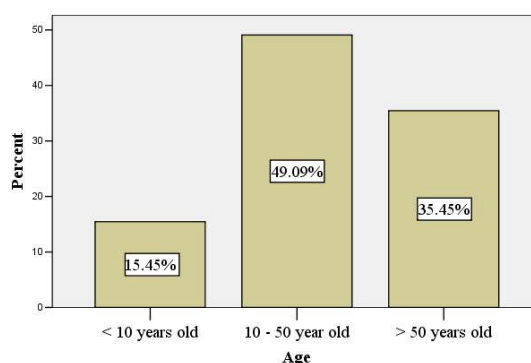


Figure 19: Age of Domestic SMEs

Figure 20 and Figure 21 show the size-groups of the internationally active and domestic companies respectively. The internationalized firms seem to be bigger in terms of the number of employees than their domestic counterparts. Obviously, there is a higher proportion of medium-sized companies among internationalized firms (ca. 52%) than among domestic ones (ca. 25%). The median number of employees of the two groups differs accordingly. The median of the international SMEs lies at 52.5 employees, whereas the value of the domestic firms (25 employees) is much lower (see Appendix C). The implied relationship is confirmed by the strong, highly significant, positive correlation between the firm's state of internationalization and its number of employees as presented in Table 20.

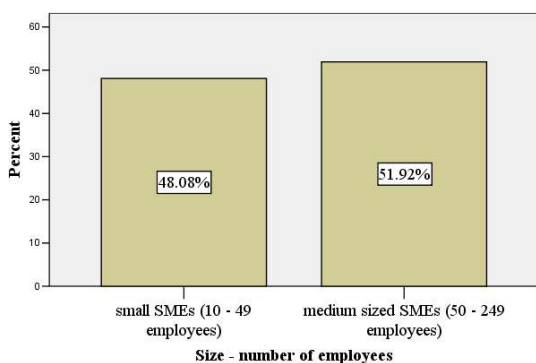


Figure 20: Size (number of employees) of Internationalized SMEs

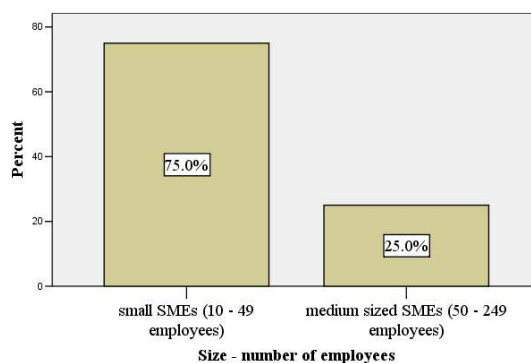


Figure 21: Size (number of employees) of Domestic SMEs

The bar charts provided by Figure 22 and Figure 23 show the size structure (according to their average turnover) of internationalized and domestic SMEs. A more thorough investigation shows a significant correlation between the internationalization of a firm and its average turnover. The median of international firms' turnover lies higher (9 million CHF) than the one for domestic SMEs (4.6 million CHF). Additional descriptive statistics regarding average turnover in the two respective groups of SMEs is provided in Appendix C.

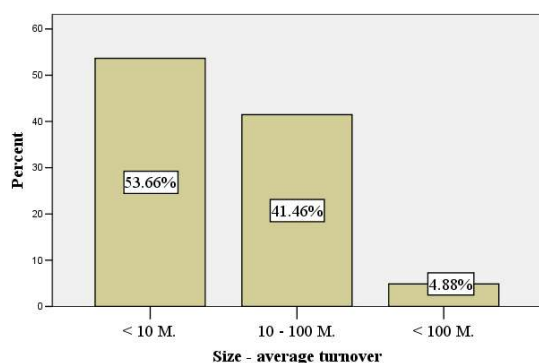


Figure 22: Size (Average Turnover) of Internationalized SMEs

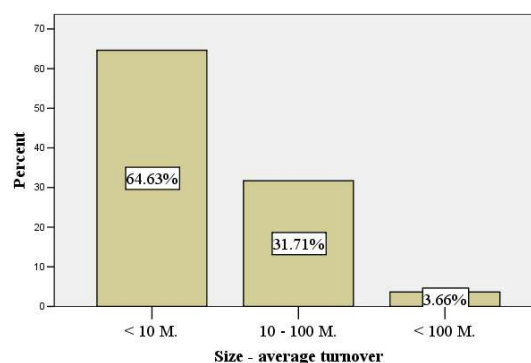


Figure 23: Size (Average Turnover) of Domestic SMEs

When comparing Figure 24 and Figure 25, it is evident that there are significant differences between internationalized and domestic SMEs with regard to the industry sector they belong to. Whereas service companies represent approximately 28% of domestic SMEs, there are only 4% of them among internationally active SMEs. The service sector seems to be much less internationalized than the production sector. This is confirmed by the strong positive correlation between a firm's internationalization and its belonging to the production sector at a 1% level of significance. Consequently, for service sector SMEs, international activity is negatively correlated (see Table 20).

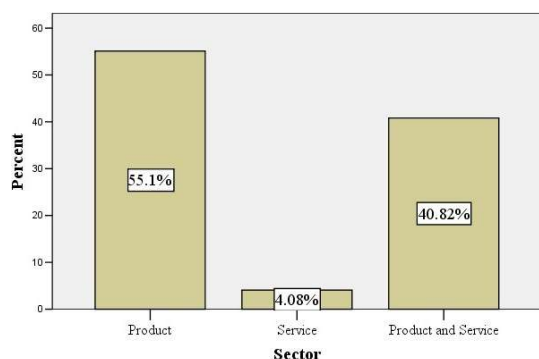


Figure 24: Industry Sector of Internationalized SMEs

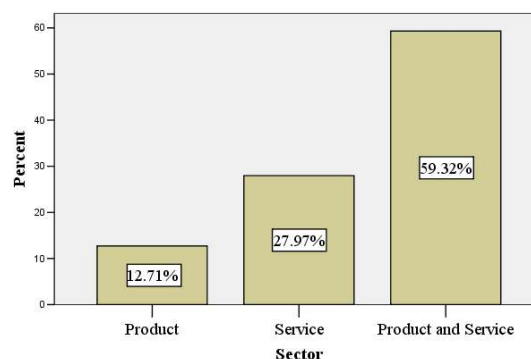


Figure 25: Industry Sector of Domestic SMEs

The bar charts in Figure 26 and Figure 27 depicting the legal forms of SMEs show that international SMEs are dominated by joint-stock corporations (ca. 89%), whereas the majority of domestic SMEs use either the form of a limited liability company (46%) or a joint-stock corporation (45%). Consequently, it is not surprising that there is a positive correlation between a firm's internationalization and a joint-stock corporation legal form. Furthermore, a negative correlation appears between the legal form of a limited liability company and its internationalization (see Table 20).

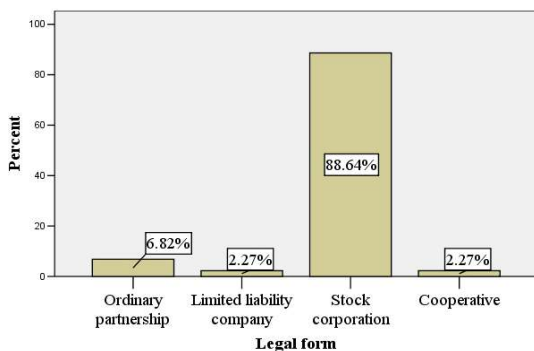


Figure 26: Legal Forms of Internationalized SMEs

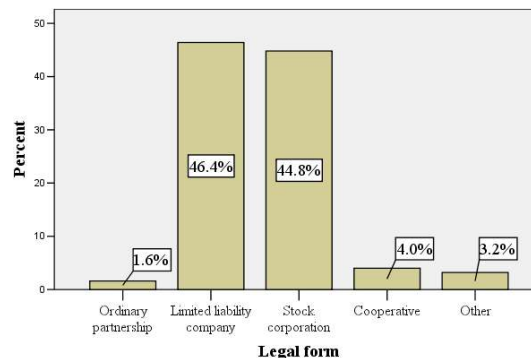


Figure 27: Legal Forms of Domestic SMEs

Some further descriptive statistics (such as mean, median, maximum and minimum values of the international and the domestic firms and the skewness of their distribution) are provided in Appendix C.

Additionally, Table 20 provides an overview of the Pearson Correlations between a firm's age, size in number of employees and in average turnover), industry sector, legal form and its internationalization.

### ***Forms of Internationalization of Swiss SMEs***

In addition to a description of the actual state of internationalization, a description of the particular forms of the international activities of Swiss SMEs represents the second interest of the investigation of this thesis.

Table 21 presents the findings of the 1<sup>st</sup> empirical survey regarding the forms of Swiss SME international activity. Thereby, one SME can be active in more than one internationalization forms. A breakdown of Swiss SMEs internationalized by each particular form is depicted in Figure 28.

Correlations		International Activity
Age	correlation coefficient	0.101
	sig. (2-tailed)	0.201
	N	162
Size (Number of Employees)	correlation coefficient	0.309
	sig. (2-tailed)	0.000 **
	N	176
Size (Average Turnover)	correlation coefficient	0.204
	sig. (2-tailed)	0.024 *
	N	123
Product	correlation coefficient	0.445
	sig. (2-tailed)	0.000 **
	N	167
Service	correlation coefficient	-0.267
	sig. (2-tailed)	0.000 **
	N	167
Product and Service	correlation coefficient	-0.445
	sig. (2-tailed)	0.000 **
	N	167
Ordinary Partnersip	correlation coefficient	0.110
	sig. (2-tailed)	0.133
	N	189
Limited Liability Company	correlation coefficient	-0.412
	sig. (2-tailed)	0.000 **
	N	189
Join-Stock Corporation	correlation coefficient	0.251
	sig. (2-tailed)	0.000 **
	N	189
Cooperative	correlation coefficient	-0.051
	sig. (2-tailed)	0.482
	N	189

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Table 20: Correlations between Swiss SME Characteristics and Their International Activity

Looking at Table 21 and Figure 28, it is evident, that the overwhelming majority (approximately 80%) of Swiss SMEs export. The dominance of exporting as the main form of Swiss SMEs' international activity is confirmed by the findings of both empirical surveys performed. The second most popular internationalization form is direct investment which is applied by 18% of Swiss SMEs. The last two internationalization forms, licensing and joint ventures are used rather exceptionally, by approximately 9% and 7% of cases respectively.

**1<sup>st</sup> Empirical Survey**

<b>Internationalization Forms<sup>a</sup></b>	<b>Percent of SMEs</b>
Exporting	80.36%
Direct Investment	17.86%
License	8.93%
Joint Venture	7.14%

<sup>a</sup> One SME may be active in more than one internationalization form.

Table 21: Internationalization Forms of Swiss SMEs

Subsequently, the groups of exporting, direct investment, licensing and joint venture cases are characterized with regard to the indicators of the company, internationalized product, managements decisions, international experience and target markets.

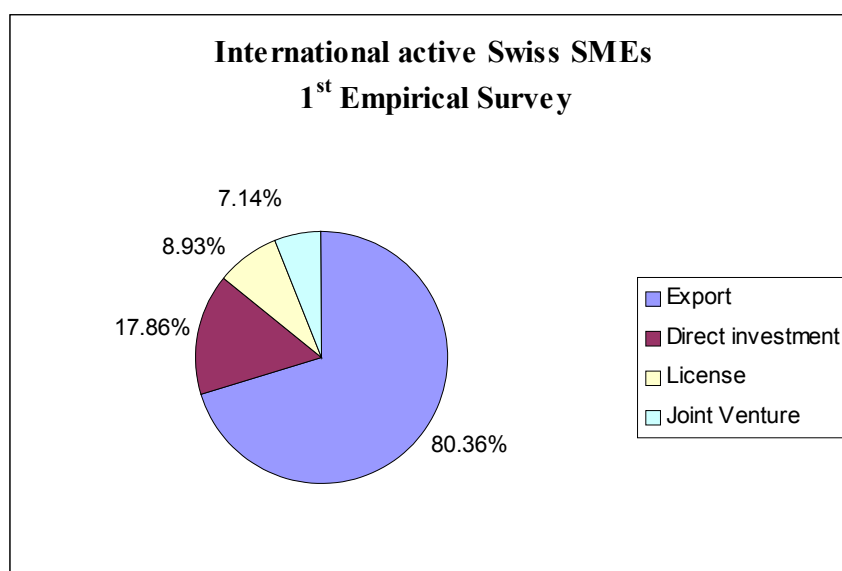


Figure 28: Internationalization Forms of Swiss SMEs

### ***Characteristics of Swiss SME Export Cases***

The indicators describing the exporting behavior of Swiss SMEs are depicted in Table 22. Some of the most important characteristics of Swiss SME export cases are emphasized below.

Both the descriptive analysis and the overview of the empirical findings are based on the answers of 112 Swiss exporting SMEs<sup>52</sup>.

<sup>52</sup> 112 SMEs answered the questionnaire, providing 263 export cases (i.e. exporting a particular product to a particular market).

The empirical findings show that the average age of Swiss exporting SMEs is 49 years. Only a small share of exporting SMEs consist of starting firms, 0.5% are less than 5 years old and 6.3% are less than 10 years old.

The size structure of exporting SMEs according to their number of employees is not very different from the structure of the internationally active SMEs. Both the size categories of small and medium firms are almost equally represented. An average exporting Swiss SME employs 66 people.

Dividing exporting SMEs into size categories according to their average turnover is also highly comparable with the one of internationally active SMEs. The middle value of exporting SMEs' turnover lies at 8 million CHF, which is, however, lower than the one of all internationally active SMEs'.

With only a 2.3% share the service sector is highly underrepresented among the export cases.

The majority of Swiss SMEs export cases export indirectly, i.e. the exporting company cooperates with the export or import agent, wholesaler or any other kind of intermediary. Only in slightly more than 40% of cases do the SMEs export directly, i.e. they deliver directly to their final customers. However, none of the two kinds of exporting seems to be more or less successful than the other; even when the wholesaler seems to be a less successful distribution channel than the other ones, as the negative association with export performance shows.

The empirical study does not provide any surprising findings with regard to the export target markets of examined SMEs. The majority of SMEs (69.3%) export to the countries of the European Union. For 26.89% of the export cases, Germany is one of three most important target markets, followed by France with 8.33% of cases. Of non European countries, the USA proved to be the biggest export market of Swiss SMEs as 12.5% of them count it among the three most important target markets. The number of target markets of exporting varies a lot among the population of exporting SMEs. Approximately one fourth of them export their products to less than five markets, even if more than one third of them stated that they export to more than twenty markets. The middle value lies at 15 target markets.

As assumed, the majority (51.6%) of Swiss SME export cases focus on a market niche. Equal parts of the remaining cases are stated to serve the whole market or one of its segments.

In addition, almost all SME export cases (87.1%) stated that they performed some market research prior to market entrance. It means that 12.9% of SMEs began exporting without any analysis of the target market. There is not a meaningful difference between the kind information collected about the target market. Approximately 20% of SMEs indicated that they have analyzed information regarding market volume, market growth, customer segments in the target market, competitors' market shares and competitor's product offerings before entering the market. In slightly more than 2% of the cases the firms searched for other industry specific or regulatory information. Approximately 43% of the SMEs analyzed three and more target market indicators before entering the market, however on average it was only 2.4 indicators.

Next the indicators used in order to measure the strategic planning process of Swiss exporting SMEs are described. According to expectations, a majority of export cases stated that they relied on a differentiation generic business strategy. A price strategy is followed only by 19.8% of cases and 3.4% of them indicated another type of strategy. However, after the plausibility test<sup>53</sup> of the data consistency, only 76.8% of the cases testified to define their generic business strategy consciously. Among SMEs that defined their strategy consciously, the share of those focusing on differentiation (92.1%) is even higher. Accordingly, only a very small minority of Swiss exporting SMEs in fact count on a price strategy.

In addition to the generic business strategy of exporting the definition of target market segment was examined. Similarly to the strategy indicator, the findings after the plausibility test<sup>54</sup> showed that 52.9% of the export cases defined the served target market segment consciously. Obviously it is much less than in the case of the generic business strategy. However, this does not imply that all the firms that did define the served market segment also defined their generic business strategy. On the contrary, this is the case of only 80.6% of SMEs.

---

<sup>53</sup> The plausibility test with regard to the choice of generic business strategy was based on the consistency of an SME's indication of its exported product's source of competitive advantage and the defined generic business strategy. If the indicated product's competitive advantage and the chosen strategy were corresponding, the choice of the strategy was considered to be conscious.

<sup>54</sup> The plausibility test of the definition of the target market segment was based on the consistency of the SME's indications with regard to the pre-engagement market research and the identification of the market presence. If the firm analyzed at least one of the target market indicators with regard to each of the following phenomena; 'market', 'customers' and 'competitors' it indicated its market presence, then the definition of target market segment was considered to be conscious.



Number of Exported Products	Number of Target Export Markets	Duration of Export Activities	Share of Turnover Achieved in 1 <sup>st</sup> Year of Exporting
≤ 5 exported products 56.4%	≤ 5 markets 24.3%	≤ 5 years 26.4%	< 5 % 52.6%
6 - 10 exported products 14.6%	6 - 10 markets 22.4%	6 - 10 years 22.2%	6 - 10 % 28.0%
11 - 20 exported products 13.6%	11 - 20 markets 19.0%	11 - 20 years 33.1%	11 - 20 % 4.7%
> 20 exported products 15.4%	> 20 markets 34.2%	> 20 years 18.4%	> 20 % 14.7%
Exported Product Requires Special Service (Service Intensive)	Export Markets	Defined Generic Business Strategy	Share of Turnover Achieved Average of 2000, 2001 & 2002
Yes 43.0%	EU 69.3%	Price strategy 19.8%	< 5 % 25.7%
No 57.0%	North America 13.3%	Differentiation strategy 76.8%	6 - 10 % 29.5%
	Rest of the world 17.4%	Other 3.4%	11 - 20 % 20.7%
			> 20 % 24.1%
Level of Standardisation of Exported Product Manufacturing	Level of Market Presence	Number of Management's Journeys in First Year of Export	Change in the Share of Turnover Achieved by Exporting
Very high standardisation 13.7%	All market 24.2%	0 9.5%	Decrease 12.0%
High standardisation 27.9%	Market segment 24.2%	< 5 53.0%	Stagnation 19.2%
Low standardisation 35.1%	Market niche 51.6%	6 - 10 21.1%	Increase less than 10% 52.0%
Very low standardisation 23.3%		11 - 20 14.7%	Increase more than 10% 16.8%
		> 20 1.7%	
Technological Know-How Intensity of Exported Product	Kind of Distribution Channel Used	Number of Management's Journeys in 2000, 2001 & 2002	Costs of Exporting Activities in 1 <sup>st</sup> Year
Very high 36.5%	Direct Delivery to Customers 40.7%	0 7.9%	< 5 % 71.6%
Rather high 44.5%	Delivery via wholeseller 34.6%	< 5 50.4%	6 - 10 % 12.1%
Rather low 15.2%	Delivery via agent 24.7%	6 - 10 19.0%	11 - 20 % 14.7%
Very low 2.3%		11 - 20 15.5%	> 20 % 1.7%
None 1.5%		> 20 7.1%	
Customer Needs	Information about Target Market	Change in Number of Management's Journeys	Costs of Exporting Activities Average of 2000, 2001 & 2002
Very homogeneous 21.7%	Not collected 12.9%	Decrease 43.1%	< 5 % 72.7%
Rather homogeneous 55.1%	Collected 87.1%	Stagnation 19.0%	6 - 10 % 17.4%
Rather heterogeneous 15.2%		Increases 37.9%	11 - 20 % 8.3%
Very heterogeneous 8.0%			> 20 % 1.5%
Competitive Advantage of the Exported Product	Kind of Information Collected about Target Market	Strategy Consciously Defined (after Plausibility Check)	Change in the Costs of Exporting Activities
Price 17.5%	Market Volume 48.3%	No 23.2%	Decrease 28.8%
Brand name/ image 54.4%	Market Growth 38.4%	Yes 76.8%	Stagnation 54.1%
Quality 82.1%	Customer Segments 55.9%		Increase 17.1%
Customers' service 49.8%	Competitor's Market Share 49.4%		
Delivery conditions 46.8%	Competitor's Products 50.2%		
Innovation 51.7%	Other Information 4.9%		
Customers' cost reduction 22.1%			
Other 1.3%			
Objectives of Exporting	Kind of Objectives Defined	Industry Segment Consciously Defined (after Plausibility Check)	Industry Sector of a Company
Not defined 12.9%	Volume 70.0%	No 47.1%	Service company 2.3%
Defined 87.1%	Profit 45.2%	Yes 52.9%	Production company 51.3%
	Market share 37.6%		Offering product & service 46.4%
	Other 2.6%		
Age of Company	Size of Company (Number of Employees)	Size of Company (Average Turnover)	
< 10 years 6.3%	Small (10-49 employees) 53.5%	< 10 M. 55.9%	
10 - 50 years 49.3%	Medium (50- 249 empl.) 46.5%	10 - 100 M. 42.8%	
> 50 years 44.4%		> 100 M. 1.4%	

Table 22: Characteristics of Swiss SMEs Export Cases

The last indicator delineating the strategic planning process of SME exporting is the definition of export objectives. The overwhelming majority (87.1%) of the cases stated that they defined at least one verifiable objective of the export activity. Most SMEs set themselves objectives regarding sales volume (70%), followed by generated income (45.3%) and acquired market share (37.5%). Only a small group of firms defined other kinds of objectives.

The length of the export activities varies a lot within the analyzed sample of Swiss exporting SMEs (see Table 22). An average Swiss SMEs had been exporting for 11.8 years in 2002.

The commitment of SME management to exporting was measured with the help of management's business trips to the target country. Whereas the median lies at 5 business trips to the target country in the first year of exporting, the middle values of the years 2000 to 2002 is 4 trips. Accordingly, the change of this indicator between the first year of exporting and the average of the years 2000 to 2002 shows that in 43.1% of cases, managers traveled more often to the target market during the initial phase of exporting.

Similarly, the costs of export activity were analyzed. Whereas an average Swiss SMEs export costs in the first year of exporting accounted for 5.8% of the firm's turnover, the same costs fell to 5.5% of turnover as the average of the years 2000 to 2002. The costs of exporting remained stable in almost 40% of the cases, they decreased in 21.1% and grew in 14.5% of the cases.

Looking at Table 22, the opposite trend is evident in the case of export intensity, i.e. the overall percentage of a firm's turnover achieved by exporting. On average, Swiss SME exports achieve 13.2% of overall turnover in the first year of exporting and an average of 18% in 2000 to 2002. A growth in export intensity was experienced by almost 80% of the cases. Of which 16.8% had growth rates that exceeded 10%.

Most exporting SMEs concentrate on a limited number of exported products, i.e. 56.4% of them export less than five different products.

Table 22 shows some of the characteristics of the exported products. It is evident that the highly technologically intensive products prevail among the exported products. Technological intensity of 81% of them is meant to be high or even very high.

On the contrary, no pattern can be observed with regard to production standardization. Even if the majority (58.4%) of the cases stated that the production of exported products is not standardized, 41.6% of exported products were indicated as outputs of standardized production.

Surprisingly, the overwhelming majority of SMEs stated that their customers needs are homogeneous (76.8%).

Even if the majority of the exported products are not service intensive, 43% of them require some kind of special treatment, such as pre-sales or after-sales service.

Not surprisingly, when asked what the source of the competitive advantage of the exported product is, the majority of SMEs (82.1%) mentioned the product's quality. Additional highly ranked sources of competitive advantage were brand name or image with 54.4% of cases and product innovation with 51.7% of cases. The smallest share of exported products (only 17.1%) banks on price as a competitive advantage.

### ***Characteristics of Swiss SME Direct Investment Cases***

The characteristics of Swiss SME direct investment cases as collected in the empirical survey are depicted in Table 23. Some of the most important characteristics are emphasized below.

The acquired sample of Swiss SMEs investing in a production site abroad is rather limited (see Table 18). An analysis of the descriptive empirical findings provided below as well as an overview in Table 23 are based on the answers of 22 SMEs<sup>55</sup>.

The average age of Swiss SMEs managing a foreign direct investment is 72.6 years. None of the firms of the sample were younger than 10, which confirms the assumption that most SMEs do not invest abroad at the beginning of their operations.

The size structure of SME foreign direct investment cases according to the number of employees as well as average turnover seems to differ significantly from the other internationally active SMEs. Most of the SMEs sourcing direct investment abroad (87.7%) belong to the group of medium-sized firms. Similarly, the average turnover of all of them is higher than 10 million CHF. An average SME managing direct investment employs 109 people and achieves a turnover of 29.15 million CHF. As such, it exceeds the average size of SMEs of any other internationalization form.

As in the case of exporting, service firms do not seem to internationalize through direct investment either. None of the direct investment cases in the sample was a service company, most of them (55.3%) were production companies. The remaining SMEs stated that they offered products as well as services.

---

<sup>55</sup> 22 SMEs answered the questionnaire, providing 38 direct investment cases (direct investment in a particular market).

Swiss SME direct investment target markets are very similar to those of exporting SMEs. The majority of Swiss SMEs invest in the production sites in the countries of European Union (60.5%). For 28.9% of the cases, Germany is one of the three most important target markets, followed by the USA with 15.7%. Not very surprisingly, the number of target markets of direct investment is much lower than that of exporting. An 84.2% majority of direct investment cases stated that they invest in less than 5 markets.

Interestingly, only half of the SMEs investing in a production site abroad perceive that the target market offers them some kind of resource advantage. 52.6% of the cases that indicated the existence of a resource advantage in the target country named it 'low cost labor force'.

A slight majority of the cases (55.3%) declared that they were exporting the products from the foreign site to additional foreign markets. These are mostly countries linked geographically to the target country of direct investment. In most of the cases in the sample, these were the other countries of the EU.

It seems that, unlike exported products, direct investment ones are not niche products. The majority of cases were stated to focus on a particular market segment (57.9%). However, the cases serving the whole market seem to be more successful than the others as a positive association appeared between direct investment performance and the whole market presence.

As expected, many more direct investment cases performed market research than exporting ones. In fact, all of the investigated direct investors performed market research prior their market entrance. All kinds of target market information were collected. However, the market volume and the competing product offerings were the most analyzed information. The direct investment cases also seem to collect more information than the export cases. On average 3.1 target market indicators were analyzed.

As in the case of exporting, most of the direct investment cases stated they rely on a differentiation generic business strategy (76.3%), whereas the rest of the cases stated they implement a price strategy. The plausibility test of data consistency shows that 81.6% of the cases could be considered to choose their generic business strategy consciously. Similarly, the definition of the target market segment was examined. The results of the plausibility test showed that almost the same proportion of cases (78.9%) defined their industry segment consciously.

The last indicator, describing the strategic planning process of SME direct investment cases, investigated whether the objectives of direct investment were defined. Correspondingly, with the definition of the strategy and the market segment, the majority (81.6%) of the cases stated that they define at least one verifiable objective of direct investment. Objectives with regard to profit (53.7%) and sales volume (25.9%) were the most often set objectives by direct investment cases.

The length of the analyzed direct investments of Swiss SMEs varies a lot. The average duration of a Swiss SME's direct investment was 9.2 years in 2002.

<b>Number of Products</b>	<b>Number of Target Markets of Direct Investment</b>	<b>Duration of Direct Investment</b>	<b>Share of Turnover Achieved in 1<sup>st</sup> Year of Direct Investment</b>
≤ 5 exported products 40.0% 6 - 10 exported products 6.7% 11 - 20 exported products 23.3% > 20 exported products 30.0%	≤ 5 markets 84.2% 6 - 10 markets 7.9% 11 - 20 markets 7.9% > 20 markets 0.0%	≤ 5 years 28.9% 6 - 10 years 39.5% 11 - 20 years 28.9% > 20 years 2.6%	< 5 % 58.3% 6 - 10 % 27.8% 11 - 20 % 8.3% > 20 % 5.6%
<b>Product Requires Special Service (Service Intensive)</b>	<b>Targetmarkets of Direct Investment</b>	<b>Defined Generic Business Strategy</b>	<b>Share of Turnover Achieved Average of 2000, 2001 &amp; 2002</b>
Yes 26.3% No 73.7%	EU 60.5% North America 15.7% Asia 13.4% East Europe 5.2% Rest of the world 5.2%	Price strategy 23.7% Differentiation strategy 76.3% Other 0.0%	< 5 % 21.1% 6 - 10 % 13.2% 11 - 20 % 44.7% > 20 % 21.1%
<b>Level of Standardisation of Manufacturing</b>	<b>Level of Market Presence</b>	<b>Number of Management's Journeys in 1<sup>st</sup> Year of DI</b>	<b>Change in the share of Turnover Achieved by DI</b>
Very high standardisation 44.7% High standardisation 28.9% Low standardisation 18.4% Very low standardisation 7.9%	All market 34.2% Market segment 57.9% Market niche 7.9%	0 0.0% < 5 48.6% 6 - 10 14.3% 11 - 20 37.1% > 20 0.0%	Decrease 0.0% Stagnation 5.6% Increase less than 10% 41.7% Increase more than 10% 52.8%
<b>Technological Know-How Intensity</b>	<b>Distribution of the Production on Further Foreign Markets</b>	<b>Number of Management's Journeys in 2000, 2001 &amp; 2002</b>	<b>Costs of DI Activities in 1<sup>st</sup> Year</b>
Very high 23.7% Rather high 23.7% Rather low 10.5% Very low 28.9% None 13.2%	Yes 55.3% No 44.7%	0 0.0% < 5 50.0% 6 - 10 47.2% 11 - 20 2.8% > 20 0.0%	< 5 % 0.0% 6 - 10 % 68.0% 11 - 20 % 28.0% > 20 % 4.0%
<b>Customer Needs</b>	<b>Information about Target Country</b>	<b>Change in Number of Management's Journeys</b>	<b>Costs of DI Activities Average of 2000, 2001 &amp; 2002</b>
Very homogeneous 32.4% Rather homogeneous 13.5% Rather heterogeneous 48.6% Very heterogeneous 5.4%	Not collected 100.0% Collected 0.0%	Decrease 62.9% Stagnation 17.1% Increase 20.0%	< 5 % 66.7% 6 - 10 % 20.8% 11 - 20 % 12.5% > 20 % 0.0%
<b>Competitive Advantage of the Foreign Manufactured Product</b>	<b>Kind of Information Collected about Target Country</b>	<b>Strategy Consciously Defined (after Plausibility Check)</b>	<b>Change in the Costs of DI Activities</b>
Price 28.9% Brande Name/ Image 21.1% Quality 47.4% Customers' Service 47.4% Delivery Conditions 84.2% Innovation 13.2% Customers' Cost Reduction 18.4% Other 0.0%	Market volume 79.1% Market growth 47.4% Customer segments 50.0% Competitor's market share 50.0% Competitor's products 92.1% Other information 0.0%	No 18.4% Yes 81.6%	Decrease 91.3% Stagnation 0.0% Increase 8.7%
<b>Objectives of Direct Investment</b>	<b>Kind of Objectives Defined</b>	<b>Industry Segment Consciously Defined (after Plausibility Check)</b>	<b>Resource Advantage in Target Country Availablt</b>
Not defined 18.4% Defined 81.6%	Volume 36.8% Profit 73.6% Market share 28.9% Other 0.0%	No 21.1% Yes 78.9%	Yes 50.0% No 50.0%
<b>Age of Company</b>	<b>Size of Company (Number of Employees)</b>	<b>Size of Company (Average Turnover)</b>	<b>Industry Sector of a Company</b>
< 10 years 0.0% 10 - 50 years 13.3% > 50 years 87.7%	Small (10-49 employees) 13.3% Medium (50- 249 empl.) 87.7%	< 10 M. 0.0% 10 -100 M. 100.0% > 100 M. 0.0%	Service company 0.0% Production compapny 55.3% Offering product & service 45.7%

Table 23: Characteristics of Swiss SME Direct Investment Cases

The commitment of an SME's management to the direct investment, which was measured with the help of the number of management's business trips to the target market, proved to be higher at the beginning of the foreign engagement. Whereas the middle value lay at 8 business trips in the first year of direct investment, the median of the years 2000 to 2002 was 5.5 trips to the target market. Accordingly, the change of this indicator between the first year and the average of the years 2000 to 2002 shows that in 62.9% of the cases the number of business trips decreased.

A similar analysis was performed with regard to the costs of direct investment expressed as a share of SME turnover. Whereas on average the costs of direct investment in the first year reached 12.2% of turnover, they fell to approximately half of the value (6.2%) in the years 2000 to 2002. As expected, the costs of direct investment proved to fall after the initial phase in almost all the cases (91.3%).

The opposite trend appears regarding the percentage of overall turnover achieved by direct investment. The share of turnover resulting from foreign direct investment increases significantly with the duration of the direct investment activity. An average direct investment attains 7.06% of its overall turnover in the first year of operation and more than twice that high (16.26%) is the average benefit in the years 2000-2002. The direct investment's intensity (% of achieved turnover) grew in almost all the cases (94.4%). Moreover 52.8% of the direct investments experienced growth of more than 10%.

On average, a Swiss SME produces 15 different products at its manufacturing site abroad, although 40% of the cases focus on less than 5 products.

Table 23 presents some of the characteristics of the products manufactured abroad. Comparing the exporting and the direct investment cases, few evident differences appear.

Swiss SMEs managing direct investments seem to focus on less technologically intensive products than Swiss exporting SMEs.

Contrary to exporting, the direct investment cases' production is rather standardized (73.6%). The production of 44.7% of the SMEs is even said to be highly standardized.

But surprisingly, a similar pattern can not be observed by the customer's needs of foreign manufactured products. 45.9% of direct investment cases

indicated the needs of their customers as being homogeneous and 54.1% see them as being heterogeneous.

The majority of the products manufactured abroad are not service intensive. Only 26.3% of the cases stated that their product requires some kind of special treatment, such as pre-sales or after-sales service.

Another meaningful difference between the exported and foreign-manufactured products of Swiss SMEs appeared, when the indicated sources of the competitive advantage of the products were compared. Whereas the exported products seem to bank on quality (82.1%), brand name or image (54.4%) and innovation (51.7%), only quality ranks among the first three sources of competitive advantage of direct investment products. Surprisingly, 84.2% of direct investment cases indicated the delivery condition as the source of the competitive advantage. Furthermore, quality and customer service was cited by 47.4% of SMEs.

### ***Characteristics of Swiss SME Licensing Cases***

Similarly to the case of the two previously described internationalization forms, descriptive information regarding Swiss SME licensing is acquired with the help of the empirical survey. It is provided in Table 24. The acquired sample of Swiss SMEs that license their production or product and sales abroad is limited. Looking at Table 18 it is evident that the following analysis of the descriptive empirical findings, the following description and the overview provided in Table 24 are based on the answers of 10 SMEs<sup>56</sup>.

It seems that licensing is the internationalization form of mature firms, while all of the Swiss SME licensing cases in the sample were set up more than 50 years ago. Their average age of 87.25 years is also the highest of all other Swiss internationally active SMEs.

The internationalization form of licensing seems to be popular among the bigger enterprises in terms of number of employees as well as annual turnover. As in the case of age, all the licensing SMEs belong to the size category of medium enterprises (employing 50-249 people) and 50% of them achieve turnover of more than 100 million CHF per year. An average licensing SME employs 175 people.

---

<sup>56</sup> 17 SMEs stated that they license their production or production and sale abroad. However only 10 SMEs answered the questionnaire sufficiently, providing 10 licensing cases.

Like the previously discussed forms of direct investment and exporting, licensing also does not seem to be the internationalization form of service companies. None of the firms in the sample Swiss SME licensing cases was a service company; most of them (75%) were stated to be production companies and the remaining 25% were offering products as well as services.

The target markets of all Swiss internationalized SMEs, regardless of their form, seem to be very similar. In the case of licensing, the majority of Swiss SMEs also focus on the countries of European Union (50%), especially Germany. However, 40% of licenses were provided to licensees in Asian markets. All of the SMEs stated that they licensed their product in only one target country. This is an exception among the other internationalization forms, which often expand into more markets.

It seems that, unlike exported and foreign manufactured products, licensed products are often designated for the whole market. Only 30% of SMEs stated that the licensed products were focused on market segments.

Similar to all the other internationalization forms, the overwhelming majority (84.8%) of licensing cases performed market research prior the market entrance. On average 2.9 target market indicators were analyzed.

It seems that the licensing SMEs have the best developed strategic planning process. All of the cases passed the plausibility test of data consistency regarding their generic business strategy choice. All of the cases rely on a differentiation strategy. Similarly, the definition of the target market segment was examined. The results of the plausibility test showed, that 70% of the cases defined their industry segment consciously. Moreover, all of the licensing cases defined the objectives of their international activities. Objectives with regard to sales volume were defined by 70% of the SMEs.

The duration of the analyzed licenses of Swiss SMEs varied a lot. However, with an average duration of 11.2 years and 20% of licensing cases lasting for more than 20 years it is probably the most stable internationalization form.



Number of Licenced Products	Number of Target Markets of Licensing	Duration of Licensing Activities	Share of Turnover Achieved in 1 <sup>st</sup> Year of Licensing
≤ 5 exported products 100.0%	≤ 5 markets 100.0%	< 5 years 20.0%	< 2 % 30.0%
6 - 10 exported products 0.0%	6 - 10 markets 0.0%	5 - 10 years 50.0%	2 - 5 % 60.0%
11 - 20 exported products 0.0%	11 - 20 markets 0.0%	10 - 20 years 10.0%	< 5 % 10.0%
> 20 exported products 0.0%	> 20 markets 0.0%	> 20 years 20.0%	
Licenced Product Requires Special Service (Service Intensive)	Export Markets	Defined Generic Business Strategy	Share of Turnover Achieved Average of 2000, 2001 & 2002
Yes 40.0%	EU 50.0%	Price strategy 0.0%	< 2 % 30.0%
No 60.0%	Asia 40.0%	Differentiation strategy 100.0%	2 - 5 % 60.0%
	Rest of the world 10.0%	Other 0.0%	< 5 % 10.0%
Level of Standardisation of Production of Licenced Product	Level of Market Presence	Number of Management's Journeys in 1 <sup>st</sup> Year	Change in the Share of Turnover Achieved by Licensing
Very high standardisation 30.0%	All market 70.0%	0 0.0%	Decrease 12.5%
High standardisation 50.0%	Market segment 30.0%	< 5 66.0%	Stagnation 0.0%
Low standardisation 10.0%	Market niche 0.0%	< 10 33.0%	Increase less than 2% 50.0%
Very low standardisation 10.0%		< 20 0.0%	Increase more than 2% 37.5%
Technological Know-How Intensity of Licenced Product	Kind of Licensing	Number of Management's Journeys in 2000,01 and 02	Costs of Licensing Activities in 1 <sup>st</sup> Year
Very high 40.0%	Production 80.0%	0 0.0%	< 1 % 50.0%
Rather high 60.0%	Production and sales 20.0%	< 5 20.0%	> 1 % 50.0%
Rather low 0.0%	Sales 0.0%	< 10 30.0%	
Very low 0.0%		< 20 50.0%	
None 0.0%		More than 20 0.0%	
Customer Needs	Information about Target Market	Difference in Number of Management's Journeys	Costs of Licensing Activities Average of 2000, 2001 & 2002
Very homogeneous 40.0%	Not collected 15.2%	Decrease 20.0%	< 1 % 25.0%
Rather homogeneous 30.0%	Collected 84.8%	Stagnation 0.0%	> 1 % 75.0%
Rather heterogeneous 20.0%		Increase 80.0%	
Very heterogeneous 10.0%			
Competitive Advantage of the Licenced Product	Kind of Information Collected About Target Market	Consciously Defined Strategy (after Plausibility Check)	Difference in the Costs of Licensing Activities
Price 0.0%	Market volume 90.0%	No 0.0%	Decrease 50.0%
Brand name/ image 80.0%	Market growth 60.0%	Yes 100.0%	Stagnation 0.0%
Quality 100.0%	Customer segments 60.0%		Increase 50.0%
Customers' service 30.0%	Competitor's market share 50.0%		
Delivery conditions 30.0%	Competitor's products 30.0%		
Innovation 70.0%	Other information 20.0%		
Customers' cost reduction 0.0%			
Other 10.0%			
Assessment of the Risk of the Know-How Loss through Licensing	Objectives of Licensing	Kind of Objectives Defined	Industry Segment Consciously Defined (after Plausibility Check)
Very high 10.0%	Not defined 0.0%	Volume 70.0%	No 30.0%
Rather high 70.0%	Defined 100.0%	Profit 40.0%	Yes 70.0%
Rather low 10.0%		Market share 50.0%	
Very low 10.0%		Other 60.0%	
None 0.0%			
Age of Company	Size of Company (Number of Employees)	Size of Company (Average Turnover)	Industry Sector of a Company
< 10 years 0.0%	Small (10-49 employees) 0.0%	< 10 M. 0.0%	Service company 0.0%
10 - 50 years 0.0%	Medium (50- 249 empl.) 100.0%	10 -100 M. 50.0%	Production compapny 75.0%
> 50 years 100.0%		> 100 M. 50.0%	offering product & service 25.0%
			offering product & service

Table 24: Characteristics of Swiss SME Licensing Cases

Contrary to direct investment and exporting, management commitment towards the licensing activities (measured with the help of the number of management's business trips to the target market) did not prove to be higher at the beginning of the foreign engagement. Management's business trips to the target market seem to increase after the commencement of the activities. Whereas the median of the first licensing year lay at 4 business trips, the middle values of the years 2000 to 2002 was 9 trips to the target market. Accordingly, the difference in the number of management's

business trips to the target market between the first year of licensing and the average of the years 2000 to 2002 was positive in 80% of the cases.

The findings show a similar pattern in the case of the costs of licensing activities expressed as a proportion of turnover. Whereas on average the costs of licensing in the first year reached 0.52% of a firm's turnover, they grew to double that (1% per year) in the years 2000 to 2002.

However, the contribution of the licensing fee to the firm's overall turnover increases accordingly over time. Whereas none of the firms' licensing fees contributed more than 5% of turnover in the first licensing year, 10% of the cases did so in the years 2000 to 2002. Licensing intensity (% of achieved turnover) grew in almost all the cases (87.5%). Moreover 37.5% of the licensing fees experienced growth of more than 2%.

A majority (80%) of the investigated Swiss SMEs license the production or sales and production of a single product. The remaining 40% of the cases provide licenses for two of their products. As such, the number of products engaged in the licensing activities of Swiss SMEs is very low compared to the other internationalization forms.

Looking at Table 24, providing the characteristics of the licensed products, it is evident that their technological intensity is high, as well as the standardization of production. Accordingly, the majority of SMEs assessed the customer needs of a licensed product as homogeneous.

Even if a majority of licensed products are not service intensive, 40% of them were assessed as requiring some kind of special treatment, such as pre-sales or after-sales service.

The most often identified sources of competitive advantage of licensed products are quality (45%), brand name or image (36%) and innovation (32%). This implies that Swiss SMEs' exported and licensed products have very similar strengths.

### ***Characteristics of Swiss SME Joint Ventures***

The analysis of the empirical findings with regard to joint ventures managed by Swiss SMEs are provided in Table 25. The acquired sample of joint ventures of Swiss SMEs is limited. Table 18 shows that the following description as well as the overview provided in Table 25 is based on the answers of 7 SMEs<sup>57</sup>.

---

<sup>57</sup> The 7 sufficiently answered questionnaires of Swiss SMEs managing a joint venture abroad were acquired from the empirical survey. These provided 13 SME joint

The majority of the cases were production joint ventures (53.8%). Three cases stated that they operate a sales joint venture and the remaining three SMEs focused on the research and development function in their joint ventures.

Half of Swiss SMEs own more than 50% of their joint ventures abroad. However, 40% of the cases were stated to hold less than 20% of joint venture equity.

Contrary to licensing, the joint venture seems to be the internationalization form of younger SMEs. None of the joint venture SMEs in the sample is older than 50. The average age of 38.25 years old is the youngest among Swiss internationally active SMEs.

The majority of the joint venture cases (71.4%) belong to the size category of medium enterprises (employing 50-249 people). Although almost one-third of the joint venture SMEs have 10-49 employees, the average size (in terms of employees) is 113.3. All joint ventures of Swiss SMEs reached an annual turnover of between 10 and 100 million CHF. On average their turnover achieved 30.63 million CHF in 2000 to 2002.

Like in the cases of licensing and direct investment SMEs, none of the joint venture firms was a service company, most of them (75%) said they were production companies and the remaining 25% were offering products as well as services.

The joint venture is the only internationalization form which is not strongly focused on EU markets. It is not surprising that Asian markets are the most common targets of joint ventures (30.8% of the cases). Due to the nature of joint ventures and to the fact that the foreign partner is familiar with the target market, Swiss SMEs choose the joint venture as a form of internationalization in culturally more distant markets.

As in the cases of direct investment, half of the joint venture cases stated that there is no resource advantage available in the target market. The other 50% of joint ventures perceive that the target market offers a resource advantage. Most of the cases (40%) consider the low labor force costs to be the resource advantage.

Further similarity between the two internationalization forms focused on manufacturing of the product abroad, is the focus on the market segment. The remaining 20% of the joint ventures deliver niche products.

---

venture cases for analysis.

As already mentioned above, it is not surprising that joint venture and direct investment cases performed market research prior to their market entrance more intensively than the other internationalization forms. Moreover, 20% of joint venture cases collected three and more kinds of information about the target market.

Nevertheless, contrary to the direct investment cases, none of the joint ventures stated that they employed a price strategy. All of the cases stated that they implemented a generic business strategy of differentiation; however, only 80% of them passed the plausibility test of data consistency and could be considered to define their generic business strategy consciously. Similarly, the definition of the target market segment was examined. The results of the plausibility test of the conscious definition of market segment by joint venture cases showed that only 40% of the cases defined their industry segment consciously, which is the lowest share of all internationalization forms investigated. Even if joint ventures seem to be less successful in the definition of their generic business strategy and target market segment, all of them defined the objectives for their international activities. Objectives with regard to profit were defined by 41.7% of the SMEs.

Looking at Table 25, it is evident that, in comparison with the other internationalization forms, the duration of joint ventures of Swiss SMEs is very short. On average a joint venture of a Swiss SME had only been operating for 3.8 years in 2002.

Similarly with licensing activities, joint ventures also seem to require more management commitment the longer they operate. The commitment, measured with the help of the number of management's business trips to the target market, did not prove to decrease after the initial phase of the joint venture operation. Whereas the median of management's business trips to the joint venture country lay at 4 business trips in the first year of the joint venture, it reached 8.5 trips per year in the period of 2000 to 2002. Accordingly, the change in the number of management's business trips to the target market between the first year of operation and the average of the 2000 to 2002 was positive in 90 % of the cases. The average increase was 3.8 business trips per year in 2002.

As expected, the findings show a similar pattern in relation to the costs of joint venture activities. Whereas, on average, the costs of a joint venture in the first year reached 4.57% of firm's turnover, they grew to 7% per year in 2000 to 2002. The increase of the costs occurred in 60% of the cases.

<b>Share of Ownership on Joint Venture</b>		<b>Number of Target Markets of Joint Venture</b>		<b>Duration of Joint Venture</b>		<b>Share of Turnover Achieved in 1<sup>st</sup> Year of Joint Venture</b>	
< 20%	40.0%	≤ 5 markets	100.0%	< 5 years	80.0%	< 5 %	60.0%
21% - 50%	10.0%	6 - 10 markets	0.0%	6 - 10 years	10.0%	6 - 10 %	30.0%
51% - 80%	50.0%	11 - 20 markets	0.0%	11 - 20 years	10.0%	11 - 20 %	10.0%
> 80%	0.0%	> 20 markets	0.0%	> 20 years	0.0%	> 20 %	0.0%
<b>The Product Requires Special Service (Service Intensive)</b>		<b>Target Countries of Joint Venture</b>		<b>Defined Generic Business Strategy</b>		<b>Share of Turnover Achieved Average of 2000, 2001 &amp; 2002</b>	
Yes	80.0%	EU	30.8%	Price strategy	0.0%	< 5 %	30.0%
No	20.0%	North America	15.4%	Differentiation strategy	100.0%	6 - 10 %	20.0%
		Asia	30.8%	Other	0.0%	11 - 20 %	30.0%
		Rest of the world	23.1%			> 20 %	20.0%
<b>Level of Standardisation of Joint Venture Product Manufacturing</b>		<b>Level of Market Presence</b>		<b>Number of Management's Journeys in 1<sup>st</sup> Year of JV</b>		<b>Change in the Share of Turnover Achieved by JV</b>	
Very high standardisation	30.0%	All market	0.0%	0	0.0%	Decrease	0.0%
High standardisation	70.0%	Market segment	80.0%	< 5	80.0%	Stagnation	20.0%
Low standardisation	0.0%	Market niche	20.0%	6 - 10	10.0%	Increase less than 10%	40.0%
Very low standardisation	0.0%			11 - 20	10.0%	Increase more than 10%	40.0%
				> 20	0.0%		
<b>Technological Know-How Intensity</b>		<b>Distribution of the Production on Further Foreign Markets</b>		<b>Number of Management's Journeys in 2000, 2001 &amp; 2002</b>		<b>Costs of Joint Venture Activities in 1<sup>st</sup> Year</b>	
Very high	10.0%	Yes	20.0%	0	0.0%	< 5 %	71.4%
Rather high	40.0%	No	80.0%	< 5	10.0%	6 - 10 %	28.6%
Rather low	40.0%			6 - 10	70.0%	11 - 20 %	0.0%
Very low	10.0%			11 - 20	20.0%	> 20 %	0.0%
None	0.0%			> 20	0.0%		
<b>Customer Needs</b>		<b>Information about Target Market</b>		<b>Change in Number of Management's Journeys</b>		<b>Costs of Joint Venture Activities Average of 2000, 2001 &amp; 2002</b>	
Very homogeneous	40.0%	Not collected	0.0%	Decrease	0.0%	< 5 %	20.0%
Rather homogeneous	50.0%	Collected	100.0%	Stagnation	10.0%	6 - 10 %	60.0%
Rather heterogeneous	10.0%			Increase	90.0%	11 - 20 %	20.0%
Very heterogeneous	0.0%					> 20 %	0.0%
<b>Competitive Advantage of the Joint Venture Product</b>		<b>Kind of Information Collected about Target Market</b>		<b>Strategy Consciously Defined (after Plausibility Check)</b>		<b>Change in the Costs of Joint Venture Activities</b>	
Price	20.0%	Market volume	70.0%	No	20.0%	Decrease	40.0%
Brand name/ image	30.0%	Market growth	90.0%	Yes	80.0%	Stagnation	0.0%
Quality	80.0%	Customer segments	60.0%			Increase	60.0%
Customers' service	70.0%	Competitor's market share	40.0%				
Delivery conditions	60.0%	Competitor's products	20.0%				
Innovation	60.0%	other information	0.0%				
Customers' cost reduction	20.0%	Other information					
Other	40.0%						
<b>Objectives of Joint Venture</b>		<b>Kind of Objectives Defined</b>		<b>Industry Segment Consciously Defined (after Plausibility Check)</b>		<b>Resource Advantage in Target Market available</b>	
Not defined	0.0%	Volume	80.0%	No	60.0%	Yes	50.0%
Defined	100.0%	Profit	100.0%	Yes	40.0%	No	50.0%
		Market share	40.0%				
		Other	20.0%				
<b>Age of Company</b>		<b>Size of Company (Number of Employees)</b>		<b>Size of Company (Average Turnover)</b>		<b>Industry Sector of a Company</b>	
< 10 years	0.0%	Small (10-49 employees)	28.6%	< 10 M.	0.0%	Service company	0.0%
10 - 50 years	100.0%	Medium (50- 249 empl.)	71.4%	10 -100 M.	100.0%	Production company	25.0%
> 50 years	0.0%			> 100 M.	0.0%	Offering product & service	75.0%

Table 25: Characteristics of Swiss SMEs Joint Venture Cases

Nevertheless, the growth of joint venture income, expressed as the share of a firm's overall turnover, seems to off-set the growing costs. Average joint venture intensity reached 6% of turnover in the first year and 12.9% as an average during 2000 to 2002. Moreover 40% of the joint ventures experienced growth of more than 10%.

Looking at Table 25 providing the characteristics of the joint venture products, it is evident that these are rather standardized products with homogeneous customer needs.

However, only half of these products were assessed as technologically intensive.

The majority (80%) of joint venture products are service intensive. As such, these represent the only exception among the internationally marketed products of Swiss SMEs.

Looking at Table 25, it is obvious that there is not a Swiss SME joint venture 'typical product'. Approximately the same number of investigated cases identified quality (21.1%), customer's service (18.4%), delivery conditions (15.8%) and innovation (15.8%) as a source of competitive advantage of the joint venture product.

### 5.2.2.2 The International Performance of Swiss SMEs

The second objective of this thesis is to measure and to describe the success of the international activities of Swiss SMEs. Success was measured with the help of five indicators, defined in Section 3.4. p. 71. Consequently, a multidimensional measure of internationalization performance, i.e. overall performance, was created. Overall performance is an additive index of all of the success indicators (see Section 4.3.4.1, p. 83). The empirical findings of the individual success indicators as well as the overall performance of Swiss SMEs are presented below. Each of the following sections is dedicated to the performance of one of the investigated internationalization forms.

#### *Performance of Export Activities of Swiss SMEs*

Firstly, an evaluation of the collected data based on individual performance indicators is provided. Thereafter the overall performance of Swiss SME export cases is discussed.

The measure of the level of ***Objective Achievement*** belongs to the more rigid success indicators of export performance. Only 14.35% of the SMEs reach the category of 'very successful' in achieving their export objectives<sup>58</sup>. This is the lowest number of cases reaching the highest category among all the success indicators. Though, in the majority of case, management assessed themselves as 'successful' in the achievement of export objectives. Out of the 33.64% of unsuccessful cases only 1.3% of SMEs reported that none of the defined export objectives was achieved. Figure 29 depicts the distribution of export cases to the success categories according to the objective achievement indicator.

<sup>58</sup> The category of 'very successful' objective achievement was operationalized as 'all defined objectives achieved'.

Figure 30 presents the empirical findings of the second subjective indicator of export success, *Management Satisfaction* with the export activity. Which is obviously less strict, than the objective achievement success indicator.

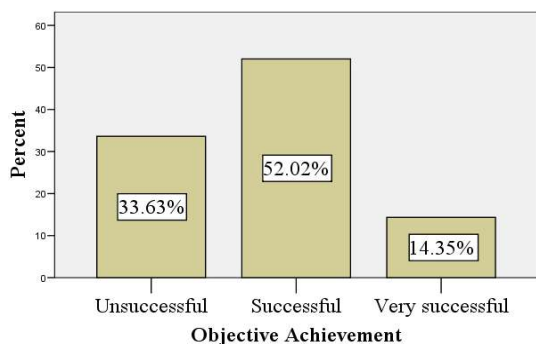


Figure 29: Objective Achievement of Swiss SME Export Cases

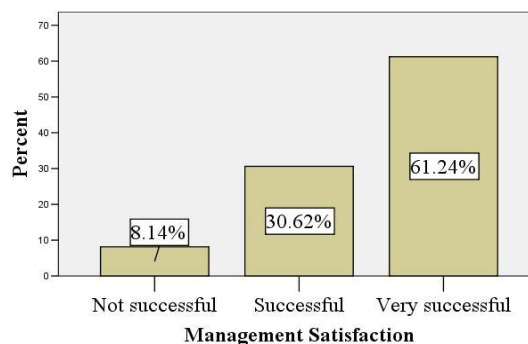


Figure 30: Management Satisfaction with Swiss SME Export Cases

In 61.24% of the cases, management assessed the export activities as 'very successful'. Only 8.14% of cases were categorized as 'not successful', which is the second lowest number of cases in this category among all the success indicators and all internationalization forms. Consequently, it can be concluded that the majority of SME managers evaluate their export activities very positively. However, the subjective nature of the indicator needs to be taken into consideration. It is possible, that the ambitions of the managers might have influenced their answers.

*Absolute Profitability*<sup>59</sup> is the first of the objective indicators of the export performance measurement. Figure 31 pictures the overwhelming majority of profitable, i.e. very successful cases. Only 4.38% of the export cases are not profitable. The empirical findings confirm the assumption that a company would not continue to export, if the activity was not be profitable. Nevertheless the initial phase of exporting, in which non-profitability could be assumed, has to be taken in consideration. The initial, un-profitable phase of exporting lasts approximately one year, as indicated by the export cases<sup>60</sup>. 4.6% of cases were identified in the sample of export cases as entering their export activities less than a year ago. Consequently the proportion of the un-profitable cases is lower than the proportion of the firms in the initial phase of exporting.

<sup>59</sup> Absolute profitability is the only success indicator that has only two outcome categories; either the activity is profitable and as such classified as 'very successful' or it is not profitable and consequently 'not successful'. That is why the category of 'successful' was left empty in the case of absolute profitability.

<sup>60</sup> Profitable cases were asked to indicate the duration of the initial phase of export, i.e. till reaching the break-even point (profitability). The average duration of unprofitability was 1.41 years, the median lay at 1 year.

The indicator of **Relative Profitability** is, on the contrary to absolute profitability, a very strict measure of export performance (see Figure 32). In nearly 30% of the cases the export activity's profitability exceeds the domestic activity's profitability. But more than 37% of the export cases are considered to be 'not successful' as being less profitable abroad than domestically. This is the highest number of export case in the lowest success category. Consequently, relative profitability is the most rigid export success indicator.

The distribution of the last objective indicator of **Intensity** is depicted in Figure 33. Export intensity was measured with the help of the 3-year average share of turnover achieved by export activity. The original metric of export intensity is rescaled<sup>61</sup> into three success categories as shown in

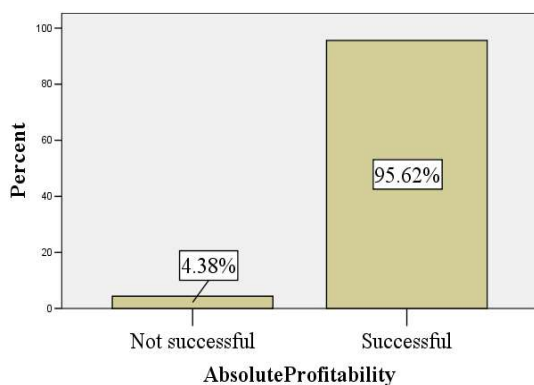


Figure 31: Absolute Profitability of Swiss SME Export Cases

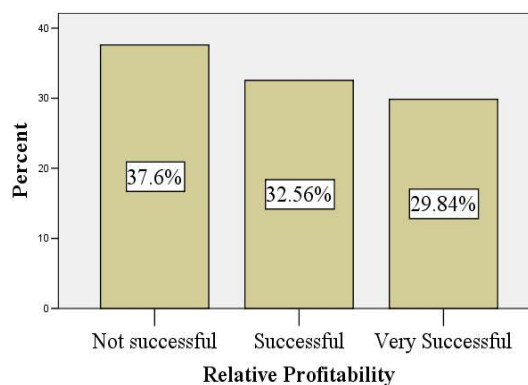


Figure 32: Relative Profitability of Swiss SME Export Cases

Appendix D. The majority of export cases are considered to be 'successful' with regard to intensity. The indicator identifies approximately 20% of 'very successful' cases, that gained more than 30% of their turnover from export activity. It is not surprising that more than 30% of export sales of Swiss SMEs did not exceed 10% of their turnover. However, these cases are considered to be 'not successful' with regard to the export intensity.

An average SME gains 18.04% of its turnover from exporting. However, the median lies at 10%.

**Overall Export Performance** is an additive, multidimensional measure, based on the five success indicators described above (for more details see Section 4.3.4.1, p. 83).

<sup>61</sup> Very successful cases achieved an export share of turnover greater than 30%, successful cases' export share of turnover reached 10% to 30% and the unsuccessful cases' export turnover share did not exceed 10% (see the scoring model in Table 8, p. 86).



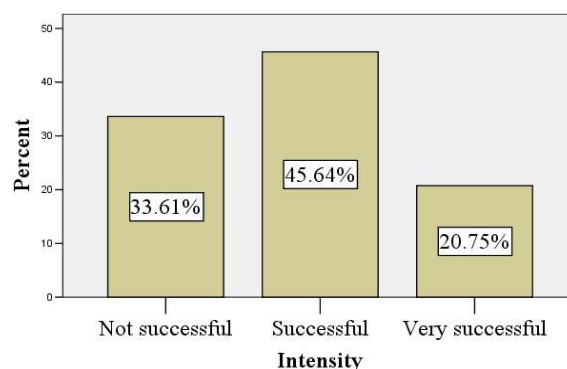


Figure 33: Intensity of Swiss SME Export Cases

The overall export performance of the export cases is depicted in Figure 34. Looking at the results, it is evident that the overall export performance of 32.18% of the cases is very high. This means that approximately one third of the cases reach the category of 'very successful' in at least three out of five success indicators. Furthermore, the overall performance of 46.53% of the export cases are indicated as 'successful' and the smallest share of exporting SMEs (21.29%) are considered to be 'not successful' exporters.

The overall performance based on all five export success indicators is measured on a scale of 0 to 10 points<sup>62</sup>. The average exporting Swiss SME reaches the performance of 6.2 points (the median lies at 7 points). This indicates the generally, very successful exporting of Swiss SMEs.

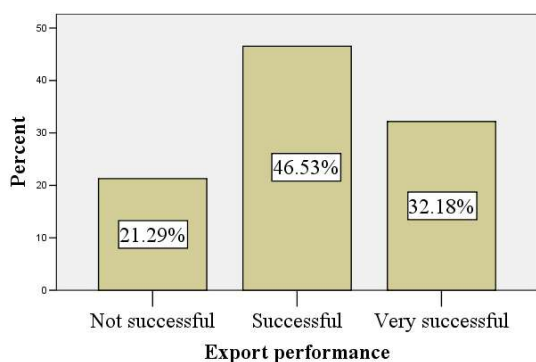


Figure 34: Overall Performance of Swiss SME Export cases

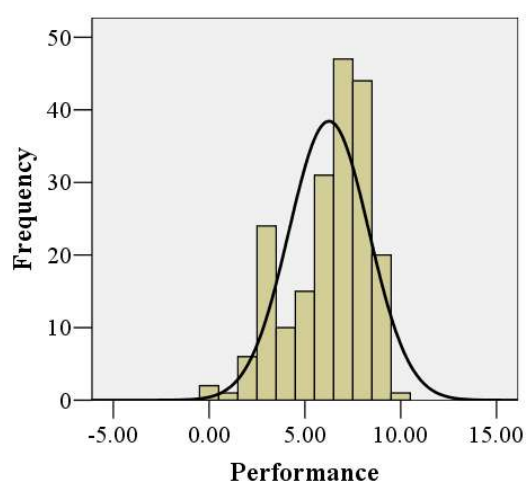


Figure 35: Histogram of Overall Performance of Swiss SME Export Cases

<sup>62</sup> The highest category (very successful) of each indicator scores 2 points, 'the successful' category scores 1 point and the unsuccessful category scores 0 points (see the scoring model in Table 8, p. 86).

Looking at the histogram of the distribution of overall performance provided in Figure 35, it is evident that the cases in the higher performance categories outnumber the ones in the lower categories.

Table 26 provides the result overview of all success indicators and the overall export performance of export cases.

### *Performance of Swiss SME Direct Investment*

Firstly, an evaluation of the collected data based on the individual performance indicators is provided. Thereafter, the overall performance of Swiss SME direct investment cases is discussed.

		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management Satisfaction	Absolute Profitability	Intensity	Relative Profitability	
Exporting	Very successful	14.3%	61.2%	95.6%	20.7%	29.8%	32.2%
	Successful	52.0%	30.6%	0.0%	45.6%	32.6%	46.5%
	Unsuccessful	33.6%	8.1%	4.4%	33.6%	37.6%	21.3%
	Number of cases	223	258	251	241	258	202

Table 26: Swiss SME Export Performance

The distribution of direct investment cases into success categories according to the success indicator of *Objective Achievement* is depicted in Figure 36. The level of direct investment objective achievement was assessed as high by the majority of SME managers. Consequently almost 50% of the cases are considered to be 'successful' in achieving the objectives of direct investment. Interestingly, the share of very successful direct investment cases is approximately 5% higher than the one for export cases. More than half of the direct investment cases<sup>63</sup> categorized as unsuccessful, stated that they did not achieve any of their objectives. This number of failing direct investment cases is meaningfully higher than the one for export cases.

Contrary to exporting, the managers of direct investment cases did not assess their international success very positively. Figure 37 shows that the

<sup>63</sup> 10% of all direct investment cases.

same number of direct investment cases (approximately 40%) were evaluated as 'not successful' or 'successful'. And only 20% of foreign direct investments were assessed as 'very successful' according to the subjective assessment of SME managements. In comparison with other internationalization forms the share of very successful direct investment cases according to *Management Satisfaction* is very low (see Table 27).

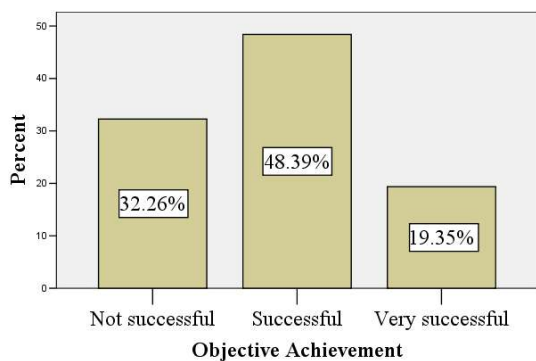


Figure 36: Objective Achievement of Swiss SME Direct Investment Cases

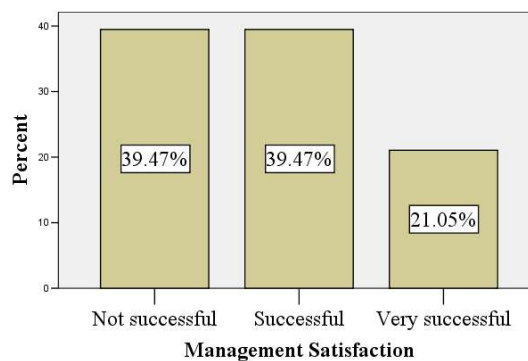


Figure 37: Management Satisfaction with Swiss SME Direct Investment Cases

As with the subjective success indicators, the objective ones also led the direct investment cases to score less than the export cases. Whereas almost all exporting is profitable, 23.7% of the direct investment cases stated that they did not reach *Absolute Profitability*. Nevertheless, it has to be taken into consideration that 9.5% of the cases were still in the initial phase of their direct investment activity, which might justify the non-profitability of these cases. Especially as the duration of the initial phase of direct investment (till the break-even point) was indicated to be approximately 3 years<sup>64</sup>. However, the majority (76.32%) of direct investment cases are profitable, which can be evaluated as a surprisingly high proportion, taking into consideration the high complexity as well as the risks connected with the foreign direct investment of SMEs (see Figure 38).

Concerning direct investment, the measure of *Relative Profitability* is also the most rigid success indicator. Figure 39 depicts its distribution. Like the other internationalization forms, the group of unsuccessful cases according to this indicator is the most numerous. As regards foreign direct investment, 50% of the cases stated that their domestic activities are more profitable than direct investment abroad. Only approximately 21% of foreign direct investments allege higher profitability than in the home market.

<sup>64</sup> The profitable cases were asked to indicate the duration of the initial phase of direct investment, i.e. till reaching the break-even point (profitability). The average duration of the unprofitable phase was 2.76 years, the median lay at 3 years.

The last objective success indicator is the **Intensity**. As mentioned above, the 3-year average share of turnover achieved by direct investment was used as a measure of foreign activity intensity. As in the case of exporting, the original data of intensity was rescaled<sup>65</sup> into three success categories. Their distribution is provided in Figure 40.

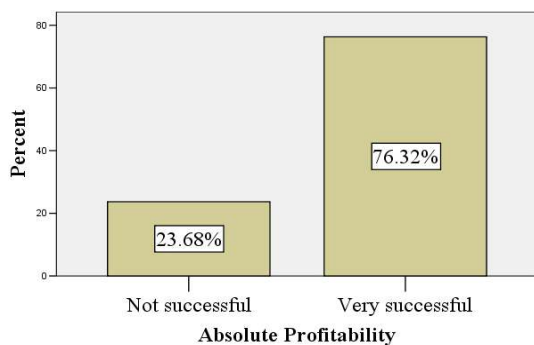


Figure 38: Absolute Profitability of Swiss SME Direct Investment Cases

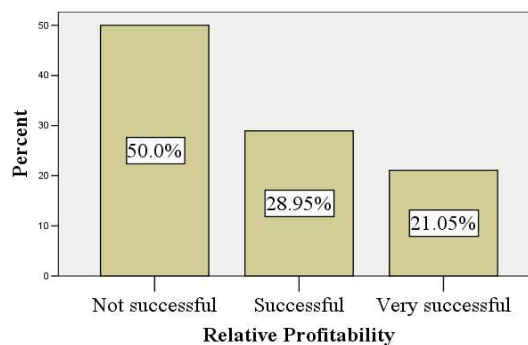


Figure 39: Relative Profitability of Swiss SME Direct Investment Cases

Most of the direct investment cases (60.53%) fall into the middle category of intensity, reaching 10% to 30% of turnover from their direct investment. The intensity indicator separates 10.53% of the cases as being 'very successful'. Their direct investment counts for more than 30% of turnover. An average direct investment attains 16.2% of the company's turnover. However, the median lies at 15%.

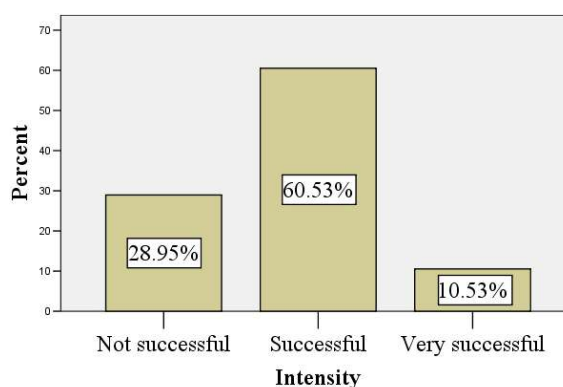


Figure 40: Intensity of Swiss SME Direct Investment Cases

The measure of **Overall Direct Investment Performance** is an additive measure, based on the five above-mentioned success indicators. The performance of SMEs investing into production sites abroad is depicted in Figure 41. Looking at the bar chart, it is evident that the overall

<sup>65</sup> Very successful cases achieved the export share of turnover greater than 30%, successful cases' export share of turnover reached 10% to 30% and the unsuccessful cases' export turnover share did not exceed 10% (see the scoring model in Table 8, p. 86).

performance of direct investment cases is somewhat lower than the one of export cases. The higher complexity, as well as the higher risks connected with direct investment, could substantiate the difference. Nevertheless, only approximately one third of Swiss SME foreign direct investment is considered to be 'not successful' and almost one fourth of it is, on the contrary, indicated as 'very successful'.

The overall performance measure is a scale of 0-10 points. The average performance of Swiss SME foreign direct investment reaches 5.45 points and the median lies at 6 points. The distribution of the performance of direct investment cases is presented by the histogram in Figure 42.

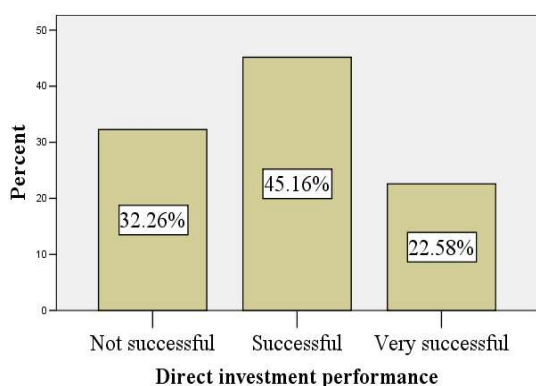


Figure 41: Overall Performance of Swiss SME Direct Investment Cases

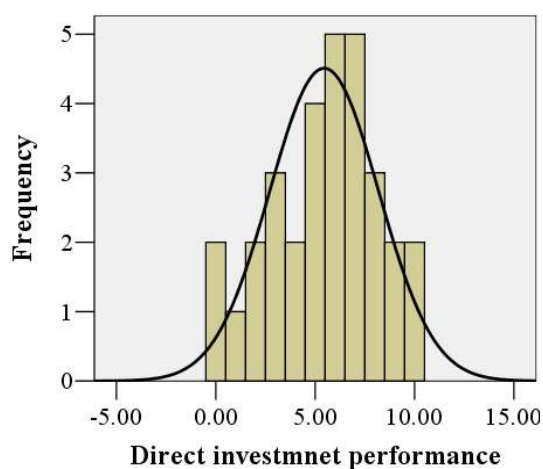


Figure 42: Histogram of Overall Performance of Swiss SME Direct Investment Cases

Table 27 provides the result overview of all the success indicators and the overall performance of direct investment cases.

### *Performance of Swiss SME Licensing*

Firstly, an evaluation of the collected data based on the individual performance indicators is provided. Thereafter, the overall performance of Swiss SME licensing cases is discussed.

The first subjective measure of licensing performance is management's assessment of the **Objective Achievement**. The empirical findings are depicted in Figure 43. The overwhelming majority of the cases are considered to be 'successful'. Licensing is the most successful of the internationalization forms in terms of objective achievement. Only 10% of the licensing cases are considered to be 'not successful' in achieving the defined objectives. Moreover, none of the licensing cases stated, that they had not reach any of their objectives.

		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management Satisfaction	Absolute Profitability	Intensity	Relative Profitability	
Direct Investment	Very successful	19.4%	21.1%	76.3%	10.5%	21.1%	22.6%
	Successful	48.4%	39.5%	0.0%	60.5%	28.9%	45.2%
	Unsuccessful	32.3%	39.5%	23.7%	28.9%	50.0%	32.3%
	Number of cases	31	38	38	38	38	31

Table 27: Swiss SME Direct Investment Performance

The second subjective indicator of licensing performance is **Management Satisfaction**. Similarly as in the case of the first subjective success indicator, only 10% of the cases are assessed as unsuccessful. In general licensing cases indicate the highest degree of management satisfaction of all the internationalized SMEs. 70% of the licensing cases are considered to be 'very successful' (see Figure 44).

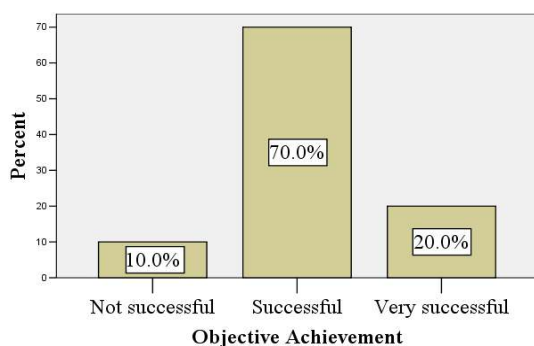


Figure 43: Objective Achievement of Swiss SME Licensing Cases

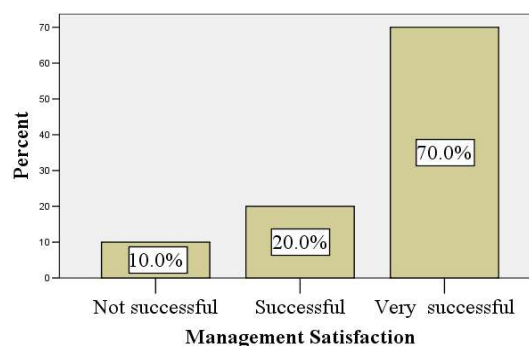


Figure 44: Management Satisfaction with Swiss SME Licensing Cases

Not very surprisingly, all of the licensing cases stated that they had reached **Absolute Profitability**. On average, the licensing activity starts to be profitable after 1.87 years of operation. The median of the duration of the initial, not profitable phase lay at 2 years.

The empirical findings regarding the second objective success indicator – **Relative Profitability** of the licensing is depicted in Figure 45. The licensing activities are less profitable than the domestic activities in half of the SMEs. The other half of SMEs reports the same level of profitability of domestic as well as licensing activities abroad. None of the licensing cases

stated to be more profitable abroad. As such, none of them was categorized as 'very successful'. The lower remuneration of the licensing activity might be explained by the fewer functions, as well as risks borne by the licensor.

Similarly to all the other international forms, the 3-year average of acquired license fees expressed in a percentage of a firm's turnover was used to measure the **Intensity** of licensing activities. The original, metric data of licensing intensity was rescaled<sup>66</sup> into three success categories. The results are provided in Figure 46. As with all the other internationalization forms, 10% of licensing cases were identified as 'very successful' in terms of the intensity of a foreign activity. However, the average share of turnover achieved by licensing is 3.31%<sup>67</sup>, which is much lower than in the case of the other internationalization forms.

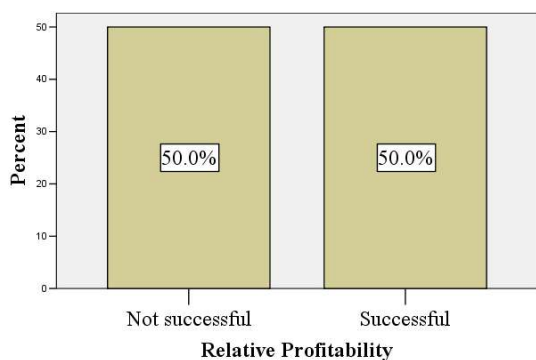


Figure 45: Relative Profitability of Swiss SME Licensing Cases

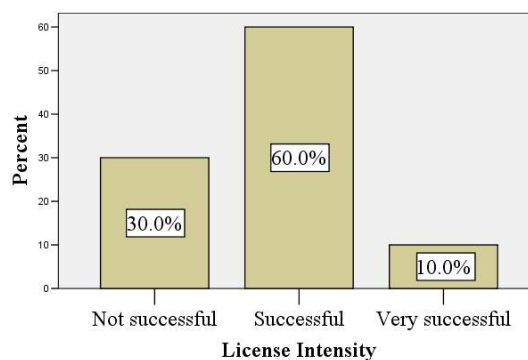


Figure 46: Intensity of Swiss SME Licensing Cases

The distribution of the licensing cases according to the multidimensional measure of **Overall Licensing Performance**, based on the five previously discussed success indicators, is depicted in Figure 47. The figure shows that the overwhelming majority (80%) of the licensing SMEs belong to the category of successful cases. Only a low proportion of 10% of the cases fall into the extreme categories of 'very successful' and 'not successful'. As such, the performance of Swiss SME licensors seems to be very stable.

The overall licensing performance is measured on a scale of 0-10 points<sup>68</sup>. An average licensor reaches the performance of 6 points out of 10, which is the second lowest value among all the investigated internationalization

<sup>66</sup> A very successful licensor achieved a share of turnover of greater than 6%, a successful licensor share of turnover reached 2% to 5% and the unsuccessful licensor's share of turnover did not exceed 2% (see the scoring model in Table 8, p. 86).

<sup>67</sup> The median is 3.5%.

<sup>68</sup> The highest category of each indicator scores 2 points, 'the successful' category scores 1 point and the unsuccessful category scores 0 points (see the scoring model in Table 8, p. 86).



cases. Nevertheless, the median, which lies also at 6 points, as well as the distribution of the licensing performance presented by the histogram in Figure 48, shows that this performance is stable within the group of investigated cases.

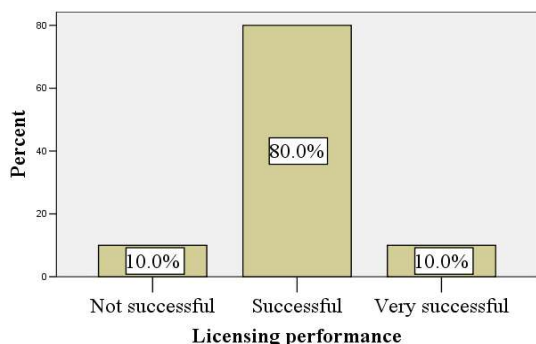


Figure 47: Overall Performance of Swiss SME Licensing Cases

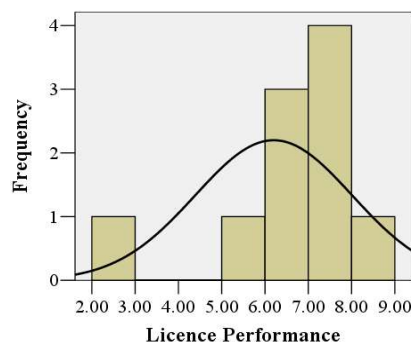


Figure 48: Histogram of Overall Performance of Swiss SME Licensing Cases

The skew distribution of overall performance of licensing cases might be substantiated by the high performance of both subjective indicators and simultaneously, the much lower performance of the objective indicators.

The overall performance of the subjective measures might be caused by the nature of licensing itself as an internationalization form with the lowest level of commitment and risk. It seems to perform well, but without the ambition of a high remuneration. This is mirrored in the lower relative profitability as well as in the lower intensity achieved by the licensing cases.

An overview of the joint venture success indicators and overall performance is provided in Table 28.

### ***Performance of Swiss SME Joint Ventures***

Firstly, an evaluation of the collected data based on the individual performance indicators is provided. Thereafter, the overall performance of Swiss SME joint venture cases is discussed.

The joint venture is the internationalization form with the highest number of cases being assessed as 'not successful' with regard to the level of ***Objective Achievement***. The empirical findings, depicted in Figure 49, show that 40% of the joint ventures are not successful in achieving the defined objectives. Moreover, managers of half of these cases indicated that the joint venture did not reach any of the objectives set.



		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management Satisfaction	Absolute Profitability	Intensity	Relative Profitability	
Licensing	Very successful	20.0%	70.0%	100.0%	10.0%	0.0%	10.0%
	Successful	70.0%	20.0%	0.0%	60.0%	50.0%	80.0%
	Unsuccessful	10.0%	10.0%	0.0%	30.0%	50.0%	10.0%
	Number of Cases	10	10	10	10	10	10

Table 28. Swiss SME Licensing Performance

The evaluation of the second subjective indicator of joint venture performance – *Management Satisfaction* with the foreign activity – is depicted in Figure 50. The comparison of the findings of these subjective success indicators does not provide a homogeneous picture. Whereas managers assessed 40% of the cases as unsuccessful with regard to objective achievement, their general assessment of satisfaction with their internationalization activities identified only 10% 'not successful' joint venture cases. Generally, manager satisfaction with joint ventures is very high as 40% of the cases are considered to be 'successful' and 50% even 'very successful'.

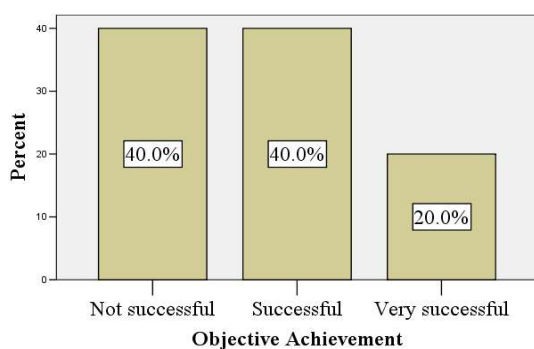


Figure 49: Objective Achievement of Swiss SME Joint Venture Cases



Figure 50. Management Satisfaction with Swiss SME Joint Venture Cases

The differences between the two kinds of management assessment of joint venture cases might be caused by the nature of joint venture activities that are based on a cooperation with a partner. As such there is a higher risk of unclarity and misunderstanding, possibly originating from objective definition. However, the overall satisfaction of management with joint

ventures and the other international activities of Swiss SMEs is comparably high.

The **Absolute Profitability** of joint venture cases is depicted in Figure 51. Obviously, a joint venture is the internationalization form with the highest number of cases not reaching absolute profitability (30%). However, the share of SMEs being in the initial phase of the joint venture should be analyzed first. Apparently, an average joint venture is not profitable for the first 3.22 years<sup>69</sup>. An analysis of the duration of the foreign activity showed that 70% of the joint ventures have been operating for less than 3 years, which might explain the 30% unprofitability of joint venture cases.

As in the case of all the other internationalization forms the measurement of **Relative Profitability** is the most rigid success indicator for joint ventures. Half of the joint ventures are less profitable than the domestic activities and as such classified as 'not successful'. Only 10% of the cases reported to achieve a higher joint venture profitability. The relative profitability of the joint ventures is depicted in Figure 52.

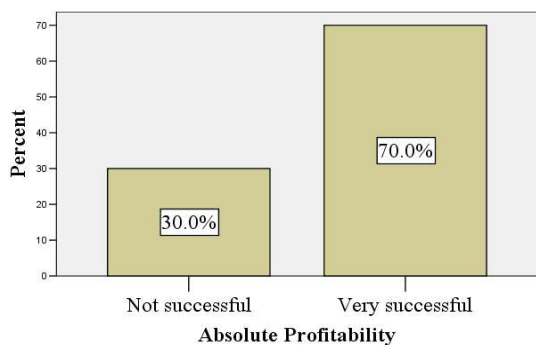


Figure 51: Absolute Profitability of Swiss SME Joint Venture Cases

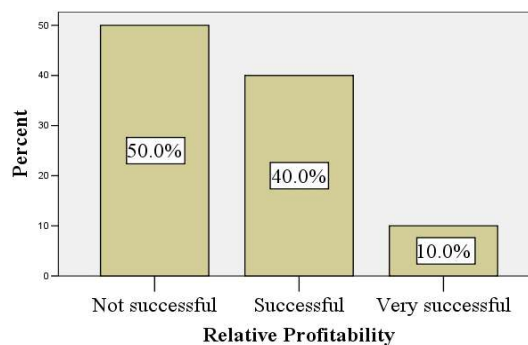


Figure 52: Relative Profitability of Swiss SME Joint Venture Cases

The **Intensity** of a joint venture was measured with the help of the 3-year average share of a firm's turnover resulting from joint venture activities. For the purpose of the analysis the joint venture's original intensity was rescaled<sup>70</sup> into three success categories. Looking at Figure 53, providing the distribution of the joint venture cases according to the success indicator of intensity, it is evident that the findings are very similar to all the other internationalization forms. The intensity is one of the strictest success

<sup>69</sup> The profitable cases were asked to indicate the duration of the initial phase of their joint venture, i.e. till reaching the break-even point of profitability. The average length of unprofitability was 2.76 years, the median lay at 3 years.

<sup>70</sup> Very successful cases achieved an export share of turnover greater than 30%, successful cases' export share of turnover reached 10% to 30% and the unsuccessful cases' export turnover share did not exceed 10% (see the scoring model in the Table 8, p. 86).

indicators. Only 10% of the joint ventures are considered to be 'very successful'. An average joint venture contributes 12.9%<sup>71</sup> to a firm's turnover which is the second lowest value (after licensing) of all the internationalization cases.

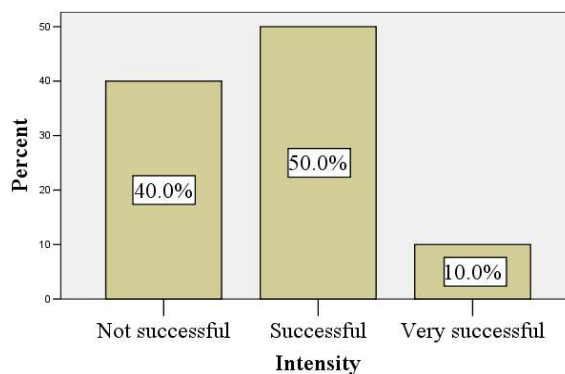


Figure 53: Intensity of Swiss SME Joint Venture Cases

The additive multi-dimensional measure of **Joint Venture Overall Performance**, created by the above mentioned success indicators, is presented in Figure 54. As opposed to licensing, a joint venture's performance is characterized by a high proportion of extreme values. The number of under performing, i.e. unsuccessful cases (40%), is the highest among all other internationalization cases.

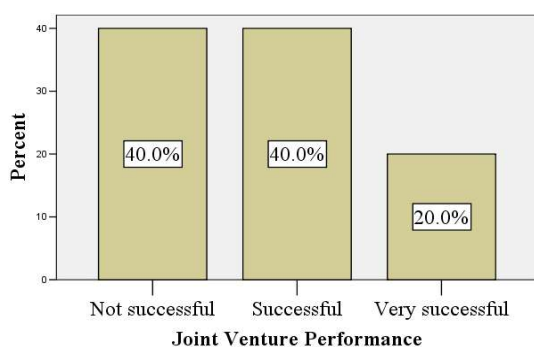


Figure 54: Overall Performance of Swiss SME Joint Venture Cases

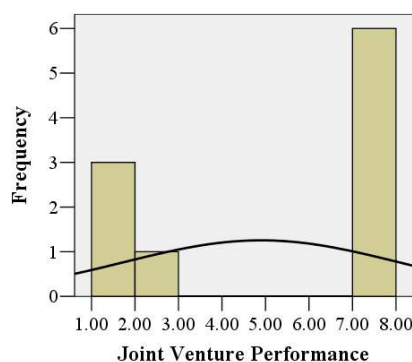


Figure 55: Histogram of Overall Performance of Swiss SME Joint Venture Cases

An overview of the joint venture success indicators and overall performance is provided in Table 29. Overall joint venture performance is also measured on a 10 point scale<sup>72</sup>. An average joint venture achieves

<sup>71</sup> The median is 12%.

<sup>72</sup> The highest category of each indicator scores 2 points, 'the successful' category scores 1 point and the unsuccessful category scores 0 points (see the scoring model in Table 8, p. 86).

4.9 points<sup>73</sup>. This is the lowest performance value of all the internationalization cases investigated. Nevertheless, these findings should not be overestimated, given the small sample size.

		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management Satisfaction	Absolute Profitability	Intensity	Relative Profitability	
Joint Venture	Very successful	20.0%	50.0%	70.0%	10.0%	10.0%	20.0%
	Successful	40.0%	40.0%	0.0%	50.0%	40.0%	40.0%
	Unsuccessful	40.0%	10.0%	30.0%	40.0%	50.0%	40.0%
	Number of Cases	10	10	10	10	10	10

Table 29: Swiss SME Joint Venture Performance

### ***Comparison of International Performance of the Investigated Internationalization Forms***

Table 30 provides a comparison of the degree of success of the four investigated internationalization forms. Looking at the empirical findings, it is evident that exporting is the most successful internationalization form of Swiss SMEs. It is followed by direct investment. The other internationalization forms of licensing and joint ventures seem to be not only less common but also less successfully applied by Swiss SMEs. Joint venture cases show the highest flop rate among the investigated internationalization forms. The empirical findings show that 40% of Swiss SME foreign joint ventures are unsuccessful. The performance of Swiss SME direct investment cases is also not very satisfying, almost one third of them are assessed to be unsuccessful.

When comparing the findings of each success indicator, it is evident, that the objective indicators are more rigid than the subjective ones. The subjective assessment of a firm's internationalization by its management tends to be very good. Whereas more than 56% of the internationalization cases are very successful according to the managers, less than 30% of the cases reach a higher level of profitability in international activities in comparison to their domestic ones.

<sup>73</sup> However the median lies at 7 points.

The overall performance of Swiss internationalization cases presented in the last lines of Table 30 is the weighted average of the performance of the investigated internationalization forms. The findings reveal that approximately 30% of Swiss internationalization cases are very successful. On the other hand, the internationalization attempts of almost 25% of them fail to succeed on international markets.

Further information regarding the success of Swiss SME internationalization cases including the number of cases per category as well as the original coding of the data are provided in Appendix D.

		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management Satisfaction	Absolute Profitability	Intensity	Relative Profitability	
Exporting	Very successful	14.3%	61.2%	95.6%	20.7%	29.8%	32.2%
	Successful	52.0%	30.6%	0.0%	45.6%	32.6%	46.5%
	Unsuccessful	33.6%	8.1%	4.4%	33.6%	37.6%	21.3%
	Number of Cases	223	258	251	241	258	202
Direct Investment	Very successful	19.4%	21.1%	76.3%	10.5%	21.1%	22.6%
	Successful	48.4%	39.5%	0.0%	60.5%	28.9%	45.2%
	Unsuccessful	32.3%	39.5%	23.7%	28.9%	50.0%	32.3%
	Number of Cases	30	38	38	38	38	31
Licensing	Very successful	20.0%	70.0%	100.0%	10.0%	0.0%	10.0%
	Successful	70.0%	20.0%	0.0%	60.0%	50.0%	80.0%
	Unsuccessful	10.0%	10.0%	0.0%	30.0%	50.0%	10.0%
	Number of Cases	10	10	10	10	10	10
Joint Venture	Very successful	20.0%	50.0%	70.0%	10.0%	10.0%	20.0%
	Successful	40.0%	40.0%	0.0%	50.0%	40.0%	40.0%
	Unsuccessful	40.0%	10.0%	30.0%	40.0%	50.0%	40.0%
	Number of Cases	10	10	10	10	10	10
Internation alization	Very successful	15.3%	56.3%	92.6%	18.7%	27.2%	28.9%
	Successful	51.8%	31.6%	0.0%	48.2%	32.9%	46.2%
	Unsuccessful	32.8%	12.0%	7.4%	33.1%	39.9%	24.9%
	Number of Cases	274	316	309	299	316	253

Table 30: Overview of Swiss SME Internationalization Performance

### 5.2.3 Relational Results

Addressing the third objective of this thesis, the following section presents the results of the relational analysis of empirical data. The following sections are organized according to the investigated internationalization forms and subsequently according to the defined hypotheses groups.

Unfortunately, an evaluation of the relationships with regard to licensing and joint venture cases could not be performed due to the limited size of the available data sample. The acquired empirical data included only 10 licensing and 7 joint venture cases. The research sample is not large enough to perform the intended data evaluation. The only possible data analysis with regard to these internationalization forms is presented in Section 5.2.2.1, p. 121.

The following sections discuss the relational results with regard to Swiss SME exporting and direct investment cases.

#### 5.2.3.1 Exporting

##### *Description of the Evaluation*

In order to answer the third research question of the thesis an analysis of the associations between the internal influencing factors and export performance is conducted. The applied three-stage evaluation process as well as the chosen evaluation methods are discussed in Section 4.3.9.1., p. 104.

An overview of the results of the relationship analysis is provided in Table 31. The table is organized such that the hypotheses groups (i.e. the categories of independent variables) are placed horizontally and the evaluation process stages vertically. The analyzed independent variable categorization corresponds to the following groups: company, exported product, management decisions, export experience, target market indicators and hypotheses.

Main Hypotheses	Data Evaluation Method	Statistical Data Pre-eEvaluation						Final Statistical Data Evaluation - Test of Hypotheses					
		1. Evaluation Stage			2. Evaluation Stage			3. Evaluation Stage					
		Kendall's tau b	Bivariate OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance	
H1. Company Characteristics	Average Turnover			0.0%		M1	not applicable		M6		M7		
	Number of Employees			0.0%									
	Age of Company			0.0%		6.8%							
	Production Company (2nd sector)			0.0%									
	Service Company (3rd sector)		-2.804	3.1%	-3.045								
H2. Internationalized Product Characteristics	Service Intensity	-0.211	-1.121	6.7%	-1.242	M2	not applicable	-1.376	48.3%	-1.367	49.4%		
	Competitive Advantage: Image / Brand Name			0.0%									
	Competitive Advantage: Quality			0.7%									
	Competitive Advantage: Price			0.0%									
	Competitive Advantage: Customer Service			0.0%									
	Competitive Advantage: Innovation	0.287	1.345	10.0%	0.824	24.6%		0.780		0.689			
	Competitive Advantage: Delivery Conditions		-0.583	1.5%									
	Competitive Advantage: Cost Reduction			0.0%	0.649			0.768		0.583			
	Technological Intensity	0.305	0.881	11.6%	0.848			0.748		0.673			
	Standardization of Production			0.0%									
	Homogeneity of Customers' Needs			0.0%									
H3. Management Decisions	Choice of Generic Business Strategy	0.154	1.045	3.6%	0.987	M3	0.776	M4	0.971	48.3%	0.758		
	Definition of Target Market Segment	0.245	1.258	8.4%	0.991		n.a. <sup>b</sup>		0.725		n.a. <sup>b</sup>		
	Number of Internationalization Forms			0.0%	-0.628		-0.642		-0.414		-0.475		
	Geographical Scope (Nr. of Target Markets)	0.238	0.036	11.1%	0.038		26.4%		0.039		29.1%	0.021	0.021
	Number of Business Trips to Target Market	0.152	0.049	2.8%	0.040		0.040		0.036		0.037		
	Amount of Info. Categories about Target Market	0.238	0.416	11.2%	n.a. <sup>b</sup>		0.350		n.a. <sup>a</sup>		0.262		
	Definition of Verifiable Objectives of Internat. <sup>d</sup>	0.225	1.160	4.3%					0.752		0.713		
H4. Expe- rience	Number of Years of Internat. Experience			0.0%		0.0%		0.0%					
H5. Target Market Char.	Cultural Difference of Target Market			0.0%		M5	not applicable						
	Economic and Political Stability of Target Market	-0.158	-0.429	4.4%	-0.429			4.4%		-.182 <sup>a</sup>		-0.224	

<sup>a</sup>The relationship is significant on 10% niveau. It is over the threshold of the 5%.

<sup>b</sup> Due to intercollation, the variable is not included in the OLS model; an alternative model is created.

<sup>c</sup> Due to intercollation, the variable is not included in the alternative OLS model.

<sup>d</sup> The results are not directly comparable, alternative performance measure was created.

The Table indicates only the significant relationships. The relationships significant on the 1% significance level are underlined, others are significant on 5% level, indicated in the table. Bold figures indicate a strong relationship

Table 31: Overview of Relationship Results of Swiss SME Export Cases

In the *first stage of the evaluation process*, the focus is put on the bivariate relationship between the individual independent variable and the dependent variable (i.e. export performance) without controlling for the effects of the other variables. A comparison of two different methods applied when evaluating the bivariate relationships is provided in

Section 4.3.9.2, p. 107. Firstly, Kendall's tau b<sup>74</sup> measurement of correlation and thereafter, the bivariate OLS regression including the percentage of the explained variance by a particular independent variable is presented.

Looking at Table 31, it is evident that the two methods provide highly comparable results. However, with regard to the characteristics of the analyzed variables as well as the data set, the results provided by Kendall's tau b are considered to have higher validity (see Section 4.3.9.2, p. 107).

The variables identified as being associated with export performance at the bivariate level, in the first stage of evaluation, are presented in Table 31, column '1<sup>st</sup> evaluation stage bivariate relationship'. The following variables prove to have a strong explanatory power<sup>75</sup>: 'service intensity', 'product innovation', 'technological intensity', 'conscious definition of target market segment', 'number of target markets' and 'amount of information categories about the target market'. Except for 'service intensity' all the other variables are positively associated with export performance. Further significant bivariate relationships are presented in Table 31. Even if a significant bivariate relationship is a good indication of an existing association of two indicators in reality (Garson, 2002), an analysis including the effects of the other indicators should be performed before drawing a conclusion.

Whereas Table 31 provides only the coefficients of the significant relations, the complete results of the bivariate relationship analysis are presented in Appendix E.

The findings of the *second stage of the evaluation process* are displayed in Table 31 in the column named '2<sup>nd</sup> evaluation stage multivariate relationship(s) of an individual hypothesis'. In this stage of the evaluation process the relationships between export performance and the groups of company, exported product, management decisions, export experience and target market variables are analysed individually. It means that five OLS regression models are estimated; analysing the associations between the dependent variable of export performance and company indicators (M1), exported product indicators (M2), management decision indicators (M3 and M4) and target market indicators (M5)<sup>76</sup> (see Section 4.3.9.3, p. 108).

<sup>74</sup> Kendall's tau b was chosen as the first method of evaluating bivariate relationships in the scope of this thesis. For details see Section 4.3.9.2.

<sup>75</sup> These variables explain more than 5% of the dependent's variance.

<sup>76</sup> There is no need to estimate the model for the export experience hypothesis group, because it involves only one independent variable. This means that the results of bivariate OLS regression performed in the 1<sup>st</sup> stage of evaluation are identical with the results of the model estimation in the 2<sup>nd</sup> stage of evaluation. Further, in the case of management decisions, two alternative models need to be estimated due to the



In this stage the effects of the other variables of a particular group are taken into consideration.

Looking at Table 31, it is evident that the *company model* (M1) provides a considerably lower share of explained variance of export performance than the other models. Moreover, according to the model fit measures (see Appendix E) and the OLS assumption tests (see Appendix B) the validity of the company model is uncertain. Also, service companies are highly under-represented in the investigated research sample of Swiss SME export cases<sup>77</sup>. This means that the only significant relationship appearing in the company model, i.e. the negative association between a 'service' company and a export performance is also considered to be uncertain<sup>78</sup>.

The variables of the exported *product model* (M2) achieve a considerably high level of explained variance of performance. Table 31 shows that the model estimate provided four very strong associations between export performance and exported product characteristics. The variables, 'technological intensity', 'product innovation' and 'competitive advantage : cost reduction for customers' proved to have positive, strong and highly significant relationships with export performance. On the other hand, the 'service intensity' of an exported product shows a strong negative association with export performance.

Looking at Table 31, it is evident that there are two models (M3 and M4) estimated with regard to management decision variables. This is necessary due to the multi-collinearity appearing in the case of the *management decisions model* (see Appendix B). A high mass of inter-collinearity between two independent variables ('definition of the target market segment' and 'amount of information categories about the target market') are diagnosed. Due to this, the effects of these two variables can not be separated. In order to be able to evaluate the individual effects of these variables on export performance, two OLS models (M3 and M4) are estimated, each of them includes only one of the inter-correlated variables.

Looking at Table 31, it is obvious that the management decisions models show the most significant relationships with export performance. This

---

appearing problems with multi-collinearity.

<sup>77</sup> Only 1.6% of the cases were service companies, 36% were production companies and 32.4% stated that they provide both products and services.

<sup>78</sup> An alternative model estimation of company variables was performed in order to investigate other possible relationships. The underrepresented service company cases were excluded from the sample. However, the resulting model fulfilled neither the OLS assumption test nor did it prove any significant relationships between company variables and export performance. The alternative model of company variables is provided in Appendix E.

category of variables also explains the highest share of the dependent variable variance (26.4% and 29.1% for M3 and M4 respectively). Both management decision models provide almost identical results (see Appendix E). Also both of the inter-correlated variables prove to have a strong association with export performance. The strongest positive relationships appear between the indicators of the strategic planning process ('choice of generic business strategy' and 'definition of target market segment') and export performance. The strongest negative relationships appear between the 'number of internationalization forms' variable and export performance.

The last model estimated in the second evaluation stage is the **target market model** (M5). The explanation power of the model is quite limited (only 4.4% of the export performance variance can be explained by the characteristics of the target market). However, a negative association between the economic and political stability of the target market and export performance seems to be very strong and significant.

The complete results of the five models estimated in the second stage of evaluation are provided in Appendix E.

The **third stage of the evaluation process** provides the most robust results. This is the last stage of the evaluation. It assesses the existence of the relationships between the dependent and the independent variables, taking into consideration the effects of all the independent variables. It means that the OLS regression model (see Section 4.3.9.3, p. 108), including all the variables proving to be associated with the dependent variable in the second evaluation stage, is estimated<sup>79</sup>. The results of the overall model estimate are displayed in Table 31 in the column named '3<sup>rd</sup> evaluation stage multi-variate relationship within all hypotheses'.

All the relevant variables<sup>80</sup> of the company, exported product, management decisions, export experience and target market are included in the overall model. A similar multi-collinearity problem (see Appendix B) appears as in the case of the management decision model in the previous evaluation stage. Consequently, two alternative **overall models** (M6 and M7) are estimated, each of them including only one of the two inter-correlated

---

<sup>79</sup> The initial intention of involving all the variables of all the categories could not be done due to the limited number of observations. That is why only the variables that proved a significant relationship within the company, exported product, management decisions or target market model, were included in the overall model at the last stage of the evaluation.

<sup>80</sup> The variables with significant association to the dependent variable appearing at the second evaluation stage are considered relevant variables.

variables ('definition of the target market segment' and 'amount of information categories about target market').

The results of the overall models presented in Table 31 show that the findings of the partial models of exported product, management decisions and target market variables from the second evaluation stage are very stable. The highly comparable results of overall models M6 and M7 confirm all the relationships explored in the previous evaluation stage. All the variables entered in the models confirm their association with the dependent variable. The only exception is represented by the association of the 'economic and political stability of the target market' variable, which is not confirmed at the 5% significance level in the M6 overall model<sup>81</sup>.

A positive association with export performance is proved by the variables of 'product innovation', 'technological intensity' of the product, 'cost reduction' for customers, 'choice of generic business strategy', 'definition of target market segment', 'number of target markets', 'amount of information categories about the target market' and 'number of business trips to target market'. All the relationships are very strong except the 'number of business trips to the target market' and 'number of target markets' variables, which are rather weak. The described associations can be interpreted as follows: the increase of the 'number of target markets' of one additional market is associated with an increase of export performance of 0.021 points. Thereby, export performance is measured on a 10 point scale with 10 representing the highest performance.

In addition, the following variables prove to be negatively related to export performance; 'service intensity' of the exported product, 'number of internationalization forms' and 'the economic and political stability of the target country'. Except for 'economic and political stability' which is the weakest, all the other relationships are very strong and highly significant.

The variables of the created overall models predict the dependent variable well. Both models are able to explain approximately 50% of the variance of export performance. The adjusted regression coefficient ( $R^2$ ) reaches 0.483 and 0.494 in the case of overall models M6 and M7 respectively. With regard to the complexity of the phenomena of internationalization and its performance the achieved explanatory power is considered to be high. Moreover, the analysis focused only on the internal influences of international performance. It did not involve any external influences into the investigation which, according to the internationalization literature (e.g. Aaby/Slater, 1989) also have an impact on international performance.

<sup>81</sup> The variable 'economic and political stability of the target market' shows a negative association with the dependent (-.182) at a level of significance of 0.103.

The complete results of the overall model analysis are provided in Appendix E.

### ***Test of the Hypotheses with Regard to Company Characteristics***

Hypothesis 1.1            There is a positive relationship between the size of an SME and its international performance.

None of the independent variables indicating the size of the firm, i.e. 'number of employees' and 'average turnover' proved to be associated with the dependent variable, i.e. export performance in any stage of the relationship evaluation. Consequently, Hypothesis 1.1 is rejected.

Hypothesis 1.2            There is a positive relationship between the age of an SME and its international performance.

The three-stage evaluation process of the relationships showed that the independent variable, age of the company, is independent of export performance. The evidence for the hypothesis was not found in any stage of the evaluation. Consequently, Hypothesis 1.2 is rejected.

Hypothesis 1              The characteristics of an SME have an impact on its international performance.

Both of the above tested hypotheses regarding company characteristics are rejected because no relationship between an SMEs' size or age and its export performance is confirmed by the analysis of the data.

The estimated company model shows a poor model fit (see Appendix E) and poor results of OLS assumption tests (see Appendix B) as discussed in Section 5.2.3.1. This means that the model estimation is uncertain. The F test, used to test the significance of the regression model as a whole does not confirm that the company model<sup>82</sup> is considered significantly better than would be expected by chance. The null hypothesis of no relationship between the dependent (export performance) to the independent variables (company indicators) cannot be rejected (see Appendix E). Looking at Table 31, it is evident that none of the company indicators proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently Hypothesis 1 is rejected.

---

<sup>82</sup> In addition to the M1 company model, an alternative company model (e.g. excluding the service company cases) is also estimated. All of the models reached comparably poor results with regard to model fit and assumption tests.

***Test of the Hypotheses with Regard to Product Characteristics***

Hypothesis 2.1      There is a positive relationship between the technological intensity of the internationalized product and the international performance of the SME.

A very strong positive association of the technological intensity of the exported product and export performance appears in all three evaluation stages (see Table 31). The relationships proved to be strong, robust and highly significant in all the evaluation stages. Furthermore, the technological intensity of the exported product seems to be the most powerful predictor of export performance. The bivariate OLS regression shows that the variable explains 11.6% of the dependent variable variance (see Table 31). Consequently, Hypothesis 2.1 is accepted<sup>83</sup>.

Hypothesis 2.2      There is a positive relationship between the premium quality of the internationalized product and the international performance of the SME.

No relationship between the premium quality of the exported product and export performance is found in any stage of the evaluation. The analysis of the sample of Swiss SME export cases showed that there is no relationship between the two variables, neither when taking the effects of the other variables into consideration nor when the effects are excluded. However, it seems that a very high proportion of Swiss SMEs consider their exported product as having a high quality standard. As discussed in Section 5.2.3.1, p. 158, the overwhelming majority of SMEs (82.1%) stated that quality was the source of competitive advantage of their exported product. However, it might be that the high quality of a product exported by a Swiss SME is a necessary, though not sufficient presumption of its international success. Nevertheless, evidence supporting the hypothesis is not found in any of the analyses performed. Consequently, Hypothesis 2.2 is rejected.

Hypothesis 2.3      There is a positive relationship between the innovativeness of the internationalized product and the international performance of the SME.

---

<sup>83</sup> The term 'accepted' used to simplify the reading throughout Section 5.2.3 is not correct. In fact, it should read: The null hypothesis (that there is no relationship between the technological intensity of the internationalized product and its internationalization performance) is rejected. Consequently Hypothesis 2.1 cannot be rejected.

As opposed to the exported product's quality, its innovativeness proves to be positively associated with export performance in all the evaluation stages. Similarly to the technological intensity, it is one of the most robust and strongest relationships found (see Table 31). Consequently, Hypothesis 2.3 is accepted.

Hypothesis 2.4            There is a negative relationship between the service intensity of the exported product and the export performance of the SME.

The theoretically assumed negative relationship with exported product service intensity (Root, 1994, p. 15) is confirmed by the analysis of the data. The negative relationship between the exporting product requiring special kinds of per- or after-sales services and export performance is very strong and highly significant (at a 1% level, see Table 31) in all the stages of the evaluation. Interestingly, the strong negative relationship appears with regard to both direct and indirect export cases. The variable of service intensity of the exported product can explain 6.7% of export performance variance. Consequently, Hypothesis 2.4 is accepted.

Hypothesis 2            The characteristics of the internationalized product have an impact on the international performance of the SME.

Hypothesis 2, which assumes the impact of exported product characteristics on export performance is confirmed by the product indicators model created in the second stage of the evaluation (see Table 31). The F test, which is used to test the significance of the regression model as a whole, confirms (at a 1% significance level) that the model is considered significantly better than would be expected by chance. The null hypothesis of no relationship between the dependent variable of export performance and the independent variable of exported product is rejected. The model's high adjusted multiple regression coefficient ( $R^2 = 0.246$ ) indicates high explanatory power, i.e. 24.6% of the export performance variance can be explained by the exported product variables. Looking at the Table 31, it is evident that the indicators of exported product proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently, Hypothesis 2 is accepted.

***Test of the Hypotheses with Regard to Management Decision***

Hypothesis 3.1            There is a positive relationship between the existence of a strategic planning process of internationalization and the international performance of the SME.

Hypothesis 3.1. is operationalized with the help of three indicators of the strategic planning process, the choice of generic business strategy, the definition of target market segment and the definition of verifiable objectives (see Section 4.3.4.2, p. 86). Consequently, the association between these three indicators of the strategic planning process and export performance is tested.

Significance tests in all three stages of the evaluation proves the relationship between the independent variable, choice of generic business strategy, and export performance (see Table 31). The strong positive relationship is confirmed by the management decision models (M3 and M4) as well as by both overall models (M6 and M7 – see Appendix E).

Similarly to the previously discussed variable, the definition of target market segment variable also establishes a positive and very strong association with export performance. The analysis confirms the relationship in each evaluation stage. Even if the multi-collinearity problem appears in the case of the multivariate models<sup>84</sup>, the tested relationship proves to be strong and significant. Its explanatory power ( $R^2 = 0.084$ ) exceeds the one of 'choice of generic business strategy' variable ( $R^2 = 0.036$ ).

The last indicator of the strategic planning process – the definition of verifiable objectives is not easily tested. The relationship can be tested only at the bivariate level, but it can not be added into the multivariate model estimations. This is because the independent variable, i.e. the multidimensional measure of export performance, also involves the indicator of objective achievement (see Section 3.4, p. 71). In cases when observations that do not define any objectives, the dependent variable, i.e. export performance, can not be created. Consequently, the 'definition of

<sup>84</sup> The variable 'definition of target market segment' appeared to be inter-correlated with the variable 'amount of information categories about target market'. The variable 'definition of the served market segment' is included in the management decisions model M1 and the overall model M3 and accordingly excluded from models M2 and M4. The variable 'amount of information of the target market' is vice versa excluded from the management decisions models M1 and M3 and included in the overall models M2 and M4. (as discussed in Section 5.2.3.1, p. 174; for details see Appendix B).

verifiable objectives' variable has no variance in the estimated models and as such its association with export performance cannot be tested. That is why the alternative independent variable (a reduced export performance measurement excluding the indicator of objective achievement) is created and the alternative management decisions model and the alternative overall model is estimated. The resulting coefficients from the alternative models regarding the definition of verifiable objectives variable are presented in Table 31. The complete models are provided in Appendix E. Nevertheless, due to the different independent variables, the results are not directly comparable with the results of models M3, M4, M6 and M7.

Looking at Table 31, it is evident that definition of verifiable objectives has a positive association with export performance. Both bivariate relationships are highly significant (at a 1% level), the bivariate OLS regression indicated that the 'definition of verifiable objectives' explains 4.3% of the export performance variance. Even if the relationship missed the 5% significance level in the management decisions model, it is significant in the overall models.

Summarizing the results provided by the three indicators described above, all are positively associated with export performance. Consequently, the assumed relationship between the existence of a strategic planning process and export performance is confirmed. Hypothesis 3.1 is accepted.

Hypothesis 3.2            There is a positive relationship between the concentration of resources and the international performance of the SME.

Hypothesis 3.2 is operationalized with the help of the two indicators of concentration of resources, the geographical scope of exporting and the number of internationalization forms (see Section 4.3.4.2, p. 86). Subsequently, the association of these two indicators of resources concentration to export performance is tested.

The theoretically assumed negative relationship with the high geographical scope of exporting and its performance is not confirmed by the evaluation of the sample of Swiss SME export cases. On the contrary, a positive relationship emerges between the geographical scope (i.e. the number of target markets) and export performance. Though, the relationship is not very strong (see Table 31), it is very stable and significant in all stages of the evaluation. Consequently, data analysis shows the opposite to the theoretically assumed relationship. The higher the number of markets the better the performance. This implies, that the learning curve effect, increasing from country to country, seems to be big enough to provide a



benefit to the exporting firm. On the contrary to the suggestions of Naidu and Prasad (1994, p. 113), this benefit seems to be higher than the risk of spreading resources too thinly and the increasing translation costs connected with new market expansion.

On the other hand, the theoretically assumed negative association between the high variety of internationalization forms used by an SME and its export performance is confirmed by the empirical data analysis. The variable, number of internationalization forms, appears to be negatively related to the dependent variable in all the multivariate models, with the exception of the first bivariate stage of data evaluation, where no relationship appeared. Still, the relationship is strong and highly significant in the multivariate models (see Table 31). The results provided by the overall model suggest that an increase in the internationalization engagement of an SMEs of one additional internationalization form, results in a decrease of its export performance of 0.4 points.

Hypothesis 3.2, regarding the concentration of resources with regard to SMEs internationalization, is tested with the help of the two previously discussed variables. From the above discussion, it is evident that the theoretically assumed positive relationship between the concentration of resources and export performance is not confirmed by the analysis of the data. Whereas there is a negative association with the number of internationalization forms and export performance, geographical scope is positively related to export performance. Therefore, the assumed benefit of resource concentration in the case of an exporting SME is mixed. Consequently, Hypothesis 3.2 is rejected.

The fact that the number of internationalization forms is negatively associated with export performance (i.e. the lower the number of internationalization forms the better the export performance), and the positive relationships appearing between the number of target markets and export performance provokes an additional question. This is whether the high number of target markets leads to high performance or vice versa; the high international performance results in further international expansion and consequently the higher number of target markets. In order to answer this question a scatterplot of the data is provided in Figure 56, displaying the number of target markets in relation to the duration of a firm's international activity. Surprisingly, looking at Figure 56, it does not support the assumption of an increasing number of markets with an increasing duration of international activity<sup>85</sup>. Furthermore, it also cannot

---

<sup>85</sup> Neither the group of successful firms operating in a limited number of markets during the initial years of internationalization, nor the group of successful firms operating in increasing numbers of markets in later years of internationalization are

be concluded that the high performance in a limited number of markets at the beginning of exporting leads to an increase in geographical scope later. Instead, Figure 56 shows that the 'very successful' and 'successful' cases seem to operate in a various number of markets (i.e. either concentrating on a few or expanding to many markets) since the beginning of internationalization).

Further, Figure 57 displays the number of internationalization forms and the duration of exporting. It is evident that the majority of very successful cases operate in a single internationalization form. Even if it might be that the firms increase the variety of their international activities over the time, it apparently does not lead to more success.

Moreover, Figure 56 implies that there are two different approaches of successful exporting firms. First, there seems to be a numerous group of very successful SMEs exporting to many markets since the beginning of their export activities (i.e. the global approach). The second group, appearing in the lower left corner of Figure 56, seems to start exporting into a limited number of markets and is successfully expanding to further markets later (i.e. the traditional approach).

**Hypothesis 3.3**      There is a positive relationship between the intensity of prior target market research and the international performance of the SME.

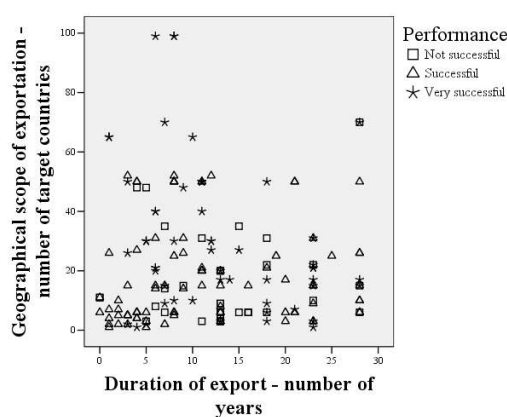


Figure 56: International Experience vs. Geographical Scope of Export Cases

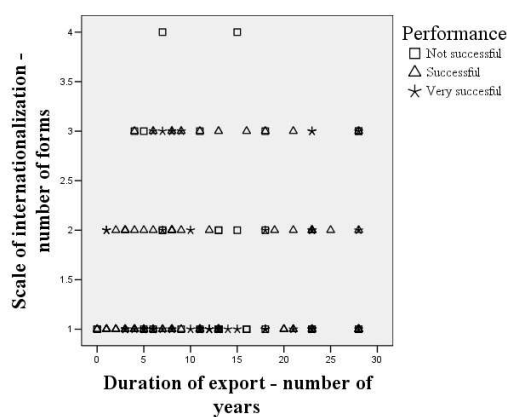


Figure 57: International Experience vs. Internationalization Scope of Export Cases

Hypothesis 3.3, assuming a positive relationship between the intensity of target market research and export performance, is operationalized with the help of the variable, amount of information categories about the target

evident in the chart.

market collected prior to the market entrance. As discussed above in Section 5.2.3.1, p. 158 the multi-collinearity problem appears in multivariate models (see Appendix B). That is why the inter-correlated variable, number of categories about the target market, is excluded from the original management decisions model M3 and the overall model M6. In order to test Hypothesis 3.3 the alternative models M4 and M7<sup>86</sup> are created. The analysis confirms the positive relationship between the intensity of prior market research and export performance in each stage. The relationship is very stable and highly significant (at a 1% level) in all the estimated models. It has the highest explanatory power of all management decisions variables ( $R^2 = 0.112$ ). Consequently, Hypothesis 3.3 is accepted.

Hypothesis 3.4            There is a positive relationship between the management commitment towards an SME's international activities and the internationalization performance of the SME.

A positive relationship between management's commitment towards exporting and its performance appears in all performed data analysis (see Table 31 for results summary and the Appendix E the complete results). It is obvious that there is a positive association between the two variables, consequently Hypothesis 3.4. is accepted.

However, it is assumed that the relationship is much stronger in reality than that presented in Table 31. The weakness of the association is probably caused by the operationalization of management's commitment. The indicator of number of business trips to the target country is used as a proxy for management's commitment towards internationalization. This is suggested to be a good indicator of management's commitment and suitable for data collection with the help of a questionnaire. Nevertheless, in practice the commitment of management to internationalization is understood much more broadly. That is why the real relationship is assumed to be much stronger than indicated by the analysis of the number of management's business trips to the target country.

Hypothesis 3            Management decisions with regard to internationalization have an impact on the international performance of the SME.

---

<sup>86</sup> The model M3 (management decision model) and M6 (overall model) excluded the intercorrelated variable 'definition of target market segment' and included the variable 'amount of information categories of target market'.

The third hypothesis assumes an impact of management decisions on export performance. This is confirmed by the management decisions models (M3 and M4) created in the second stage of the evaluation. According to the F test the significance of the regression model as a whole is confirmed (at a 1% significance level). It means that the model is considered significantly better than would be expected by chance, the null hypothesis of no relationship between the export performance and the management decisions variables is rejected (see Table 31). The explanatory power of the models is high, adjusted multiple regression coefficient ( $R^2$ ) reaches 0.264 and even 0.291 by M3 and M4 respectively. Looking at Table 31, it is evident that the indicators of management decisions proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently, Hypothesis 3 is accepted.

### ***Test of the Hypotheses with Regard to International Experience***

Hypothesis 4                      There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.

The relationship between the international experience of a firm and export performance assumed by Hypothesis 4 is not confirmed by the empirical analysis of the data. The length of experience in a particular country does not prove to be positively associated with export performance. In fact, no relationship between the duration of the export activity and its performance appears in any of the data analysis performed (see Table 31 for a results summary and Appendix E for the complete analysis). Consequently Hypothesis 4 is rejected.

Looking at Figure 58 displaying the performance of the export cases and the export experience, it is surprising that among the exporters in the initial phases only a few unsuccessful cases can be found. Additionally, the respondents are also asked to indicate the duration of their initial export phase (understood as the period until the break even point is reached). The answers reveal that the break even point of exporting follows very soon after the beginning of the activity, on average after 1.41 years. The median is 1 year. In addition, it is also surprising that the majority of unsuccessful cases already have some experience in the market. Looking at Figure 58, it is evident that many of them have been exporting to the particular market for more than five years. Whereas the successful and very successful cases can be found among the beginners as well as the experienced exporters.

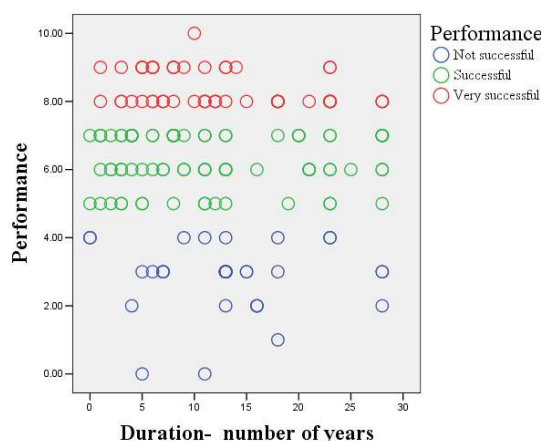


Figure 58: International Experience vs. Overall Performance of Export Cases

### 5.2.3.2 Direct Investment

#### *Description of the Evaluation*

The relationship analysis of the Swiss SME direct investment data sample is conducted in the same way as the export data sample described in Section 5.2.3.1, p. 158. In order to answer the third research question of the thesis, an analysis of the association between the performance of direct investment and the internal influencing indicators is conducted.

However, because the acquired direct investment data sample is very limited, only 38 direct investment cases can be analyzed. This is considered to be a very small data sample especially for purposes of multivariate data analysis. Nevertheless, the performed data analysis does not violate the rule of thumb regarding the size of the data sample, which is defined as follows: “The number of observations has to be twice the number of variables entering the regression equation” (Backhaus et al, 2000, p. 112). Furthermore, the performed tests do not show any severe violation of the evaluation method (i.e. OLS regression) assumptions (see Appendix B). Nevertheless, the data sample is considered to be very small for such data analysis. And the results are considered to be less certain accordingly.

Despite these limitations, it has been decided to perform a multivariate data analysis of direct investment cases in order to achieve the third objective of the thesis, as well as to be able to compare the findings of different internationalization forms, as this is the further purpose of the study.

The overview of the findings of the relationships analysis is provided in Table 32. The results of each evaluation stages are briefly described below.

Main Hypotheses	Data Evaluation Method	Statistical Data Pre-Evaluation					Final Statistical Data Evaluation	
		1. Evaluation Stage Bivariate Relationship			2. Evaluation Stage		3. Evaluation Stage	
		Kendall's tau b	Bivariate OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance	OLS Regression	% of Explained Variance
H1. Company Characteristics	Average Turnover			1.5%		M1		M5
	Number of Employees			0.5%		0.0%		
	Age of Company			3.4%				
	Production Company (2nd sector)			0.0%				
H2. Internationalized Product Characteristics	Service Intensity	<u>0.346</u>		7.0%		M2		
	Competitive Advantage: Image / Brand Name			0.3%				
	Competitive Advantage: Quality			4.9%	<b><u>4.193</u></b>			
	Competitive Advantage: Price	<u>0.460</u>	<u>2.965</u>	22.3%	<b><u>4.016</u></b>			
	Competitive Advantage: Customer Service	-0.515	-3.456	36.8%				
	Competitive Advantage: Innovation	<u>-0.309</u>		5.9%		67.1%		
	Competitive Advantage: Delivery Conditions			0.0%				
	Competitive Advantage: Cost Reduction	<u>0.351</u>	<u>2.554</u>	12.8%				
	Technological Intensity			0.0%				
	Standardization of Production			1.9%				
	Homogeneity of Customers' Needs	<u>0.470</u>	<u>1.379</u>	21.0%	<u>0.987</u>		1.057	78.2%
H3. Management Decisions	Choice of Generic Business Strategy	0.327	<b>3.821</b>	14.7%	<b>2.690</b>	M3	<b><u>3.647</u></b>	
	Definition of Target Market Segment	<u>0.403</u>	<b>3.400</b>	18.8%				
	Number of Internationalization Forms			4.4%				
	Geographical Scope (Nr.of Target Markets)			0.0%		60.2%		
	Number of Business Trips to Target Market	<u>0.492</u>	0.224	24.3%	<u>0.251</u>		0.174	
	Amount of Info. Categories about Target Market			8.5%	<b>0.917</b>		0.838	
	Definition of Verifiable Objectives of Internat. <sup>d</sup>	<u>0.508</u>	<b>3.866</b>	35.0%	<b>2.024</b>		<b>2.147</b>	
H4. Experience	Number of Years of Internat. Experience			0.1%		0.0%		
H5. Target Market Char.	Resource Advantage Availability	<u>0.535</u>	<u>3.456</u>	36.8%	<b><u>2.956</u></b>	M4		
	Cultural Difference of Target Market	<u>0.342</u>	<u>0.050</u>	18.1%		42.8%		
	Economic and Political Stability of Target Market			2.1%				

<sup>a</sup>The relationship is significant on 10% niveau. It is over the threshold of the 5%.

<sup>b</sup> Due to intercolleration, the variable is not included in the OLS model; an alternative model is

<sup>c</sup> Due to intercolleration, the variable is not included in the alternative OLS model.

The Table indicates only the significant relationships. The relationships significant on the 1% significance level are underlined, others are significant on 5% level. indicated in the table. Bold figures

Table 32: Overview of Relational Results of Swiss SME Direct Investment Cases

The **first stage of the evaluation process** is focused on the bivariate relationships between the single independent variables and the performance of direct investment cases. This analysis does not control for the effects of other variables. The results of both applied evaluation methods (Kendall's tau b and bivariate OLS) are provided in Table 32.

Looking at the results, it is evident that both the applied methods used to analyze bivariate associations, provide highly comparable results. Some of the variables of the foreign manufactured products seem to have a very strong explanatory power. The most significant associations appear between direct investment performance and the following two independent variables expressing the source of competitive advantage of the foreign manufactured product; the 'price' and the 'customer service'. Whereas the first relationship is positive, the later is negative. Additionally, the 'customer needs homogeneity' variable is shown to be positively associated with the direct investment performance. The variable has an explanatory power of 21%. Nevertheless, as already mentioned in Section 5.2.3.1, p. 158, significant bivariate associations between two variables are considered to be a good indication but not a confirmation of a real relationship.

The results of the **second evaluation stage** analyzes the relationships between direct investment performance and the groups of company, foreign manufactured product, management decisions, international experience and target market indicators individually. The results are displayed in Table 32, column '2<sup>nd</sup> Evaluation Stage Multivariate Relationship within a Single Hypothesis'. The complete results of the four estimated OLS models are provided in Appendix E.

First, the **company model** (M1) is estimated. As with the company model of export cases, no significant relationships appear between the company variables and direct investment performance. Moreover, according to the model fit information (see Appendix E) and OLS assumption tests (see Appendix B) the validity of the model is uncertain.

The indicators of the foreign manufactured product seem to be good predictors of direct investment performance. The **foreign manufactured product model** (M2) achieves the highest share of explained variance of direct investment performance ( $R^2 = 0.671$ ). There are three positive relationships appearing in the product variables model (see Table 18). The variables, 'customer's needs homogeneity', the source of competitive advantage of direct investment's product 'quality' and 'price' have a strong positive relationship with the dependent variable, direct investment performance.

At first glance, these results seem to be contradictory. One would not expect that a product manufactured successfully abroad relies on its premium quality standard and on its low price at the same time. That is why the data are analyzed in more detail, the additional data analysis being provided in Figure 59.

Looking at Figure 59, it is evident, that there are two groups of successful direct investments appearing in the sample of direct investment cases. Both are approximately similar in size. Whereas the first group of cases can be characterized by indicating the price as a source of the foreign manufactured product's competitive advantage, the other group reports that the premium 'quality' is what differentiated their product. Because all of the well performing cases indicated either quality or 'price' as their source of competitive advantage<sup>87</sup>, the division of the direct investment cases into two separate groups is obvious. This explains the strength of the positive relationships appearing in the product model (M2). The above discussion implies that these two significant relationships are not simultaneous, but each of them is appearing in one of the subsamples of direct investment cases.

When dividing a sample into several subsamples, it is recommended to analyze the data of the subgroups separately. Unfortunately, due to the limited number of direct investment observations, such analysis cannot be performed with the acquired data. In the case of the separate data analysis of the two subgroups of observations, the rule of thumb (Backhaus et al, 2000, p. 112) regarding the number of the observations would be violated.

A further significant relationship appears in the product model. The positive association of 'customer needs homogeneity' and direct investment performance. It implies that the successful direct investment manufactures a product satisfying homogeneous customer needs. Figure 60 shows that the positive relationship of 'customer needs homogeneity' and competitive advantage 'price' seem to be simultaneous. Similarly to the above discussed relationships this one should also be confirmed by a separate analysis of the appearing subsamples of direct investment cases.

---

<sup>87</sup> Furthermore, none of the well performing cases indicates both of the competitive advantages.



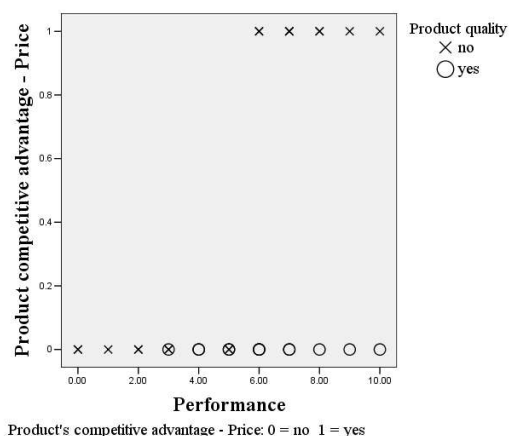


Figure 59: Performance of Direct Investment Cases Relying on Quality and Price of Product

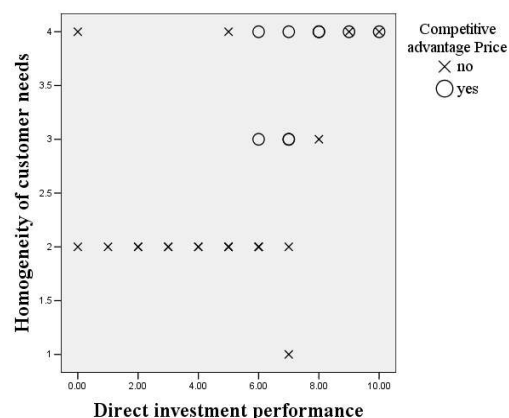


Figure 60: Performance of Direct Investment Cases Relying on Homogenous Customers' Needs and Price of the Product

Looking at Table 32 it is obvious that the management decisions model (M3) provides a number of significant relationships between the dependent and independent variables. The model explains 60% of direct investment performance variance ( $R^2 = 0.602$ ). The strongest predictor of direct investment performance proves to be the strategic planning process indicator – 'choice of generic business strategy'. Furthermore, the variables, 'number of business trips into the target markets' as well as 'amount of information categories about the target market,' are positively associated with direct investment performance. These relationships are significant at a 1% level.

The last of the three models estimated in the second stage of evaluation is the **target market model** (M4). Despite the only significant relationship, the model proves to have a substantial explanatory power of more than 42%. The 'resource advantage availability' variable is strongly associated with direct investment performance. The relationship is also highly significant at a 1% level.

The overall OLS model including all relevant independent variables is estimated in the third stage of the evaluation process. This model assesses the existence of the relationships and takes the effects of all other relevant variables into consideration. Consequently, it provides the most robust results. They are presented in Table 18 in the column '3<sup>rd</sup> Evaluation Stage Multivariate Relationships of All Hypotheses', the complete results of the overall model are provided in Appendix E.

In comparison with the **overall model** (M5) of export performance the one of direct investment performance is much stronger. It explains 78.2% of direct investment performance variance. Though, not all of the significant

relationships of the previous evaluation stage also stay significant in the last evaluation stage. The two asynchronous relationships regarding the source of the product's competitive advantage, do not succeed in the rivalry with the other independent variables. Consequently, these associations are not significant in the overall model.

A positive association between 'customer needs homogeneity' and direct investment performance is confirmed by the overall model. In addition, all the significant relationships of management decision indicators from the second evaluation stage appear to also be significant in the overall model. The 'choice of generic business strategy', 'amount of information categories about the target market' and 'number of business trips to target market' variables are all positively associated with direct investment performance. All the relationships are very stable.

Similarly to exporting, the direct investment hypothesis test is based on the most robust results, i.e. the results of the third evaluation level when all the effects of all the other investigated variables are included in the model.

### ***Test of the Hypothesis with Regard to Company Characteristics***

Hypothesis 1.1            There is a positive relationship between the size of an SME and its internationalization performance.

None of the independent variables indicating the size of the firm, i.e. 'number of employees' and 'average turnover' prove to be associated with the dependent variable, direct investment performance, in any stage of the evaluation. Consequently, Hypothesis 1.1 is rejected.

Hypothesis 1.2            There is a positive relationship between the age of an SME and its internationalization performance.

All three evaluation stages show that the independent variable, age of the company, is not associated with direct investment performance. Evidence for the hypothesis is not found, consequently, Hypothesis 1.2 is rejected.

Hypothesis 1            The characteristics of an SME have an impact on its internationalization performance.

Both of the above tested hypotheses regarding the company characteristics are rejected. Furthermore, the F test used to test the significance of the regression model as a whole, does not confirm that the company model is considered to be significantly better than one would be expecting by chance. The null hypothesis of no relationship between the dependent and

the independents cannot be rejected (see Appendix E). Looking at Table 32, it is evident that the indicators of the company proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently Hypothesis 1, assuming the impact of company characteristics on direct investment performance is rejected.

### ***Test of the Hypotheses with Regard to Product Characteristics***

Hypothesis 2.1            There is a positive relationship between the technological intensity of the internationalized product and the internationalization performance of the SME.

None of the three evaluation stages proved that the independent variable, technological intensity of the foreign manufactured product, is associated with direct investment performance. The evidence for the hypothesis is not found, consequently, Hypothesis 2.1 is rejected.

Hypothesis 2.2            There is a positive relationship between the high quality of the internationalized product and the internationalization performance of the SME.

Even if the second stage of evaluation indicated a positive association between the source of competitive advantage quality and direct investment performance, the relationship is not strong enough to succeed in the competition with all variable effects in the overall model of the last evaluation stage. This is why not enough evidence supporting the hypothesis is found and, as a consequence, Hypothesis 2.2 is rejected.

Hypothesis 2.3            There is a positive relationship between the innovativeness of the internationalized product and the internationalization performance of the SMEs.

Except for the significant bivariate relationships in the first evaluation stage, no significant relationships between the innovativeness of the foreign manufactured product and direct investment performance appeared. This means that when considering the effects of other product characteristics, the association disappears. Therefore, there is no evidence found and, as a consequence, Hypothesis 2.3 is rejected.

Hypothesis 2              The characteristics of the internationalized product have an impact on the internationalization performance of the SME.

Hypothesis 2, assuming the impact of the foreign manufactured product characteristics on direct investment performance, is confirmed by the product model estimated in the second stage of evaluation (see Appendix E). The F test, which is used to test the significance of the regression model as a whole, confirms (at a 1% significance level) that the model is considered significantly better than would be expected by chance; and the null hypothesis of no relationship between direct investment performance and the independents of the foreign manufactured product characteristics is rejected. The model's adjusted multiple regression coefficient is very high ( $R^2 = 0.671$ ), which implies that only approximately 13% of direct investment performance variance remaining unexplained. Looking at Table 32, it is evident that at least one of the indicators of the foreign manufactured product proved to be associated with the dependent variable in the last hypothesis testing stage. Additionally, the kind of customer needs with regards to foreign manufactured product proves the relationships with direct investment performance. Consequently, Hypothesis 2 is accepted.

### ***Test of the Hypotheses with Regard to Management Decisions***

Hypothesis 3.1                      There is a positive relationship between existence of a strategic planning process of internationalization and the international performance of the SME.

Hypothesis 3.1 is operationalized with the help of three indicators of the strategic planning process, the 'choice of generic business strategy', the 'definition of target market segment' and the 'definition of verifiable objectives' (see Section 4.3.4.2, p. 86). Consequently, the association of these three indicators of the strategic planning system with export performance is tested.

The significance tests in all three stages of evaluation confirmed the relationship between the independent variable, choice of generic business strategy, and the dependent variable, direct investment performance (see Table 32). The relationship proves to be very strong and significant at a 5% level in all evaluation stages. The explanatory power of the definition of generic business strategy variable measured by bivariate OLS regression reaches 14.7% (see Appendix E).

The assumed positive relationship between the definition of target market segment variable and direct investment performance is confirmed only in the first stage of evaluation (see Table 32). The very strong and highly significant (1% level) bivariate association does not succeed in the rivalry

with the other independent variable effects in the multivariate analysis of the second and third stages of evaluation.

As with the export cases, the assumed relationships between the variable, definition of verifiable objectives, and direct investment performance can be tested only at the bivariate level. The variable cannot be added into the multivariate model estimations, because the independent variable – the additive index of direct investment performance- involves also the objective achievement indicator (see Section 3.4, p. 71). Consequently, as with exporting, the alternative reduced direct investment performance measurement (excluding the indicator of objective achievement level) is created and the alternative management decisions model and the alternative overall model are estimated (see Appendix E). The results of the alternative model estimation with regard to the relationship of the variable definition of verifiable objectives and direct investment performance, is provided in Table 32. Nevertheless, due to the different independent variable used for estimating the model, the results are not directly comparable with the results of the M3 and M5 models.

However, the definition of verifiable objectives for internationalization activity variable proves to have a very strong positive association with the dependent variable. The bivariate relationship is highly significant (at a 1% level) and indicates that the 'definition of verifiable objectives' explains 35% of direct investment performance variance. Also both of the multivariate relationships are very strong and significant at a 5% level at the second and at a 1% level in the third evaluation stage.

Summarizing the results provided by the three above described indicators, the choice of business strategy as well as the definition of direct investment objectives prove to be associated with direct investment performance. The association of the third indicator of the strategic planning process – definition of target market segment – is not confirmed in all evaluation stages. Even if the relationship is not significant in the multivariate analysis, it proves to be a very strong predictor of direct investment performance at the bivariate level (see Table 32). The insignificance of the positive relationship between the 'definition of the target market segment' and direct investment performance in the multivariate models might be caused by the limited size of the data sample (see Appendix E).

Even if the relationship between direct investment performance and one indicator of the strategic planning process is not significant in all evaluation stages, it proves to be a strong predictor at the bivariate level ( $R^2 = 0.188$ ). The other indicators of the strategic planning process confirm

their association with direct investment performance in all the evaluation stages. This is considered to be sufficient evidence confirming theoretically assumed Hypothesis 3.1. Consequently, Hypothesis 3.1 is accepted.

**Hypothesis 3.2**            There is a positive relationship between the concentration of resources and the international performance of the SME.

Hypothesis 3.2 is operationalized with the help of two indicators of concentration of resources, geographical scope and the number of internationalization forms (see Section 4.3.4.2, p. 86). Subsequently, the association of these two indicators of resource concentration to direct investment performance is tested.

The theoretically assumed relationship between the geographical scope of direct investment and its performance is not confirmed by the results of the data evaluation. No relationship appears in any of the evaluation stages. However, as mentioned in Section 5.2.2.1, p. 131, the overwhelming majority of Swiss SMEs manage a limited number of direct investments in a few countries.

The results appearing with regard to the assumed negative relationship between the number of internationalization forms and direct investment performance are similar to the previously discussed indicator. None of the evaluation stages proves the existence of a relationship. However, it is necessary to stress that for none of the Swiss SME direct investment cases, is direct investment the only internationalization form. The majority (57.9%) of direct investment cases states that they manage two different internationalization forms.

Hypothesis 3.2, regarding the concentration of resources with regard to SME internationalization is tested with the help of the two previously discussed variables. From the above discussion, it is evident that the theoretically assumed positive relationship between the concentration of resource and direct investment performance is not confirmed. Therefore, the assumed benefit of resource concentration is not confirmed in the case of SME direct investment. Consequently, Hypothesis 3.2 is rejected.

**Hypothesis 3.3**            There is a positive relationship between the intensity of prior target market research and the international performance of the SME.

The theoretically assumed relationship of Hypothesis 3.3 is confirmed by an analysis of the direct investment cases. The association between the intensity of target market research and direct investment performance is proved by the performed multivariate data analysis. The positive relationship is very strong and highly significant (1% level) in both multivariate models. Consequently, the proposed hypothesis 3.3. is accepted.

Hypothesis 3.4.        There is a positive relationship between the management commitment towards an SME's international activities and its internationalization performance.

The positive relationship assumed by hypothesis 3.4 is confirmed by all the performed data analysis (see Table 32). Similarly with exporting, it is obvious that there is a positive association between the two variables. Moreover, the relationship is highly significant (1% level) in all the evaluation stages. Consequently Hypothesis 3.4 is accepted.

Hypothesis 3        Management decisions with regard to internationalization have an impact on the international performance of the SME.

The third hypothesis assumes the impact of management decision characteristics on direct investment performance. This is confirmed by the management decision model (M3) created in the second stage of the evaluation. According to the F test the significance of the regression model as a whole is confirmed (at a 1% significance level). It means that the model is considered significantly better than would be expected by chance, the null hypothesis of no relationship between export performance and the independents of export policy variables is rejected (see Appendix E). The explanatory power of the models is high, the adjusted multiple regression coefficient ( $R^2$ ) reaches 0.602. Looking at Table 32, it is evident that the indicators of management decision proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently, Hypothesis 3 is accepted.

### ***Test of the Hypotheses with Regard to International Experience***

Hypothesis 4        There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.

As with exporting, the theoretically assumed relationship of Hypothesis 4 is not confirmed by the empirical data. The length of experience in a particular country does not prove to be positively associated with direct investment performance. In fact, no relationship between the duration of the export activity and its performance appeared in any of the analyses performed (see Table 32). Looking at Figure 61, displaying the duration of the direct investment and its performance, it is evident that the distribution of the observation in the chart confirms the outcome of the data analysis. Consequently, Hypothesis 4 is rejected.

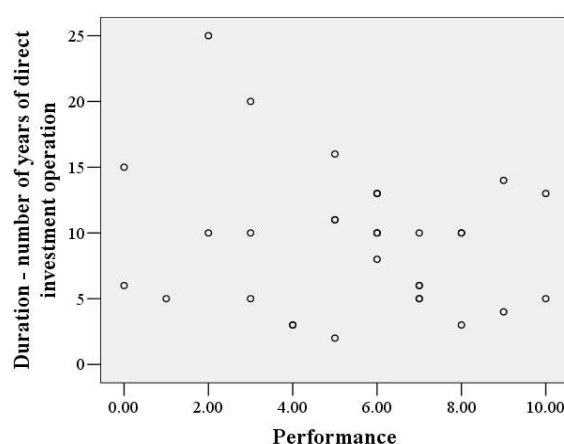


Figure 61: Performance of Direct Investment Cases and International Experience

### ***Test of the Hypotheses with Regard to Target Market***

**Hypothesis 5.1**      There is a positive relationship between the economic and political stability of the target country of an SME's direct investment and its performance.

The assumed positive relationships between the economic and political stability of the target country variable and direct investment performance does not appear in any of the evaluation stages. Consequently, proposed Hypothesis 5.1 is rejected.

**Hypothesis 5.2**      There is a negative relationship between the cultural distance of the target country of an SME's direct investment and its performance.

Similarly to the previously discussed hypothesis, no empirical evidence is found for the second hypothesis with regard to the target market characteristics. The cultural distance of the target country does not prove to be negatively associated with direct investment performance. In fact, the



only appearing relationship with regard to this variable is a positive bivariate association with direct investment performance (see Table 32). Consequently, Hypothesis 5.2 is rejected.

**Hypothesis 5.3**            If there is a large cultural distance between the target and the home country, then a joint venture performs better than a direct investment of an SME.

Due to the limited number of joint venture cases, Hypothesis 5.3 cannot be tested.

**Hypothesis 5.4**            There is a positive relationship between the availability of a resource advantage in the target country of an SME's direct investment and its performance.

The third indicator of the target market of the direct investment, availability of a resource advantage, is assumed to be positively associated with direct investment performance. The empirical findings show that there is a very strong, highly significant (1% level) positive relationship between the two variables at the bivariate level. The bivariate OLS regression indicates that the availability of a resource advantage in the target country variable explains 36.8% of direct investment performance variance. Even if the relationship stays strong and highly significant in the target market characteristics model, it does not succeed in the rivalry with the other variables in the multivariate model of the third stage of evaluation. Consequently, proposed Hypothesis 5.4 is rejected.

**Hypothesis 5**            The characteristics of the target market have an impact on the international performance of the SME.

The fifth hypothesis assumes an impact of target market characteristics on direct investment performance. It is true that the model created in the second stage of the evaluation implies that the characteristics of the target markets have an impact on direct investment performance. However, when looking at Table 32, it is evident that none of the four defined hypotheses regarding the target market hypothesis can be accepted. None of the indicators of the target market proved to be associated with the dependent variable in the last hypothesis testing stage. Consequently, Hypothesis 5 is rejected.

## 5.3 Qualitative Interviews

In order to validate the acquired empirical results, cross-check interviews are conducted with three experts in the field of Swiss SME internationalization.

The first expert is experienced in representing the internationalization interests of Swiss SMEs. He has been working for an industry association of Swiss SMEs and for the chamber of commerce and has dealt with internationalization. The second expert has a long practical working experience in international Swiss SMEs, including long stays abroad. Currently he works as a consultant at the Osec Business Network Switzerland an institution focusing on support programs for Swiss SME internationalization. The third interviewed expert is a practitioner with managerial experience from a number of internationally active Swiss SMEs.

### 5.3.1 The State of Internationalization of Swiss SMEs

First, the experts are invited to estimate the proportion of internationally active Swiss SMEs (with 10-249 employees). Further, the experts are asked to indicate the share of Swiss SMEs that are exporting, having invested into a production site abroad (direct investment), licensing the production abroad and established a joint venture abroad. The experts' estimates are provided in Table 33.

Experts Estimates	1 <sup>st</sup> expert	2 <sup>nd</sup> expert	3 <sup>rd</sup> expert
Internationalized SMEs	25%	1/3	50% <sup>a</sup>
Exporting	2/3	2/3	70%
Direct Investment	1/4	20%	20%
Licensing	-	-	5%
Joint Venture	-	10%	5%

<sup>a</sup> The third expert estimated that 50% of Swiss SMEs are part of an international supply chain, but not necessarily internationally active on their own.

Table 33: Experts' Estimates of Internationalization Forms of Swiss SMEs

The first expert (E1) is persuaded that 5 to 25% of all Swiss SMEs are able to export. He estimates, that approximately 25% of Swiss SMEs with 10-249 employees are internationally active. The second expert (E2) estimates that approximately a third of Swiss SME are internationalized. And the third expert (E3) believes that approximately half of Swiss SMEs are either

internationally active or they are part of an internationalized supply chain (i.e they are a supplier of another internationally active Swiss SMEs).

All three experts consider exporting to be the most important internationalization form, followed by direct investment. Additional forms such as licensing and joint ventures are far less popular among Swiss SMEs according to all three experts. E1 and E3 state that they do not have a lot of experience with the internationalization forms of licensing and joint ventures. They believe especially that licensing is used very rarely by Swiss SMEs.

Looking at Table 33 and comparing it with Table 21 (p. 126) and Figure 28 (p. 126), it is evident that there is only a small difference between the empirical findings and the experts' estimates. Similarly, all experts assessed the differences as not meaningful and consider the empirical findings of the empirical study to be plausible.

### 5.3.2 The International Performance of Swiss SME

Similarly to the previously discussed research question, the experts are asked to estimate the degree of success of Swiss SME internationalization. Their estimates regarding the distribution of export, direct investment, licensing and joint venture cases into three success categories of 'very successful', 'successful' and 'not successful' are depicted in Table 34.

	Experts Estimates	1 <sup>st</sup> expert	2 <sup>nd</sup> expert	3 <sup>rd</sup> expert
Exporting	Very successful	2/3	8-10%	30%
	Successful			50%
	Not Successful	1/3	20%	20%
Direct Investment	Very successful	>2/3	8-10%	20%
	Successful		70-80%	45-50%
	Not Successful	<1/3	20-12%	35-40%
Licensing	Very successful	-	-	-
	Successful	-	-	-
	Not Successful	-	-	-
Joint Venture	Very successful	<2/3	8-10%	15%
	Successful		65-67%	40%
	Not Successful	>1/3	25%	45%

Table 34: Experts' Estimates of SME Internationalization Performance

All three experts stress that their estimates are based on their personal experience. None of them dare to estimate the success of Swiss SME licensing, because they lack experience with this internationalization form.

E1 and E2 assume that the flop rate for direct investment is lower than the one for exporting. Both experts substantiate their estimates with better preparation of the SMEs, higher engagement and better planning in the case of direct investment. They believe that this leads to less failures. On the contrary, E3 assumes that direct investment is less successful than exporting. E3 believes that the complexity and demanding nature of direct investment causes its higher flop rate. Moreover, E3 believes that “direct investment seems to be less successful because it is often assessed more honestly than exporting. Whereas export activities are usually incorporated into a firm's overall performance measures, direct investment performance is measured separately”. All experts expect joint ventures to achieve the highest flop rate of the investigated internationalization forms. This is because it is very difficult to achieve well-functioning cooperation with a foreign partner.

Looking at Table 34 and comparing it with the empirical results presented in Table 30, p. 157, it is evident that the estimates of E3 correspond very well with the empirical findings. All three experts also assess the empirical findings regarding the international performance of Swiss SMEs as plausible.

E1 and E2 explain the differences between their estimates and the empirical data results as follows: They are assisting the firms with internationalization projects but the firms that they are working with do not always report their achieved international performance to them. That is why the higher flop rate of direct investment is somewhat surprising to both experts. Nevertheless, they assess the empirical results as plausible. E2 assumes that approximately 8% of the cases he deals with become very successful. Though, he mentions that the majority of his customers are the traditional Swiss manufacturing SMEs. Consequently, he has little experience with “the innovative, so called new economy firms that are expected to be very successful stories“, he says.

### **5.3.3 Relational Results**

#### **5.3.3.1 Exporting**

As in the case of the last research question, the experts are asked to provide their estimates first. They are asked to indicate the internal factors

influencing the export performance of Swiss SMEs. Thereafter, the results of the performed data analysis are discussed.

### ***Experts' Indications of Export Performance Influences***

The experts' indications of export performance influences are provided in Table 35.

It is evident that there are no substantial differences between the indications of the three interviewed experts. All experts believe that company characteristics are not associated with export performance. In other words an SME can be successful in international markets regardless of its size, age or industry sector.

Similarly, the experts do not differentiate a lot regarding the influence of exported product characteristics on export performance. All experts believe that innovative products have a strong relationship with export performance. E1 suggests that any kind of uniqueness of the exported product, such as brand name or image are the preconditions for export success. According to E3 the successfully exported products of a Swiss SME “has a high quality and reliability standard which is also expected from a Swiss product by foreign customers”. However, in order to be successful, it is crucial to offer “a solution, not just a product”, E3 believes. SMEs offering their customers solutions leading to cost reductions and/or increases of profitability are (also) successful abroad.

E2 assumes that “the price of a product has probably no influence on export performance and if there were one, then it would have to be a negative one.” The same applies for the quality of exported products, he believes. He illustrates his opinion as follows: “The quality standard of a Swiss product is too high. A Swiss company often offers the best quality standard in the markets. However, their product also has a premium price. But nowadays, customers do not require a product to last for the next 30 years. They assume that technological development will force them to replace the product within 5 years. That is why customers often choose a lower quality standard for a lower price”. E2 is persuaded that the same applies with regard to 'over-engineering' which is typical for Swiss products.<sup>88</sup>

---

<sup>88</sup> An over-engineered product is understood as a product having a lot of additional features, that are not necessarily required by customers.

Export	Association to export performance	1 <sup>st</sup> expert	2 <sup>nd</sup> expert	3 <sup>rd</sup> expert
Company indicators	Positive	None	None	- Company's age (only in case of Japan)
	Negative	None	None	None
Product indicators	Positive	- Innovation - Image - Brand name - Any kind of uniqueness	- Innovation and new technologies	- Innovation - Quality and reliability - Solutions not only products (customer's lower cost or higher profitability)
	Negative	None	- Standardized product	None
Management decisions indicators	Positive	- Management's engagement - Strategic plan - Definition of objectives and timeframes	- Management's commitment - Prior market research - Physical presence on the market (visits)	- Market research - Strategic planning - Management's engagement
	Negative	None	None	None
International experience	Positive	- international experience (only in the initial phase of export)	- international experience (only in the initial phase of export)	None
	Negative	None	None	None
Target market indicators	Positive	None	None	None
	Negative	None	None	None

Table 35: Experts' Indications of Export Performance Influences

With regard to management decisions, all the experts expect the following indicators to be associated with export performance: management's engagement, strategic planning and market research.

E1 and E2 assume a positive association between an SME's international experience and its export performance especially in the initial phase of international activity. The experts expect a positive association between the experience and export performance to apply at the beginning of the activity, approximately within the first five years. They do not expect a influence of international experience on the later export performance.

According to the experts the characteristics of the target market are not expected to influence export performance.

### ***Experts' Validation of the Results Regarding Export Performance Influences***

In the second step of the interview the experts are asked to comment and validate the results of the empirical data analysis.

All experts agree with the results regarding the company indicators. They believe that Swiss SMEs can be successful abroad regardless of their size, age or industry sector. E1 says: "Success does not depend on the firm indicators, it depends on its people and especially on the firm's management."

Regarding the exported product indicators, the experts agree with all of the identified relationships. Consequently, the experts consider the positive associations between export performance and the exported product's 'technological intensity', 'competitive advantage innovation' and 'competitive advantage cost reduction' as being plausible. The same applies to the negative association between export performance and exported product 'service intensity'.

E1 and E2 confirm that SMEs exporting a service intensive product are facing a lot of difficulties. Unfortunately, this is quite common among exporting Swiss SMEs. E2 believes that "one has to look for special solutions in the case of service intensive products such as, for example, training the agents in the target market.

E1 and E2 agree that technologically intensive and innovative products represent the typical successfully exported products of Swiss SMEs. E3 believes that product innovation is the crucial feature of a successfully exported product, it is more important than technological intensity.

All three experts confirm the existence of a positive association between export performance and the exported product's source of competitive advantage customer cost reduction. They believe that this is a very

important feature of products exported by Swiss SMEs. It is often used as a successful selling argument for Swiss products abroad. E2 believes that especially the traditional industrial manufacturing Swiss SMEs can often offer such an advantage.

In addition, the experts are asked to assess the importance of the exported product's quality standard for its export success. Subsequently, the statement "The high quality standard of the exported product is a necessary but not a sufficient condition for export success of Swiss SMEs" as a possible interpretation of the data analysis is discussed. The discussion regarding the quality standard of exported products and its contribution to export performance shows that all three experts have a similar opinion.

E2 agrees with the statement that the quality of the product is necessary, but not sufficient in order to succeed in international markets. He assumes that in the case of Swiss exported products, the situation of a "too-high" quality standard for a too-high price can easily be found. However, he believes that the international image of Swiss products is based especially on their high quality standard.

E1 believes that the image of Swiss products abroad can be expressed as follows: "A swiss product equals a premium quality standard for a premium price". Furthermore, E1 warns not to assume that "a high quality standard of production is something that is exclusively Swiss". He mentions Eastern European countries or the Eastern part of Germany as being able to produce at a comparable quality standard for a much lower price. That is why he concludes that "quality is not (any more) a success factor for Swiss SME exporting".

E3 argues that "the high quality standard of the products exported by Swiss SMEs is a prerequisite for successful exporting. However, it is not sufficient.

Further, the experts comment on the indicator of management decisions and their relationship to export performance.

First, the strategic planning of export activities and its positive association to export performance is discussed. All experts agree with the empirical findings. E1 accentuates the importance of defining objectives as a part of the planning process.

Moreover, the experts are asked to assess the empirical results regarding the 'concentration of resources' (i.e. concentrating on a small number of internationalization forms and target markets). The empirical data does not



confirm the assumed positive association between the 'concentration of resources' and export performance. All three experts believe that the 'concentration of resources' is a successful way of internationalization in the case of traditional Swiss SMEs. This concerns especially manufacturing SMEs focusing on industrial products. However, discussions with E1 and E2 result in the statement that the concentration of resources does not have to be the only successful export pattern for SMEs. In the case of the export of highly innovative products it seems that the firms are able to operate almost globally within a very short period of time, which is verified by experts. Consequently, the geographical scope of exporting depends on the exported product's features. Whereas it can be advantageous to focus on a limited number of target markets, it can be much more beneficiary to expand to a high number of countries in another case. However, E2 and E3 believe that there is a positive effect of the concentration of resource in most of Swiss SMEs' internationalization cases.

Finally, the positive associations between export performance and management's commitment as well as prior market research intensity are discussed. Corresponding to the indications made by the experts in advance, all of them agree fully to the empirical results. When asked which indicators of the target market they perceive as the most important, E1 names market demand, price level, distribution channels, competitor presence and the legal framework and requirements. Competitor presence and market volume are the information E2 emphasizes when conducting target market research. E3 provides a catalog of important indicators including target market potential, competitor presence, customer needs and demographic indicators.

The interviews reveal that the relationship between the international experience of an SME and export performance is judged the same by all the experts. Generally, they agree that there is no association when the SME has been internationally active for long time already. Though, E1 and E3 believe that international experience has a positive association with export performance at the beginning of exporting. E2 states that "similarly to the case of the concentration of resources a traditional firm's performance grows in the initial phase of international activity, this means with the growing experience in the market. On the other hand, the performance of SMEs which export highly innovative products might even fall overtime, as the product loses its innovativeness". Furthermore, the experts are asked for an indication of the length of the initial phase of exporting, i.e. until the break even point is reached. Whereas E3 believes that the "time to the break even point" is approximately 1 year in the case

of SME exporting, E1 and E2 estimate it to take approximately 2 and up to 3 years respectively.

The empirical associations between the target market indicators and export performance is commented by the experts as follows. The negative relationship between the target market's political and economical stability and export performance is somewhat surprising for the experts. E1 believes that the relationship can be justified by the exclusivity of the product on such a market which allows the firm to earn a higher margin. He also believes that SMEs plan and prepare to export into such countries much more carefully due to the higher risk perception. Consequently, it might be that the performance is higher due to better preparation and not due to the lower stability of the target market.

Nevertheless, E2 finds the following justification for the appearing relationship: "better performance in less stable markets is possible due to the missing competitors in such markets". Unfortunately, only a small part of Swiss SMEs are able to benefit from that, because generally Swiss SMEs are not willing to bear such high risks. Also E3 agrees to the presented substantiation based on the exclusivity of the less stable markets enabling higher margins.

### 5.3.3.2 Direct Investment

#### *Experts' Indications of Direct Investment Performance*

The validation interviews regarding the influences on direct investment performance have the same structure as the export interviews. The experts are first asked to indicate which internal factors influence the direct investment performance of Swiss SMEs based on their experience. Afterwards, the results of the performed data analysis are discussed. The expert's indications of direct investment performance influences are provided in Table 36.

All experts concur that there is a significant difference between successfully exported and foreign manufactured products of Swiss SMEs. On the other hand the experts' indications with regard to the influence of company, management decisions, international experience and target market characteristics on direct investment performance are the same as in the case of exporting.

Direct investment	Association to export performance	1 <sup>st</sup> expert	2 <sup>nd</sup> expert	3 <sup>rd</sup> expert
Company indicators	Positive	None	None	- Company's age (only in case of Japan)
	Negative	None	None	None
Product indicators	Positive	Various kind of products connected to various motives of direct investment	Two kinds of direct investment; either perceiving Swiss quality standard or low price product for special markets	- product adopted on target market's customer needs
	Negative			
Management decisions	Positive	- Management's engagement - Strategic plan - Definition of objectives and timeframes	- Management's commitment - Prior market research - Physical presence on the market (visits)	- Market research - Strategic planning - Management's engagement
	Negative	None	None	None
International experience	Positive	- international experience (only in the initial phase of direct investment)	- international experience (only in the initial phase of direct investment)	None
	Negative	None	None	None
Target market indicators	Positive	None	None	None
	Negative	None	None	None

Table 36: Experts' Indications of Direct Investment Performance Influences

E1 believes that a Swiss SME product being successfully exported and being successfully manufactured and sold abroad have different features. He finds it difficult to specify the product of a successful Swiss SME direct investment. Nevertheless, he does not believe that the typical very successfully exported products (i.e. technologically intensive and innovative products) are also the type of products of successful direct investment. In addition, he believes that there are different motives for Swiss SMEs to invest into production sites abroad. Accordingly,

differently motivated direct investment corresponds to different features of the product according to E1. The main motives for Swiss SME direct investment are: high demand in a particular market, high transportation costs or difficulties with transportation, need of presence in the target market, geographical proximity to customers, specially trained labor force, nearness of research centers or even the benefits offered to foreign investors. E1 concludes that these and probably other motives are connected to different kinds of products. And that is the reason why it is not easy to characterize a product of a successful direct investment of Swiss SME.

Similarly, E2 and E3 also face difficulties in characterizing the successfully foreign manufactured product by a Swiss SME. According to E2 there are two main groups of SMEs that establish a production site abroad. He believes that these two groups follow different strategies regarding foreign production. The first group aims to expand the production capacity of an already internationally successful product. Thereby, the domestic quality standard is aimed to be preserved at the foreign production site. The second group aims to build a production site abroad in order to produce a new product designed for certain market(s) and adapted to the needs of new customers. E2 states that “it is common that the firm preserves the top-end production in Switzerland and produces the low-price products, designated for less demanding markets, locally”.

Having lot of practical experience, E3 also describes two different groups of Swiss SME direct investments. The first group of SMEs produce the same product abroad as in Switzerland. As opposed to the second group of SMEs, which establish foreign production sites in order to manufacture different products than in the home market. These products are often adapted to the local customer's needs and may have different quality and price levels. However, both kinds of direct investment aim to benefit from the lower costs of the production site location.

Regarding management decisions, international experience and target market characteristics all three experts believe that the same indicators influence performance as in the case of exporting.

### ***Experts' Validation of the Results Regarding Direct Investment Performance Influences***

As in the case of exporting, all experts validate the results regarding company indicators. They believe that even a direct investment's performance is independent to the SME's size, age or industry sector.

Similarly as in the first interview phase, the experts face difficulties when asked to comment on the results regarding the foreign manufactured product characteristics. The discussions of the empirical results provides the following outcome:

There is only one significant association between the characteristics of foreign manufactured products and direct investment performance in the last stage of evaluation. It is the positive relationship between homogeneous customer needs and direct investment performance. All experts agree that foreign manufactured products satisfying homogeneous customers needs can be successful. They assume this to be the case when direct investment is focused on the mass production of “locally adapted” products. However, all experts believe that this association is not valid generally. The experts believe that a product that also satisfies heterogeneous customer's needs can be successful abroad.

In addition, the two associations between 'the source of the product's competitive advantage' and direct investment performance appearing in the second stage of evaluation are discussed. According to the empirical findings a product relying on the premium 'quality' and the product relying on 'price' are positively associated with direct investment performance. The experts are also asked to comment on the possible division of the direct investment cases into two subgroups appearing in the sample of Swiss SME direct investment cases. The first group of successful direct investment cases relying on the price of the product as its competitive advantage and the other relying on its product's premium quality standard.

The experts perceive the division of the cases into two groups as an indication of the already mentioned different kinds of Swiss SMEs direct investment. E1 and E3 argue that the group of cases indicating price as the source of competitive advantage represent SME manufacturing the locally adapted products for the local market or even a bigger geographical region. Assuming that a product exported from Switzerland focused on a higher market segment, E3 considers this being a means of expansion into further market segments.

All three experts concur that the second group of cases appearing in the sample represents the expansion of production capacity abroad, manufacturing the same product as in Switzerland possibly closer to the final customers.

With regard to management decisions all experts validate the positive associations between direct investment performance and the strategic planning process, prior target market research and management's

commitment. All experts agree that these factors are even more important in the case of direct investment than in the case of exporting. In the case of target market research some additional indicators such as the legal framework, regulatory rules and political stability are more important than in the case of exporting. Also, the engagement and resource availability of direct investment must be much higher.

Contradicting the empirical findings, all the experts believe that the concentration of resources probably is a successful way for Swiss SME direct investment. They anticipate that the concentration of resources is important for SMEs establishing a production site abroad, much more than for the exporting SMEs. Consequently, they do not agree with the result of the data analysis, that there is no association between the concentration of resources and performance. On the other hand, E3 stresses that experience shows the combination of exporting and direct investment (i.e. concentrating on more than one internationalization form) to be very successful.

As with exporting, all the experts agree that there is generally no association of international experience with direct investment performance in the long run. Although E1 and E3 believe that a positive association exists in the initial phase of direct investment. All the experts are in agreement that the initial phase for direct investment is longer than the one for exporting. E3 estimates, that the “time to the break even point” is approximately 3 years in the case of SME direct investment; E2's estimate is: 'Direct investment of Swiss SMEs should show a profit within 5 years'.

The empirical associations between the target market indicators and direct investment performance are commented by the experts as follows. The experts miss the association of resource advantage availability and direct investment performance. Even if the resource advantage is not necessarily a success factor for all kinds of Swiss SMEs' direct investment, the experts expect it to be one in the case of cost-motivated direct investments. According to all the interviewed experts, the cost-motivated direct investment performance is associated with the availability of resource advantage in the location country.

The experts also confirm that there is no relationship between the target market characteristics cultural difference and political and economical stability of the target country and direct investment performance. Nevertheless E3 states that the political instability of the target country represents higher risks for SMEs.

### 5.3.3.3 Summary of the Results Validation by Experts

The descriptive results of the thesis regarding the state of internationalization of Swiss SMEs (presented in Section 5.2.2.1. p. 121) as well as the success of Swiss SME internationalization (presented in Section 5.2.2.2 p. 142) are confirmed by the interviewed experts. All the experts perceive the descriptive results of the thesis as plausible and representative for the population of Swiss SMEs.

The relational results of the thesis regarding internal influencing factors of export and direct investment performance of Swiss SMEs are also confirmed by cross-checking expert interviews. The overview of the hypotheses test and experts' validation is depicted in Table 37.

Looking at Table 37, it is evident that the experts confirm almost all of the relational results, i.e. the hypothesis test with regard to Swiss SME exporting.

The rejection of concentration of resources and export performance is not confirmed by the experts. Despite the fact that the analysis of empirical data does not confirm the concentration of resources as being a successful way for Swiss SME exporting, the experts believe that it is in the majority of the cases.

Furthermore, the experts do not agree with the rejection of the assumed relationship between the international experience and export performance. Even if the experts can accept that there is no association with respect to long-time internationally active SMEs, they expect the association to apply especially in case of beginning exporters.

Additionally, the relationships discovered by the data analysis but not tested by the hypotheses are also confirmed by the expert interviews (see Section 5.3.3.1 p. 188).

Further, Table 37 shows that with regard to direct investment, all the relational results except one are validated by the experts.

Similarly as in case of exporting, the experts do not agree with the rejection of the assumed relationship between the international experience and direct investment performance, especially in case of beginning exporters.

The rejection of concentration of resources and direct investment performance is not confirmed by the experts. Despite the fact that the

analysis of empirical data does not confirm the concentration of resources as being a successful way for Swiss SME direct investment, the experts argue for it. They believe that in the case of SMEs, the resources are limited and direct investment is a resource-intensive internationalization form. Consequently, the experts believe that an SME should focus on setting up one production site abroad at a time.

Furthermore, the experts do not agree with the rejection of the assumed relationship between the definition of target market segment and direct investment performance. Despite the data analysis results, the interviewed experts believe that all three elements of the strategic planning process, including the definition of the market segment served, are positively associated with direct investment performance.

Finally, the experts do not confirm the rejection of the hypothesis with regards to the positive influence of resource advantage availability on direct investment performance. The experts assume a positive association especially in case of cost-motivated direct investment cases. Consequently, the experts do not validate the rejection of hypothesis 5 and 5.4.



Hypotheses	Export		Direct Investment	
	Hypothesis Test	Expert's Confirmation	Hypothesis Test	Expert's Confirmation
<b>1. The characteristics of an SME have an impact on its international performance.</b>	rejected	confirmed	rejected	confirmed
1.1. There is a positive relationship between the size of an SME and its international performance.	rejected	confirmed	rejected	confirmed
1.2. There is a positive relationship between the age of an SME and its international performance.	rejected	confirmed	rejected	confirmed
<b>2. The characteristics of the internationalized product have an impact on the international performance of the SME.</b>	accepted	confirmed	accepted	confirmed
2.1. There is a positive relationship between the technological intensity of the internationalized product and the international performance of the SME.	accepted	confirmed	rejected	confirmed
2.2. There is a positive relationship between the premium quality of the internationalized product and the international performance of the SME.	rejected	confirmed	rejected	confirmed
2.3. There is a positive relationship between the innovativeness of the internationalized product and the international performance of the SME.	accepted	confirmed	rejected	confirmed
2.4. There is a negative relationship between the service intensity of the exported product and the export performance of the SME.	accepted	confirmed	n.a.	
<b>3. Management decisions with regard to internationalization have an impact on the international performance of the SME.</b>	accepted	confirmed	accepted	confirmed
3.1. There is a positive relationship between the existence of a strategic planning process of internationalization and the international performance of the SME.	accepted	confirmed	accepted	confirmed
3.2. There is a positive relationship between the concentration of resources and the international performance of the SME.	rejected	<i>not confirmed</i>	rejected	<i>not confirmed</i>
3.3. There is a positive relationship between the intensity of prior target market research and the inter-national performance of the SME.	accepted	confirmed	accepted	confirmed
3.4. There is a positive relationship between the management commitment towards an SME's inter-national activities and the internationalization performance of the SME.	accepted	confirmed	accepted	confirmed
<b>4. There is a positive relationship between a company's experience with a particular internationalization activity in a particular country and the international performance of the SME.</b>	rejected	<i>not confirmed</i>	rejected	<i>not confirmed</i>
<b>5. The characteristics of the target market have an impact on the international performance of the SME.</b>	n.a.		rejected	<i>not confirmed</i>
5.1. There is a positive relationship between the economic and political stability of the target country of an SME's direct investment and its performance.	n.a.		rejected	confirmed
5.2. There is a negative relationship between the cultural distance of the target country of an SME's direct investment and its performance.	n.a.		rejected	confirmed
5.3. If there is a large cultural distance between the target and the home country, then a joint venture performs better than a direct investment of an SME.	n.a.		n.a.	
5.4. There is a positive relationship between the availability of a resource advantage in the target country of an SME's direct investment and its performance.	n.a.		rejected	<i>not confirmed</i>

Table 37: Overview of Hypotheses Test and Its Validation by Experts

## 6 Conclusions

### 6.1 Overview

The sixth chapter provides the conclusions of the thesis, i.e. it summarizes the key findings and draws implications for Swiss SME managers aiming to expand their activities abroad.

First, Section 6.2, p. 202 reports the key findings of this thesis. The section is organized according to the objectives of the thesis. Further, the findings of the thesis are put in context with current academic knowledge. Whenever possible, the results are also compared with the findings of similar studies.

Subsequently, Section 6.3, p. 214 sets out what the study results imply for Swiss SME managers. The implications are provided for managers of Swiss SMEs aiming to expand into international markets. They are drawn from the results of the relational analysis, the hypotheses test and the experts interviews as well as from the descriptive findings regarding the very successful Swiss SME internationalization cases. Unfortunately, due to the limited size of the data sample with respect to licensing and joint venture cases the normative implications can only be presented for the internationalization forms of export and direct investment.

### 6.2 Key findings of the Thesis put into Context with Current Academic Knowledge

This thesis pursues three objectives with regard to the internationalization of Swiss SMEs. The research design combines the empirical study of Swiss SMEs and the validation interviews with experts in the field of SME internationalization. Furthermore, the key findings are summarized and put into context with current academic knowledge.

#### 6.2.1 The State of Internationalization of Swiss SMEs

The findings of the empirical study show that in the year 2002, 29.6% of Swiss SMEs<sup>89</sup> were internationally active. Furthermore, the study confirms that the most popular international activity of the Swiss SMEs is exporting. The overwhelming majority (80%) of internationally active Swiss SMEs export, followed by 18% of internationally active SMEs, which set up

---

<sup>89</sup> Within the thesis an SME is defined as an enterprise employing 10-249 people. For the exact definition of the research subject please see Section 2.2 p. 10.

foreign production sites, i.e. direct investment. The additional two internationalization forms of licensing and joint ventures are used only by a minority of internationalized Swiss SMEs. Only 9% of Swiss internationally active SMEs issue production or both production and sales licenses to a foreign partner. Even fewer Swiss SMEs (7%) invest in a joint venture with a foreign partner abroad. Though a significant number (approximately 30%) of Swiss SMEs are active in more than one internationalization form<sup>90</sup>.

The results of the empirical study validated by all the interviewed experts are presented in Table 38. The table compares the results of the current thesis with similar data regarding SME internationalization.

Research Project	Year	Research Subject Definition	Results of the Studies Showing the Percentage of Swiss SME Involved in the Respective International Activity <sup>a</sup>				
			Internationally Active	Exporting	Direct Investment	Joint Venture	Licensing
Empirical Study of the Current Thesis	2002	SME (10-249 employees)	29.63%	23.80%	5.30%	2.10%	2.60%
Census of Enterprises of Swiss Federal statistical office (Jäger, 1999)	1995	SME (10-249 employees)	–	23.9%	–	–	–
Census of Enterprises of Swiss Federal statistical office <sup>b</sup> (Jäger, 2003)	2001	SME (10-249 employees)	–	–	5.3% <sup>b</sup>	–	–
The Observatory of European SMEs (European Commission, 2005)	2003	SME (0-249 employees)	19%	18%	3%	3%	–

<sup>a</sup> An SME may be internationally active in more than one internationalization forms.  
<sup>b</sup> The definition of direct investment in scope of census of enterprises includes all investments in own or foreign enterprises abroad increasing the participation of more than 10%.  
<sup>c</sup> The results of the census of enterprises in 2001 show that 5.3% of SMEs are investing abroad (more than 10% participation), 76.5% do not invest abroad and 18.2% of SMEs did not provide the answer.

Table 38: Comparison of SMEs' Internationalization Studies

The only corresponding data regarding Swiss SME internationalization are the results of the census of enterprises conducted by the SFSO. Whereas the 1999 census of enterprises included a question regarding export activities, the 2001 census only considered foreign direct investments<sup>91</sup>.

The results of the empirical study conducted in the scope of this thesis seem to be almost identical to the results of the 1999 and 2001 census of enterprises. A comparison of the findings indicates that the share of exporting SMEs stayed constant between the years 1995 and 2002.

<sup>90</sup> Consequently, the total of the percentages is more than 100%.

<sup>91</sup> The definition of foreign direct investment used in the census of enterprises differs from the one used in this thesis. The SFSO definition of foreign direct investment is broader than that used in this thesis. The SFSO defines foreign direct investment as all Swiss enterprises' foreign participations of more than 10% in an enterprise abroad (either their own branch or a foreign firm). In this thesis a direct investment is understood as a Swiss SME's own production site abroad (see Section 2.3, p. 13).

A possible explanation for the stagnation of Swiss SME exporting activities can be the general development of the Swiss and the European economies. Both the domestic and the main target market of Swiss SME exports – the EU market – were rather stagnating during these years<sup>92</sup>.

Due to the differing definitions of direct investment in both studies the question regarding the growth trend of direct investment cannot be answered. As the definition of the SFSO is broader than the one of the current thesis, a twofold interpretation is possible: Either the number of direct investments by Swiss SMEs (understood as their own production sites) grew between 2001 and 2002. Or, considering the time proximity of both data collections, the number of direct investments stagnated similarly as in the case of exporting<sup>93</sup>.

In addition, the results of the study are compared to actual data regarding European SME internationalization. The Observatory of European SMEs conducted a research project on SME internationalization in the year 2003. The project focused on an investigation of internationalization patterns and motives and its impact on an SME's overall competitiveness. Additionally, it aimed to test the hypothesis that SMEs are involved in internationalization in a much more complex manner than as mere exporters (European Commission, 2005, p. 10). Looking at the results presented in Table 38, it is evident that Swiss SMEs are more involved in internationalization than their European counterparts. The following two statements can explain this fact:

- Due to the difference in sampling in the case of SMEs investigated in this thesis and by the Observatory of European SMEs the results are not directly comparable. Whereas the Observatory of European SMEs considers SMEs of all sizes, i.e. enterprises employing 0-249 people, the current thesis left the smallest enterprises aside and focused on Swiss SMEs employing 10-249 people. The smallest enterprises with less than 10 employees are less internationally active than their bigger counterparts. That is why the apparently higher share of internationally active SMEs in Switzerland compared to the EU can be seen as a consequence of the different research sampling used.
- On the other hand, the Observatory of European SMEs confirms that “smaller countries, with small domestic markets, are more

<sup>92</sup> According to the SFSO, the average annual growth of the Swiss GDP from 1995 to 2002 was 2.2%. Eurostat reports a similar average annual growth of 2.4% for the 15 EU countries.

<sup>93</sup> Assuming a stagnation of Swiss SMEs' direct investments, the data collected by the SFSO include only a very small share of SMEs' foreign participations other than their own production sites abroad.

internationalized. The size of the domestic market is a very decisive factor for internationalization. Hence, SMEs with specialized production or some large production in a small country will very soon find that demand in the domestic market is insufficient for sound business. Tendencies for increasing specialization globally are likely to push an increasing number of SMEs into international business” (European Commission, 2005, p. 7). Such a statement confirms the findings of this thesis i.e. the higher share of internationalized SMEs in Switzerland as a consequence of a smaller domestic market.

Moreover, the results of the thesis show that the groups of internationalized and domestic SMEs differ significantly in terms of number of employees, annual turnover, legal form and industry sector. The internationalized firms are bigger (in terms of number of employees as well as in terms of annual turnover) than their domestic counterparts. Evidently, the same trend is confirmed with respect to European SMEs (European Commission, 2005, p. 18). Regarding the legal form, limited liability companies and joint-stock corporations tend to be more internationally active than SMEs of other legal forms. Finally, Swiss service SMEs are significantly less internationalized than Swiss production SMEs. In contrast to that, after analyzing the internationalization of several industries within the service sector, the Observatory of European SMEs concludes, that European “service SMEs are also involved in international activities” (European Commission, 2005, p. 19).

### **6.2.2 The International Performance of Swiss SME**

In order to answer the second research question of the thesis, the success of Swiss SMEs internationalized through exporting, direct investment, licensing and joint ventures is measured in the conducted empirical study.

Success is measured with the help of the following subjective and objective success indicators: 'objective achievement', 'management satisfaction', 'absolute profitability', 'relative profitability' and 'intensity of international activity'<sup>94</sup>. All five success indicators are incorporated into an additive index. This index, called overall international performance within this thesis, is a multidimensional measure of internationalization success.

According to their overall internationalization performance, the cases of Swiss SMEs of each internationalization form are divided into the categories of 'very successful', 'successful' or 'unsuccessful'. The performance of Swiss SME internationalization cases is depicted in Table

---

<sup>94</sup> The success indicators are defined in Section 3.4, p. 71.

39. The last section of Table 39 presents the weighted average of all the investigated internationalization forms' performances, i.e. the performance of Swiss SME internationalization cases. The results show that almost 29% of Swiss SME internationalization cases are very successful. Nevertheless, the flop rate of Swiss SME internationalization reaches almost 25%. A detailed description of the internationalization performance of Swiss SMEs including the results for each success indicator is provided in Section 5.2.2.2, p. 142.

International performance		
Exporting	Very successful	32.2%
	Successful	46.5%
	Unsuccessful	21.3%
Direct Investment	Very successful	22.6%
	Successful	45.2%
	Unsuccessful	32.3%
License	Very successful	10.0%
	Successful	80.0%
	Unsuccessful	10.0%
Joint Venture	Very successful	20.0%
	Successful	40.0%
	Unsuccessful	40.0%
Internationalization	Very successful	28.9%
	Successful	46.2%
	Unsuccessful	24.9%

Table 39: International Performance of Swiss SMEs

The current thesis is the first to collect the data and measure the internationalization performance of Swiss SMEs. Consequently, it is not possible to compare it to previous empirical findings.

However, Brauchlin (1989), who investigated internationally active Swiss SMEs<sup>95</sup> presents empirical findings implying a high performance of Swiss SME foreign direct investment. The study conducted in 1986 shows that 20% of Swiss SME direct investments met expectations fully, another 50% evaluated that their expectations were met to a high extent and only 30% of foreign investments were considered as not meeting expectations (Brauchlin, 1989, p.67). Looking at Table 39, it is evident that the results of the overall performance of direct investment are comparable to the results presented by Brauchlin (1989).

<sup>95</sup> Brauchlin (1989) focused on Swiss manufacturing enterprises with less than 500 employees in his investigation.

Another partially comparable source of empirical data is found in a study of internationally active Swiss midcaps (Kurtzemann, 2003). The study analyzed 40 medium-sized Swiss manufacturing enterprises<sup>96</sup> and measured their overall performance. The findings show that 30% of the enterprises are assessed to be very successful, 40% are successful and 30% are considered to be unsuccessful (Kurtzemann, 2003, p. 172).

A comparison of the empirical findings implies that the international performance of Swiss midcaps studied by Kurtzemann is lower than the one of Swiss SMEs investigated by this thesis. Nevertheless, the research findings are very difficult to compare as the samples and the performance measures differ in these investigations.

Finally, it is possible to compare the intensity of Swiss and European SMEs' exporting. Whereas more than 55% of exporting Swiss SMEs export only a minor share of their turnover (10% or less), less than 50% of European SMEs fall into the same group. Almost 18% of exporting European SME's export more than 50 % of their total turnover (European Commission, 2005, p. 17), whereas only 8.7% of Swiss SMEs reach that export intensity. This implies that even if Swiss SMEs are more internationalized, their activities seem to be much less intensive than the activities of European SMEs.

### **6.2.3 Identification of Associations between the Internal Factors of a Swiss SME and its Internationalization Performance**

The acquired empirical data is evaluated with the help of statistical methods in order to achieve the third objective of the thesis. The associations between the internal factors and the international performance of Swiss SMEs are investigated. In addition to the identification of the relevant internal influencing factors of international performance, this study reports the differences regarding export and direct investment performance. Because of the limited size of the acquired sample, an analysis could not be performed with regard to the other two internationalization forms – licensing and joint venture. The key findings regarding Swiss SMEs' export and direct investment performance influences are presented below (for detailed results see Section 5.2.3, p. 158). The findings are also put in the context of current academic knowledge.

---

<sup>96</sup> The size of the Swiss midcaps studies by Kurtzemann (2003) varies a lot. Some of the companies employ more than 249 people and as such exceed the size of an SME.

### **6.2.3.1 Identification of Associations between the Internal Factors of Swiss SMEs and Their Export Performance**

The analysis of the empirical data shows that the characteristics of the exported product, management decisions and the characteristics of target market have an impact on SME export performance. On the other hand, export performance is independent of the characteristics of the company and the length of the company's international experience.

As mentioned above, the indicators of company characteristics do not influence the export performance of Swiss SMEs. Generally, the contradicting evidence on the relationship between the size of a firm and its internationalization is found in literature (see Section 3.3.1 p. 60). The authors of the stage theory (Johnson/Vahlne, 1977) assume a positive relationship between the size and the age of a firm and its export performance. However, the empirical findings of this thesis, in line with the results of Bilkey/Tesar (1977) and Bonaccorsi (1992), indicate that there is no relationship between a company's size or age and its export performance in the case of Swiss SMEs.

Even if the empirical findings indicate no relationship between a company's size and its international performance, they confirm that bigger companies are more likely to become exporters than smaller ones. This conclusion also corresponds with the result of the research project on European SMEs performed by the Observatory of European SMEs (European Commission, 2005).

The thesis confirms that the exported products' characteristics are strong predictors of export performance (see Section 5.2.3.1, p. 158). The empirical findings suggest that particular features of the exported products of Swiss SMEs are associated with a higher export performance. This supports Jaeger's suggestion of a location-specific advantage (Jaeger, 1999, p. 94) as well as Porter's theory of the competitive advantage of a nation (Porter, 1990). Whereas Porter (1990, p. 19) states, that “the characteristics of a nation allow its firms to create and sustain competitive advantage in particular fields”, Jaeger (1999, p. 94) hypothesizes, that successfully exported products are based on Swiss location-specific advantages (see Section 3.3.2, p. 61). The features of typical successfully exported products of Swiss SMEs are identified by the analysis of empirical data. The high technological intensity and innovation of the exported product proved to be positively associated with Swiss SMEs' export performance. Furthermore, products enabling customers to reduce



their costs also belong to those exported products that achieve an outstanding performance. These product features are assumed to correspond with the location advantages of Switzerland identified by Porter (1990) and Jaeger (1999). As such the manpower qualification, capital availability (Porter) and developed infrastructure (Jaeger) are mirrored in the technologically intensive, innovative product or solutions contributing to customers costs reduction.

Root (1994, p. 15) argues that products requiring proximity to their customers in order to satisfy their needs are not easy to export. This is confirmed by the empirical data. The service intensity of the exported product is negatively associated with its export performance.

Furthermore, the management decisions prove to be the most important group of export performance predictors. Almost all the assumed associations are confirmed by the data analysis (see Section 5.2.3.1, p. 158). The positive association between an SME's strategic planning process and its export performance is confirmed by empirical data analysis. This relationship between the strategic planning process and the firm's performance was proposed by many authors (e.g. Snodgrass/Sakaran, 1989 and Kühn/Grünig, 2001). The current study provides clear evidence that the theoretically assumed relationship also apply to the internationalization of Swiss SMEs. Additionally, in the light of the indication of Bassen/Behnam/Gilbert (2001) regarding insufficient strategic planning of SME internationalization, this thesis confirms that integrating a firm's internationalization into the strategic planning process is positively associated with the international performance of Swiss SMEs.

Similarly, the data analysis confirms that management's commitment towards the company's export activities is positively associated with export performance as Aaby and Slater (1989), Cavusgil (1984) and Bijmolt and Zwart (1994) assumed. Management's commitment was operationalized by the number of management's business trips to the target market in this thesis. Madsen (1989, p. 50) suggests that more personal contact increases the understanding of the target market players and customers' behavior and needs, which is further positively associated with export performance. This seems to be confirmed by the positive association appearing in the analyzed data sample of Swiss SMEs.

Even if the former research findings concerning market research and its influence on performance are mixed (Madsen, 1989, p. 51; Caugusvil, 1984), the empirical findings of the current thesis confirm the hypothesis of a positive relationship between Swiss SMEs' export performance and

the intensity of their prior market research as suggested by Johnson/Vahlne (1977).

By contrast, the empirical findings do not confirm the theoretically assumed positive association between “concentration of resources”<sup>97</sup> and export performance. The hypothesized relationship is justified by the limited resources of SMEs, that should rather be concentrated than spread thinly (Suzman/Wortzel, 1984, p. 193; Naidu/Prasad, 1994, p. 113). The empirical findings confirm only one dimension of the resources concentration as being positively associated with export performance. Focusing on a small number of internationalization forms is positively associated with export performance. The opposite applies regarding the geographical scope of SMEs' export activities – the second dimension of the assumed relationship. A detailed analysis of the export cases reveals that there is a group of very successful Swiss SMEs operating in many markets – almost globally. Consequently, the positive association appears between the geographical scope and export performance in the investigated sample. During the cross-checking interviews, the experts confirm the existence of the internationalization path of Swiss SMEs exporting very successfully their innovative products almost worldwide, i.e. not applying the concentration strategy. However, the experts believe that this is not the only and the typical successful way for Swiss SMEs to export. Depending on the characteristics of the exported product, the concentration of resources might be beneficial for Swiss SME exporting.

No relationship between the length of a company's international experience in a market and its export performance appears in the data analysis. Aaby and Slater (1989) and Madsen (1989) suggest that an increasing country-specific experience leads to a better understanding of the market, its networks and its players and consequently, the firm's performance improves. The experts also confirm this, especially for the initial phase of exporting activities. They argue that later the length of experience has no influence on international performance. Nevertheless, it is necessary to point out that the analyzed data did not prove the existence of the association, neither in general nor in the case of starting exporters<sup>98</sup>.

An interesting and unexpected association appeared between the characteristics of the target market and the export performance of Swiss SMEs. Although Swiss SMEs have a reputation for being risk-averse, the empirical findings reveal that their exports in economically and politically less stable countries are performing very well. A possible explanation of

<sup>97</sup> 'Concentration strategy' refers to a strategy focusing on a limited number of foreign markets and a limited variety of internationalization forms at a time.

<sup>98</sup> A 'starting exporter' is defined as an SME exporting for less than 5 years.

the higher performance of Swiss SME exports to less stable markets could be the exclusivity of the products and the lack of competition in these markets allowing them to earn higher margins. This explanation was also validated by the interviewed experts.

### **6.2.3.2 Identification of Associations between the Internal Factors of Swiss SMEs and Their Direct Investment Performance**

The analysis of the empirical data shows that the characteristics of the foreign manufactured product and management decisions have an impact on Swiss SME direct investment performance. On the other hand, the analysis revealed that direct investment performance is independent of the characteristics of the company, the length of the company's international experience and the characteristics of the target market.

As mentioned above, the indicators of company characteristics do not influence the direct investment performance of Swiss SMEs. Despite the fact that the data analysis does not confirm any association between a company's size and its direct investment performance, the overwhelming majority of Swiss SMEs investing in an production site abroad belong to the category of medium-sized enterprises<sup>99</sup>.

Despite the confirmation provided by data analysis that the characteristics of the foreign manufactured product are the strongest predictors of direct investment performance, it is not easy to describe the product of a successful Swiss SME's direct investment. In order to get a deeper understanding of the associations, a detailed analysis of the data was performed. It revealed that there are two groups of successful Swiss SME direct investments emerging in the data sample.

The first group of successful direct investments of Swiss SMEs indicates the premium quality standard as being the source of the competitive advantage of the foreign manufactured product. The experts argue that in these cases the direct investments aim to expand the production capacity of a product which is already successfully exported from Switzerland. Thereby, the additional production site should be situated close to their customers in order to benefit from lower transportation costs. If possible a low cost location is chosen for the foreign production site in order to maximize the benefits.

---

<sup>99</sup> A medium-sized enterprise employs 50-249 people.

The second group of successful Swiss SMEs direct investments indicates price as being the source of competitive advantage of the foreign manufactured product. The experts argue that this group of successful direct investments aims to produce a product designated for certain market (s) and adapted to its customers' needs. The objective of the direct investment is broadening the product line and expanding into further market segment(s). This kind of direct investment, relying on price competitiveness, can be located in a low cost location in order to achieve price competitiveness. The products of the foreign production site can also be successfully exported to additional markets.

Unfortunately, due to the limited size of the acquired sample, the two groups of successful direct investment cases identified, could not be analyzed separately. Nevertheless, the conclusion can be drawn that both the empirical data analysis and the interviewed experts support the existence of different groups of successful Swiss SME direct investment. These different groups of direct investments follow different objectives, use different approaches and focus on manufacturing different kinds of products.

To sum up, the results of the current analysis provide only the first insights into the performance of various kinds of Swiss SME direct investments. Additional research is required in order to gain a thorough understanding of the phenomena and to develop normative implications for business practice.

Next to the characteristics of the foreign manufactured product, management decisions seem to have a strong influence on direct investment performance. The positive relationship between Swiss SME direct investment performance and the strategic planning process, the intensity of prior market research as well as management's commitment is confirmed by the empirical data.

It appears that no kind of target market characteristics, such as economic and political stability, cultural distance or resource advantage availability, are associated with the performance of the direct investment.

Consequently, the hypothesis based on the assumption, that in the long run, costs and risks tend to be lower in developed, politically stable countries (Hill, 1999, p. 429), which leads to a better performance of direct investment, is not confirmed by the data analysis.

Similarly, the hypothesis regarding the negative association of internationalization performance and cultural distance of a target market is

rejected. The hypothesis is based on the stage model, suggesting that the uncertainty of the culturally closer markets is perceived as lower by the firms (Johnson/Vahlne, 1990, p.13). Even if there are much fewer Swiss SMEs entering culturally distant markets than culturally close ones<sup>100</sup>, their internationalization performance does not differ.

Last but not least, as the location specific advantage and direct investment performance did not prove to be associated, the assumptions of the Eclectic Paradigm is not confirmed by the empirical data. In his paradigm of a MNE's direct investment, Dunning suggests that the location specific advantage in the target country is a precondition for establishing production abroad.

However, we argue that the performance of the different groups of direct investment identified may have additional, specific influencing factors. This is why an additional evaluation of each group of direct investment cases should be done separately before any conclusions are drawn. Especially, because there are strong associations appearing only in the statistical data pre-evaluation<sup>101</sup> that may be relevant for a particular group of direct investment.

### **6.2.3.3 Comparison of the Internal Factors Associated with Export and Direct Investment Performance of Swiss SMEs**

The results of the analysis regarding direct investment and exporting of Swiss SMEs are very similar. In both cases, the characteristics of the product and management decisions have an impact on the direct investment's performance. Furthermore, the international performance of Swiss SMEs' exporting and direct investment is independent of the characteristics of the company and the length of the firm's international experience.

With regard to the influence of the characteristics of the target market on international performance, the analysis of empirical data revealed a difference between exporting and direct investment. Whereas export performance proved to be higher in economically and politically less stable

---

<sup>100</sup> It might be that the culturally close markets are perceived as less uncertain than the culturally distant ones.

<sup>101</sup> The association between direct investment performance and the product's source of competitive advantage 'price', 'quality' and resource advantage availability are appearing in the first and second stage of evaluation. Nevertheless, these association are not significant in the hypothesis testing stage.

countries, the performance of Swiss SME direct investment seem not to be influenced by the characteristics of the target country.

In addition, the empirical findings revealed that the features of products successfully manufactured abroad differ from the features of successfully exported products.

On the other hand, the results regarding associations between management decisions and exporting and direct investment performance are highly comparable. A positive relationship between international performance and the strategic planning process, the intensity of prior market research as well as management's commitment is confirmed by the empirical data of Swiss SME exporting and direct investment. These associations prove to be stronger in the case of direct investment than in the case of exporting.

Finally, the analysis of acquired data of both samples identified different subgroups of exporting and direct investment cases. Among the export cases, the subgroups of traditional, steady exporters and the group of fast, global exporters were identified. The direct investment sample revealed that there are two different groups of successful direct investors, each of which is driven by different objectives. Whereas the first one aims to expand the production capacity of an already-existing product, the other one aims to expand into further market segments with a price competitive, foreign manufactured products.

Due to the limited size of the acquired data samples, a separate analysis of the identified groups could not be performed. Nevertheless, it is believed that such research would contribute significantly to further understanding of Swiss SME exporting and direct investment.

## **6.3 Implications for Swiss SME Managers**

The empirical findings show that despite the image of Switzerland as an exporting country, only a small part of Swiss SMEs are internationally active (Habersaart/Schönenberg/Weber, 2002, p. 53). Even though Swiss SMEs are said to be rather risk-averse, more of them should dare to take the opportunity of achieving additional growth in international markets.

### **6.3.1 General Implication for Swiss SME Internationalization**

The empirical findings confirm that a majority ( $\frac{3}{4}$ ) of internationalized Swiss SMEs succeed in foreign markets. Almost 30% of Swiss SMEs are

categorized as very successful with regard to their expansion into foreign markets. Nevertheless, the flop rate of Swiss SME internationalization reaches almost 25%.

The empirical findings of this thesis show that the success of Swiss SME internationalization is independent of the characteristics of the company. This means, that regardless of size, age and industry sector, an SME can expand successfully into foreign markets.

Moreover, the findings reveal that there is no association between international performance and the SME's international experience. Consequently, the success of Swiss SME international expansion is independent of its duration. The empirical data show that a beginner as well as an experienced firm can achieve high international performance.

On the other hand the analysis performed in the scope of this thesis confirms that several factors under the control of Swiss SME managers impact on international performance.

First, the characteristics of the internationalized product proved to be one of the good predictors of the international success of Swiss SMEs. This means that the particular features of a product are more or less favorable for a particular form of international activity. Consequently, Swiss SME products having certain features are more likely to succeed in international markets than other products.

The second group of international performance predictors are management decisions with regards to internationalization. A strategic planning process with regard to internationalization, management commitment to internationalization and the intensity of prior target market research are strongly and positively associated with Swiss SME internationalization success.

Specific implications with regard to exporting and direct investment are outlined further.

### **6.3.2 Implications for Swiss SME Exporting**

The empirical findings confirm that a majority of internationalized Swiss SMEs succeed in foreign markets. Almost 80% of Swiss SMEs export successfully and more than 30% of them even become very successful exporters.

A Swiss SME can export its products successfully to international markets regardless of its size, age and industry sector. What matters is, whether the particular product is suitable for exporting and how the company manages its export activity. The empirical findings show that the characteristics of the exported product is the strongest predictor of export performance followed by management decisions with regard to exporting.

Consequently, it is evident, that exported products with particular features are performing better than products with other features. In the case of exporting Swiss SMEs, very successfully exported products can be characterized as those which are innovative and/or highly technologically intensive and/or those that contribute to customer cost reductions.

On the other hand, exporting a service intensive product proves to be difficult; the export performance of such a product is proved to be lower. Therefore, Swiss SMEs wanting to export a service intensive product are recommended to look for a suitable solution. Training the foreign distributor's sale staff and establishing a representation office or a sales branch in a target market can contribute to the better export performance of service intensive products.

Regardless of how innovative or technologically intensive a product is, exporting can only be successful if the whole company has a positive approach towards the export activity. The empirical findings show that the better the export activity is prepared for, the more successful it is.

Integrating exporting into the company's strategic planning is essential for its success. It is crucial that the product(s) as well as the target market(s) are chosen consciously and carefully. Furthermore, the generic business strategy as well as the segment(s) in the target market(s) have to be chosen consciously. Both have to correspond with the characteristics of the particular product(s) and market(s). Last but not least, realistic and measurable objectives for the export activity have to be defined.

The empirical findings show that strategic planning still is insufficient at many SMEs. The clear association with a company's international performance confirmed by the data analysis leaves no doubt about its importance.

In order to choose the appropriate target market and market segment for the exported product, thorough market research has to be performed. SMEs should not make a decision about the target market without analyzing the information about market volume and growth, customer segments of the target market, competitor presence as well as any legal or regulatory



requirements regarding the particular product. The empirical results show that the more intensive the prior market research, the more successful the exporting.

With regard to the choice of the target market, Swiss SMEs are recommended to be less conservative and risk-averse. Even if only a very small group of Swiss SMEs dares to export to politically and economically less stable markets, this group proves to be very successful. The empirical findings suggest that Swiss SMEs should be able to bear more risk when exporting and consequently profit from the higher margins that can be earned in less stable markets.

Additionally, based on the market research information, the appropriate distribution channels have to be chosen. The empirical findings show that a majority of the successful SMEs exports without the help of an intermediary. They deliver their products directly to the final customers. Even if the choice of appropriate distribution channels is individual and depends on the particular product and target market situation, the empirical findings reveal that cooperation with foreign wholesalers is less successful than cooperation with agents or directly exporting.

The empirical findings suggest that management's commitment to exporting is crucial to its success. This finding is also confirmed by the interviewed experts. An SME's management has to be prepared to invest a meaningful part of its time as well as sufficient financial and human resources to the export activity. Such a commitment also includes the physical presence of managers in the target market. According to the empirical findings, the manager(s) of a successfully exporting SME visited the target market eight times during the first year of export activities. Later, when the export activities are established, a member of an SME's management travels on average three times a year to the export market.

Concerning the financial commitment, the empirical results indicate that there is a critical mass of financial commitment needed in order to be successful. Whereas on average the unsuccessful cases report that they invest 3.95% of the firm's turnover in the first year of exporting, a successful SME spends almost twice that much (7.39% of its turnover) on exporting.

In most cases, the initial phase of exporting (i.e. before reaching the break-even point) is quite short. SMEs can expect that exporting will become profitable within one year. Empirical findings also show a negative association between the length of the initial phase and export performance. Consequently, if the export activity does not reach the break-even point

within three years the probability of becoming successful decreases dramatically.

Furthermore, depending on the exported product's features and the availability of resources, Swiss SMEs aiming to expand internationally are recommended to concentrate their resources on a limited scope of international activities. First time exporters are not recommended to engage in further internationalization activities such as, for example, direct investment, licensing or joint ventures.

In the case of traditional manufacturing Swiss SMEs, the number of target markets should also be limited. However, the same does not apply to Swiss SMEs exporting highly innovative products. If the product can easily be exported to many markets and the market entry is not very resource intensive, then expansion to a potentially large number of markets is recommended. In the case of worldwide innovation, SMEs should pursue a global approach in order to benefit from the product's uniqueness.

### **6.3.3 Implications for Swiss SME Direct Investment**

The direct investment of Swiss SMEs achieve a similarly high performance as exporting. Almost 70% of the foreign production sites controlled by Swiss SMEs are successful. Nearly one fourth of them are evaluated as very successful.

Just as in the case of exporting, the success of Swiss SMEs' direct investments also proves to be independent of the firm's size, age and industry sector. The average size of a Swiss SME operating a foreign production site, i.e direct investment, is 109 employees and approximately 30 million CHF of annual turnover.

Both, the empirical findings and the experts suggest that there are different groups of successful direct investment of Swiss SMEs. The analysis of this thesis identifies two main groups of successful direct investment cases managed by Swiss SMEs. In the first case the SME decides to expand the production capacities of an already existing (possibly successfully exported) product, sustaining the product features and its high quality standard. By choosing the right location for a foreign production site, an SME can maximize its benefits. The SME can benefit from lower transportation costs (i.e. when situated close to the final customer) and/or from lower production costs (i.e. when situated in a low cost country). An example of such a successful direct investment is a production site expanding the manufacturing capacity of a certain product in one of the eastern European countries. The production is designated for eastern and

western European markets. By the perception of the quality standard of the production, the firm can benefit from its proximity to final customers and from lower production costs.

The other group of successful direct investment cases focus on the production of an additional product, possibly adapted to local customer needs and relying on price competitiveness. Often, this is the way used by a Swiss SME to expand into further attractive market segments of the target market or even a whole region. A typical example is a Swiss SME exporting its top end product from Switzerland and investing in a production site in India. This is manufacturing a locally adapted, price competitive product for the Asian market.

In all cases of direct investment, the quality of the direct investment project preparation as well as its implementation seem to predict success. Proper strategic planning and thorough research of the target market(s) are even more important than in the case of exporting. The strategic decisions have to correspond with the choice of the appropriate kind of direct investment. The definition of measurable and realistic objectives is crucial to international success.

As in the case of exporting, the important role of strategic planning in the internationalization process is confirmed by the data analysis. The empirical findings show that the importance of strategic planning is acknowledged by SMEs with direct investment more than by the exporting ones. Nevertheless, more than 20% of the direct investment cases still do not put the necessary emphasis on it.

Furthermore, the choice of the target country of the direct investment location and possibly also additional market(s) where the foreign manufactured products are sold, is decisive. However, success depends on the appropriate combination of product and its target market. Depending on the specific market situation, customer needs and product features, the appropriate strategy has to be defined.

The empirical data show that Swiss SMEs are successful regardless of the political and economic stability and the cultural distance of the target market of the direct investment. Nevertheless, it is evident that direct investment in a less stable and culturally more distant county is more risky. As such it requires even better preparation and even more intensive prior market research.

Similarly to exporting SMEs, firms aiming to invest abroad cannot make a decision about the country location of direct investment and potential

additional target market(s) of the foreign manufactured product without a thorough analysis of the following target market indicators: market volume and growth, customer segments in the target market, competitor presence as well as any legal or regulatory requirements (especially in case of production site location). The empirical results show that the more intensive the prior market research, the more successful the direct investment. The association is much stronger than in the case of exporting.

Concerning management's commitment, it is also even more important for the success of direct investment than of exporting. In addition to the personal commitment of the firm's management, sufficient financial and human resources need to be available. Apparently, management's commitment also involves its physical presence in the target market. The empirical findings show that on average during the first year of direct investment the managers of very successful direct investments traveled to the target market thirteen times. Later, when the direct investment is established, managers still visit their foreign production site on average eight times a year. On the contrary, the unsuccessful direct investments were on average visited only three times a year by a member of management. The difference between the successful and unsuccessful cases emphasizes the influence of management's commitment on direct investment performance.

With regard to the financial commitment, the empirical results suggest that the higher the investment at the beginning of the foreign engagement, the better its performance. Not surprisingly, the critical mass of financial commitment needed in order to be successful is higher in the case of direct investment than in the case of exporting. Whereas the unsuccessful cases report that they invest an average 9% of the company's turnover in the first year of direct investment, the average investment of successful SME reaches 12% and the very successful cases even 20% in the first year.

A comparison of the management's presence in the target market and of the initial investment into the international activity, both for exporting and for direct investment, shows that an SME intending to install a production site abroad has to be willing to commit meaningful resources to it.

Moreover, in the case of direct investment, the SME needs to be more patient and persistent in its international activities than in the case of exporting. The initial phase of direct investment before reaching the break-even point, lasts 3 years even in the most successful cases. Some of the experts mention that this period can last up to 5 years. Consequently, if the direct investment activity does not reach the break-even point within five years the probability of becoming successful decreases dramatically. This

can be seen in the overwhelming majority of more than 95% of successful Swiss SME direct investment cases that reach their break-even points within 5 years.

In case an SME intends to source a direct investment, the experts strictly recommend “concentrating its resources”. When commencing a direct investment, the SME should focus on a single or on a very limited number of foreign production sites. However, the combination of an established exporting activity with direct investment proves to be a successful means of international expansion.

Finally, the findings reveal that there is no association between direct investment performance and the characteristics of the country where the production site is located. Consequently, the international expansion of Swiss SMEs can be successful regardless of the economic and political stability and cultural distance of the country of location of the direct investment. However, it is believed that the availability of a resource advantage in the direct investment country location can be beneficiary for certain kinds of activities. Also the interviewed experts did not agree to the rejection of the hypothesis, they assume the association to apply especially with regard to cost-motivated direct investments, especially the cost-motivated direct investment.

## 7 Final Remarks

In approaching its objectives, the current thesis describes the actual state of internationalization of Swiss SMEs and their performance. However, the performed investigation includes only SMEs based in the German speaking part of Switzerland. This is why the findings regarding the state of internationalization of SMEs as well as their internationalization performance have to be generalized with care.

Furthermore, the relational analysis is performed in order to achieve the third objective of the thesis – to identify the internal factors associated with a company's internationalization performance. Based on the detected relationships, the thesis aims to derive normative implications for Swiss SME managers aspiring to expand internationally. Unfortunately, this is possible only for exporting and direct investment. The acquired data samples of the other two internationalization forms (licensing and joint ventures) are too small for a relational analysis. Consequently, the implications for managers regarding licensing and joint ventures cannot be drawn. For the same reason, a comparison of the four internationalization forms cannot be done.

In order to complete the information concerning Swiss SME internationalization performance and its influencing factors, future research should focus on the internationalization forms of licensing and joint venture activities. This implies the use of more efficient strategies of data collection focused on those internationalized SMEs active in licensing and joint ventures. Furthermore, the internationalization of SMEs in the French and Italian speaking parts of Switzerland should also be emphasized.

The internationalization of a firm and its performance is a complex research problem. In the scope of this thesis, only the firm's internal factors are included in the investigation.

In order to confirm the acquired associations regarding Swiss SMEs' export and direct investment performance, a model with a broader specification should be conducted. The model should also include the external factors influencing the internationalization performance. Only after such an analysis can the relative importance of the internal factors' association with the internationalization performance proposed by this thesis be estimated reliably.

Additionally, the empirical findings raise several interesting questions that can be taken up by future researchers. These questions concern the categorization of export cases into the two groups of global and traditional exporters. The analysis of Swiss SME export cases revealed that there are two different patterns of successful exporting. Whereas the group of traditional firms, relying on technologically intensive products with high quality standards, possibly contributing to the customer's reduction of costs undertakes a rather slow, step by step pattern of internationalization. A number of starting exporters apply the global approach, which is based on highly innovative products that are successfully exported into several geographically diverse markets<sup>102</sup>.

Also the deeper investigation of the acquired sample of direct investment cases identified two different approaches that were applied successfully. The first group seems to concentrate on expanding the production capacities of an already existing (possibly successfully exported) product sustaining the product features and its high quality standard. The other approach focuses on the production of an additional product, possibly adapted to a local customers' needs and relying on price competitiveness<sup>103</sup>.

Further research on the different paths of successful SMEs' export cases and direct investments and their respective performance and success factors would meaningfully contribute to the understanding of Swiss SME internationalization. In addition to the substantial academic contribution, the acquired knowledge would also be appreciated by SME managers.

---

<sup>102</sup> For more details see Section 5.2.3.1, p. 158.

<sup>103</sup> For more details see Section 5.2.3.2., p. 191.

## 8 Bibliography

Aaby, N.-E.; Slater, F.S. (1989): Managerial Influence on Export Performance: A Review of the Empirical Literature 1978-1988, in: *International Marketing Review*, 4/1989, p. 7-26

Andersen, O. (1997): Internationalisation and Market Entry Mode: A Review of Theories and Conceptual Frameworks, in: *Management International Review*, 2/1997, p. 27-42

Anderson, S. (2004): Internationalisation in Different Industrial Contexts, in: *Journal of Business Venturing*, 19/2004, p. 851-875

Andersson, S.; Gabrielsson, J.; Wictor, I. (2004): International Activities in Small Firms: Examining Factors Influencing the Internationalization and Export Growth of Small Firms, in: *Canadian Journal of Administrative Science*, 3/2004, p. 22-34

Aspelund, A.; Moen, O. (2005): Small International Firms: Typology, Performance and Implications, in: *Management International Review*, 3/2005, p. 37-57

Axinn, C. (1988): Export Performance: Do managerial perceptions make a difference?, in: *International Marketing Review*, 5/1988, p. 7-26

Backhaus, K.. et al. (2000): *Multivariate Analysemethoden: eine anwendungsorientierte Einführung*, Berlin

Baird, I.S.; Lyles, M.A.; Orris, J.B. (1994): The Choice of International Strategies by Small Business, in: *Journal of Small Business Management*, 1/1994, p. 48-59

Bartunek, J.M.; Bobko, P.; Venkatraman, N. (1993): Towards Innovation and Diversity in Management Research Methods, in: *Academy of Management Journal*, 6/1993, p. 1362-1373

Bassen, A.; Behnam, M.; Gilbert, D. U. (2001): Internationalisierung des Mittelstands. Ergebnisse einer empirischen Studie zum Internationalisierungsverhalten deutscher mittelständischer Unternehmen, in: *Zeitschrift für Betriebswirtschaft*, 4/2001, p. 413-432



- Benito, G.R.G.; Gripsrud, G. (1992): The Expansion of Foreign Direct Investment: Discrete Rational Choices or Cultural Learning Process?, in: *International Business Studies*, 3/1992, p. 43-58
- Berry, W. D.; Feldman S. (1985): *Multiple Regression in Practice*, Newbury Park
- Bijmolt, T. H.A.; Zwart, S. (1994): The Impact of Internal factors on the Export Success of Dutch Small and Medium-Sized Firms, in: *Journal of Small Business Management*, 4/1994, p. 69-83
- Bonaccorsi, A. (1992): On the Relationship Between Firm Size and Export Intensity, in: *Journal of International Business Studies*, 4/1992, p. 605-635
- Boocock, V.; Anderson, V. (2003): International Business and UK SMEs-Rational, Routes, Readiness, Role of Government Support and Reflections, in: *Journal of Entrepreneurship & Innovation*, 5/2003, p. 97-112
- Boter, H.; Holmquist, C. (1996): Industry Characteristics and Internationalization Process in Small Firms, in: *Journal of Business Venturing*, 11/1996, p. 471-487
- Brady, D.L.; Bearden W.O. (1979): The Effect of Managerial Attitudes on Alternative Exporting Methods, in: *Journal of International Business Studies*, Winter/1979, p. 79-84
- Brauchlin, E. (1989): *Kleine und Mittlere Industrielle Unternehmungen im Internationalen Wettbewerb*, St. Gallen/Zürich
- Brunner J.; Habersaat, M. (1994): *Auslandorientierung und Unternehmungspolitik Schweizerischer Klein- und Mittelunternehmungen*, St. Gallen
- Buckley, P.J. (1989): Foreign Market Serving Strategies and Competitiveness: A Theoretical Framework, in: Negandhi, A.R., Savaea A. (ed.): *International Strategic Management*, Lexington, Massachusetts, Toronto, p. 69-89
- Buckley P.J.; Pass C.L.; Prescott K. (1992): Measures of International Competitiveness, in: *Journal of Marketing Management*, 6/1992, p. 1-13
- Buckley, P.J. (2002): Is the international business research agenda running out of steam?, in: *Journal of International Business Studies*, 2/2002, p. 365-373

- Calof, J.C. (1994): The Relationship Between Firm Size and Export Behaviour Revisited, in: *Journal of International Business Studies*, 2/1994, p. 367-387
- Cavusgil, S.T. (1980): On the Internationalisation of the Firm, in: *European Research*, 11/1980, p. 273-281
- Cavusgil, S.T.; Nevin, J. (1981): Internal Determinants of Export Marketing Behaviour: An Empirical Analysis, in: *Journal of Marketing Research*, 1/1981, p. 114-9
- Cavusgil, S.T. (1984): Differences Among Exporting Firms Based on Their Degree of Internationalisation, in: *Journal of Business Research*, 12/1984, p. 195-208
- Chandler, G.N.; Hanks, S.H. (1994): Founder Competence, the Environment and Venture Performance, in: *Entrepreneurship Theory and Practice*, Spring/1994, p. 78-89
- Chen, C.; Hughes, J. (2004): Using Ordinal Regression Models to Analyze Student Satisfaction Questionnaires, in: *IR Applications*, 5/2004, p. 1-13
- Chetty, S.; Campbell-Hunt, C. (2003): Paths to Internationalisation among Small- to Medium-Sized Firms, in: *European Journal of Marketing*, 5 and 6/2003, p. 796-820
- Chryssochoidis, G.; Millar, C.; Clegg, J. (1997): Introduction, in: Chryssochoidis, G.; Millar, C.; Clegg, J. (Eds.): *Internationalisation Strategies*, New York, p. 3-17
- Clerq, D.D.; Sapienza, H.J.; Crijns, H. (2005): The Internationalisation of Small and Medium-Sized Firms, in: *Small Business Economics*, 24/2005, p. 409-419
- Conover, W.J. (1980): *Practical Non-Parametric Statistics*, New York
- Conractor, F.J.; Hsun, C.C.; Kundu, S.K. (2005): Explaining Export Performance: A Comparative Study of International New Ventures in the Indian and Twaiwanese Software Industries, in: *Management International Review*, 3/2005, p. 83-110
- Cooper R.G.; Kleinschmidt, E.J. (1985): The Impact of Export Strategy on Export Sales Performance, in: *Journal of International Business Studies*, 1/1985, p. 37-55

- Coviello, N.E.; Ghauri, P.N.; Martin, K. A.M. (1998): International Competitiveness: Empirical Findings from SME Service Firms, in: *Journal of International Marketing*, 2/1998, p. 8-27
- Czinkota, M.R.; Johnston, W.J. (1981): Segmenting US Firms for Export Development, in: *Journal of Business Research*, 12/1984, p. 353-375
- Czinkota, M.R.; Ursic, M.L. (1984): Impact of Export Growth Expectations on Smaller Firms, in: *International Marketing Review*, 1/1983, p. 26-33
- Czinkota, M.R.; Crick D. (1995): Export Assistance: Another Look at Whether We are Supporting the Best Programmes, in: *International Marketing Review*, 3/1995, p. 61-72
- Czinkota, M.R.; Ronkainen, I.A. (1997): International Business and Trade in the Next Decade, in: *Journal of International Business Studies*, 4/197, p. 828-844
- Dafinoiu, I.; Lungu, O. (2003): *Research Methods in the Social Sciences*, Frankfurt am Main, Berlin, Bern, Bruxelles, Wien
- Dayman, C.; Hollway I. (2001): *Questionnaire Design, Interviewing and Attitude Measurement*, London
- Denuit, M.; Dhaene J. (2003): *Simple Characterizations of Comonotonicity and Countermonotonicity by Extremal Correlations*, <http://www.stat.ucl.ac.be>, 20.11. 2005
- Dhanaraj, C.; Beamish, P.W. (2003): A Resource-Based Approach to the Study of Export Performance, in: *Journal of Small Business Management*, 3/2003, p. 242-261
- Diekmann, A. (1996): *Empirische Sozialforschung*, Reinbek bei Hamburg
- Dunning, J.H. (1988): *Explaining International Production*, London
- Dunning, J.H. (2001): The Eclectic (OLI) Paradigm of International Production: Past, Present and Future, in: *International Journal of the Economics of Business*, 2/2001, p. 173-190
- Dunning, J.H.; Wymbs, C. (2001): The Challenge of Electronic Markets for International Business Theory, in: *International Journal of the Economics of Business*, 2/2001, p. 273-301

Etemad, H. (2001): Internationalisation of SMEs: A Grounded Theoretical Framework and Overview, in: *Canadian Journal of Administrative Science*, 01/2001, p. 1-21

Etemad, H. (2005): International Entrepreneurship: Aspects of Rapid Internationalization in SMEs, in: *Journal of International Business*, 3/2005, p. 145-186

European Commission (2000): *The European Observatory for SMEs: Sixth Report*, Brussels

European Commission (2002a): *Observatory of European SMEs: Highlights from the 2001 Study*, Brussels

European Commission (2002b): *Observatory of European SMEs: Highlights from the 2002 Study*, Brussels

European Commission (2005): *Observatory of European SMEs 2003, No. 4: Internationalization of SMEs*, Brussels

Fillis, I. (2001): Small Firm Internationalization: An Investigative Survey and Future Research Directions, in: *Management Decision*, 9/2001, p. 767-783

Fox, J. (1991): *Regression Diagnostics*, Newbury Park, London, New Delhi

Garson, G.D. (2002): *PA 765 Statnotes: An Online Textbook*, <http://www2.chass.ncsu.edu/garson/pa765/regress.ht>, 20.11.2005

Grünig, R.; Kühn R. (2001): *Process-Based Strategic Planning*, Bern, Stuttgart, Wien

Habersaat, M.; Schönenberg, A.; Weber, W. (2002): *Die KMU in der Schweiz und in Europa*, Bern

Hadley, R. D.; Wilson, H.I.M. (2003): The Network Model of Internationalisation and Experiential Knowledge, in: *International Business Review*, 12/2003, p. 697-717

Hair J.F. et al. (1998): *Multivariate Data Analysis*, New Jersey

Harrigan, K.R. (1983): Research Methodologies for Contingency Approaches to Business Strategy, in: *The Academy of Management Review*, 3/1983, p. 398-405

Havens, P.-A. (2002): The Dynamics of the Internationalization Process- Interpretation of Empiric, in: Füglistaller, U.; Pleitner, H.J.; Volery, T.; Webe, W. (eds.): *Umbruch der Welt - KMU vor Höhenflug oder Absturz?*, St. Gallen, p. 295-309

Heise, M. (1997): Die Zukunft des Mittelstandes im globalen Zeitalter, in: Horváth, C. et al. (eds.): *Globalisierung Der Schritt in ein neues Zeitalter*, Berlin, p. 25-35

Hermann, F.; Kotsch, J. (2002): KMU - fit fuer Internationalisierung? Abendteuer Osteropa, in: *Management und Qualität*, 12/2002, p. 15-17

Hill, C.W.L.; Jones, G.R. (1989): *Strategic Management*, Boston

Hill, C.W.L. (1999): *International Business: Competing in the Global Marketplace*, Boston

Hofstede, G. (2003): *Geert Hofstede Cultural Dimensions*, [http://www.geert-hofstede.com/hofstede\\_dimensions.htm](http://www.geert-hofstede.com/hofstede_dimensions.htm), 20.8.2005

Hutchinson, K.; Quinn, B.; Alexander, N. (2004): The Internationalisation of Small to Medium Sized Retail Companies: Towards a Conceptual Framework, in: *Journal of Marketing Management*, 2004, p. 1-20

Jaeger, F. et al. (1999): *Die Klein- und Mittelbetriebe als Träger der Schweizerischen Volkswirtschaft*, Neuchâtel

Jaeger F.; Helwig C.; Oleschak R. (2003): *Die Klein- und Mittelunternehmen - Rückgrat der Schweizer Volkswirtschaft*, Neuchâtel

Johanson J.; Wiedersheim-Paul, F. (1975): The Internationalisation of the Firm- Four Swedish Cases, in: *The Journal of Management Studies*, 3/1975, p. 305-322

Johnson, J.; Vahlne, J.-E. (1977): The Internationalisation Process of the Firm – A Model of Knowledge Development in Increasing Foreign Market Commitments, in: *Journal of International Business Studies*, 1/1977, p. 23-32

Johnson, J.; Vahlne, J.-E. (1990): The Mechanism of Internationalisation, in: *International Marketing Review*, 4/1990, p. 11-24

Joynt, P. (1982): An Empirical Study of Norwegian Export Behavior, in: Czikota, M.R.; Tesar, G. (eds.): *Export Management: An International Context*, New York, p. 55-69

Kages, G.M.; Hürlimann, R.; Cosi, R.F. (2002): Wie Schweizer KMU im Ausland Fuss fassen, in: *KMU*, 11-12/2002, p. 22-24

Kandaswami, S. (1998): *Internationalisation of Small and Medium-Sized Born-Global Firms: A Conceptual Model*, <http://www.sbaer.uca.edu/research/icsb/1998/pdf/68>, 5.5.2004

Keng, K.A.; Juhan, T.S. (1988): Differences Between Small and Medium Sized Exporting and Non Exporting Firms: Nature or Nurture, in: *International Marketing Review*, 12/1988, p. 27-40

Keogh, W.; Evans, G. (1995): Strategies for Growth and Barriers Faced by New Technology-Based SMEs, in: *Journal of Small Business and Enterprises Development*, 4/1995, p. 337-350

Kirpalani V.H.; Macintosh N.B. (1980): International Marketing Effectiveness of Technology-Oriented Small Firms, in: *Journal of International Business Studies*, 3/1980, p. 81-90

Knight, G. (2000): Entrepreneurship and Marketing Strategy: The SME under Globalization, in: *Journal of International Marketing*, 2/2000, p. 12-32

Kohn, T.O. (1997): Small Firms as International Players, in: *Small Business Economics*, 9/1997, p. 45-51

Kundu, S.K.; Katz, J.A. (2003): Born-International SMEs: BI-level Impacts of Resources and Intentions, in: *Small Business Economics*, 20/2003, p. 25-47

Kurtzmann, T. (2003): *Small und Mid Caps der schweizerischen Maschinen-, Elektro- und Metallindustrie im Zeichen der Globalisierung- Auswirkung auf Unternehmensgrösse und Wettbewerbsstrategien*, St. Gallen

Lavigne, M. (1994): *Assistance to the Internationalisation of French Small and Medium-Sized Enterprises*, University of Pau, Paris

Lehmann, R. (2002): Die KMU im internationalen Wettbewerb, in: *Neue Zürcher Zeitung*, 15.10.2002, p. 10

Lewis-Beck, M.S. (1990): *Applied Regression: An Introduction*, Newbury Park, London, New Delhi

Lloyd-Reason, L.; Mighan, T. (2002): Strategies for Internationalisation within SMEs: The Key Role of the Owner, in: *Journal of Small Business and Enterprise Development*, 2/2002, p. 120-129

Löser, B. (2000): *Internationalisierung mittelständischer Produktionsunternehmen durch strategische Netzwerke*, St. Gallen

Luostarinen, R.; Gabrielsson, M. (2004): Finnish Perspectives of International Entrepreneurship, in: L.-P. Dana (ed.): *Handbook of Research on International Entrepreneurship*, London, p. 383-403

Madsen, T.K. (1989): Successful Export Marketing Management: Some Empirical Evidence, in: *International Marketing Review*, 6/1989, p. 41-57

Magagula, P.; Obben, J. (2001): *Distinguishing between Exporting and Non-Exporting Small and Medium-Sized Enterprises in Swaziland*, Massey University, Palmerston North

Malhotra, N.K.; Agarwal, J.; Ulgado, F.M. (2003): Internationalization and Entry Modes: a Multitheoretical Framework and Research Propositions, in: *Journal of International Marketing*, 3/2003, p. 1-30

Martinez, M.C. (2000): Drivers of Internationalization among SMEs: Case Studies from Alicante, in: *Economia Industrial*, 332/2000, p. 45-52

McCullagh, P. (1980): Regression Models for Ordinal Data, in: *Journal of the Royal Statistical Society. Series B*, 2/1980, p. 109-142

McDougall, P.P.; Oviatt, B.M. (2000): International Entrepreneurship: The Intersection of Two Research Paths, in: *Academy of Management Journal*, 5/2000, p. 902-906

Murphy, G.B.; Trailer, J.W.; Hill, R.C.. (1996): Measuring Performance in Entrepreneurship Research, in: *Journal of Business Research*, 1/1996, p. 15-24

- Naidu, G.M.; Prasad, V.K. (1994): Predictors of Export Strategy and Performance of SME, in: *Journal of Business Research*, 31/1994, p. 107-115
- Namiki, N. (1988): Export Strategy for Small Businesses, in: *Journal of Small Business Management*, 4/1988, p. 32-37
- Negandhi, A.R.; Savara, A. (1989): *International Strategic Management*, Lexington, Massachusetts, Toronto
- Norusis, M. (2004): *Advanced Statistical Procedures Companion*, Prentice Hall
- OECD (1998): *Globalisation and Small and Medium Enterprises*, Paris
- OECD (2000): *Small and Medium Sized Enterprises: Local Strength, Global Reach*, <http://www.oecd.org/dst/st/industry/smes>, 5.5.2004
- Ohlen, O. (2002): *Internationalizing in the Digital Economy: A Pan-European Study of Business-to Business Electronic Marketplaces*, St. Gallen
- Oppenheim, A.N. (1992): *Questionnaire Design, Interviewing and Attitude Measurement*, London
- Peyinghaus, M. (2004): *Organisational Identification in Supplier-Buyer Relationships - Empirical Analysis in the German Automotive Industry*, St. Gallen
- Piller, M. (2000): *Das Finanzverhalten mittelgrosser schweizerischen Unternehmen im Rahmen ihrer Internationalisierung*, St. Gallen
- Porter, M.E. (1985): *Competitive Advantage*, New York
- Porter, M.E. (1990): *The Competitive Advantage of Nations*, London
- Rao, C.P.; Erramilli, M.K.; Ganesh, G.K. (1990): Impact of Domestic Recession on Export Marketing Behavior, in: *International Marketing Review*, 2/1990, p. 54-67
- Rao, T.R.; Naidu, G.M. (1992): Are the Stages of Internationalisation Empirically Supportable?, in: *Journal of Global Marketing*, 1-2/1992, p. 147-170



- Reid, S. (1984): Information Acquisition and Export Entry Decision in Small Firms, in: *Journal of Business Research*, 12/1984, p. 141-157
- Reuber, A.R.; Fischer, E. (2002): Foreign Sales and Small Firm Growth: the Moderating Role of the Management Team, in: *Entrepreneurship Theory and Practice*, Fall/2002, p. 29-41
- Ritchie, J.; Lewis J. (2003): *Qualitative Research Practice*, London, Thousand Oaks, New Delhi
- Root, F.R. (1994): *International Trade and Investment*, Cincinnati
- Scandura, T.A.; Williams, E.A. (2000): Research Methodology in Management: Current Practices, Trends, and Implications, in: *Academy of Management Journal*, 6/2000, p. 1248-1264
- Schreiner, M. (2004): *Collaborative Capability in Vendor-Service Provider Relationships: Construct Development and Empirical Analysis in the Software Service Industry*, St. Gallen
- SFSO (2003): *Statistisches Jahrbuch der Schweiz*, Zürich
- Smolarski, J.; Wilner, N. (2005): Internationalisation of SMEs: A Micro-Economic Approach, in: *Journal of Business Chemistry*, 5/2005, p. 55-70
- Snodgrass, S.R.; Sakaran, U. (1989): The Cultural Components of Strategic Decision Making in the International Arena, in: Negandhi, A.R.; Savaea A. (eds.): *International Strategic Management*, Lexington, Massachusetts, Toronto, p. 141-155
- Steiner, M. (1995): *Internationalisierung mittelständischer Unternehmen: Das Kulturmanagement aus Sicht des Stammhauses*, St. Gallen
- Su, Z.; Poisson, R. (1998): Processes of Internationalisation: *An Empirical Study of Quebec SME*, <http://www.sbaer.uca.edu/research/icsb/1998/pdf/48>, 5.5.2004
- Sudman, S.; Braburn, N. (1991): *Asking Questions: A Practical Guide to Questionnaire Design*, San Francisco, Oxford
- Suzman, C.L.; Wortzel, L.H. (1984): Technology Profiles and Export Marketing Strategies, in: *Journal of Business Research*, 12/1984, p. 183-194

Ulrich, H. (1981): Die Betriebswirtschaftslehre als anwendungsorientierte Sozialwissenschaft, in: Geist, M.N.; Köhln, R. (eds.): *Die Führung des Betriebes*, Stuttgart, p. 1-25

van Houtum, H. (1998): *The Development of Cross-Border Economic Relations*, Amsterdam

Welch, L.S.; Luostarinen, R. (1988): Internationalisation: Evolution of a Concept, in: *Journal of General Management*, 2/1988, p. 34-55

West, C. (1999): *Marketing Research*, London

Wolff, J.A.; Pett, T.L. (2000): Internationalisation of Small Firms: An Examination of Export Competitive Patterns, Firm Size, and Export Performance, in: *Journal of Small Business Management*, 4/2000, p. 34-47

Wolter, S.M.B.T. (1999): *Internationalisierung brasilianischer KMU im Kontext des Mercosur*, St. Gallen

Yaffee, R.. A. (2003): *Common Correlation and Reliability Analysis with SPSS and Windows*, <http://www.nyu.edu/its/cocsi/Docs/correlate.html>, 20.11.2005

Zaby, A.M. (1999): *Internationalisation of High Technology Firms*, Wiesbaden

Zorn, C. (2005): A Solution to Separation in Binary Response Models, in: *Political Analysis*, 13/2005, p. 157-170

# Appendix A

## Questionnaire of the Quantitative Study

Fragebogen zur Internationalisierung von Deutschschweizer KMU's

0. Einleitung

### Fragebogen zur Internationalisierung von Deutschschweizer KMU's

#### 0. Einleitung

Sehr geehrte Damen und Herren,

Sie haben einen der 513 Fragebogen erhalten, welche dem Forschungsprojekt „Internationalisierung der deutschschweizerischen KMU's“ des Lehrstuhls für Unternehmensführung an der Universität Fribourg dient. Ziel dieses Dissertationsforschungsprojekts ist es, einen praktischen Ratgeber für die Internationalisierung der kleinen und mittleren Unternehmen (KMUs) zu entwickeln.

In den folgenden sechs Abschnitten, **I. Generelle Fragen, II. Export, III. Direktinvestition, IV. Lizenzvergabe, V. Joint Venture, VI. Angabe zur Unternehmung**, finden Sie die jeweiligen Fragekapitel zur „Internationalisierung von Deutschschweizer KMUs“.

- |                               |  |
|-------------------------------|--|
| <b>II. Export</b>             | Sie verkaufen Ihre Produkte oder Dienstleistungen im Ausland über den Zwischenhandel oder über eigene Verkaufsniederlassungen.   |
| <b>III. Direktinvestition</b> | Sie haben im Ausland eine oder mehrere eigene Produktionsstätten und vertreiben die Produkte dort oder im übrigen Ausland.   |
| <b>IV. Lizenzvergabe</b>      | Sie haben eine Produktions- und/oder eine Vertriebslizenz ins Ausland vergeben.  |
| <b>V. Joint Venture</b>       | Sie finanzieren gemeinsam mit einem oder mehreren ausländischen Partnern eine Unternehmensaktivität, z.B. im Bereich Forschung & Entwicklung, Produktion, Vertrieb, etc. |

Wir bitten Sie, nebst den Abschnitten „I. Generelle Fragen“ und VI. Angaben zur Unternehmung“ nur die Fragen der entsprechenden Internationalisierungsform zu beantworten welche Ihre Unternehmung selbst unternommen hat (z.B. Kapitel V, falls sie ein Joint Venture mit einer ausländischen Unternehmung eingegangen sind).

Bei jeder Internationalisierungsform (II. Export, III. Direktinvestition, IV. Lizenzvergabe, V. Joint Venture) wird zuerst nach den drei wichtigsten Zielländern gefragt. Die folgenden Fragen sind für jedes dieser drei Zielländer separat zu beantworten.

Sollten Sie selber am Resultat der Studie interessiert sein, geben Sie bitte im Fragebogen an, dass Sie eine Zusammenfassung der Ergebnisse wünschen.

Selbstverständlich behandeln wir Ihre Daten vertraulich. Wir verwenden Sie einzig für die Beantwortung der Fragen im Rahmen der Dissertation von Marie Peskova und geben Sie auch nicht an Dritte weiter. Die Auswertung wird in anonymisierter Form geschehen, sodass keine Rückschlüsse auf einzelne Unternehmungen möglich sein werden.

Wir legen Ihnen nahe den Fragebogen auch im Internet unter dem Link [www.unifr.ch/management/KMU](http://www.unifr.ch/management/KMU) auszufüllen. Die Online Version ermöglicht Ihnen ein viel einfacheres und bequemer Ausfüllen des Fragebogens.

Falls Sie Fragen zu einzelnen Fragen oder zur Untersuchungsanlage haben, zögern Sie nicht, die Doktorandin Marie Peskova zu kontaktieren (Tel. 026 300 82 98) [marie.peskova@unifr.ch](mailto:marie.peskova@unifr.ch)  
Universität Fribourg, Wirtschafts- und Sozialwissenschaftliche Fakultät, Lehrstuhl für Unternehmensführung,  
Avenue de l'Europe 20, 1700 Fribourg.

Wir danken Ihnen für die Zeit und Mühe mit welcher Sie diese Studie überhaupt ermöglichen.

Prof. Dr. Rudolf Grünig und Frau Marie Peskova  
Universität Fribourg  
Lehrstuhl für Unternehmensführung

## I. Generelle Fragen

War Ihre Firma in den Jahren 2000, 01,02 und 03 international tätig?

☐ Ja

Wenn ja, kreuzen Sie bitte alle Internationalisierungsformen an, welche Ihre Firma in den Jahren 2000, 01,02 und 03 betrieben hat:

- ☐ **Export**  
(mit oder ohne eigene Verkaufsniederlassung(en) im Ausland)  
Bitte beantworten Sie die Fragen auf den Seiten 3 bis 5.
- ☐ **Direktinvestition**  
(Eigene Produktionsstätte(n) mit Vertrieb im Ausland)  
Bitte beantworten Sie die Fragen auf den Seiten 6 bis 8.
- ☐ **Lizenzvergabe**  
(Produktion und Vertrieb oder nur Vertrieb durch ausländische(n) Lizenznehmer)  
Bitte beantworten Sie die Fragen auf den Seiten 9 bis 11.
- ☐ **Joint Venture**  
(gemeinsam mit ausländische(n) Partner(n) finanzierte Aktivität im Ausland, z.B. im Bereich Forschung & Entwicklung, Produktion, Vertrieb etc.)  
Bitte beantworten Sie die Fragen auf den Seiten 12 bis 14.
- ☐ Andere Internationalisierungsform(en):  
.....  
.....

Bitte beantworten Sie die Fragen auf Seite 15.

☐ Nein

Wenn nein, war Ihre Firma vor dem Jahr 2000 international tätig?

☐ Ja

Wenn ja, nennen Sie bitte:

- alle damals betriebenen Internationalisierungsformen
- Zeitraum der Aktivitäten
- Hauptgrund für Rückzug aus internationalem Markt.

☐ Nein

Wenn nein, beantworten Sie bitte die Fragen auf Seite 15.

- ☐ **Export**  
(mit oder ohne eigene Verkaufsniederlassung(en) im Ausland)
- Aktivitäten betrieben von 19..... bis 19.....
  - Hauptgrund für Rückzug aus internationalem Markt:
    - ☐ Mangelnder Erfolg
    - ☐ Aktivitäten waren zeitlich beschränkt vorgesehen
    - ☐ .....
- ☐ **Direktinvestition**  
(Eigene Produktionsstätte(n) mit Vertrieb im Ausland)
- Aktivitäten betrieben von 19..... bis 19.....
  - Hauptgrund für Rückzug aus internationalem Markt:
    - ☐ Mangelnder Erfolg
    - ☐ Aktivitäten waren zeitlich beschränkt vorgesehen
    - ☐ .....
- ☐ **Lizenzvergabe**  
(Produktion und Vertrieb oder nur Vertrieb durch ausländische(n) Lizenznehmer)
- Aktivitäten betrieben von 19..... bis 19.....
  - Hauptgrund für Rückzug aus internationalem Markt:
    - ☐ Mangelnder Erfolg
    - ☐ Aktivitäten waren zeitlich beschränkt vorgesehen
    - ☐ .....
- ☐ **Joint Venture**  
(gemeinsam mit ausländische(n) Partner(n) finanzierte Aktivität im Ausland, z.B. im Bereich Forschung & Entwicklung, Produktion, Vertrieb etc.)
- Aktivitäten betrieben von 19..... bis 19.....
  - Hauptgrund für Rückzug aus internationalem Markt:
    - ☐ Mangelnder Erfolg
    - ☐ Aktivitäten waren zeitlich beschränkt vorgesehen
    - ☐ .....
- ☐ Andere Internationalisierungsform(en):  
.....
- Aktivitäten betrieben von 19..... bis 19.....
  - Hauptgrund für Rückzug aus internationalem Markt:
    - ☐ Mangelnder Erfolg
    - ☐ Aktivitäten waren zeitlich beschränkt vorgesehen
    - ☐ .....

Bitte beantworten Sie die Fragen auf Seite 15.

## II. Export

1. In wie viele Länder exportiert Ihre Firma Produkte und/oder Dienstleistungen? In ..... Länder.

	Zielland 1	Zielland 2	Zielland 3
2. Welches sind die drei wichtigsten Ziel-länder/ Zielmärkte, in die Ihre Firma ex-portiert?	..... .....	..... .....	..... .....
<i>Die folgenden Fragen (3 bis 24) beziehen sich ausschliesslich auf diese Länder. Bitte antworten Sie für jedes Zielland separat.</i>			
3. Wie viele verschiedene Produkte und/oder Dienstleistungen hat Ihre Firma in den Jahren 2000, 01,02 und 03 in das Zielland exportiert?	..... .....	..... .....	..... .....
4. Welche(s) ins Zielland exportierte Pro- dukt bzw. Dienstleistung ist für Ihre Firma am wichtigsten?	..... .....	..... .....	..... .....
<i>Die folgenden Fragen (5 bis 24) beziehen sich ausschliesslich auf das bei Frage 4 genannte wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland. Im folgenden ist mit „Produkt“ auch „Dienstleistung“ gemeint.</i>			
5. In welchem Zeitraum hat Ihre Firma das genannte Produkt in dieses Zielland exportiert?	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....
6. An wen liefert bzw. verkauft Ihre Firma das genannte Produkt mehrheitlich? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Endkunden <input type="checkbox"/> Zwischenhandel <input type="checkbox"/> Agent(en) bzw. Im- porteur(e)	<input type="checkbox"/> Endkunden <input type="checkbox"/> Zwischenhandel <input type="checkbox"/> Agent(en) bzw. Im- porteur(e)	<input type="checkbox"/> Endkunden <input type="checkbox"/> Zwischenhandel <input type="checkbox"/> Agent(en) bzw. Im- porteur(e)
7. Benötigt das genannte Produkt besonderen After-Sales respektive Kunden-Service (ausser dem üblichen Reparaturservice)? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein
8. Die Standardisierung der Produktion des genannten Produkts ist ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)
9. Wie stark basiert der Wettbewerbs- vorteil des genannten Produkts auf technologischem Know-how? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht
10. Wie hoch schätzen Sie das Risiko ein, dass das genannte Produkt kopiert wird? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko

Fragebogen zur Internationalisierung von Deutschschweizer KMU's

II. Export

Auch die folgenden Fragen (11 bis 24) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
11. Wie würden Sie die Bedürfnisse Ihrer Kunden für das genannte Produkt im Zielland beschreiben? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen
12. Welche Vorteile besitzt das genannte Produkt gegenüber Konkurrenzprodukten? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....
13. Ihre Firma verfolgt beim genannten Produkt eine ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....
14. Über welche Informationen über den Zielmarkt verfügte Ihre Firma, bevor Sie mit dem Export des genannten Produkts begonnen hat? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos
15. Im Zielland bearbeitet Ihre Firma mit dem genannten Produkt ... <i>Bitte kreuzen Sie nur je ein Feld an..</i>	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....
16. Welchen Prozent-Anteil des Gesamtumsatzes erwirtschaftete Ihre Firma durch den Export des genannten Produkts?	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 2001 und 2002 .....%	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 2001 und 2002 .....%	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 2001 und 2002 .....%
17. Welche Kosten (als Prozent-Anteil des Gesamtumsatzes) sind durch die Export-Aktivitäten des genannten Produkts schätzungsweise entstanden?	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Export-Aktivitäten: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%

Auch die folgenden Fragen (18 bis 24) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
18. Wie viele Reisen in das Zielland hat das Management Ihrer Firma wegen des Exports des genannten Produkts unternommen?	<ul style="list-style-type: none"> <li>▪ Im ersten Jahr der Export-Aktivitäten: .....Reise(n)</li> <li>▪ In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Im ersten Jahr der Export-Aktivitäten: .....Reise(n)</li> <li>▪ In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Im ersten Jahr der Export-Aktivitäten: .....Reise(n)</li> <li>▪ In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>
19. Welche Art von Zielen für die Export-Aktivitäten des genannten Produkts hat Ihre Firma definiert? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....
20. In Bezug auf die Export-Aktivitäten des genannten Produkts hat Ihre Firma ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.
21. Die Geschäftsleitung Ihrer Firma ist der Meinung, dass der Export des genannten Produkts... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.
22. Ist der Export des genannten Produkts profitabel, d.h. verbleibt nach Abzug aller damit verbundenen Kosten ein Gewinn? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 24.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 24.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 24.</i>
23. Nach wie vielen Jahren stellte sich die Profitabilität des Exports des genannten Produkts ein?	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).
24. Welche Aktivitäten Ihrer Firma sind profitabler – die Inlandaktivitäten oder der Export des genannten Produkts? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und der Export sind gleich profitabel. <input type="checkbox"/> Der Export ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und der Export sind gleich profitabel. <input type="checkbox"/> Der Export ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und der Export sind gleich profitabel. <input type="checkbox"/> Der Export ist profitabler.

Falls Ihre Firma ...

- Direktinvestitionen getätigt hat, beantworten Sie bitte die Fragen auf den Seiten 6 bis 8.
- Lizenzen vergeben hat, beantworten Sie bitte die Fragen auf den Seiten 9 bis 11.
- Joint Ventures eingegangen ist, beantworten Sie bitte die Fragen auf den Seiten 12 bis 14.
- keine weiteren Internationalisierungsformen betreibt, beantworten Sie bitte die Fragen auf Seite 15.

### III. Direktinvestition

1. In wie vielen Ländern hat Ihre Firma Direktinvestitionen getätigt? In ..... Ländern.

	Zielland 1	Zielland 2	Zielland 3
2. Welches sind die drei wichtigsten Zielländer/ Zielmärkte, in denen Ihre Firma Direktinvestitionen getätigt hat?	..... .....	..... .....	..... .....
<i>Die folgenden Fragen (3 bis 25) beziehen sich ausschliesslich auf diese Länder. Bitte antworten Sie für jedes Zielland separat.</i>			
3. Wie viele verschiedene Produkte und/oder Dienstleistungen hat Ihre Firma in den Jahren 2000, 01, 02 und 03 im Zielland produziert und vertrieben?	..... .....	..... .....	..... .....
4. Welche(s) im Zielland produzierte und vertriebene Produkt bzw. Dienstleistung ist für Ihre Firma am wichtigsten?	..... .....	..... .....	..... .....
<i>Die folgenden Fragen (5 bis 25) beziehen sich ausschliesslich auf das bei Frage 4 genannte wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland. Im folgenden ist mit „Produkt“ auch „Dienstleistung“ gemeint.</i>			
5. In welchem Zeitraum hat Ihre Firma das genannte Produkt in diesem Zielland produziert und vertrieben?	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....
6. Welche Ressourcen-Vorteile (gegenüber der Schweiz) bietet Ihnen das Zielland, in dem Ihre Firma die Direktinvestition für das genannte Produkt getätigt hat?	..... ..... .....	..... ..... .....	..... ..... .....
7. Für welche weiteren Zielmärkte, d.h. andere Länder, ist das im Zielland produzierte bestimmt?	..... .....	..... .....	..... .....
8. Benötigt das genannte Produkt besonderen After-Sales- respektive Kunden-Service (ausser dem üblichen Reparaturservice)? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein
9. Die Standardisierung der Produktion des genannten Produkts ist ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelfertigung)
10. Wie stark basiert der Wettbewerbsvorteil des genannten Produkts auf technologischem Know-how? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht



Auch die folgenden Fragen (11 bis 25) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
11. Wie hoch schätzen Sie das Risiko ein, dass das genannte Produkt kopiert wird? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko
12. Wie würden Sie die Bedürfnisse Ihrer Kunden für das genannte Produkt im Zielland beschreiben? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen
13. Welche Vorteile besitzt das genannte Produkt gegenüber Konkurrenzprodukten? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....
14. Ihre Firma verfolgt beim genannten Produkt eine ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....
15. Über welche Informationen über den Zielmarkt verfügte Ihre Firma, bevor Sie die Direktinvestition für das genannte Produkt getätigt hat? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)
16. Im Zielland bearbeitet Ihre Firma mit dem genannten Produkt ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. .....
17. Welchen Prozent-Anteil des Gesamtumsatzes erwirtschaftete Ihre Firma durch die Direktinvestition für das genannte Produkt?	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%
18. Welchen Umfang (als Prozent-Anteil des Gesamtumsatzes) hat die Direktinvestition des genannten Produkts?	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%

Auch die folgenden Fragen (11 bis 24) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
19. Wie viele Reisen in das Zielland hat das Management Ihrer Firma wegen der Direktinvestition für das genannte Produkt unternommen?	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)	<input type="checkbox"/> Im ersten Jahr der Direktinvestition: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)
20. Welche Art von Zielen für die Direktinvestition für das genannte Produkt hat Ihre Firma definiert? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 21.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....
21. In Bezug auf die Direktinvestition für das genannte Produkt hat Ihre Firma ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.
22. Die Geschäftsleitung Ihrer Firma ist der Meinung, dass die Direktinvestition für das genannte Produkt ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.
23. Ist die Direktinvestition für das genannte Produkt profitabel, d.h. verbleibt nach Abzug aller damit verbundenen Kosten ein Gewinn? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 25.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 25.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 25.</i>
24. Nach wie vielen Jahren stellte sich die Profitabilität der Direktinvestition für das genannte Produkt ein?	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).
25. Welche Aktivitäten Ihrer Firma sind profitabler – die Inlandaktivitäten oder die Direktinvestition für das genannte Produkt? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Direktinvestition sind gleich profitabel. <input type="checkbox"/> Die Direktinvestition ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Direktinvestition sind gleich profitabel. <input type="checkbox"/> Die Direktinvestition ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Direktinvestition sind gleich profitabel. <input type="checkbox"/> Die Direktinvestition ist profitabler.

Falls Ihre Firma ...

- Lizenzen vergeben hat, beantworten Sie bitte die Fragen auf den Seiten 9 bis 11.
- Joint Ventures eingegangen ist, beantworten Sie bitte die Fragen auf den Seiten 12 bis 14.
- keine weiteren Internationalisierungsformen betreibt, beantworten Sie bitte die Fragen auf Seite 15.

1. In wie viele Länder hat Ihre Firma Lizenzen vergeben, um Produkte und/oder Dienstleistungen zu verkaufen bzw. zu produzieren und zu verkaufen? In ..... Länder.

- Die folgenden Fragen (3 bis 27) beziehen sich ausschliesslich auf diese Länder. Bitte antworten Sie für jedes Zielland separat.

4. Welche(s) im Zielland unter Lizenz verkaufte oder produzierte und verkaufte Produkt bzw. Dienstleistung ist für Ihre Firma am wichtigsten?

Die folgenden Fragen (5 bis 27) beziehen sich ausschliesslich auf das bei Frage 4 genannte wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland. Im folgenden ist mit „Produkt“ auch „Dienstleistung“ gemeint.

- von Jahr .....
- bis Jahr .....

6. Die Lizenz umfasst das Recht, das genannte Produkt ...  
*Bitte kreuzen Sie nur je ein Feld an.*

- ☐ zu produzieren
  - ☐ zu produzieren und vertreiben
  - ☐ nur zu vertreiben.
- Weiter mit Frage 9

- ☐ zu produzieren
  - ☐ zu produzieren und zu vertreiben
  - ☐ nur zu vertreiben.
- Weiter mit Frage 9.

- ☐ zu produzieren
  - ☐ zu produzieren und zu vertreiben
  - ☐ nur zu vertreiben.
- Weiter mit Frage 9.

7. Welche Ressourcen-Vorteile (gegenüber der Schweiz) bietet das Zielland, in das Ihre Firma die Lizenz vergeben hat?

8. Für welche weiteren Zielmärkte, d.h. andere Länder, ist das im Zielland unter Lizenz Produzierte bestimmt?

9. Benötigt das genannte Produkt besonderen After-Sales- respektive Kunden-Service (ausser dem üblichen Reparaturservice)?
- Bitte kreuzen Sie nur je ein Feld an.*

- ☐ Ja  
☐ Nein

- ☐ Ja  
☐ Nein

- ☐ Ja  
☐ Nein

10. Die Standardisierung der Produktion  
des genannten Produkts ist ...  
*Bitte kreuzen Sie nur je ein Feld an.*

- ☐ sehr hoch  
(Grossserienprod.)
- ☐ ziemlich hoch  
(Serienprod.)
- ☐ ziemlich niedrig  
(Kleinserienprod.)
- ☐ sehr niedrig  
(Einzelanfertigung)

- ☐ sehr hoch  
(Grossserienprod.)
- ☐ ziemlich hoch  
(Serienprod.)
- ☐ ziemlich niedrig  
(Kleinserienprod.)
- ☐ sehr niedrig  
(Einzelfertigung)

- ☐ sehr hoch  
(Grossserienprod.)
- ☐ ziemlich hoch  
(Serienprod.)
- ☐ ziemlich niedrig  
(Kleinserienprod.)
- ☐ sehr niedrig  
(Einzelanfertigung)

Fragebogen zur Internationalisierung von Deutschschweizer KMU's

IV. Lizenzvergabe

Auch die folgenden Fragen (11 bis 27) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
11. Wie stark basiert der Wettbewerbsvorteil des genannten Produkts auf technologischem Know-how? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht
12. Wie hoch schätzen Sie das Risiko ein, dass das genannte Produkt kopiert wird? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko
13. Mit welchen Massnahmen schützt Ihre Firma das technologische Know-how des genannten Produkts?	..... .....	..... .....	..... .....
14. Wie würden Sie die Bedürfnisse Ihrer Kunden für das genannte Produkt im Zielland beschreiben? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen
15. Welche Vorteile besitzt das genannte Produkt gegenüber Konkurrenzprodukten? <i>Bitte kreuzen Sie alle zutreffenden Felder an</i>	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....
16. Ihre Firma verfolgt beim genannten Produkt eine ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....
17. Über welche Informationen über den Zielmarkt verfügte Ihre Firma, bevor Sie die Lizenz für das genannte Produkt vergeben hat? <i>Bitte kreuzen Sie alle zutreffenden Felder an</i>	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Info(s): ..... <input type="checkbox"/> Keine Infos
18. Das genannte Produkt ist vorgesehen für Bearbeitung ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> des Gesamtmarkts. <input type="checkbox"/> eines Marktsegments. <input type="checkbox"/> einer Nische, d.h. eines Segments mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> des Gesamtmarkts. <input type="checkbox"/> eines Marktsegments. <input type="checkbox"/> einer Nische, d.h. eines Segments mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> des Gesamtmarkts. <input type="checkbox"/> eines Marktsegments. <input type="checkbox"/> einer Nische, d.h. eines Segments mit speziellen Anforderungen. <input type="checkbox"/> .....
19. Welchen Prozent-Anteil des Gesamtumsatzes erwirtschaftete Ihre Firma durch Einkommen aus der Lizenzvergabe für das genannte Produkt (Royalty Fee)?	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%

Auch die folgenden Fragen (20 bis 27) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
20. Welche Kosten (als Prozent-Anteil des Gesamtumsatzes) sind durch die Lizenzvergabe für das genannte Produkt schätzungsweise entstanden?	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01,02 und 03 .....%
21. Wie viele Reisen in das Zielland hat das Management Ihrer Firma wegen der Lizenzvergabe für das genannte Produkt unternommen?	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)	<input type="checkbox"/> Im ersten Jahr der Lizenzvergabe: .....Reise(n) <input type="checkbox"/> In den Jahren 2000, 01,02 und 03 (Σ): .....Reise(n)
22. Welche Art von Zielen für die Lizenzvergabe für das genannte Produkt hat Ihre Firma definiert? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 24.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 24.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 24.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....
23. In Bezug auf die Lizenzvergabe für das genannte Produkt hat Ihre Firma ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.
24. Die Geschäftsleitung Ihrer Firma ist der Meinung, dass die Lizenzvergabe für das genannte Produkt ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.
25. Ist die Lizenzvergabe für das genannte Produkt profitabel, d.h. verbleibt nach Abzug aller damit verbundenen Kosten ein Gewinn? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 27.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 27.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 27.</i>
26. Nach wie vielen Jahren stellte sich die Profitabilität der Lizenzvergabe für das genannte Produkt ein?	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).
27. Welche Aktivitäten Ihrer Firma sind profitabler – die Inlandaktivitäten oder die Lizenzvergabe für das genannte Produkt? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Lizenzvergabe sind gleich profitabel. <input type="checkbox"/> Die Lizenzvergabe ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Lizenzvergabe sind gleich profitabel. <input type="checkbox"/> Die Lizenzvergabe ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Lizenzvergabe sind gleich profitabel. <input type="checkbox"/> Die Lizenzvergabe ist profitabler.

Falls Ihre Firma ...

- Joint Ventures eingegangen ist, beantworten Sie bitte die Fragen auf den Seiten 12 bis 14.
- keine weiteren Internationalisierungsformen betreibt, beantworten Sie bitte die Fragen auf Seite 15.

## V. Joint Venture

1. In wie vielen Ländern ist Ihre Firma an Joint Venture(s) beteiligt? In ..... Ländern.

	Zielland 1	Zielland 2	Zielland 3
2. Welches sind die drei wichtigsten Ziel- länder/ Zielmärkte, in denen Ihre Firma Joint Ventures eingegangen ist?	..... ..... .....	..... ..... .....	..... ..... .....
<i>Die folgenden Fragen (3 bis 26) beziehen sich ausschliesslich auf diese Länder. Bitte antworten Sie für jedes Zielland separat.</i>			
3. An wie vielen verschiedenen Joint Ven- tures im Zielland war Ihre Firma in den Jahren 2000, 01,02 und 03 beteiligt?	..... .....	..... .....	..... .....
4. Was ist der Zweck des bedeutsamsten im Zielland eingegangenen Joint Ven- tures? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Produktion Weiter mit Frage 5. <input type="checkbox"/> Verkauf Weiter mit Frage 7. <input type="checkbox"/> Forschung und Ent- wicklung Weiter auf Seite 14. <input type="checkbox"/> Anderer Zweck: ..... Weiter auf Seite 15	<input type="checkbox"/> Produktion Weiter mit Frage 5. <input type="checkbox"/> Verkauf Weiter mit Frage 7. <input type="checkbox"/> Forschung und Ent- wicklung Weiter auf Seite 14. <input type="checkbox"/> Anderer Zweck: ..... Weiter auf Seite 15	<input type="checkbox"/> Produktion Weiter mit Frage 5. <input type="checkbox"/> Verkauf Weiter mit Frage 7. <input type="checkbox"/> Forschung und Ent- wicklung Weiter auf Seite 14. <input type="checkbox"/> Anderer Zweck: ..... Weiter auf Seite 15
<i>Die folgenden Fragen (5 bis 26) beziehen sich ausschliesslich auf das bei Frage 4 genannte wichtigste Joint Venture je Zielland. Im folgenden ist mit „Produkt“ auch „Dienstleistung“ gemeint.</i>			
5. Welche Ressourcen-Vorteile (gegen- über der Schweiz) bietet Ihnen das Zielland, in dem Ihre Firma am ge- nannten Joint Venture beteiligt ist?	..... .....	..... .....	..... .....
6. Für welche weiteren Zielmärkte, d.h. andere Länder, ist das im Zielland vom genannten Joint Venture Produzierte bestimmt?	..... .....	..... .....	..... .....
7. Was ist der Prozent-Anteil Ihrer Firma am genannten Joint Venture?	.....%	.....%	.....%
8. Auf welchen Zeitraum erstreckt sich die Beteiligung Ihrer Firma am genannten Joint Venture?	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....	von Jahr ..... bis Jahr .....
9. Benötigt das Produkt des genannten Joint Ventures besonderen After-Sales- respektive Kunden-Service (ausser dem üblichen Reparaturservice)? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein	<input type="checkbox"/> Ja <input type="checkbox"/> Nein
10. Die Standardisierung der Produktion des genannten Joint Ventures ist ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)	<input type="checkbox"/> sehr hoch (Grossserienprod.) <input type="checkbox"/> ziemlich hoch (Serienprod.) <input type="checkbox"/> ziemlich niedrig (Kleinserienprod.) <input type="checkbox"/> sehr niedrig (Einzelanfertigung)

Fragebogen zur Internationalisierung von Deutschschweizer KMU's

V. Joint Venture

Auch die folgenden Fragen (11 bis 26) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
11. Wie stark basiert der Wettbewerbsvorteil des Produkts des genannten Joint Ventures auf technologischem Know-how? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht	<input type="checkbox"/> Sehr stark <input type="checkbox"/> Ziemlich stark <input type="checkbox"/> Ziemlich schwach <input type="checkbox"/> Sehr schwach <input type="checkbox"/> Überhaupt nicht
12. Wie hoch schätzen Sie das Risiko ein, dass das Produkt des genannten Joint Ventures kopiert wird? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko	<input type="checkbox"/> Sehr hoch <input type="checkbox"/> Ziemlich hoch <input type="checkbox"/> Ziemlich gering <input type="checkbox"/> Sehr gering <input type="checkbox"/> Kein Risiko
13. Wie würden Sie die Bedürfnisse Ihrer Kunden für das Produkt des genannten Joint Venture im Zielland beschreiben? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen	<input type="checkbox"/> Sehr homogen <input type="checkbox"/> Ziemlich homogen <input type="checkbox"/> Ziemlich heterogen <input type="checkbox"/> Sehr heterogen
14. Welche Vorteile besitzt das Produkt des genannten Joint Venture gegenüber Konkurrenzprodukten? <i>Bitte kreuzen Sie alle zutreffenden Felder an</i>	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....	<input type="checkbox"/> Preis <input type="checkbox"/> Marke / Image <input type="checkbox"/> Qualität <input type="checkbox"/> Kundenservice <input type="checkbox"/> Lieferpünktlichkeit <input type="checkbox"/> Innovative Eigenschaft(en) <input type="checkbox"/> Kostenreduktion für den Kunden <input type="checkbox"/> Andere(r) Vorteil(e) .....
15. Ihre Firma verfolgt beim Produkt des genannten Joint Ventures eine ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....	<input type="checkbox"/> Preisstrategie. <input type="checkbox"/> Differenzierungsstrategie. <input type="checkbox"/> andere Strategie: .....
16. Über welche Informationen über den Zielmarkt verfügte Ihre Firma, bevor Sie das genannte Joint Venture eingegangen ist? <i>Bitte kreuzen Sie alle zutreffenden Felder an</i>	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)	<input type="checkbox"/> Marktvolumen <input type="checkbox"/> Marktwachstum <input type="checkbox"/> Kundensegment(e) <input type="checkbox"/> Marktanteil(e) der Konkurrenz <input type="checkbox"/> Angebotsbreite der Konkurrenz <input type="checkbox"/> Andere Infos: ..... <input type="checkbox"/> Keine Info(s)
17. Im Zielland bearbeitet Ihre Firma mit dem Produkt des genannten Joint Ventures ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....	<input type="checkbox"/> den Gesamtmarkt. <input type="checkbox"/> ein Marktsegment. <input type="checkbox"/> eine Nische, d.h. ein Segment mit speziellen Anforderungen. <input type="checkbox"/> .....
18. Welchen Prozent-Anteil des Gesamtumsatzes erwirtschaftete Ihre Firma durch das genannte Joint Venture?	<input type="checkbox"/> Im ersten Jahr des Joint Ventures: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01, 02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr des Joint Ventures: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01, 02 und 03 .....%	<input type="checkbox"/> Im ersten Jahr des Joint Ventures: .....% <input type="checkbox"/> Im Ø der Jahre 2000, 01, 02 und 03 .....%

Fragebogen zur Internationalisierung von Deutschschweizer KMU's

V. Joint Venture

Auch die folgenden Fragen (9 bis 26) beziehen sich ausschliesslich auf das bei Frage 4 angegebene wichtigste Produkt bzw. die wichtigste Dienstleistung je Zielland.

	Zielland 1	Zielland 2	Zielland 3
19. Welche Kosten (als Prozent-Anteil des Gesamtumsatzes) sind durch das genannte Joint Venture schätzungsweise entstanden?	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....%</li> <li>Im Ø der Jahre 2000, 01, 02 und 03 .....%</li> </ul>	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....%</li> <li>Im Ø der Jahre 2000, 01, 02 und 03 .....%</li> </ul>	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....%</li> <li>Im Ø der Jahre 2000, 01, 02 und 03 .....%</li> </ul>
20. Wie viele Reisen in das Zielland hat das Management Ihrer Firma wegen des Joint Ventures unternommen?	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....Reise(n)</li> <li>In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....Reise(n)</li> <li>In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>	<ul style="list-style-type: none"> <li>Im ersten Jahr des Joint Ventures: .....Reise(n)</li> <li>In den Jahren 2000, 01, 02 und 03 (Σ): .....Reise(n)</li> </ul>
21. Welche Art von Zielen für das genannte Joint Venture hat Ihre Firma definiert? <i>Bitte kreuzen Sie alle zutreffenden Felder an.</i>	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 23.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 23.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....	<input type="checkbox"/> Keine Ziele <i>Weiter mit Frage 23.</i> <input type="checkbox"/> Verkaufsvolumen <input type="checkbox"/> Gewinnvolumen <input type="checkbox"/> Marktanteil <input type="checkbox"/> Andere(s) Ziel(e): .....
22. In Bezug auf das genannte Joint Venture hat Ihre Firma ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.	<input type="checkbox"/> alle Ziele erreicht. <input type="checkbox"/> die Ziele in hohem Masse erreicht. <input type="checkbox"/> die Ziele in weit weniger hohem Masse erreicht, als erwartet. <input type="checkbox"/> die Ziele verfehlt.
23. Die Geschäftsleitung Ihrer Firma ist der Meinung, dass das genannte Joint Venture ... <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.	<input type="checkbox"/> erfolgreich ist. <input type="checkbox"/> noch nicht erfolgreich, aber erfolgversprechend ist. <input type="checkbox"/> nicht erfolgreich ist.
24. Ist das genannte Joint Venture profitabel, d.h. verbleibt nach Abzug aller damit verbundenen Kosten ein Gewinn? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 26.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 26.</i>	<input type="checkbox"/> Ja <input type="checkbox"/> Nein <i>Falls nein, weiter mit Frage 26.</i>
25. Nach wie vielen Jahren stellte sich die Profitabilität des Joint Ventures ein?	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).	<input type="checkbox"/> Sofort <input type="checkbox"/> Nach ..... Jahr(en).
26. Welche Aktivitäten Ihrer Firma sind profitabler – die Inlandaktivitäten oder das Joint Venture? <i>Bitte kreuzen Sie nur je ein Feld an.</i>	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Joint Venture sind gleich profitabel. <input type="checkbox"/> Das Joint Venture ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Joint Venture sind gleich profitabel. <input type="checkbox"/> Das Joint Venture ist profitabler.	<input type="checkbox"/> Die Inlandaktivitäten sind profitabler. <input type="checkbox"/> Inlandaktivitäten und Joint Venture sind gleich profitabel. <input type="checkbox"/> Das Joint Venture ist profitabler.



## VI. Angaben zur Unternehmung und zur Auskunftsperson

- |  |  |
|--|--|
| <p>1. Bitte geben Sie den Namen und die Anschrift Ihrer Firma an:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>2. Die Firma wurde im Jahr ..... gegründet.</p> <p>3. Die Firma beschäftigte im Jahr 2002 Personal im Umfang von.....Vollzeitstellen.</p> <p>4. Die Firma ist in folgender Branche tätig:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>5. Das Angebot der Firma umfasst</p> <p><input type="checkbox"/> ausschliesslich Produkte.</p> <p><input type="checkbox"/> ausschliesslich Dienstleistungen.</p> <p><input type="checkbox"/> Produkte und Dienstleistungen.</p> | <p>6. Bei der Firma handelt es sich um ...</p> <p><input type="checkbox"/> eine selbständige Unternehmung</p> <p><input type="checkbox"/> eine Tochtergesellschaft</p> <p><input type="checkbox"/> .....</p> <p>7. Die Firma hat folgende Rechtsform:</p> <p><input type="checkbox"/> Gesellschaft mit beschränkter Haftung (GmbH)</p> <p><input type="checkbox"/> Aktien-Gesellschaft (AG)</p> <p><input type="checkbox"/> Genossenschaft</p> <p><input type="checkbox"/> .....</p> <p>8. Die Firma erwirtschaftete im Jahr .... einen Gesamt-Umsatz von:</p> <p>im Jahr 2000: .... Mio. CHF</p> <p>im Jahr 2001: .... Mio. CHF</p> <p>im Jahr 2002: .... Mio. CHF</p> <p>im Jahr 2003: .... Mio. CHF</p> <p>9. Ich habe diesen Fragebogen ausgefüllt:</p> <p>Name: .....</p> <p>Funktion: .....</p> <p>Tel.-Nr.: .....</p> <p>E-Mail: .....</p> <p>10. Wir wünschen eine Zusammenfassung der Ergebnisse dieser Studie:</p> <p><input type="checkbox"/> Ja</p> <p><input type="checkbox"/> Nein</p> |
|--|--|

**Besten Dank, dass Sie sich die Zeit und die Mühe genommen haben, den Fragebogen auszufüllen!**

# Semi-Structured Questionnaire of the Qualitative Study

## A. State of internationalization of Swiss SMEs [all forms of internationalization]

1. What proportion of Swiss SMEs (10-249 employees) are internationally active? Please estimate.
  
2. a) What are the most common forms of SME internationalization (export, direct investment, license, joint venture)? Please estimate.  
b) What proportion of SMEs is pursuing each of these forms of internationalization forms? Please estimate.
  
3. Please comment on the following results of the empirical study.

### 1. Empirical Survey

Internationalization of Swiss SMEs	
Internationally Active SME	29.63%
Domestic SMEs	70.37%

### 1<sup>st</sup> Empirical Survey

Internationalization Forms <sup>a</sup>	Percent of SMEs
Exporting	80.36%
Direct Investment	17.86%
License	8.93%
Joint Venture	7.14%

<sup>a</sup> One SME may be active in more than one internationalization form.

### B. Success of Swiss SMEs' internationalization [all forms of internationalization]

1. What proportion of Swiss SMEs is internationally successful? Please estimate.
2. Do you think that any of the SMEs of a particular internationalization form (export, direct investment, license, joint venture) are more successful than the others? If so, which of the internationalization form do you think achieves the highest performance? Why?
3. Please comment on the following results of the empirical study.

		Success indicators					Overall performance
		Subjective		Objective			
		Objective Achievement	Management's Opinion	Absolute Profitability	Intensity	Relative Profitability	
Exporting	Very successful	14.3%	61.2%	95.6%	20.7%	29.8%	32.2%
	Successful	52.0%	30.6%	0.0%	45.6%	32.6%	46.5%
	Unsuccessful	33.6%	8.1%	4.4%	33.6%	37.6%	21.3%
	Number of Cases	223	258	251	241	258	202
Direct Investment	Very successful	19.4%	21.1%	76.3%	10.5%	21.1%	22.6%
	Successful	48.4%	39.5%	0.0%	60.5%	28.9%	45.2%
	Unsuccessful	32.3%	39.5%	23.7%	28.9%	50.0%	32.3%
	Number of Cases	30	38	38	38	38	31
Licensing	Very successful	20.0%	70.0%	100.0%	10.0%	0.0%	10.0%
	Successful	70.0%	20.0%	0.0%	60.0%	50.0%	80.0%
	Unsuccessful	10.0%	10.0%	0.0%	30.0%	50.0%	10.0%
	Number of Cases	10	10	10	10	10	10
Joint Venture	Very successful	20.0%	50.0%	70.0%	10.0%	10.0%	20.0%
	Successful	40.0%	40.0%	0.0%	50.0%	40.0%	40.0%
	Unsuccessful	40.0%	10.0%	30.0%	40.0%	50.0%	40.0%
	Number of Cases	10	10	10	10	10	10
Internationalization	Very successful	15.3%	56.3%	92.6%	18.7%	27.2%	28.9%
	Successful	51.8%	31.6%	0.0%	48.2%	32.9%	46.2%
	Unsuccessful	32.8%	12.0%	7.4%	33.1%	39.9%	24.9%
	Number of Cases	274	316	309	299	316	253

**C. Success factors of Swiss SMEs' exportation [only export]**

1. Which of the company, (exported) product and internationalization policy characteristics do you think have an influence on export performance? Do you think the influence is positive or negative?
2. Please comment on the following results of the analysis of the relationships between the particular company, (exported) product and internationalization policy characteristics and the export performance.

**Company characteristics**

3. The empirical study shows no influence of the company characteristics (such as company's age, size and sector [2<sup>nd</sup> or 3<sup>rd</sup>]) on the internationalization performance of exportation. What do you think of that result? Please comment.
4. Do you think that there are other company characteristics that might have an influence on the internationalization performance of exportation? If so, which ones? Why?

**(Exported) product characteristics**

5. How would you imagine and characterize a typical product of a Swiss SME that is successfully exported? Why?
6. The empirical study shows a negative influence of the service intensity of a product on its export performance. What do you think of that result? Please comment.
7. The empirical study shows a positive influence of technologically intensive and innovative products on the export performance. What do you think of that result? Please comment.
8. The empirical study shows a positive relationship between the products' competitive advantage cost reduction for customers and its export performance. What do you think of that result? Please comment

9. How critical do you think is the quality of a product for its export success? Is it a necessary but not sufficient condition for export success?

#### **Management decisions**

10. The empirical findings show a positive influence of the strategic planning process of on the export performance. What do you think of that result? Please comment.
11. What do you think are the most important elements of the strategic planning process of exportation in SMEs?
12. Do you believe that the “concentration strategy” (i.e. the concentration on a small number of internationalization forms and target markets) is “the successful way” for the exportation of Swiss SMEs?
13. The empirical findings show a positive influence of the management’s commitment (regarding exportation) on the performance. What do you think of that result? Please comment.
14. The empirical findings show a positive influence of the prior market research intensity on the performance? What do you think of that result? Please comment.

#### **International Experience**

15. Do you believe that the longer an SME exports the higher the export performance it achieves?
16. Do you believe that there is a certain “initial phase” of exportation when it might underperform? How long do you think is this period on average?

#### **Target Market Characteristics**

17. What do you think are the most important things to consider when choosing the target market (country) for exportation?

18. Do you think that the cultural difference of the target country has an influence on the export performance? If so, is the influence positive or negative?
19. Do you think that the political stability of the target country has an influence on the export performance? If so, is the influence positive or negative?
20. The empirical study shows a negative influence of the target market's (country) political and economical stability on the export performance. That is: Swiss SMEs achieve a higher export performance in politically and economically instable countries than in stable countries. What do you think of that result? What are possible reasons for this finding? Please comment.
21. What do you think are the most important information about the target market (country)?

**D. Success factors of Swiss SMEs' direct investment [only direct investment]**

1. Which of the company, (abroad manufactured) product and internationalization policy characteristics do you think have an influence on direct investment performance? Do you think the influence is positive or negative?
2. Do you think that the success factors of export and direct investment differ significantly? If so, what are the differences?
3. Please comment on the following results of the analysis of relationships between the particular company, (abroad manufactured) product and internationalization policy characteristics and direct investment performance.

**Company characteristics**

4. The empirical study shows no influence of the company characteristics (such as company's age, size and sector [2<sup>nd</sup> or 3<sup>rd</sup>]) on the internationalization performance of direct investment. What do you think of that result? Please comment.
5. Do you think that there are other company characteristics that might have an influence on the internationalization performance of direct investment? If so, which ones? Why?

**(Foreign manufactured) product characteristics**

6. How would you imagine and characterize a typical SMEs product manufactured abroad successfully? Why?
7. Do you think that the characteristics of the successfully exported and successfully abroad manufactured products of Swiss SME differ significantly? Why? What are the differences?
8. The empirical findings show a positive influence of homogenous customers' needs on the direct investment performance. What do you think of the result? Please comment.

9. How critical do you think is the quality, technological intensity, innovation and price of the abroad manufactured product for the success of the direct investment? Do you think that some of these factors are necessary but not sufficient condition of direct investment?

#### **Management decisions**

10. The empirical findings show a positive influence of the strategic planning process on the direct investment performance? What do you think of the result? Please comment.
11. What do you think are the most important elements of the strategic planning process of SME foreign direct investment?
12. Do you believe that the “concentration strategy” (i.e. concentration of small number of internationalization forms and target markets) is “the successful way” of Swiss SMEs direct investment?
13. The empirical findings show a positive influence of management’s commitment (with regards to direct investment) on the direct investment performance. What do you think of the result? Please comment.
14. The empirical findings show a positive influence of the intensity of the prior market research on the direct investment performance? What do you think of the result? Please comment.

#### **International Experience**

15. Do you believe that the longer foreign direct investment operates the better performance it achieves?
16. Do you believe that there is a certain “initial phase” of direct investment when it might underperform? How long do you think is this period on average?



**Target Market Characteristics**

17. What do you think are the most important things to consider when choosing the target market (country) of foreign direct investment?
18. Do you think that if the target country of direct investment offers a particular resource advantage the direct investment would perform better?
19. Do you think that the cultural difference of the target country has an influence on direct investment performance? If so, is the influence positive or negative?
20. Do you think that the political stability of the target country has an influence on direct investment performance? If so, is the influence positive or negative?
21. What do you think are the most important information about the target market?

## Appendix B

### Test of OLS Assumptions

***The Relationship between Dependent and Independent Variables Is Linear and the Effects of Independent Variables Are Additive.***

Regression analysis is a linear procedure. To the extent nonlinear relationships are present, conventional regression analysis will underestimate the relationship. That is, R-square will underestimate the variance explained overall and the betas will underestimate the importance of the variables involved in the non-linear relationship (Garson, 2002). “Violating of the assumption of linearity implies that the model fails to capture the systematic pattern of relationship between the dependent and independent variables. Nevertheless, the fitted model is frequently a useful approximation even if the regression surface is not precisely captured “ (Fox, 199, p. 54).

However, relationships in the social sciences are almost always inexact. Realistically, the linear relationships between two social science variables without a presence of an 'error' in the equation appears vary rarely (Lewis-Beck, 1990, p.11).

The first test of the linearity of a relationship performed was the visual assessment of the scatterplots of each independent variable with the dependent (Lewis-Beck, 1990, p.13). These display any hints of nonlinearity.

The next nonlinearity test performed is the rule of thumb of assessing the standard deviations. “Generally nonlinearity is not a problem when the standard deviation of the dependent is more than the standard deviation of the residuals” (Garson, 2002). The standard deviations of the dependent and the residuals of each model are displayed in the Table 40 and Table 41. The Table 40 for the regression models with regard to exporting and the Table 41 for the direct investment models. The results show that there might be a problem with nonlinearity in some of the models, such as exporting models M1,M2,M3, M4 and M5 as well as the direct investment Models M1 and M4. That is why further testing was performed. Nevertheless, the exporting overall models M6 and M7 as well as direct investment overall model M5 as the hypothesis testing models do not violate the rule of thumb.

The linearity of the multivariate relationship can be assessed visually with the help of the plot of standardized residuals against standardized estimates of the dependent variable. These plots show nonlinearity and furthermore they distinguish the monotone from the non-monotone nonlinearity. The plot shows a random pattern if the relationship is linear. Non-linearity is proved when points form a curve. (Garson, 2002). The plots of the all estimated models are provided on attached CD-ROM. Except for the company model for export cases, all the plots show no pattern of nonlinearity.

The linearity of the tested relationship and the additivity of the effects of the independent variables<sup>104</sup> are theoretically assumed. Taking into consideration that the “perfect” linearity of the relationships in the social sciences nearly does not exist (Lewis-Beck, 1990, p.11) and assessing the performed test, it is stated that the first assumption of linear regression is not violated by the estimated models, with the exception of exporting model M1, which may violate the assumption.

***Proper Specification of the Model, i.e. All Variables Are Measured at the Interval Level and without Error.***

OLS regression generally requires continuous measurement, although according to Garson (2002) the use of ordinal as well as nominal data is very common in literature. Norusis (2004) states that it is possible to use ordinal categorical variables as predictors in OLS. The decision has to be made if the variable should be treated as a interval predictor, i.e. the scale should be substituted by numbers or as a factor, i.e. treat the variable as a nominal, dummy variable (Norusis, 2004, p.69). Dichotomous nominal variables, transformed into dummy variables are considered to be a special case of intervalness and are allowed in to be used in OLS regression as independents (Garson, 2002). Concerning the independents, the OLS can be applied in order to estimate the model for an ordinal scaled variable as long as it approaches intervalness. Most methodologists allow the use of ordinal independents as long as the number of categories is not very small (Garson, 2002).

The variables used in the estimated models are either metric, ordinal or dichotomous. As the ordinal scaled variables approach the intervalness

---

<sup>104</sup> As the non-additivity of the independent variables is theoretically not assumed and the multivariate model with dummy, interval as well as rationally scaled independent variables is employed, it was decided to forgo the transformation into the dummy variable interactive model or multiplicative model, which can be applied to the non-additive models in order to be able to employ the estimation by OLS (Berry/Feldman, 1985, p .64).

they were treated as interval predictors. The dichotomous outcome was transferred into a dummy variable<sup>105</sup>.

Sometimes specification is phrased as an assumption that "independent variables are measured without error." Furthermore the number of the observation has to exceed the number of independent variables included in the estimation (Backhaus et al, 2000, p. 78)

It is assumed that the variables included in the estimation were measured without error with the help of the developed questionnaire. The number of observations exceeds the number of independent variables in each of the models. Consequently it is stated that the second assumption of linear regression is not violated by the estimated models.

### ***The Error Term Has a Normal Distribution with a Mean of Zero***

"The third assumption of OLS states that the mean of the error term is zero. This should be of concern only when the analyst is interested in the precise value of the intercept. If this assumption is violated, then the intercept is the only coefficient of the regression model that is affected." (Berry/Feldman, 1985,p.11, Backhaus et al, 2000, p.83).

The central limit theorem assumes that even when error is not normally distributed when sample size is large, the sampling distribution of the b coefficient will still be normal. Therefore violations of this assumption usually have little or no impact on substantive conclusions for large samples (Garson, 2002).

According to Berry and Feldman, it is quite fortunate that regression analysis is quite robust against violations of normality, because it is often very difficult to defend this assumption in practice (Berry/Feldman, 1985, p. 11).

The first test of the normality assumption is the visual assessment of the histogram of standardized residuals, which should show a roughly normal curve. The histograms of the estimated models are provided on attached CD-ROM. All follow the normality curve sufficiently.

Further graphical analysis of normality, which is more reliable than the histogram, especially in cases of smaller samples, is the normal probability plot, which compares the cumulative distribution of actual data values with

---

<sup>105</sup> The dummy variable is a special case of an interval scale variable often used in OLS models. Typically, these are the variables with yes/no outcomes, transferred into 1 = yes and 0 = no.

the cumulative distribution of the predicted values. The normal distribution forms a straight diagonal line, if the distribution is normal the actual data distribution closely follows this line (Hair J.F. et al., 1998, p.71). The plots of expected cumulative probabilities by the observed cumulative probabilities of the estimated models are provided on attached CD-ROM. All follow the 45- degree line sufficiently.

An alternative test of normality is the plot of residuals by the predicted values shown. The non-normality is shown when points are not equally distributed above and below the Y axis 0 line (Garson, 2002). Also this test proves the normal distribution of the error term by all the models.

The mean of the error term of each estimated model is provided in Table 40 and Table 41 for export and direct investment models respectively. Even if two models (exporting and direct investment company models M1) do not fulfill the assumption of the mean of error term exactly by zero, they approach the zero point. The other models' error terms mean is 0.

All the tests indicated that the normality assumption is not violated by nearly any of the estimated models. Even if the error term does not always have a mean of zero and the company model for exporting as well as direct investment might violate the assumption of normality, it was stated above that the OLS is quite robust and the main effect of the violation is on the estimation of the intercept, which is not the main interest of the investigation.

### ***Homoscedasticity, i.e. the Variance of the Error Term Is Constant Across Cases***

Homoscedasticity is an assumption of (more or less) constant variance of the prediction errors over the values of X (Lewis/Beck, 1990, p.28). It means that the residuals are dispersed randomly throughout the range of the estimated dependent variable (Garson, 2002). An error term with non-constant variance is said to be heteroscedastic.

When the homoscedasticity assumption is violated then the computed confidence intervals and conventional t-tests for OLS estimators can no longer be justified (Berry, 1993, p. 81). However, moderate violations of homoscedasticity have only a minor impact on regression estimates (Fox, 2005, p. 516).

The test of homoscedasticity is based on the visual assessment of the plot of residuals by the predicted values. If there is any relation observed between the residuals and predicted values, then the model is

heteroscedastic and violates one of the most important assumptions of OLS. The plots of residuals by predicted values are provided on attached CD-ROM.

No systematic increase or decrease of the residuals in relation with the performance was identified in any of the plots of the estimated models. Almost all the points lie within the interval of plus and minus two standard deviations. The plots of the direct investment models particularly correspond with the plots typical for the homoscedastic models of smaller samples (Berry/Feldman, 1985, p. 80). Consequently the models are considered homoscedastic and as such do not violate the fourth assumption of OLS.

### ***The Error Term is Independent of the Variables in the Model***

This means that the population error is uncorrelated with each of the independents. The simplest test for the violation of the assumption of error term independence is the evaluation of the error term as a collection of excluded explanatory variables and the correlation of each of them with each independent variable (Lewis-Beck, 1990, p.29). This is a critical regression assumption which, when violated, may lead to substantive misinterpretation of output.

Bivariate correlations of the error term and each of the predicting variables of each of the estimated models is provided on attached CD-ROM. None of the correlations is significant, which means that the error terms are independent of the variables in the model and the fifth assumption of OLS was not violated by any of the estimated models.

### ***No Auto-Correlation, i.e. the Values of the Error Term Are Not Correlated with Each Other***

The assumption of autocorrelation means that an error corresponding to an observation is not correlated with any of the errors of the other observations. The violation of the no auto-correlation assumption leaves the parameter estimates unbiased, however it might lead to invalid significance tests and confidence intervals (Lewis-Beck, 1990, p.28). Positive auto-correlation might cause too small standard errors of the b coefficients, which can lead to an overestimation of the relationship. Negative auto-correlation means that the standard errors are too large (Garson, 2002).

The auto-correlation is typically a problem of time series data, with regard to a cross-sectional survey, it is not considered to be a problem. Despite

the cross-sectional character of the current current survey, the auto-correlation test was not left out, as there is a risk of violating the autocorrelation assumption because more than one observation could come from the same company. This may also lead to auto-correlation.

Autocorrelation was tested with the help of the Durbin-Watson coefficient (d). Its value ranges from 0 to 4. Values close to 0 indicate extreme positive auto-correlation; close to 4 indicates extreme negative auto-correlation; and close to 2 indicates no serial auto-correlation. As a rule of thumb, d should be between 1.5 and 2.5 to indicate the independence of the observations (Garson, 2002). The values of the Durbin-Watson coefficient for each of the estimated models are given in Table 40 and Table 41. Generally the rule of thumb can be applied, none of the models shows extreme positive nor negative auto-correlation. However the company for exporting appear to have a slight positive auto-correlation.

A visual assessment of the plot was performed in order to investigate the auto-correlation further. According to Backhaus the auto-correlation can easily be observed on the plot of residuals by the predicted values. In the case of a positive auto-correlation the residua would lie closely next to each other. In case of a negative auto-correlation the residua would fluctuate (Backhaus et al, 2000, p. 88).

The plots of residuals by the predicted values are provided on attached CR-ROM. None of these patterns can be observed in the models with the exception of the company model for exporting. This means that, with the exception of the company model, the sixth assumption was not violated.

The violation of the auto-correlation assumption in case of the exporting company model M1, which seems to be positively autocorrelated, means that the significant relationship is over-estimated.

### ***No Perfect Multi-Collinearity, i.e. the Independent Variables Are Independent of Each Other***

Perfect multicollinearity exists when one of the independent variables in a regression equation is perfectly linearly related to one or more of the other independent variables. A less extreme case of multicollinearity occurs when the dependent variables in a regression equation are inter-correlated, but not perfectly (Berry/Feldman, 1985,p.37).

The consequences of multi-collinearity can be described as follows: the higher the inter-correlation among the independent variables the higher the standard errors of the coefficient estimators. As such multi-collinearity has

a major effect on the significance tests and confidence intervals of regression coefficients. When independent variables are highly correlated it is impossible to separate the effect of one of them (Berry/Feldman, 1985,p.40-41). When there is perfect multi-collinearity, there is no unique regression solution. (Garson, 2002).

The most common test of multi-collinearity is the inspection of the bivariate correlations of the independent variables. If the correlation values exceed the commonly used predefined cutoff value of 0.8, it is concluded that the problem of multi-collinearity appears. However it is necessary to point out that the test of the bivariate correlations is not satisfactory because the independent variable might be approximately a linear combination of several other independent variables in the model. Thus, the most reasonable test of multi-collinearity is the estimation of a regression model for each of the independent variables by all the other independent variables. The  $R^2$ s of the regressions indicate multi-collinearity. If these are close to 1.00 there is a high degree of multi-collinearity (Berry/Feldman, 1985,p. 43).

However the difficulty of this test lies in the definition of the cutoff value of the  $R^2$ s indicating multi-collinearity. As the authors avoid providing such values, the commonly used cutoff  $R$  of 0.8 by bivariate correlation, can also be applied to the  $R^2$ , which would result in a cutoff of 0.64, indicating multi-collinearity.

Regression models for each of the independent variables by all the other independent variables were evaluated. The Table 40 and Table 41 presents the  $R^2$  for each independent variable in each of the models.

Alternative indicators in order to detect multi-collinearity is the variance inflation factor (VIF) and tolerance (T). Both of them indicate the portion of the variance in a given predictor that cannot be explained by the other predictors. Tolerances close to 0 indicate high multi-collinearity and as a consequence the standard error of the regression coefficients will be inflated.

The rule of thumb for tolerance is  $> 0.20$  and  $VIF < 4$  suggest no multicollinearity (Garson, 2002). However other sources state that already VIF greater than 2 can be considered as problematic (SPSS).

The Table 40 and Table 41 show that all the estimated models show a very high tolerance and the VIF around 1. This means that only around 10% of the variable variances can be explained by the other variables.



Consequently, according to these indicators there is no problem with multi-collinearity in the estimated models.

By the data evaluation a backwards regression analysis was applied. By backwards regression analysis the statistical software eliminates the variables in steps out of the regression models. This procedure leads to the final, best model including the most relevant variables. All the assumption tests were performed on the final models with the exception of multi-collinearity. As the elimination of the variables automatically reduces the possible problem of multi-collinearity, the assumption was tested for all the variables in all the models. The maximum and the minimum values of the VIF and tolerance respectively are provided in the Table 40 and Table 41.

The only problem with multi-collinearity appears in export management decisions and direct investment product models. The results show that the variables 'definition of target market segment' ( $R^2=0.66$ ) and 'amount of information' ( $R^2 = 0.66$ ) of management decisions model slightly exceed the cutoff. These two variables are inter-correlated and it might not be possible to identify the individual effects of each of them. It is obvious that the variables 'choice of industry segment' and 'amount of information categories about the target market' are inter-correlated. This means that the regression model is not able to separate the effects of each of them. The first variable is eliminated in the first step of the backward regression whereas the second variable stays highly significant in the final model. However, the VIF and T do not indicate a multicollinearity problem of the estimated model.

The multi-collinearity problem also appears in the direct investment product model. Regression estimates of all the independent variables were performed. The variable, 'competitive advantage innovation,' having the highest value of  $R^2 = 0.749$ , exceeds the threshold significantly. The  $R^2$  of the other two variables are only slightly over the threshold of 0.64. These are: 'technological intensity' ( $R^2 = 0.669$ ) and 'level of standardization of production' ( $R^2 = 0.665$ ). Thanks to the multi-collinearity in the model the VIF and tolerance also exceed their thresholds in the initial models. The product model was run also without the variables with the high  $R^2$ . However the results are robust and stay the same.

## **8. Outliers**

To check for influential points a scatterplot of Cook's Distance by Centered Leverage Value was created. The cases with high degree of leverage and high influence can be identified as outliers in the figure. The

high leverage gives them extra weight in the computation of the regression line, and the high influence indicates that they did affect the slope of the regression line.

Cook's distance (D) is a measure of the influence of an individual case. Cook's distance measures the effect of deleting a given observation. Observations with larger D values than the rest of the data are those which have unusual leverage. Fox (1991, p.34) suggests as a cut-off for detecting influential cases, values of D greater than  $4/(n - k - 1)$ , where n is the number of cases and k is the number of independents. Others suggest  $D > 1$  as the criterion to constitute a strong indication of an outliers problem, with  $D > 4/n$  the criterion to indicate a possible problem (Garson, 2002).

In order to assess the existence and effect of outliers, the case wise diagnostics performed and the Cook's distance was calculated. Furthermore, the scatterplot of Cook's distance by Centered leverage value was visually evaluated. The outliers identified by the casewise diagnostics<sup>106</sup> as well as the observations with the value of Cook's distance over 1 were examined in detail. Table 40 and Table 41 provide the maximum values of Cook's distance in each model. The outliers problem was recognized in the company and the overall exporting models. In the case of the company model there were three outlines and in the case of the overall model one outlying observation with a strong influence on the regression function were identified. All of them were examined in detail and no signs of irrelevance were found. It was decided to leave the observations in the estimation as there was no reason for eliminating them. These observation were representatives of the rare group of service companies in the data set.

From the above discussion of the OLS assumption test and the results provided in tables, it is evident that any substantial violation of the OLS assumptions was identified by the estimated models. Furthermore, the overall models relevant for the hypothesis testing within this thesis do not violate any of the OLS assumption at all.

---

<sup>106</sup> It mean these with the outliers outside the interval of three standard deviations.

Model assumptions	Assumption tests	Company variables model M1	Product variables model M2	Management decisions model M3	Management decisions model M4	Target market characteristics M5	Overall model M6	Overall model M7
1. Linearity	Standard deviation	Predicted value: 0.429 Residual: 2.046	Predicted value: 1.064 Residual: 1.789	Predicted value: 1.010 Residual: 1.710	Predicted value: 1.146 Residual: 1.707	Predicted value: 0.046 Residual: 2.030	Predicted value: 1.459 Residual: 1.440	Predicted value: 1.486 Residual: 1.421
	Plot: residuals by predicted values	Describes a curve	Orthogonal	Orthogonal	Orthogonal	Orthogonal	Orthogonal	Orthogonal
	Additivity	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed
2. Model specification	Variables' level of measurement	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error
3. Normal distribution of error terms with a mean of zero	Histogram: normal distribution of error terms	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve
	Plot: expected cumulative probabilities by observed cumulative probabilities	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line
	Plot: residuals by predicted values	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line
	Mean of error terms	0.116	0	0	0	0	0	0
4. Homoskedasticity	Plot: residuals by predicted values	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity
5. Error terms' independence from the variables in the model	Correlations: error terms with each independent variable	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model
6. Autocorrelation	Durbin-Watson coeff.	1.5	1.5	1.75	1.78	1.57	1.8	1.8
	Plot: residuals by predicted values	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation
7. No perfect multicollinearity	Regression model: each independent variable estimated by all the other independent variables	No multicollinearity	No multicollinearity	R <sup>2</sup> choice of industry segment: 0.66 R <sup>2</sup> number of informations: 0.66	No multicollinearity	No multicollinearity	No multicollinearity	No multicollinearity
	VIF	Max. VIF: 1.3	Max. VIF: 1.2	Max. VIF: 1.3	Max. VIF: 1.3	Max. VIF: 1.402	Max. VIF: 1.5	Max. VIF: 1.5
	Tolerance	Min. T: 0.7	Min. T: 0.7	Min. T: 0.7	Min. T: 0.75	Min. T: 0.98	Min. T: 0.65	Min. T: 0.65
8. Outliers	Distance	Max.: 1.618	Max.: 0.055	Max.: 0.075	Max.: 0.073	Max.: 0.143	Max.: 0.060	Max.: 0.051
	Plot of cook's distance by centered leverage value	Three outliers identified and investigated, no reason for elimination	No outliers identified	No outliers identified	No outliers identified	No outliers identified	One outlier identified and investigated, no reason for elimination	One outlier identified and investigated, no reason for elimination

Table 40: Exporting Models OLS Assumption Tests

Model assumptions	Assumption tests	Company char. model M1	Product char. model M2	Management decisions model M3	Target market char. model M4	Overall model M5
1. Linearity	Standard deviation	Predicted value: 1.759 Residual: 2.87	Predicted value: 2.31 Residual: 1.49	Predicted value: 2.05 Residual: 1.15	Predicted value: 1.87 Residual: 2.00	Predicted value: 2.29 Residual: 1.09
	Plot: residuals by predicted values	Orthogonal	Orthogonal	Orthogonal	Orthogonal	Orthogonal
	Additivity	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed	Theoretically assumed
2. Model specification	Variables' level of measurement	All variables are measured at interval level and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error	The variables are measured on interval level (some dummy variables are included) and without error
3. Normal distribution of error terms with a mean of zero	Histogram: normal distribution of error terms	The histogram is not acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve	The histogram is acceptably close to the normal curve
	Plot: expected cumulative probabilities by observed cumulative probabilities	The plot describes an S-curve around the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line	The plot is acceptably close to the 45-degree straight line
	Plot: residuals by predicted values	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line	Equal distribution above and below the Y zero line
	Mean of error terms	0.46	0	0	0	0
4. Homoskedasticity	Plot: residuals by predicted values	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity	Plot proves the model's homoskedasticity
5. Error terms' independence from the variables in the model	Correlations: error terms with each independent variable	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model	Error terms are independent of the variables in the model
6. Autocorrelation	Durbin-Watson coeff.	1.3	1.5	2.0	1.7	2.0
	Plot: residuals by predicted values	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation	No sign of autocorrelation
7. No perfect multicollinearity	Regression model: each independent variable estimated by all the other independent variables	No multicollinearity	R <sup>2</sup> competitive advantage innovation: 0.749 R <sup>2</sup> technological intensity: 0.669 R <sup>2</sup> level of standardization of production: 0.665	No multicollinearity	No multicollinearity	No multicollinearity
	VIF	Max. VIF: 1.1	Max. VIF: 9	Max. VIF: 1.8	Max. VIF: 1.1	Max. VIF: 3.4
	Tolerance	Min. T: 0.9	Min. T: 0.1	Min. T: 0.5	Min. T: 0.9	Min. T: 0.4
8. Outliers	Distance	Min.: 0.000 ; Max.: 1.316	Min.: 0.000 ; Max.: 0.688	Min.: 0.000 ; Max.: 0.223	Min.: 0.000 ; Max.: 0.332	Min.: 0.000 ; Max.: 0.432
	Plot of cook's distance by centered leverage value	One outlier identified and investigated, no reason for elimination	No outliers identified	No outliers identified	No outliers identified	No outliers identified

Table 41: Direct Investment Models OLS Assumption Tests

## Appendix C

### Descriptive Statistics of the Sample of Internationalized and Domestic Swiss SMEs

Internationally active SMEs		Age	Size Employees	Size Average Turnover
N	Valid	52	52	41
	Missing	4	4	15
Mean		49.04	81.02	20.5764
Median		45.00	52.50	9.0000
Std. Deviation		32.591	69.608	27.66784
Variance		1'062.195	4'845.235	765.510
Std. Error of Skewness		0.330	0.330	0.369
Std. Error of Kurtosis		0.650	0.650	0.724
Range		125	239	113.67
Minimum		6	10	1.67
Maximum		131	249	115.33
Percentiles	25	24.00	25.25	3.6000
	50	45.00	52.50	9.0000
	75	62.50	122.50	23.6667
Skewness		1.015	1.184	2.238
Kurtosis		0.457	0.510	4.578

Descriptive Statistic - Internationalized SMEs

Domestic SMEs		Age	Size Employees	Size Average Turnover
N	Valid	110	124	82
	Missing	23	9	51
Mean		44.72	48.96	17.0843
Median		35.00	25.00	4.6333
Std. Deviation		37.930	58.846	32.30421
Variance		1'438.681	3'462.837	1'043.562
Std. Error of Skewness		0.230	0.217	0.266
Std. Error of Kurtosis		0.457	0.431	0.526
Range		209	235	187.50
Minimum		3	10	0.00
Maximum		212	245	187.50
Percentiles	25	15.00	15.00	2.3042
	50	35.00	25.00	4.6333
	75	59.25	49.25	19.5000
Skewness		1.501	2.076	3.590
Kurtosis		2.913	3.416	14.109

Descriptive Statistics - Domestic SMEs

## Appendix D

### Internationalization Performance: Number of Cases per Success Category

		Success Indicators					Overall Performance
		Subjective		Objective			
		Objective Achievement	Management's Opinion	Absolute Profitability	Intensity	Relative Profitability	
Export	Very Successful	32	158	240	50	77	65
	Successful	116	79		110	84	94
	Unsuccessful	75	21	11	81	97	43
	Total	223	258	251	241	258	202
Direct Investment	Very Successful	6	8	29	4	8	7
	Successful	15	15		23	11	14
	Unsuccessful	10	15	9	11	19	10
	Total	31	38	38	38	38	31
License	Very Successful	2	7	10	1	0	0
	Successful	7	2		6	5	5
	Unsuccessful	1	1	0	3	5	5
	Total	10	10	10	10	10	10
Joint Venture	Very Successful	2	5	7	1	1	1
	Successful	4	4		5	4	4
	Unsuccessful	4	1	3	4	5	5
	Total	10	10	10	10	10	10
Internationalization	Very Successful	42	178	286	56	86	73
	Successful	142	100	0	144	104	117
	Unsuccessful	90	38	23	99	126	63
	Total	274	316	309	299	316	253

## Internationalization Performance: Questionnaire Categories

	Subjective Success Indicators				Objective success indicators					
	Objective Achievement		Management's Opinion		Absolute Profitability		Intensity		Relative Profitability	
Export	All of the objectives achieved	32	Successful	158	Profitable	240	Share of turnover <= 30%	50	More profitable than domestic	77
	Large proportion of the objectives achieved	116	Developing promisingly	79					Same profitability as domestic	84
	Small proportion of the objectives achieved	72					Share of turnover <10%; 30%)	110		
	Non of the objectives achieved	3	Unsuccessful	21	Not profitable	11	Share of turnover >10%	81	Less profitable than domestic	97
	total	223	total	258	total	251	total	241	total	258
Direct Investment	All of the objectives achieved	6	Successful	8	Profitable	29	Share of turnover <= 30%	4	More profitable than domestic	8
	Large proportion of the objectives achieved	15	Developing promisingly	15					Same profitability as domestic	11
	Small proportion of the objectives achieved	5					Share of turnover <10%; 30%)	23		
	Non of the objectives achieved	5	Unsuccessful	15	Not profitable	9	Share of turnover >10%	11	Less profitable than domestic	19
	total	31	total	38	total	38	total	38	total	38
License	All of the objectives achieved	2	Successful	7	Profitable	10	Share of turnover <= 6%	1	More profitable than domestic	0
	Large proportion of the objectives achieved	7	Developing promisingly	2					Same profitability as domestic	5
	Small proportion of the objectives achieved	1					Share of turnover <2%; 6%)	6		
	Non of the objectives achieved	0	Unsuccessful	1	Not profitable	0	Share of turnover >2%	3	Less profitable than domestic	5
	total	10	total	10	total	10	total	10	total	10
Joint Venture	All of the objectives achieved	2	Successful	5	Profitable	7	Share of turnover <= 30%	1	More profitable than domestic	1
	Large proportion of the objectives achieved	4	Developing promisingly	4					Same profitability as domestic	4
	Small proportion of the objectives achieved	2					Share of turnover <10%; 30%)	5		
	Non of the objectives achieved	2	Unsuccessful	1	Not profitable	3	Share of turnover >10%	4	Less profitable than domestic	5
	total	10	total	10	total	10	total	10	total	10

## Appendix E

### Exporting: Bivariate Relationships - Correlations Kendall's tau b

Kendall's tau_b		Performance	ObjAchievement	MngSatisfaction	Profitability	Intensity	RelativeProfitability
Performance	Cor. Coef.	1.000	0.584	0.568	0.681	0.489	0.288
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	202	202	202	202	202	202
Age	Cor. Coef.	-0.023	0.042	0.081	-0.029	-0.070	-0.063
	Sig. (2-tailed)	0.691	0.480	0.153	0.600	0.214	0.282
	N	159	175	206	206	192	200
Size	Cor. Coef.	-0.020	0.032	0.056	-0.033	-0.096	-0.084
	Sig. (2-tailed)	0.731	0.599	0.323	0.542	0.091	0.155
	N	159	175	206	206	192	200
Produkt	Cor. Coef.	0.046	0.014	0.048	0.023	0.194	-0.040
	Sig. (2-tailed)	0.463	0.829	0.435	0.695	0.002	0.533
	N	198	219	253	253	237	246
Service	Cor. Coef.	-0.088	-0.070	-0.067	-0.026	-0.108	-0.283
	Sig. (2-tailed)	0.160	0.282	0.275	0.661	0.081	0.000
	N	198	219	253	253	237	246
TurnAver	Cor. Coef.	0.098	0.065	0.048	0.034	-0.011	-0.035
	Sig. (2-tailed)	0.171	0.378	0.471	0.604	0.873	0.616
	N	105	118	144	144	133	139
Aftersal	Cor. Coef.	-0.211	-0.177	-0.121	-0.163	-0.107	-0.044
	Sig. (2-tailed)	0.001	0.006	0.045	0.006	0.081	0.482
	N	202	224	258	258	241	251
Standar	Cor. Coef.	-0.001	0.052	0.066	-0.034	0.009	0.034
	Sig. (2-tailed)	0.980	0.376	0.236	0.526	0.870	0.555
	N	202	224	257	257	240	250
techn_K_H	Cor. Coef.	0.305	0.288	0.193	0.252	0.241	0.052
	Sig. (2-tailed)	0.000	0.000	0.001	0.000	0.000	0.384
	N	202	224	258	258	241	251
CustNeed	Cor. Coef.	-0.006	0.003	0.072	-0.024	0.000	-0.085
	Sig. (2-tailed)	0.916	0.963	0.202	0.662	0.995	0.150
	N	202	224	258	258	241	251
P_Price	Cor. Coef.	-0.078	0.172	-0.202	-0.072	-0.164	0.046
	Sig. (2-tailed)	0.208	0.007	0.001	0.224	0.008	0.470
	N	202	224	258	258	241	251
P_Mark	Cor. Coef.	0.075	-0.037	0.209	0.170	0.018	0.043
	Sig. (2-tailed)	0.223	0.568	0.001	0.004	0.770	0.499
	N	202	224	258	258	241	251
P_Qualit	Cor. Coef.	0.065	0.015	0.301	-0.016	-0.059	0.100
	Sig. (2-tailed)	0.291	0.820	0.000	0.785	0.332	0.115
	N	202	224	258	258	241	251
P_CustSe	Cor. Coef.	-0.020	-0.029	0.012	-0.082	-0.028	0.137
	Sig. (2-tailed)	0.752	0.649	0.848	0.162	0.648	0.030
	N	202	224	258	258	241	251
P_DelCon	Cor. Coef.	-0.120	-0.155	-0.215	-0.197	-0.063	0.076
	Sig. (2-tailed)	0.053	0.016	0.000	0.001	0.306	0.227
	N	202	224	258	258	241	251
P_Innov	Cor. Coef.	0.287	0.230	0.253	0.216	0.186	0.025
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.002	0.687
	N	202	224	258	258	241	251
P_CostRe	Cor. Coef.	-0.055	0.196	-0.056	-0.061	0.063	0.019
	Sig. (2-tailed)	0.376	0.002	0.354	0.297	0.302	0.760
	N	202	224	258	258	241	251
N_Form	Cor. Coef.	-0.058	-0.010	-0.081	-0.080	-0.004	0.029
	Sig. (2-tailed)	0.327	0.867	0.169	0.159	0.942	0.632
	N	202	224	258	258	241	251
N_LandEx	Cor. Coef.	0.270	0.221	0.162	0.223	0.265	0.130
	Sig. (2-tailed)	0.000	0.000	0.001	0.000	0.000	0.014
	N	202	224	258	258	241	251
LandSt	Cor. Coef.	-0.158	-0.073	-0.106	-0.040	-0.079	0.017
	Sig. (2-tailed)	0.007	0.231	0.065	0.474	0.172	0.777
	N	202	224	258	258	241	251



Kendall's tau_b		Performance	ObjAchievement	MngSatisfaction	Profitability	Intensity	RelativeProfitability
LandCDif	Cor. Coef.	0.068	0.025	0.030	0.097	-0.003	0.055
	Sig. (2-tailed)	0.200	0.655	0.567	0.056	0.953	0.311
	N	202	224	258	258	241	251
N_Yinter	Cor. Coef.	-0.060	0.023	0.061	0.043	-0.065	-0.062
	Sig. (2-tailed)	0.280	0.685	0.256	0.404	0.235	0.271
	N	178	200	234	234	217	227
StratY_N	Cor. Coef.	0.154	0.060	0.280	0.197	0.211	0.072
	Sig. (2-tailed)	0.013	0.353	0.000	0.001	0.001	0.253
	N	202	224	258	258	241	251
N_info	Cor. Coef.	0.238	0.162	0.293	0.219	0.268	0.071
	Sig. (2-tailed)	0.000	0.004	0.000	0.000	0.000	0.206
	N	202	224	258	258	241	251
MaSegY_N	Cor. Coef.	0.245	0.183	0.296	0.206	0.319	0.038
	Sig. (2-tailed)	0.000	0.004	0.000	0.000	0.000	0.553
	N	202	224	258	258	241	251
N_1.Yjou	Cor. Coef.	0.152	0.131	0.136	0.104	0.229	0.122
	Sig. (2-tailed)	0.007	0.024	0.012	0.049	0.000	0.032
	N	180	198	232	232	216	225
Objectives defined	Cor. Coef.			0.141	0.162	0.268	0.019
	Sig. (2-tailed)			0.020	0.006	0.000	0.765
	N	202	224	258	258	241	251

## Exporting: Company Model M1

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.305 <sup>a</sup>	.093	.047	2.06142	.093	2.025	5	99	.082	1.527
2	.305 <sup>b</sup>	.093	.056	2.05112	.000	.003	1	99	.957	
3	.303 <sup>c</sup>	.092	.065	2.04191	-.001	.096	1	100	.758	
4	.295 <sup>d</sup>	.087	.069	2.03724	-.005	.534	1	101	.467	
5	.277 <sup>e</sup>	.077	.068	2.03858	-.010	1.136	1	102	.289	

a. Predictors: (Constant), TurnAver, Age, Service, Produkt, Size

b. Predictors: (Constant), Age, Service, Produkt, Size

c. Predictors: (Constant), Age, Service, Produkt

d. Predictors: (Constant), Age, Service

e. Predictors: (Constant), Service

f. Dependent Variable: Performance

ANOVA<sup>f</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.018	5	8.604	2.025	.082 <sup>a</sup>
	Residual	420.696	99	4.249		
	Total	463.714	104			
2	Regression	43.006	4	10.752	2.556	.043 <sup>b</sup>
	Residual	420.708	100	4.207		
	Total	463.714	104			
3	Regression	42.603	3	14.201	3.406	.021 <sup>c</sup>
	Residual	421.111	101	4.169		
	Total	463.714	104			
4	Regression	40.378	2	20.189	4.864	.010 <sup>d</sup>
	Residual	423.336	102	4.150		
	Total	463.714	104			
5	Regression	35.665	1	35.665	8.582	.004 <sup>e</sup>
	Residual	428.050	103	4.156		
	Total	463.714	104			

a. Predictors: (Constant), TurnAver, Age, Service, Produkt, Size

b. Predictors: (Constant), Age, Service, Produkt, Size

c. Predictors: (Constant), Age, Service, Produkt

d. Predictors: (Constant), Age, Service

e. Predictors: (Constant), Service

f. Dependent Variable: Performance

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	7.076	.487		14.530	.000		
Age	-.004	.005	-.084	-.836	.405	.899	1.113
Size	-.001	.005	-.028	-.247	.806	.735	1.360
Produkt	-.321	.429	-.076	-.749	.455	.894	1.118
Service	-3.436	1.104	-.313	-3.112	.002	.906	1.104
TurnAver	-.001	.012	-.006	-.054	.957	.744	1.343
2 (Constant)	7.069	.465		15.192	.000		
Age	-.004	.005	-.084	-.839	.404	.907	1.103
Size	-.001	.004	-.030	-.309	.758	.942	1.062
Produkt	-.318	.422	-.075	-.753	.453	.913	1.095
Service	-3.428	1.089	-.312	-3.146	.002	.921	1.086
3 (Constant)	7.000	.408		17.169	.000		
Age	-.005	.005	-.090	-.922	.359	.943	1.060
Produkt	-.306	.418	-.072	-.731	.467	.921	1.086
Service	-3.389	1.077	-.309	-3.146	.002	.934	1.071
4 (Constant)	6.860	.359		19.134	.000		
Age	-.005	.005	-.102	-1.066	.289	.972	1.029
Service	-3.233	1.054	-.295	-3.069	.003	.972	1.029
5 (Constant)	6.545	.203		32.264	.000		
Service	-3.045	1.039	-.277	-2.929	.004	1.000	1.000

a. Dependent Variable: Performance

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.5000	6.5446	6.4830	.42943	198
Std. Predicted Value	-5.001	.198	.093	.733	198
Standard Error of Predicted Value	.203	1.019	.219	.115	198
Adjusted Predicted Value	1.6667	6.5900	6.4830	.46556	198
Residual	-5.54455	5.50000	-.23557	2.04553	198
Std. Residual	-2.720	2.698	-.116	1.003	198
Stud. Residual	-2.706	3.115	-.115	1.015	198
Deleted Residual	-5.54455	7.33333	-.23557	2.10881	198
Stud. Deleted Residual	-2.706	3.257	-.116	1.021	198
Mahal. Distance	.039	25.010	.543	3.522	198
Cook's Distance	.000	1.618	.020	.132	198
Centered Leverage Value	.000	.240	.005	.034	198

a. Dependent Variable: Performance

## Exporting: Alternative Company Model - Model Excluding the Service Cases

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.138 <sup>a</sup>	.019	-.022	1.94722	.019	.465	4	96	.761
2	.138 <sup>b</sup>	.019	-.011	1.93720	.000	.004	1	96	.947
3	.134 <sup>c</sup>	.018	-.002	1.92837	-.001	.109	1	97	.742
4	.108 <sup>d</sup>	.012	.002	1.92457	-.006	.610	1	98	.437
5	.000 <sup>e</sup>	.000	.000	1.92626	-.012	1.176	1	99	.281

a. Predictors: (Constant), PandS, Size, Age, TurnAver

b. Predictors: (Constant), PandS, Size, Age

c. Predictors: (Constant), PandS, Age

d. Predictors: (Constant), Age

e. Predictor: (constant)

ANOVA<sup>f</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.050	4	1.763	.465	.761 <sup>a</sup>
	Residual	363.999	96	3.792		
	Total	371.050	100			
2	Regression	7.033	3	2.344	.625	.601 <sup>b</sup>
	Residual	364.016	97	3.753		
	Total	371.050	100			
3	Regression	6.624	2	3.312	.891	.414 <sup>c</sup>
	Residual	364.425	98	3.719		
	Total	371.050	100			
4	Regression	4.356	1	4.356	1.176	.281 <sup>d</sup>
	Residual	366.694	99	3.704		
	Total	371.050	100			
5	Regression	.000	0	.000	.	.e
	Residual	371.050	100	3.710		
	Total	371.050	100			

a. Predictors: (Constant), PandS, Size, Age, TurnAver

b. Predictors: (Constant), PandS, Size, Age

c. Predictors: (Constant), PandS, Age

d. Predictors: (Constant), Age

e. Predictor: (constant)

f. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.742	.446		15.130	.000		
	Age	-.004	.005	-.089	-.843	.402	.925	1.081
	Size	-.001	.005	-.030	-.259	.796	.748	1.337
	TurnAver	-.001	.012	-.008	-.067	.947	.758	1.319
	PandS	.325	.405	.084	.802	.425	.942	1.061
2	(Constant)	6.738	.438		15.390	.000		
	Age	-.004	.005	-.088	-.844	.401	.933	1.072
	Size	-.001	.004	-.034	-.330	.742	.958	1.044
	PandS	.321	.399	.083	.805	.423	.962	1.040
3	(Constant)	6.681	.401		16.658	.000		
	Age	-.005	.005	-.095	-.932	.354	.970	1.031
	PandS	.309	.395	.079	.781	.437	.970	1.031
4	(Constant)	6.848	.339		20.202	.000		
	Age	-.005	.005	-.108	-1.084	.281	1.000	1.000
5	(Constant)	6.545	.192		34.145	.000		

a. Dependent Variable: Performance

## Exporting: Product Model M2

Model Summary<sup>j</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.531 <sup>a</sup>	.282	.240	1.81508	.282	6.779	11	190	.000	1.451
2	.530 <sup>b</sup>	.281	.244	1.81108	-.001	.158	1	190	.691	
3	.528 <sup>c</sup>	.279	.245	1.80904	-.002	.569	1	191	.452	
4	.526 <sup>d</sup>	.276	.246	1.80786	-.003	.749	1	192	.388	
5	.524 <sup>e</sup>	.275	.249	1.80515	-.002	.417	1	193	.519	
6	.519 <sup>f</sup>	.269	.247	1.80718	-.005	1.440	1	194	.232	
7	.515 <sup>g</sup>	.265	.246	1.80772	-.004	1.118	1	195	.292	
8	.511 <sup>h</sup>	.261	.246	1.80831	-.004	1.129	1	196	.289	

a. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, P\_Qualit, Standar, P\_DelCon, techn\_K\_H, P\_Mark, P\_Price

b. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, P\_Qualit, Standar, P\_DelCon, techn\_K\_H, P\_Mark

c. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, Standar, P\_DelCon, techn\_K\_H, P\_Mark

d. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, Standar, P\_DelCon, techn\_K\_H, P\_Mark

e. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, P\_DelCon, techn\_K\_H, P\_Mark

f. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, techn\_K\_H, P\_Mark

g. Predictors: (Constant), P\_CostRe, P\_Innov, Aftersal, techn\_K\_H, P\_Mark

h. Predictors: (Constant), P\_CostRe, P\_Innov, Aftersal, techn\_K\_H

i. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.4317	8.0415	6.2475	1.06372	202
Std. Predicted Value	-2.647	1.687	.000	1.000	202
Standard Error of Predicted Value	.226	.520	.279	.055	202
Adjusted Predicted Value	3.3499	8.1871	6.2451	1.06865	202
Residual	-7.04151	3.87238	.00000	1.79023	202
Std. Residual	-3.894	2.141	.000	.990	202
Stud. Residual	-3.934	2.161	.001	1.002	202
Deleted Residual	-7.18707	3.94381	.00247	1.83326	202
Stud. Deleted Residual	-4.088	2.182	-.002	1.010	202
Mahal. Distance	2.153	15.620	3.980	2.197	202
Cook's Distance	.000	.064	.005	.008	202
Centered Leverage Value	.011	.078	.020	.011	202

a. Dependent Variable: Performance

**ANOVA<sup>i</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	245.666	11	22.333	6.779	.000 <sup>a</sup>
	Residual	625.958	190	3.295		
	Total	871.624	201			
2	Regression	245.144	10	24.514	7.474	.000 <sup>b</sup>
	Residual	626.480	191	3.280		
	Total	871.624	201			
3	Regression	243.278	9	27.031	8.260	.000 <sup>c</sup>
	Residual	628.346	192	3.273		
	Total	871.624	201			
4	Regression	240.828	8	30.103	9.211	.000 <sup>d</sup>
	Residual	630.796	193	3.268		
	Total	871.624	201			
5	Regression	239.465	7	34.209	10.498	.000 <sup>e</sup>
	Residual	632.159	194	3.259		
	Total	871.624	201			
6	Regression	234.774	6	39.129	11.981	.000 <sup>f</sup>
	Residual	636.850	195	3.266		
	Total	871.624	201			
7	Regression	231.124	5	46.225	14.145	.000 <sup>g</sup>
	Residual	640.500	196	3.268		
	Total	871.624	201			
8	Regression	227.433	4	56.858	17.388	.000 <sup>h</sup>
	Residual	644.190	197	3.270		
	Total	871.624	201			

a. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, P\_Qualit, Standar, P\_DelCon, techn\_K\_H, P\_Mark, P\_Price

b. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, P\_Qualit, Standar, P\_DelCon, techn\_K\_H, P\_Mark

c. Predictors: (Constant), P\_CostRe, P\_CustSe, CustNeed, P\_Innov, Aftersal, Standar, P\_DelCon, techn\_K\_H, P\_Mark

d. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, Standar, P\_DelCon, techn\_K\_H, P\_Mark

e. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, P\_DelCon, techn\_K\_H, P\_Mark

f. Predictors: (Constant), P\_CostRe, P\_CustSe, P\_Innov, Aftersal, techn\_K\_H, P\_Mark

g. Predictors: (Constant), P\_CostRe, P\_Innov, Aftersal, techn\_K\_H, P\_Mark

h. Predictors: (Constant), P\_CostRe, P\_Innov, Aftersal, techn\_K\_H

i. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.403	1.219		1.971	.050		
	Aftersal	-1.332	.288	-.318	-4.632	.000	.804	1.243
	Standar	.113	.147	.054	.765	.445	.764	1.309
	techn_K_H	.863	.188	.340	4.596	.000	.693	1.444
	CustNeed	-.161	.188	-.061	-.855	.394	.753	1.329
	P_Price	.169	.426	.031	.398	.691	.615	1.626
	P_Mark	-.433	.321	-.103	-1.349	.179	.653	1.532
	P_Qualit	.307	.364	.061	.843	.400	.724	1.382
	P_CustSe	.365	.308	.088	1.185	.237	.687	1.455
	P_DelCon	-.409	.294	-.098	-1.392	.166	.766	1.305
	P_Innov	.783	.304	.188	2.572	.011	.706	1.417
	P_CostRe	.751	.387	.149	1.942	.054	.641	1.561
2	(Constant)	2.513	1.185		2.121	.035		
	Aftersal	-1.353	.282	-.323	-4.797	.000	.832	1.201
	Standar	.124	.144	.059	.859	.391	.793	1.261
	techn_K_H	.863	.187	.340	4.608	.000	.693	1.444
	CustNeed	-.162	.188	-.061	-.862	.390	.753	1.329
	P_Mark	-.454	.316	-.108	-1.437	.152	.671	1.491
	P_Qualit	.257	.341	.051	.754	.452	.819	1.221
	P_CustSe	.371	.307	.089	1.209	.228	.689	1.451
	P_DelCon	-.417	.293	-.100	-1.424	.156	.769	1.300
	P_Innov	.745	.289	.179	2.581	.011	.780	1.281
	P_CostRe	.715	.375	.142	1.905	.058	.677	1.477
3	(Constant)	2.608	1.177		2.217	.028		
	Aftersal	-1.367	.281	-.326	-4.861	.000	.836	1.196
	Standar	.129	.144	.061	.894	.372	.795	1.258
	techn_K_H	.868	.187	.341	4.638	.000	.693	1.442
	CustNeed	-.162	.187	-.061	-.865	.388	.753	1.329
	P_Mark	-.414	.311	-.098	-1.329	.185	.691	1.447
	P_CustSe	.431	.296	.104	1.454	.148	.738	1.356
	P_DelCon	-.404	.292	-.097	-1.385	.168	.772	1.296
	P_Innov	.775	.286	.186	2.712	.007	.795	1.257
	P_CostRe	.724	.375	.144	1.934	.055	.678	1.475
4	(Constant)	2.065	.995		2.076	.039		
	Aftersal	-1.355	.281	-.323	-4.828	.000	.838	1.193
	Standar	.088	.136	.042	.646	.519	.892	1.122
	techn_K_H	.891	.185	.351	4.819	.000	.708	1.412
	P_Mark	-.463	.306	-.110	-1.513	.132	.715	1.399
	P_CustSe	.425	.296	.102	1.436	.153	.738	1.355
	P_DelCon	-.333	.280	-.080	-1.189	.236	.839	1.192
	P_Innov	.793	.285	.191	2.782	.006	.799	1.251
	P_CostRe	.801	.364	.159	2.205	.029	.719	1.392
5	(Constant)	2.370	.874		2.712	.007		
	Aftersal	-1.389	.275	-.331	-5.046	.000	.868	1.152
	techn_K_H	.883	.184	.347	4.794	.000	.712	1.405
	P_Mark	-.429	.301	-.102	-1.425	.156	.736	1.358
	P_CustSe	.400	.293	.096	1.364	.174	.751	1.331
	P_DelCon	-.335	.279	-.080	-1.200	.232	.839	1.192
	P_Innov	.774	.283	.186	2.736	.007	.807	1.239
	P_CostRe	.784	.362	.156	2.166	.032	.723	1.384
6	(Constant)	2.045	.832		2.458	.015		
	Aftersal	-1.345	.273	-.321	-4.924	.000	.884	1.131
	techn_K_H	.910	.183	.358	4.971	.000	.722	1.384
	P_Mark	-.402	.300	-.095	-1.338	.183	.740	1.351
	P_CustSe	.297	.281	.071	1.057	.292	.822	1.216
	P_Innov	.819	.281	.197	2.916	.004	.821	1.218
	P_CostRe	.858	.357	.171	2.404	.017	.745	1.343
7	(Constant)	2.231	.814		2.742	.007		
	Aftersal	-1.253	.259	-.299	-4.838	.000	.984	1.016
	techn_K_H	.885	.182	.348	4.872	.000	.735	1.360
	P_Mark	-.304	.286	-.072	-1.063	.289	.819	1.222
	P_Innov	.841	.280	.202	3.002	.003	.826	1.211
	P_CostRe	.803	.353	.160	2.274	.024	.761	1.315
8	(Constant)	2.329	.809		2.881	.004		
	Aftersal	-1.242	.259	-.296	-4.800	.000	.985	1.015
	techn_K_H	.848	.178	.334	4.755	.000	.763	1.311
	P_Innov	.824	.280	.198	2.943	.004	.829	1.207
	P_CostRe	.649	.322	.129	2.014	.045	.916	1.091

a. Dependent Variable: Performance

## Exporting: Management Decisions Model M3

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.533 <sup>a</sup>	.284	.264	1.76482	.284	13.808	5	174	.000	1.751

a. Predictors: (Constant), N\_1.Yjou, StratY\_N, N\_LandEx, MaSegY\_N, N\_Form

b. Dependent Variable: Performance

ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	215.037	5	43.007	13.808	.000 <sup>a</sup>
	Residual	541.941	174	3.115		
	Total	756.978	179			

a. Predictors: (Constant), N\_1.Yjou, StratY\_N, N\_LandEx, MaSegY\_N, N\_Form

b. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.732	.425		11.140	.000					
	StratY_N	.987	.335	.193	2.947	.004	.274	.218	.189	.963	1.038
	MaSegY_N	.991	.284	.239	3.484	.001	.345	.255	.223	.877	1.140
	N_Form	-.628	.208	-.224	-3.019	.003	-.039	-.223	-.194	.749	1.335
	N_LandEx	.038	.008	.367	4.908	.000	.308	.349	.315	.736	1.358
	N_1.Yjou	.040	.018	.150	2.188	.030	.182	.164	.140	.877	1.140

a. Dependent Variable: Performance



Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.6520	9.2074	6.2889	1.09605	180
Std. Predicted Value	-3.318	2.663	.000	1.000	180
Standard Error of Predicted Value	.199	.866	.303	.110	180
Adjusted Predicted Value	2.5994	9.2307	6.2861	1.10114	180
Residual	-5.29056	4.12066	.00000	1.74000	180
Std. Residual	-2.998	2.335	.000	.986	180
Stud. Residual	-3.069	2.397	.001	1.002	180
Deleted Residual	-5.54399	4.34129	.00282	1.79816	180
Stud. Deleted Residual	-3.146	2.430	-.001	1.008	180
Mahal. Distance	1.290	42.100	4.972	5.794	180
Cook's Distance	.000	.075	.006	.010	180
Centered Leverage Value	.007	.235	.028	.032	180

a. Dependent Variable: Performance

## Exporting: Management Decisions Model M4

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.557 <sup>a</sup>	.311	.291	1.73179	.311	15.680	5	174	.000	1.786

a. Predictors: (Constant), N\_info, N\_Form, StratY\_N, N\_1.Yjou, N\_LandEx

b. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.582	.421		10.885	.000					
	StratY_N	.776	.335	.151	2.317	.022	.274	.173	.146	.928	1.077
	N_Form	-.642	.204	-.229	-3.150	.002	-.039	-.232	-.198	.750	1.333
	N_LandEx	.039	.008	.378	5.200	.000	.308	.367	.327	.750	1.333
	N_1.Yjou	.040	.018	.149	2.258	.025	.182	.169	.142	.906	1.104
	N_info	.350	.080	.294	4.394	.000	.396	.316	.277	.882	1.134

a. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.1499	8.9719	6.2889	1.14613	180
Std. Predicted Value	-2.739	2.341	.000	1.000	180
Standard Error of Predicted Value	.167	.845	.298	.105	180
Adjusted Predicted Value	3.1722	8.9687	6.2867	1.14993	180
Residual	-4.83735	4.50233	.00000	1.70743	180
Std. Residual	-2.793	2.600	.000	.986	180
Stud. Residual	-2.843	2.678	.001	1.002	180
Deleted Residual	-5.01183	4.77782	.00222	1.76374	180
Stud. Deleted Residual	-2.903	2.727	.000	1.007	180
Mahal. Distance	.668	41.594	4.972	5.613	180
Cook's Distance	.000	.073	.006	.010	180
Centered Leverage Value	.004	.232	.028	.031	180

a. Dependent Variable: Performance

## Exporting: Target Market Model M5

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.225 <sup>a</sup>	.051	.041	2.03923	.051	5.302	2	199	.006	
2	.221 <sup>b</sup>	.049	.044	2.03588	-.002	.344	1	199	.558	1.572

a. Predictors: (Constant), LandCDif, LandSt

b. Predictors: (Constant), LandSt

c. Dependent Variable: Performance

ANOVA<sup>c</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.093	2	22.046	5.302	.006 <sup>a</sup>
	Residual	827.531	199	4.158		
	Total	871.624	201			
2	Regression	42.663	1	42.663	10.293	.002 <sup>b</sup>
	Residual	828.960	200	4.145		
	Total	871.624	201			

a. Predictors: (Constant), LandCDif, LandSt

b. Predictors: (Constant), LandSt

c. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	8.297	.789		10.518	.000					
	LandSt	-.418	.135	-.215	-3.088	.002	-.221	-.214	-.213	.980	1.020
	LandCDif	.004	.006	.041	.586	.558	.071	.042	.040	.980	1.020
2	(Constant)	8.492	.714		11.893	.000					
	LandSt	-.429	.134	-.221	-3.208	.002	-.221	-.221	-.221	1.000	1.000

a. Dependent Variable: Performance

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5.9160	8.4916	6.2475	.46071	202
Std. Predicted Value	-.720	4.871	.000	1.000	202
Standard Error of Predicted Value	.146	.714	.187	.079	202
Adjusted Predicted Value	5.8926	8.5606	6.2464	.45969	202
Residual	-6.34528	3.08399	.00000	2.03081	202
Std. Residual	-3.117	1.515	.000	.998	202
Stud. Residual	-3.125	1.521	.000	1.002	202
Deleted Residual	-6.37828	3.10738	.00109	2.04909	202
Stud. Deleted Residual	-3.196	1.526	-.002	1.007	202
Mahal. Distance	.045	23.726	.995	2.634	202
Cook's Distance	.000	.143	.005	.011	202
Centered Leverage Value	.000	.118	.005	.013	202

a. Dependent Variable: Performance

## Exporting: Overall Model M6

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.715 <sup>a</sup>	.512	.483	1.47902	.512	17.705	10	169	.000	
2	.710 <sup>b</sup>	.504	.478	1.48635	-.008	2.690	1	169	.103	1.786

a. Predictors: (Constant), techn\_K\_H, LandSt, StratY\_N, Aftersal, N\_1.Yjou, N\_Form, MaSegY\_N, P\_CostRe, P\_Innov, N\_LandEx

b. Predictors: (Constant), techn\_K\_H, StratY\_N, Aftersal, N\_1.Yjou, N\_Form, MaSegY\_N, P\_CostRe, P\_Innov, N\_LandEx

c. Dependent Variable: Performance

ANOVA<sup>c</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	387.291	10	38.729	17.705	.000 <sup>a</sup>
	Residual	369.687	169	2.187		
	Total	756.978	179			
2	Regression	381.408	9	42.379	19.183	.000 <sup>b</sup>
	Residual	375.570	170	2.209		
	Total	756.978	179			

a. Predictors: (Constant), techn\_K\_H, LandSt, StratY\_N, Aftersal, N\_1.Yjou, N\_Form, MaSegY\_N, P\_CostRe, P\_Innov, N\_LandEx

b. Predictors: (Constant), techn\_K\_H, StratY\_N, Aftersal, N\_1.Yjou, N\_Form, MaSegY\_N, P\_CostRe, P\_Innov, N\_LandEx

c. Dependent Variable: Performance

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.703	1.057		2.557	.011		
	N_Form	-.436	.179	-.155	-2.430	.016	.707	1.414
	N_LandEx	.019	.007	.186	2.779	.006	.642	1.558
	LandSt	-.182	.111	-.092	-1.640	.103	.911	1.097
	StratY_N	.914	.289	.178	3.169	.002	.912	1.096
	MaSegY_N	.750	.245	.181	3.058	.003	.828	1.207
	N_1.Yjou	.037	.016	.136	2.287	.023	.821	1.218
	Aftersal	-1.332	.228	-.323	-5.841	.000	.945	1.058
	P_Innov	.807	.252	.197	3.205	.002	.768	1.303
	P_CostRe	.689	.289	.141	2.386	.018	.830	1.205
	techn_K_H	.724	.164	.296	4.401	.000	.637	1.570
2	(Constant)	1.537	.786		1.956	.052		
	N_Form	-.414	.180	-.147	-2.302	.023	.711	1.406
	N_LandEx	.021	.007	.198	2.946	.004	.649	1.542
	StratY_N	.971	.288	.189	3.374	.001	.926	1.080
	MaSegY_N	.725	.246	.175	2.949	.004	.831	1.203
	N_1.Yjou	.036	.016	.135	2.261	.025	.821	1.218
	Aftersal	-1.376	.227	-.334	-6.049	.000	.958	1.043
	P_Innov	.780	.253	.190	3.090	.002	.771	1.297
	P_CostRe	.768	.286	.157	2.688	.008	.854	1.171
	techn_K_H	.748	.165	.306	4.545	.000	.642	1.557

a. Dependent Variable: Performance

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.0642	9.8588	6.2889	1.45972	180
Std. Predicted Value	-2.209	2.446	.000	1.000	180
Standard Error of Predicted Value	.225	.764	.339	.090	180
Adjusted Predicted Value	2.9220	9.9680	6.2853	1.46943	180
Residual	-4.36704	3.32338	.00000	1.44850	180
Std. Residual	-2.938	2.236	.000	.975	180
Stud. Residual	-3.033	2.314	.001	1.003	180
Deleted Residual	-4.65381	3.56069	.00362	1.53372	180
Stud. Deleted Residual	-3.109	2.345	.001	1.009	180
Mahal. Distance	3.095	46.263	8.950	6.379	180
Cook's Distance	.000	.060	.006	.009	180
Centered Leverage Value	.017	.258	.050	.036	180

a. Dependent Variable: Performance

## Exporting: Overall Model M7

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.723 <sup>a</sup>	.522	.494	1.46316	.522	18.459	10	169	.000	1.835

a. Predictors: (Constant), N\_info, Aftersal, N\_Form, LandSt, N\_1.Yjou, P\_CostRe, StratY\_N, P\_Innov, N\_LandEx, techn\_K\_H

b. Dependent Variable: Performance

ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	395.175	10	39.517	18.459	.000 <sup>a</sup>
	Residual	361.803	169	2.141		
	Total	756.978	179			

a. Predictors: (Constant), N\_info, Aftersal, N\_Form, LandSt, N\_1.Yjou, P\_CostRe, StratY\_N, P\_Innov, N\_LandEx, techn\_K\_H

b. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.190	1.052		3.033	.003		
	N_Form	-.475	.177	-.169	-2.679	.008	.709	1.411
	N_LandEx	.021	.007	.206	3.121	.002	.650	1.538
	LandSt	-.224	.111	-.114	-2.021	.045	.892	1.121
	StratY_N	.758	.292	.148	2.599	.010	.874	1.144
	N_1.Yjou	.037	.016	.139	2.400	.017	.847	1.181
	Aftersal	-1.367	.225	-.332	-6.070	.000	.948	1.055
	P_Innov	.689	.254	.168	2.713	.007	.740	1.352
	P_CostRe	.583	.284	.119	2.054	.042	.840	1.190
	techn_K_H	.673	.164	.276	4.108	.000	.627	1.594
	N_info	.262	.072	.221	3.638	.000	.770	1.299

a. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.0665	10.1780	6.2889	1.48583	180
Std. Predicted Value	-2.169	2.617	.000	1.000	180
Standard Error of Predicted Value	.214	.756	.350	.091	180
Adjusted Predicted Value	2.9261	10.3741	6.2842	1.49516	180
Residual	-4.16920	3.62464	.00000	1.42170	180
Std. Residual	-2.849	2.477	.000	.972	180
Stud. Residual	-2.923	2.532	.002	1.001	180
Deleted Residual	-4.38834	3.78580	.00473	1.50936	180
Stud. Deleted Residual	-2.991	2.574	.001	1.007	180
Mahal. Distance	2.844	46.740	9.944	6.658	180
Cook's Distance	.000	.051	.006	.008	180
Centered Leverage Value	.016	.261	.056	.037	180

a. Dependent Variable: Performance



## Direct Investment: Bivariate Relationships - Correlations Kendall's tau b

Kendall's tau_b		Performance	ObjAchievement	MngSatisfaction	Profitability	Intensity	RelativeProfitability
Performance	Cor. Coeff.	1.000	0.731	0.765	0.443	0.626	0.838
	Sig. (2-tailed)		0.000	0.000	0.005	0.000	0.000
	N	31	31	31	31	31	31
TurnAver	Cor. Coeff.	0.265	-0.244	-0.132	0.000	0.456	0.276
	Sig. (2-tailed)	0.329	0.432	0.643	1.000	0.104	0.335
	N	10	10	11	11	11	11
Size	Cor. Coeff.	0.220	-0.091	0.089	0.206	0.394	0.436
	Sig. (2-tailed)	0.309	0.705	0.697	0.387	0.084	0.056
	N	14	14	15	15	15	15
Age	Cor. Coeff.	-0.204	-0.104	-0.088	-0.081	-0.150	-0.039
	Sig. (2-tailed)	0.340	0.661	0.698	0.731	0.506	0.863
	N	14	14	15	15	15	15
Produkt	Cor. Coeff.	-0.082	0.211	0.071	-0.128	-0.099	-0.057
	Sig. (2-tailed)	0.600	0.223	0.648	0.437	0.531	0.713
	N	31	31	38	38	38	38
Product and Service	Cor. Coeff.	-0.020	-0.331	-0.109	0.169	0.044	0.003
	Sig. (2-tailed)	0.901	0.057	0.485	0.304	0.780	0.987
	N	31	31	38	38	38	38
CustServ	Cor. Coeff.	-0.346	-0.289	-0.222	0.052	-0.406	-0.282
	Sig. (2-tailed)	0.028	0.095	0.155	0.753	0.011	0.071
	N	31	31	38	38	38	38
P_Image	Cor. Coeff.	0.011	0.107	0.147	0.136	-0.151	0.052
	Sig. (2-tailed)	0.943	0.538	0.346	0.409	0.343	0.740
	N	31	31	38	38	38	38
P_Qualit	Cor. Coeff.	0.145	0.072	0.037	-0.091	0.008	0.085
	Sig. (2-tailed)	0.354	0.679	0.814	0.578	0.960	0.588
	N	31	31	38	38	38	38
P_Price	Cor. Coeff.	0.460	0.492	0.355	0.083	0.106	0.375
	Sig. (2-tailed)	0.003	0.005	0.023	0.615	0.504	0.016
	N	31	31	38	38	38	38
P_CusSer	Cor. Coeff.	-0.515	-0.501	-0.606	-0.463	-0.299	-0.654
	Sig. (2-tailed)	0.001	0.004	0.000	0.005	0.059	0.000
	N	31	31	38	38	38	38
P_Innova	Cor. Coeff.	-0.309	-0.405	-0.199	0.217	-0.130	-0.129
	Sig. (2-tailed)	0.049	0.020	0.203	0.187	0.412	0.410
	N	31	31	38	38	38	38
P_DelCon	Cor. Coeff.	-0.055	0.005	-0.295	-0.241	-0.029	-0.225
	Sig. (2-tailed)	0.725	0.978	0.059	0.142	0.854	0.150
	N	31	31	38	38	38	38
P_CostRe	Cor. Coeff.	0.351	0.200	0.444	0.265	0.355	0.429
	Sig. (2-tailed)	0.025	0.248	0.004	0.107	0.025	0.006
	N	31	31	38	38	38	38
tech_K_H	Cor. Coeff.	0.040	-0.114	0.102	0.324	0.146	0.187
	Sig. (2-tailed)	0.777	0.467	0.469	0.029	0.309	0.183
	N	31	31	38	38	38	38
Standard	Cor. Coeff.	0.253	0.296	0.149	-0.216	0.078	0.124
	Sig. (2-tailed)	0.083	0.066	0.305	0.159	0.598	0.394
	N	31	31	38	38	38	38
Cust_needs	Cor. Coeff.	0.470	0.570	0.335	0.106	0.213	0.356
	Sig. (2-tailed)	0.002	0.001	0.024	0.501	0.160	0.017
	N	30	30	37	37	37	37
AdvADY_N	Cor. Coeff.	0.535	0.501	0.718	0.557	0.390	0.626
	Sig. (2-tailed)	0.001	0.004	0.000	0.001	0.014	0.000
	N	31	31	38	38	38	38
LandCudi	Cor. Coeff.	0.342	0.383	0.287	0.199	0.208	0.307
	Sig. (2-tailed)	0.013	0.012	0.034	0.163	0.132	0.024
	N	31	31	38	38	38	38
LansStab	Cor. Coeff.	-0.161	-0.136	-0.077	0.046	-0.178	-0.085
	Sig. (2-tailed)	0.279	0.408	0.598	0.767	0.233	0.562
	N	31	31	38	38	38	38
StratY_N	Cor. Coeff.	0.327	0.239	0.412	0.534	0.299	0.426
	Sig. (2-tailed)	0.037	0.168	0.008	0.001	0.059	0.006
	N	31	31	38	38	38	38
MSegmY_N	Cor. Coeff.	0.403	0.405	0.461	0.168	0.373	0.463
	Sig. (2-tailed)	0.010	0.020	0.003	0.307	0.019	0.003
	N	31	31	38	38	38	38
N_Form	Cor. Coeff.	0.264	0.222	0.042	-0.152	0.173	0.030
	Sig. (2-tailed)	0.092	0.201	0.787	0.356	0.276	0.847
	N	31	31	38	38	38	38
N_LandDi	Cor. Coeff.	0.163	0.081	-0.052	-0.183	0.065	0.079
	Sig. (2-tailed)	0.249	0.605	0.714	0.217	0.649	0.576
	N	31	31	38	38	38	38

Kendall's tau_b		Performance	ObjAchievement	MngSatisfaction	Profitability	Intensity	RelativeProfitability
N_Ydi	Cor. Coeff.	-0.122	-0.115	-0.119	0.049	-0.088	-0.080
	Sig. (2-tailed)	0.368	0.442	0.375	0.730	0.519	0.551
	N	31	31	38	38	38	38
N_Info	Cor. Coeff.	0.210	0.127	0.303	0.113	0.339	0.231
	Sig. (2-tailed)	0.146	0.426	0.032	0.446	0.018	0.102
	N	31	31	38	38	38	38
Njourne	Cor. Coeff.	0.410	0.324	0.544	0.475	0.295	0.503
	Sig. (2-tailed)	0.004	0.038	0.000	0.001	0.039	0.000
	N	29	29	36	36	36	36
ObjY_N	Cor. Coeff.	.	.	0.507	0.693	0.299	0.426
	Sig. (2-tailed)	.	.	0.001	0.000	0.059	0.006
	N	31	31	38	38	38	38

## Direct Investment: Company Model M1

Model Summary<sup>d</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.554 <sup>a</sup>	.306	-.040	2.63569	.306	.884	3	6	.501	1.270
2	.554 <sup>b</sup>	.306	.108	2.44026	.000	.000	1	6	.985	
3	.552 <sup>c</sup>	.305	.218	2.28535	-.002	.017	1	7	.901	

a. Predictors: (Constant), TurnAver, Age, Size

b. Predictors: (Constant), TurnAver, Age

c. Predictors: (Constant), Age

d. Dependent Variable: Performance

ANOVA<sup>d</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.419	3	6.140	.884	.501 <sup>a</sup>
	Residual	41.681	6	6.947		
	Total	60.100	9			
2	Regression	18.416	2	9.208	1.546	.278 <sup>b</sup>
	Residual	41.684	7	5.955		
	Total	60.100	9			
3	Regression	18.318	1	18.318	3.507	.098 <sup>c</sup>
	Residual	41.782	8	5.223		
	Total	60.100	9			

a. Predictors: (Constant), TurnAver, Age, Size

b. Predictors: (Constant), TurnAver, Age

c. Predictors: (Constant), Age

d. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	7.565	4.247		1.781	.125					
	Age	-.057	.037	-.544	-1.550	.172	-.552	-.535	-.527	.937	1.067
	Size	.001	.031	.007	.020	.985	.150	.008	.007	.859	1.164
	TurnAver	.007	.062	.039	.108	.918	.124	.044	.037	.890	1.124
2	(Constant)	7.623	2.855		2.670	.032					
	Age	-.058	.034	-.546	-1.714	.130	-.552	-.544	-.540	.977	1.024
	TurnAver	.007	.055	.041	.129	.901	.124	.049	.040	.977	1.024
3	(Constant)	7.861	2.034		3.864	.005					
	Age	-.058	.031	-.552	-1.873	.098	-.552	-.552	-.552	1.000	1.000

a. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.2170	6.4622	3.5940	1.75976	14
Std. Predicted Value	-2.161	1.516	-.495	1.234	14
Standard Error of Predicted Value	.728	1.798	1.149	.422	14
Adjusted Predicted Value	1.2170	6.7168	3.6067	1.79210	14
Residual	-2.61570	7.78303	1.04888	2.87340	14
Std. Residual	-1.145	3.406	.459	1.257	14
Stud. Residual	-1.326	2.677	.370	1.159	14
Deleted Residual	-3.51040	7.78303	1.03618	3.10780	14
Stud. Deleted Residual	-1.404	3.464	.461	1.346	14
Mahal. Distance	.014	2.914	1.280	1.208	14
Cook's Distance	.007	1.316	.203	.355	14
Centered Leverage Value	.002	.291	.135	.125	14

a. Dependent Variable: Performance

## Direct Investment: Product Model M2

**Model Summary<sup>j</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876 <sup>a</sup>	.768	.626	1.68153
2	.876 <sup>b</sup>	.768	.646	1.63679
3	.876 <sup>c</sup>	.767	.663	1.59754
4	.876 <sup>d</sup>	.767	.678	1.56058
5	.872 <sup>e</sup>	.760	.683	1.54766
6	.869 <sup>f</sup>	.755	.691	1.53002
7	.858 <sup>g</sup>	.736	.682	1.55246
8	.852 <sup>h</sup>	.726	.682	1.55022
9	.840 <sup>i</sup>	.705	.671	1.57738

- a. Predictors: (Constant), P\_CostRe, tech\_K\_H, P\_DelCon, Cust\_needs, P\_Innova, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- b. Predictors: (Constant), tech\_K\_H, P\_DelCon, Cust\_needs, P\_Innova, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- c. Predictors: (Constant), tech\_K\_H, P\_DelCon, Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- d. Predictors: (Constant), tech\_K\_H, Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- e. Predictors: (Constant), Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- f. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, CustServ, Standard, P\_Qualit
- g. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, CustServ, P\_Qualit
- h. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, P\_Qualit
- i. Predictors: (Constant), Cust\_needs, P\_Price, P\_Qualit
- j. Dependent Variable: Performance

ANOVA<sup>i</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	168.571	11	15.325	5.420	.001 <sup>a</sup>
	Residual	50.896	18	2.828		
	Total	219.467	29			
2	Regression	168.564	10	16.856	6.292	.000 <sup>b</sup>
	Residual	50.902	19	2.679		
	Total	219.467	29			
3	Regression	168.424	9	18.714	7.333	.000 <sup>c</sup>
	Residual	51.042	20	2.552		
	Total	219.467	29			
4	Regression	168.323	8	21.040	8.639	.000 <sup>d</sup>
	Residual	51.143	21	2.435		
	Total	219.467	29			
5	Regression	166.771	7	23.824	9.947	.000 <sup>e</sup>
	Residual	52.696	22	2.395		
	Total	219.467	29			
6	Regression	165.625	6	27.604	11.792	.000 <sup>f</sup>
	Residual	53.842	23	2.341		
	Total	219.467	29			
7	Regression	161.623	5	32.325	13.412	.000 <sup>g</sup>
	Residual	57.843	24	2.410		
	Total	219.467	29			
8	Regression	159.387	4	39.847	16.581	.000 <sup>h</sup>
	Residual	60.079	25	2.403		
	Total	219.467	29			
9	Regression	154.775	3	51.592	20.735	.000 <sup>i</sup>
	Residual	64.692	26	2.488		
	Total	219.467	29			

a. Predictors: (Constant), P\_CostRe, tech\_K\_H, P\_DelCon, Cust\_needs, P\_Innova, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

b. Predictors: (Constant), tech\_K\_H, P\_DelCon, Cust\_needs, P\_Innova, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

c. Predictors: (Constant), tech\_K\_H, P\_DelCon, Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

d. Predictors: (Constant), tech\_K\_H, Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

e. Predictors: (Constant), Cust\_needs, P\_CusSer, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

f. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, CustServ, Standard, P\_Qualit

g. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, CustServ, P\_Qualit

h. Predictors: (Constant), Cust\_needs, P\_Image, P\_Price, P\_Qualit

i. Predictors: (Constant), Cust\_needs, P\_Price, P\_Qualit

j. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.099	3.187		-.031	.976
	CustServ	-1.672	1.465	-.273	-1.141	.269
	Standard	-.403	.710	-.154	-.568	.577
	tech_K_H	.210	.456	.110	.460	.651
	Cust_needs	.933	.551	.329	1.692	.108
	P_Price	4.777	1.997	.809	2.392	.028
	P_Image	-.802	1.449	-.125	-.553	.587
	P_Qualit	5.350	1.946	.969	2.749	.013
	P_CusSer	.900	1.666	.160	.540	.595
	P_DelCon	.286	1.165	.042	.245	.809
	P_Innova	.453	2.003	.062	.226	.824
	P_CostRe	.066	1.347	.010	.049	.962
2	(Constant)	-.163	2.831		-.057	.955
	CustServ	-1.688	1.390	-.276	-1.215	.239
	Standard	-.390	.640	-.149	-.610	.549
	tech_K_H	.223	.360	.117	.619	.543
	Cust_needs	.919	.467	.325	1.967	.064
	P_Price	4.845	1.384	.821	3.501	.002
	P_Image	-.822	1.353	-.129	-.608	.551
	P_Qualit	5.395	1.666	.977	3.238	.004
	P_CusSer	.945	1.358	.168	.696	.495
	P_DelCon	.270	1.088	.040	.248	.807
	P_Innova	.444	1.942	.061	.229	.822
3	(Constant)	.071	2.577		.027	.978
	CustServ	-1.457	.931	-.238	-1.565	.133
	Standard	-.464	.539	-.177	-.860	.400
	tech_K_H	.234	.348	.123	.673	.509
	Cust_needs	.944	.444	.333	2.126	.046
	P_Price	4.831	1.349	.818	3.580	.002
	P_Image	-1.008	1.053	-.158	-.957	.350
	P_Qualit	5.365	1.621	.972	3.309	.004
	P_CusSer	.978	1.318	.174	.742	.467
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
4	(Constant)	.008	2.499		.003	.997
	CustServ	-1.462	.909	-.239	-1.608	.123
	Standard	-.414	.468	-.158	-.886	.385
	tech_K_H	.257	.322	.135	.798	.434
	Cust_needs	.951	.432	.336	2.200	.039
	P_Price	4.790	1.303	.812	3.676	.001
	P_Image	-1.034	1.021	-.162	-1.013	.323
	P_Qualit	5.325	1.572	.965	3.388	.003
	P_CusSer	1.018	1.273	.181	.800	.433
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
5	(Constant)	1.170	2.015		.580	.568
	CustServ	-1.194	.838	-.195	-1.425	.168
	Standard	-.567	.423	-.216	-1.340	.194
	Cust_needs	.982	.427	.347	2.299	.031
	P_Price	4.799	1.292	.813	3.715	.001
	P_Image	-1.279	.966	-.200	-1.325	.199
	P_Qualit	5.618	1.516	1.017	3.706	.001
	P_CusSer	.863	1.247	.154	.692	.496
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
6	(Constant)	2.031	1.567		1.296	.208
	CustServ	-1.187	.828	-.194	-1.433	.165
	Standard	-.546	.417	-.208	-1.307	.204
	Cust_needs	.955	.420	.337	2.272	.033
	P_Price	4.144	.868	.702	4.772	.000
	P_Image	-1.276	.955	-.199	-1.336	.195
	P_Qualit	4.760	.862	.862	5.521	.000
	P_CusSer	.863	1.247	.154	.692	.496
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
7	(Constant)	.690	1.203		.574	.571
	CustServ	-.736	.764	-.120	-.963	.345
	Cust_needs	.772	.402	.273	1.920	.067
	P_Price	4.033	.877	.683	4.599	.000
	P_Image	-1.059	.954	-.166	-1.110	.278
	P_Qualit	4.848	.872	.878	5.560	.000
	P_CusSer	.863	1.247	.154	.692	.496
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
	P_Innova	.444	1.942	.061	.229	.822
8	(Constant)	.168	1.072		.157	.877
	Cust_needs	.886	.384	.313	2.305	.030
	P_Price	4.140	.869	.701	4.766	.000
	P_Image	-1.281	.925	-.200	-1.385	.178
	P_Qualit	4.929	.867	.893	5.687	.000
	P_CusSer	.863	1.247	.154	.692	.496
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
9	(Constant)	-.079	1.076		-.073	.942
	Cust_needs	.987	.384	.348	2.571	.016
	P_Price	4.016	.879	.680	4.568	.000
	P_Qualit	4.193	.697	.759	6.017	.000
	P_CusSer	.863	1.247	.154	.692	.496
	P_DelCon	.204	1.024	.030	.199	.844
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
	P_Innova	.444	1.942	.061	.229	.822
	P_CostRe	.066	1.347	.010	.049	.962
	P_Innova	.444	1.942	.061	.229	.822

a. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.8947	8.0614	5.5333	2.31021	30
Std. Predicted Value	-1.575	1.094	.000	1.000	30
Standard Error of Predicted Value	.473	.796	.567	.100	30
Adjusted Predicted Value	1.4600	8.1359	5.5210	2.30008	30
Residual	-3.86842	3.10526	.00000	1.49357	30
Std. Residual	-2.452	1.969	.000	.947	30
Stud. Residual	-2.840	2.102	.004	1.038	30
Deleted Residual	-5.18824	3.54000	.01238	1.79933	30
Stud. Deleted Residual	-3.353	2.262	-.009	1.106	30
Mahal. Distance	1.641	6.411	2.900	1.490	30
Cook's Distance	.000	.688	.054	.127	30
Centered Leverage Value	.057	.221	.100	.051	30

a. Dependent Variable: Performance



## Direct Investment: Management Decisions Model M3

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.844 <sup>a</sup>	.712	.630	1.55449	.712	8.646	6	21	.000	2.014
2	.834 <sup>b</sup>	.696	.627	1.56069	-.016	1.176	1	21	.290	
3	.819 <sup>c</sup>	.671	.614	1.58596	-.024	1.751	1	22	.199	
4	.804 <sup>d</sup>	.646	.602	1.61071	-.025	1.755	1	23	.198	

a. Predictors: (Constant), Njourne1, StratY\_N, N\_LandDi, N\_Form, N\_Info, MSegmY\_N

b. Predictors: (Constant), Njourne1, StratY\_N, N\_LandDi, N\_Form, N\_Info

c. Predictors: (Constant), Njourne1, StratY\_N, N\_Form, N\_Info

d. Predictors: (Constant), Njourne1, StratY\_N, N\_Info

e. Dependent Variable: Performance

ANOVA<sup>e</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.362	6	20.894	8.646	.000 <sup>a</sup>
	Residual	50.745	21	2.416		
	Total	176.107	27			
2	Regression	122.520	5	24.504	10.060	.000 <sup>b</sup>
	Residual	53.587	22	2.436		
	Total	176.107	27			
3	Regression	118.256	4	29.564	11.754	.000 <sup>c</sup>
	Residual	57.851	23	2.515		
	Total	176.107	27			
4	Regression	113.842	3	37.947	14.627	.000 <sup>d</sup>
	Residual	62.265	24	2.594		
	Total	176.107	27			

a. Predictors: (Constant), Njourne1, StratY\_N, N\_LandDi, N\_Form, N\_Info, MSegmY\_N

b. Predictors: (Constant), Njourne1, StratY\_N, N\_LandDi, N\_Form, N\_Info

c. Predictors: (Constant), Njourne1, StratY\_N, N\_Form, N\_Info

d. Predictors: (Constant), Njourne1, StratY\_N, N\_Info

e. Dependent Variable: Performance

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.144	2.081		-2.472	.022		
	N_Form	.922	.664	.179	1.389	.179	.821	1.217
	N_LandDi	.159	.102	.196	1.549	.136	.855	1.169
	MSegmY_N	1.167	1.076	.178	1.084	.290	.508	1.967
	N_Info	.820	.318	.389	2.578	.018	.601	1.664
	StratY_N	2.479	1.110	.306	2.234	.037	.732	1.365
	Njourne1	.212	.062	.492	3.421	.003	.664	1.505
2	(Constant)	-5.130	2.090		-2.455	.022		
	N_Form	.884	.665	.172	1.329	.198	.824	1.214
	N_LandDi	.132	.100	.163	1.323	.199	.907	1.102
	N_Info	.989	.279	.470	3.551	.002	.791	1.265
	StratY_N	2.886	1.049	.356	2.752	.012	.827	1.209
	Njourne1	.237	.058	.548	4.082	.000	.766	1.305
3	(Constant)	-4.233	2.009		-2.108	.046		
	N_Form	.896	.676	.174	1.325	.198	.824	1.214
	N_Info	.886	.272	.421	3.260	.003	.858	1.166
	StratY_N	3.050	1.058	.376	2.882	.008	.839	1.192
	Njourne1	.222	.058	.515	3.842	.001	.794	1.259
4	(Constant)	-2.149	1.268		-1.695	.103		
	N_Info	.917	.275	.435	3.333	.003	.864	1.157
	StratY_N	2.690	1.039	.332	2.590	.016	.898	1.114
	Njourne1	.251	.054	.583	4.622	.000	.927	1.079

a. Dependent Variable: Performance

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.1869	8.6419	5.6786	2.05338	28
Std. Predicted Value	-2.674	1.443	.000	1.000	28
Standard Error of Predicted Value	.340	1.126	.579	.191	28
Adjusted Predicted Value	.3031	8.9073	5.6758	2.05214	28
Residual	-3.31620	2.61049	.00000	1.51859	28
Std. Residual	-2.059	1.621	.000	.943	28
Stud. Residual	-2.235	1.702	.001	1.000	28
Deleted Residual	-3.90727	2.88020	.00275	1.70905	28
Stud. Deleted Residual	-2.458	1.777	-.007	1.036	28
Mahal. Distance	.237	12.237	2.893	2.848	28
Cook's Distance	.000	.223	.031	.045	28
Centered Leverage Value	.009	.453	.107	.105	28

a. Dependent Variable: Performance

## Direct Investment: Target Market Model M4

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.687 <sup>a</sup>	.473	.414	2.09962	.473	8.064	3	27	.001	
2	.683 <sup>b</sup>	.466	.428	2.07493	-.007	.345	1	27	.562	1.769

a. Predictors: (Constant), AdvADY\_N, LandCudi, LansStab

b. Predictors: (Constant), AdvADY\_N, LandCudi

c. Dependent Variable: Performance

ANOVA<sup>c</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.650	3	35.550	8.064	.001 <sup>a</sup>
	Residual	119.027	27	4.408		
	Total	225.677	30			
2	Regression	105.128	2	52.564	12.209	.000 <sup>b</sup>
	Residual	120.549	28	4.305		
	Total	225.677	30			

a. Predictors: (Constant), AdvADY\_N, LandCudi, LansStab

b. Predictors: (Constant), AdvADY\_N, LandCudi

c. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.091	2.501		.436	.666		
	LansStab	.236	.402	.092	.588	.562	.798	1.253
	LandCudi	.035	.017	.314	2.064	.049	.845	1.184
	AdvADY_N	3.112	.856	.562	3.634	.001	.817	1.223
2	(Constant)	2.495	.731		3.415	.002		
	LandCudi	.032	.016	.291	2.003	.055	.904	1.106
	AdvADY_N	2.956	.805	.534	3.673	.001	.904	1.106

a. Dependent Variable: Performance

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.7577	8.0681	5.4516	1.87197	31
Std. Predicted Value	-1.439	1.398	.000	1.000	31
Standard Error of Predicted Value	.501	.796	.641	.079	31
Adjusted Predicted Value	2.7301	8.4252	5.4543	1.88112	31
Residual	-3.10444	6.49757	.00000	2.00457	31
Std. Residual	-1.496	3.131	.000	.966	31
Stud. Residual	-1.542	3.274	-.001	1.014	31
Deleted Residual	-3.29690	7.10108	-.00274	2.21020	31
Stud. Deleted Residual	-1.583	4.092	.023	1.113	31
Mahal. Distance	.783	3.450	1.935	.692	31
Cook's Distance	.000	.332	.034	.060	31
Centered Leverage Value	.026	.115	.065	.023	31

a. Dependent Variable: Performance

## Direct Investment: Overall Model M5

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.921 <sup>a</sup>	.849	.793	1.15855	.849	15.237	7	19	.000	1.970
2	.921 <sup>b</sup>	.849	.803	1.12926	.000	.002	1	19	.967	
3	.912 <sup>c</sup>	.832	.792	1.16095	-.017	2.195	1	20	.154	
4	.903 <sup>d</sup>	.815	.782	1.18958	-.017	2.099	1	21	.162	

a. Predictors: (Constant), P\_Qualit, AdvADY\_N, Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

b. Predictors: (Constant), P\_Qualit, Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

c. Predictors: (Constant), Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

d. Predictors: (Constant), Njourne1, StratY\_N, Cust\_needs, N\_Info

e. Dependent Variable: Performance

ANOVA<sup>e</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	143.164	7	20.452	15.237	.000 <sup>a</sup>
	Residual	25.502	19	1.342		
	Total	168.667	26			
2	Regression	143.162	6	23.860	18.711	.000 <sup>b</sup>
	Residual	25.505	20	1.275		
	Total	168.667	26			
3	Regression	140.363	5	28.073	20.828	.000 <sup>c</sup>
	Residual	28.304	21	1.348		
	Total	168.667	26			
4	Regression	137.534	4	34.384	24.298	.000 <sup>d</sup>
	Residual	31.132	22	1.415		
	Total	168.667	26			

a. Predictors: (Constant), P\_Qualit, AdvADY\_N, Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

b. Predictors: (Constant), P\_Qualit, Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

c. Predictors: (Constant), Njourne1, StratY\_N, Cust\_needs, N\_Info, P\_Price

d. Predictors: (Constant), Njourne1, StratY\_N, Cust\_needs, N\_Info

e. Dependent Variable: Performance

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-3.433	1.366		-2.513	.021					
	StratY_N	2.358	1.042	.296	2.263	.036	.534	.461	.202	.464	2.157
	N_Info	.717	.266	.348	2.697	.014	.401	.526	.241	.479	2.089
	AdvADY_N	-.029	.706	-.006	-.042	.967	.534	-.010	-.004	.448	2.231
	Njourne1	.167	.045	.394	3.668	.002	.534	.644	.327	.688	1.453
	Cust_needs	.731	.359	.287	2.037	.056	.451	.423	.182	.400	2.501
	P_Price	1.829	1.149	.345	1.592	.128	.503	.343	.142	.169	5.902
	P_Qualit	1.239	.942	.244	1.315	.204	.164	.289	.117	.232	4.311
2	(Constant)	-3.443	1.311		-2.627	.016					
	StratY_N	2.371	.972	.298	2.439	.024	.534	.479	.212	.506	1.975
	N_Info	.715	.254	.347	2.819	.011	.401	.533	.245	.500	2.000
	Njourne1	.166	.044	.394	3.802	.001	.534	.648	.331	.705	1.419
	Cust_needs	.733	.345	.288	2.124	.046	.451	.429	.185	.410	2.438
	P_Price	1.799	.866	.339	2.077	.051	.503	.421	.181	.283	3.530
	P_Qualit	1.222	.825	.240	1.482	.154	.164	.314	.129	.288	3.477
3	(Constant)	-3.983	1.295		-3.077	.006					
	StratY_N	2.929	.921	.368	3.180	.005	.534	.570	.284	.596	1.678
	N_Info	.937	.210	.454	4.455	.000	.401	.697	.398	.768	1.302
	Njourne1	.182	.044	.430	4.158	.000	.534	.672	.372	.747	1.339
	Cust_needs	.703	.354	.276	1.983	.061	.451	.397	.177	.412	2.430
	P_Price	1.041	.719	.196	1.449	.162	.503	.301	.129	.435	2.300
4	(Constant)	-4.871	1.168		-4.169	.000					
	StratY_N	3.647	.795	.459	4.587	.000	.534	.699	.420	.839	1.191
	N_Info	.838	.204	.406	4.112	.000	.401	.659	.377	.859	1.164
	Njourne1	.174	.044	.412	3.914	.001	.534	.641	.359	.758	1.319
	Cust_needs	1.057	.263	.416	4.023	.001	.451	.651	.369	.786	1.272

a. Dependent Variable: Performance

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.1061	9.6303	5.7778	2.29995	27
Std. Predicted Value	-2.466	1.675	.000	1.000	27
Standard Error of Predicted Value	.287	.833	.494	.136	27
Adjusted Predicted Value	-.5351	9.5422	5.7920	2.34328	27
Residual	-2.06562	2.80136	.00000	1.09426	27
Std. Residual	-1.736	2.355	.000	.920	27
Stud. Residual	-1.983	2.685	-.005	1.049	27
Deleted Residual	-2.69317	3.64089	-.01421	1.43502	27
Stud. Deleted Residual	-2.138	3.199	-.001	1.125	27
Mahal. Distance	.554	11.793	3.852	2.820	27
Cook's Distance	.000	.432	.069	.118	27
Centered Leverage Value	.021	.454	.148	.108	27

a. Dependent Variable: Performance

All statistical calculations including plots are provided on the attached CD-ROM.