

The Management of Small and Medium Enterprises

**Matthias Fink and
Sascha Kraus**

The Management of Small and Medium Enterprises

“This book offers intelligent answers on a core problem: How to professionalize the management of SMEs without damaging the entrepreneurial spirit of the acting persons. It combines a clear focus with multifaceted research results from several countries and methodological approaches”.

Josef Mugler

Founding President

European Council for Small Business and Entrepreneurship (ECSB)

Professor

Vienna University of Economics & Business Administration, Austria

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and
Sascha Kraus**

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Foreword

The Management of Small and Medium Enterprises

Friederike Welter

Small and medium sized enterprises (SMEs) have been and are the basis for economic development all over the world. They play an important role for employment, innovation and societal change. Researchers and teachers also have recognized that management processes in SMEs differ from large businesses, requiring specialized tools and management concepts. Small firms need specialized practices in human resource management; they apply specific strategies and use different methods of strategic management; and organizational learning within the firm is closely linked to the entrepreneur and his/her team.

The editors of this book have assembled interesting contributions from a wide list of international scholars on the management of small firms and new ventures. Their anthology highlights the variety of themes in managing and developing a small business, while also including international and country perspectives. As well as providing empirically grounded analysis of different facets of the management of new and small ventures, the contributors also provide conceptual insights into strategic management and planning in a small firm context, human resource management, entrepreneurial teams and challenges SMEs face in the twenty-first century, such as entrepreneurial learning and innovation and knowledge management. This book therefore is a valuable and up-to-date overview of the current debate in small business management, and it is of interest for researchers, teachers and practitioners alike.

Friederike Welter

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and Entrepreneurship (ECSB)

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Many individuals and organizations have played an important role in developing and refining this edited volume. The quality of this book is based on the creativity and hard work invested by the authors in their contributions. We are very grateful for their efforts and for sticking to timelines. Special acknowledgments are to be given to Josef Mugler and Dietmar Rößl (both Vienna University of Economics and Business Administration, Austria) for their helpful comments and constructive discussions, as well as Friederike Welter (Jönköping International Business School, Sweden).

We are also thankful for the institutional support received from our home institutions at the time of this work, i.e., the Vienna University of Economics and Business Administration, Austria (Institute for Small Business Management and Entrepreneurship as well as Research Institute for Co-operation and Co-operatives), the University of Liechtenstein and Utrecht University, The Netherlands, the Evald and Hilda Nissi Foundation/University of Vaasa, Finland, and the Institute for Management Research Cologne (IMFK e.V.). To this list, we would like to add the International Council of Small Business (ICSB) for giving us the opportunity to discuss and further develop some of the manuscripts published in this volume at the ICSB World Conference in Turku, Finland.

For their support in shaping the book, we would also like to thank Slawomir Teodorowicz (Vienna University of Economics and Business Administration, Austria), the editorial staff at Routledge/Taylor and Francis Group as well as our marvelous group of renowned scholars from all over the world.

Matthias Fink & Sascha Kraus
Vienna/Vaduz, February 2009

Introduction

The Need for (Entrepreneurial) Management of Small and Medium Enterprises

Matthias Fink and Sascha Kraus

SMEs continue to play an increasingly important role in major economies around the globe (Mugler 1998). In the European Union (EU) alone, there are approximately twenty-three million SMEs classified, based on having less than 250 employees and being independent from larger companies (European Commission 2003). By this definition, more than 99 percent of all enterprises in the EU are SMEs. These SMEs provide over one hundred million jobs in Europe, and in some sectors account for more than three-quarters of all jobs. SMEs also account for a significant share of interfirm cooperations across national borders (Fink and Teodorowicz 2008; Fink *et al.* 2009). At EU-27 level, an average European SME employs 6.8 persons (Gallup Organisation 2007). In the U.S., SMEs also employ more than half of all private-sector employees, are responsible for half of the GDP and generate between 60 and 80 percent of net new jobs per year (Kraus 2007). Against this backdrop, it is not surprising that SMEs have become a popular topic of academic research since Birch (1979) found that small firms create more new jobs than large firms.

Nevertheless, ‘a small business is not a little big business’, as Welsh and White already noted in 1980. This implies that *Small Business Management*, i.e., management in SMEs (including its subgroup *new ventures*, which are virtually always small enterprises), is not *downsized Big Business Management*. Management can be regarded as a set of tools to reduce the complexity of large business units to a level that makes it possible for the manager to act. From this perspective, one could argue that in small enterprises, such management instruments are unnecessary, given the perception that a lower level of complexity in smaller business units results in a more intuitive form of management. Thus, *Small Business Management* may rely on the established concepts and instruments of *Big Business Management*, but also needs to develop a flexible and easily used set of tools to support the entrepreneur in making the optimal decisions.

In light of the importance of SMEs in developed economies worldwide, it becomes essential to investigate the underlying mechanisms and practices of management within these enterprises. In the book at hand, we aim at bundling current research on this important topic to generate a

contemporary body of knowledge and provide a focused overview on topics for future research. The book consists of four main parts, which are divided into eighteen chapters. Each chapter focuses on a special segment of challenges for the management of SMEs, particularly to its subgroup *new ventures*. Together the chapters provide a broad overview of the most important day-to-day aspects of entrepreneurial activity, i.e., how to plan your business, how to develop your staff, how to put together your teams, how to learn and how to deal with innovations.

The first part of the book comprises four chapters on *Strategic Planning and Management*. In the first chapter, titled ‘Pre-Startup Planning Sophistication and New Venture Performance’ Reinhard Schulte reports the results of a survey of initial business plans made by entrepreneurs, whose enterprises have been monitored within a German startup panel since 2000. This chapter seeks to determine the planning behavior of entrepreneurs, their planning sophistication and the impact of planning features on performance. Subsequently, Ann Jorissen, Anne-Mie Reheul, Eddy Laveren and Rudy Martens strive to improve understanding of the design of short-term planning systems in SMEs. Under the title ‘Short-Term Planning Sophistication in SMEs: The Relationship with Strategy and Perceived Environmental Uncertainty’, they develop an explanation for the conflicting results with regard to the influence of Perceived Environmental Uncertainty (PEU) strategy on the design of planning systems, and argue that this design is not only dependent on PEU and strategy individually, but also on the interaction between PEU and strategy. This is followed by a study presented by Klaus Deimel, Sascha Kraus and B. Sebastian Reiche entitled ‘Strategic Management in the German “Mittelstand”: An Empirical Study’, which investigates the extent to which strategic management procedures are used in German SMEs. In addition, this chapter explores the motivation and barriers for their application on an empirical basis and the contribution of strategic management procedures to SME success. A different perspective on strategic planning is taken by Marko Kohtamäki, Teemu Kautonen and Elina Varamäki in their contribution ‘Discourses of Strategic Planning in Small and Medium-Sized Growth Firms’, in which they investigate small business managers’ perceptions of strategic planning by means of discourse analysis. On the basis of twenty-two thematic interviews focusing on the topics of strategy and strategic planning with Finnish SMEs who had experienced continuous growth, three discourses of strategy-making are distinguished and characterized: emergent process, formal process and shared process.

The second part of this book comprises six chapters on *Human Resource Management* (HRM). The first chapter is ‘The Impact of Age and Reading on the Desire for Training of Managers in Entrepreneurial Ventures’ by George Solomon and David Tomczyk, which examines whether the desire to train managers is moderated by two factors: the age of the entrepreneur and reading popular business periodicals. Subsequently in her chapter titled

'HRM in SMEs—Linking Embedded Human Resource Practices to Performance and Employee Well-Being', Essi Saru reviews a selection of HRM models for small firms and points out the effects of HRM on the overall performance of an organization, followed by an analysis of the HRM practices of one small but growing firm, making explicit those practices' connection to employees' well-being in that organization. Next, under the title 'Human Resource Management in Small Firms: Effective Informality', Kate Lewis and Alan Coetzer provide a stringent line of argumentation for the impracticability of HRM in SMEs that is based upon models of practice developed in large firms. They argue that ignoring this misfit has frequently motivated SME owner-managers to implement generic, and thus inadequate, HR practices, or no HR practices at all, both potentially resulting in diminished firm performance. In his contribution entitled 'Entrepreneurial Management of Labor Market Constraints and Human Resources', Colin Gray focuses on the crucial role of the residual knowledge and interactions of the people who take an active role in the SME and establishes insightful links to SME innovation. The following chapter 'Human Resource Management in Small Enterprises from Poland' by Janusz Strużyna, Tomasz Ingram and Sascha Kraus investigates HRM practices of SMEs in a *transformation economy* and compares them to empirical data collected in traditional market economies. This part of the book closes with a contribution by Julia Brandl and Matthias Fink titled 'Voluntary Corporate Health Promotion as Strategic Function of HRM: Comparing SMEs and Large Companies', which discusses if, and to what extent, there are differences in the nature of health promotion measures according to company size. More specifically, it investigates the relationship between company size and the preventive or curative nature of health promotion measures, as well as the relationship between company size and the structural or personal approach of measures that are carried out.

The third part comprises four chapters on *Entrepreneurial Teams*. In the first chapter 'Defining Entrepreneurial Teams and Modeling Entrepreneurial Team Effectiveness', Leon Schjoedt presents a reformulated literature-driven definition of the Entrepreneurial Teams (ET) as well as a model of determinants of ET effectiveness. This is followed by a contribution entitled 'Reasons and Situational Factors behind the Formation of Management Teams and Other Teams in Small Firms' by Sanna Tihula and Jari Huovinen, which analyzes the extent of participation in small firm management by the management team and other teams; this chapter also explores the rationale and situational factors influencing team formation in these firms. Subsequently, under the title 'Understanding Fast-Growth Firms Founded by Entrepreneurial Teams through Structure and Strategy', Thomas M. Cooney explores the utilization of organic/mechanistic structures coupled with emergent/deliberate strategies in success-oriented fast-growth firms founded by entrepreneurial teams. This part closes with a contribution entitled 'Effects of Founder Team Interaction on Customer and Competitor Orientation' by Thilo A. Mueller and Hans Georg Gemünden, who shed light on the effects

of customer and competitor knowledge on software venture performance in high technology ventures. Against the background that high technology ventures are usually founded by two or more persons, the study focuses on the role of founder interaction.

The fourth part comprises four chapters on *Experience, Learning and Innovation Management*. It starts with “Don’t Rest on Your Laurels”—An Inquiry into the Barriers to Radical Follow-up Innovation in New Technology-Based Ventures by Rainer Harms and Thomas Meierkord who—based on the results of in-depth interviews—discuss the barriers to radical new technology follow-up innovations in new ventures. Subsequently, under the title ‘Learning Progresses of Internationalizing SMEs—Assimilating New Knowledge’, Margaret Fletcher investigates SME assimilation of new knowledge as businesses grow through internationalization. This is followed by a chapter titled ‘Are Opportunities Recognized or Constructed?—An Information Perspective on Entrepreneurial Opportunity Identification’ by Ivan P. Vaghely and Pierre-André Julien who set out to ‘penetrate the black box’ of entrepreneurial opportunities in order to understand how these opportunities are identified with the help of the entrepreneur’s information processing. Finally, under the title ‘The Role of Adaptation and Learning of Entrepreneurs in Managing Outsourcing Relationships’, Miroslav Rebernik and Barbara Bradač present a three-phase model of outsourcing. They argue that in each phase the entrepreneur has to play different roles and provide different skills in order to establish an efficient relationship management that requires the acquisition and development of new capabilities and skills, of learning and adaptation.

Even though a significant number of books on small business management and/or entrepreneurship have been published recently, integrated knowledge on the management of SMEs and new ventures is still missing; this book helps to close this gap by providing a unique and essential overview of the current state of conceptual and empirical research in this topical area of management in SMEs and new ventures. Notably the demanding and interactive two-step review process ensures the quality of the contributions included in this volume, which were chosen from over sixty submitted manuscripts, twenty-four of which were presented and discussed at a specialized international academic meeting, the ICSB World Conference. The successful authors then participated in a double blind review procedure resulting in the selection of eighteen articles, written by thirty-three authors from universities in thirteen countries. The diverse perspectives included here represent both established authors and emerging scholars in the field. We are confident that this collection will foster discussion and stimulate research in SME and new venture management.

This edited book will appeal to everyone interested in SME and new venture management (more broadly defined as *entrepreneurship*), either on a practical or academic level. The readers both get an overview of the field of research in management of SMEs and new ventures, and are at the same

time provided with in-depth knowledge on a broad selection of important issues. The clear focus of each contribution and the explicit delineation of recommendations for practice make this edited volume attractive for practitioners working in the field of SMEs and new venture management and consulting. This is also supported by the applied nature of many of the proposed chapters and the fact that some of the contributors are practitioners themselves. In addition, those who design the general conditions for SMEs and new ventures can gain a better understanding of this group of companies from the chapters comprised in this volume.

To the knowledge of the editors, this book is one of the first publications investigating and discussing the methods and techniques originally developed for big companies as to their applicability in the context of SMEs and/or new ventures.

The contributions fit together in a clear picture: It shows that we cannot directly transfer our well-established management knowledge from the big to the smaller business units. Empirical findings presented in this volume indicate the sensitivity of various management tools to firm age and the stage in the company life cycle. Thus, there is an urgent need for management tools that take into account the characteristics of SMEs and new ventures. This highlights the importance of the specific research field on small business, respectively young venture management. The texts at large draw up a research agenda with defined contributions on the collective and the individual level.

We hope that the book at hand can serve as a road map towards the much-needed development of a consistent body of knowledge on the management of SMEs and new ventures.

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Part I

Strategic Planning and Management

1 Pre-Startup Planning Sophistication and New Venture Performance

Reinhard Schulte

INTRODUCTION

Surprisingly little empirical work has examined the relationship between planning sophistication and performance in new ventures. The present study reports the results of a survey of initial business plans made by entrepreneurs, whose enterprises have been monitored within the startup panel of Northrhine-Westphalia since the year 2000. This chapter seeks to determine the planning behavior of entrepreneurs, the grade of their planning sophistication and the performance effects of planning features.

Reflections on new venture planning are spread quite widely in the academic entrepreneurship literature (e.g., Diochon *et al.* 2005; Hisrich *et al.* 2008; Kuratko and Hodgetts 2004; Timmons 2003; Dollinger 2003; Hormozi *et al.* 2002; Mugler 1998; Pleschak and Werner 1998; Ripsas 1997; Olson and Bokor 1995; Risseuw and Masurel 1994; Carter *et al.* 1994; Unni 1984), as well as in how-to books and papers for practitioners (e.g., McKeever 2005; Hebig 2004; Dowling 2002; Gruber *et al.* 2002; Barrow *et al.* 1998). The literature strongly supports the argument that planning is a key issue for startups and that a lack of planning leads to a poor performance of young enterprises. However, some authors even argue that planning delivers only few advantages to new small businesses (Carter *et al.* 1996). Moreover, theoretical linkages between planning sophistication and performance in new ventures were hardly delineated (Castrogiovanni 1996), and only a few empirical works have been done on this topic.

Brüderl and others (1992, 1998), as well as Jungbauer-Gans and Preisdörfer (1991), inspected the time invested by entrepreneurs for planning activities and the frequency of written business plans. Planning activities exposed no significant effect on survival and growth (in employees), but on growth in gross revenue. Klandt and others (1998) investigated the frequency and partitioning of written quantitative business plans of government-supported startups with interviews. They found no substantial effect on gross revenue per capita. Lussier (1996) examined a small sample of startups in the retail industry, finding accurate planning to be a relevant cause explaining survival. Rüggeberg (1997) analyzed surviving technology startups with a retrospective questionnaire. He reports startup planning to some extent (concerning a commercialization plan and a customer requirements analysis) to have significant impacts on turnover and

goal attainment. Pleschak and Werner (1998) examined by interview the circumstances of development of initial business plans within a sample of government-supported technology startups. They concluded that the application for financial support initiates planning processes and affects the quality of business plans. Lumpkin and others (1998) examined the planning behavior and the perception of success. They concluded that preparing financial projections is positively related to profitability. Schutjens and Wever (2000) tested a sample of Dutch business starters. They concluded that thoroughly prepared entrepreneurs in means of making a business plan more often realize growth in employees and turnover. Honig and Karlsson (2004, 2001) inquired about the planning behavior of nascent entrepreneurs in Sweden and their individual perception of their business success. They found no evidence for a positive correlation between planning and performance. But Matthews and Human (2000) indicated that perception of success is problematic when used as a measuring technique for business success, because it cannot be separated from expectations and is therefore biased. They delineated how business plan formalization affects the expectation of growth in new businesses: More formal business plans lower the expectation of growth. Kraus and Schwarz (2007) and Kraus (2006) showed that pre-startup planning leads to ongoing planning in small Austrian businesses, and that the existence of written business plans is beneficial for company success.

In an early work on strategic planning in enterprises based on new technology, Roberts (1983) identifies strategic planning deficiencies in a lack of emphasis on economic performance, an inadequate analysis of the economic and the technical environment, an inadequate perception of competitors and a too broad business approach with an inappropriate multiple product line. Functional planning deficiencies were found lacking in marketing planning, management team planning, R&D planning and financial planning. Spitzer and others (1989) show that using external financial sources highly correlates with making formal plans in new technology-based enterprises. Entrepreneurs who use external financing therefore exhibit a greater propensity to develop formal business plans than those entrepreneurs not using these sources.

This research area does not seem to be very well explored. Widening the perspective to strategic or operational planning in already existing small businesses, what is supposed to be a roughly comparable context, there are a lot more studies available. Some of them already highlighted the correlation between planning and performance: Jones (1982) detected planning businesses to be more successful in terms of return on assets than nonplanning businesses. Bracker and Pearson (1986) identified different levels of performance to be associated with different levels of planning. Robinson and others (1986) confirmed this for small independent food retailers. Bracker and others (1988) found that structured planning procedures outperform businesses with nonstructured planning procedures. Rue and Ibrahim (1998) found the overall planning sophistication to be a possible determining factor for growth rates in sales, but not for subjective organizational performance

or return on investment. Berry (1998) found out that strategic planning in British small high-tech companies fostered their long-term growth. In young Dutch businesses, success leads to increasing planning activities, promoting further success (Van Gelderen and Frese 1998). Perry (2001), describing very little formal planning in U.S. small businesses, deduced that non-failed businesses do more planning than similar failed businesses did prior to failure. Lussier and Pfeiffer (2001) stated that accurate planning is relevant for survival in small businesses in Croatia, in accordance with Delmar and Shane (2003, 2004), who later found that planning in young Swedish small and medium enterprises (SMEs) increased survival rates. Based on a longitudinal analysis, Gibson and Cassar (2005) confirm a relationship between planning activity and performance in small businesses, pointing out that planning is more likely after a time of growth, whereas planning in turn promotes subsequent performance. Yusuf and Saffu (2005) found that planning SMEs outperform nonplanners only in the manufacturing sector.

Ackelsberg and Arlow (1985) concluded that although planning improves performance, formalization of the plan does not affect it. Robinson and Pearce (1983) found performance of small U.S. banks not to benefit yet from highly formalized strategic planning processes and extensive written documentation, as well as Gable and Topol (1987), who found no planning–performance relationship for small retail businesses.

In a meta-analysis containing large and mature companies as well as small businesses, Boyd (1991) reports that earnings growth, sales growth and return on investment benefit modestly from planning activities. The meta-analysis by Schwenk and Shrader (1993) led to similar findings.

Rauch and Frese (1998), as well as Van Gelderen and others (2000a), found a positive relationship between the detailedness of planning and the realization of owner goals. This relationship is moderated by uncertainty and environmental hostility. Rauch and others (2000) complemented the relevance of cultural differences as moderating influences on this relationship. Van Gelderen and others (2000b), using a psychological approach to investigate action strategies of small business owners (see Rauch and Frese 2000; Van Gelderen and Frese 1998), distinguished between different strategic planning variants in small businesses. They found a reactive strategy to be negatively related to the achievement of goals of the business owners, while a strategy focusing on the most crucial issues (critical point strategy) is positively related.

To summarize what has been done so far:

- Relatively few examinations focus on startups (Kraus and Schwarz 2007; Kraus 2006). The vast majority of empirical work on the planning–performance link targets established enterprises.
- Empirical studies targeting startups off and on expose modest hints of the assumption that planning sophistication promotes performance. However, by now there has been no substantial empirical evidence that holds for unfailing levels of significance.

All in all, the level of knowledge seems to be quite marginal. This may be caused by some deficiencies associated with prior research on initial business planning. Apart from limited geographic or industry coverage and an accidental lack of empirical testing, these deficiencies are particularly the following two:

- Survivorship bias: The exclusion of failed enterprises from performance studies due to the fact that they no longer exist biases (resp. overestimates) performance, because only companies that were successful enough to survive until the end of the period are included. To avoid this bias, a longitudinal research design is required.
- Interview bias: Performance studies on startups necessarily depend on an individual recollection of past events when not designed longitudinally. When looking at the later performance of a newly founded enterprise, an interview approach is, therefore, apparently biased by selective perception, selective answering and selective recollection of the past planning behavior. Those retrospective approaches are thus inappropriate.

The objective of this study is to analyze the relationship of planning sophistication and performance of startups in Germany, referring to real business plans. This research design avoids the numerous problems of retrospective approaches.

DATA AND METHODOLOGY

Variable Set

This chapter uses data collected by the Start Up-Panel Northrhine-Westphalia (NRW) (Schulte 2002; Schulte 2001). The panel, which has been run by the author since 2000, underwent its sixth wave of observation in 2005. Until 2005, it has monitored more than ten thousand startups belonging to the crafts business sector. This sector can be viewed as typical for entrepreneurial activities in Germany in terms of sizes, business models, legal types and other (Schulte 2002). The panel covers startups as well as successions and active participations in existing businesses, and contains solely full-time entrepreneurship. The core elements of the Start Up-Panel NRW are standardized written interviews conducted periodically, which allow for a longtime monitoring of a high quantity of entrepreneurs and their new enterprises. The Start Up-Panel NRW excludes survivorship bias. Because all included startups have been monitored through government authorities (*Landes-Gewerbeförderungsstelle*), no hidden exit is possible. Furthermore, if required all exits could be verified by way of a special crafts register (*Handwerksrolle*), where all entries and exits have to be recorded.

These regular panel examinations were accompanied by an extra enterprise database with detailed business information and some examinations placed aside the panel waves. One of the latter is an evaluation of 585 randomly selected initial business plans of the monitored enterprises that were made for financial acquisition purposes before starting the business. These written business plans were examined by a document analysis. It has to be pointed out here that data concerning planning activities is not collected by interviews, but by analyzing the written documents in order to avoid the interview biases mentioned earlier. Apart from this methodological aspect, this is a matter of content: Following assumptions of Baker and others (1993), who regard formal written plans as more effective for promoting critical thinking and decision support, we refer to the real paper documents rather than to interview answers. Because of this research design, there is no nonresponse bias possible.

Depending on the founder, the business plans were made with or without external help, covering a broad spectrum of different planning styles, ranging from handwritten two-page papers with a spot of coffee on the one hand, to elaborate planning folders containing a hundred and more pages on the other.

The business plans were addressed to dedicated consultants who had to attest that a business plan had been conducted (for application purposes in funding government aids). However, they did not have to evaluate plans. Thus, the planning style could not have been predetermined by this process. So we can assume that every new venture with an already prepared business plan for a bank or VC did use it for approvement, while others creating new plans were following minimum requirements for this purpose. All in all, this should reasonably reflect the planning reality of nascent entrepreneurs, because there's only constraint to write down the project already in mind, but no pressure leading to institutional conformity in the way planning has to be conducted (Honig and Karlsson 2004).

The investigation intended combines data from the enterprise database with specific variables taken from panel waves and the document analysis of the initial business plans. The following depiction outlines the selection of the independent, dependent and control variables used.

The enterprise database provides information about the age of the enterprise and the gender of the entrepreneur. If planning effects exist, they possibly fade with time. Assuming that startup teams provide a broader set of competencies, we also carry out control for the number of entrepreneurial persons involved (team), which is delivered by the database, too.

The predominant part of the data is provided by a document analysis of initial business plans that detects information about the topics person, employment, support, finance and marketing. It provides not only information about the capital raised when starting the business (startup size in money) and the startup size (persons in $t=0$ including the entrepreneur), but also includes some variables that can be taken as indicators of the planning

depth of new ventures. Following suggestions of Castrogiovanni (1996), this chapter decomposes the degree of planning into variables distinguishing between different topics of the initial business plan. These topics were subject to the document analysis of initial business plans.

The panel waves were used for data about the size of the enterprises at the time of investigation and the annual performance derived therefrom (for construction of dependent variable see the following). Moreover, they deliver the variables 'Financing problems mentioned' and 'Financial consulting needs (pre-startup)'. Assuming that financing problems mentioned when starting the business indicate a necessity for external capital, and the need for external money prompts entrepreneurs to make a more refined written business plan, we include the variable 'Financing problems mentioned'. Moreover, we assume that entrepreneurs needing financial consulting are less sophisticated in financial planning affairs and include the corresponding variable, too. Because initial finance is supposed to be a key problem in starting a new venture, and business planning in particular often is caused by the need for external financing, the data collection notably accounts for financing issues.

To validate this content-induced arrangement of ten planning indicators (1. capital requirements plan, 2. investment plan, 3. financial plan, 4. turnover plan, 5. profit and loss plan, 6. duties of staff plan, 7. ability of staff plan, 8. perception of competitors, 9. estimation of market volume, 10. target group definition), the variables were tested for intercorrelations. To give them a similar structure, all indicators were recoded binary (1=true, 0=false). Within the three groups 'financial planning' (#1–5), 'staff planning' (#6–7) and 'marketing planning' (#8–10), all recorded indicators showed highly significant correlation. Therefore a reduction of the quantity of indicators with a factor analysis seemed to be useful, as this not only facilitates the interpretation and handling of the phenomena in a multivariate setting, but also tests for the adequacy of the thematic connections made earlier.

The factor analyses induced two important modifications of the variables set relevant for the measurement of planning depth: Firstly, the financial planning group has to be modified, because no single factor can adequately represent the phenomenon. Rather two important components could be identified. While the indicators 'capital requirements plan', 'investment plan' and 'financial plan' highly correlate with component 1, 'turnover plan' and 'profit and loss plan' clearly correspond with component 2. So the financial planning group had to be divided in two parts, which we will call 'Financial planning depth' (factor 1) and 'Profit and Loss planning depth' (factor 2). These two aspects could be explicated clearly and provided high explanation rates for variance (74 percent and 91 percent).

Secondly, the marketing planning group had to be modified, because 'target group definition' was too peculiar for a single factor solution and was therefore suppressed. The factor described as 'marketing planning depth' was limited thus to the indicators 'perception of competitors' and 'estimation of market volume' (80 percent of variance explained).

Table 1.1 Latent Variables and Related Indicators

| <i>Latent variable</i> | <i>Related indicators</i> |
|--------------------------------|--|
| Financial planning depth | Capital requirements plan Investment plan Financial plan |
| Profit and Loss planning depth | Turnover plan Profit & loss plan |
| Staff planning depth | Duties of staff Ability of staff |
| Marketing planning depth | Perception of competitors Estimation of market volume |

Concerning the ‘staff planning depth’, no modifications were necessary so the indicators ‘duties’ and ‘ability of staff’ could be utilized (76 percent of variance explained). This leads to four latent variables specifically describing the planning depth of startups.

The planning depth variables are characterized by the following distributions in Table 1.2 (standardized, with positive figures indicating deeper planning activities).

Analyzing subgroups of this sample reveals some interesting differences in their planning behavior: Women did significantly deeper marketing planning than men (marketing planning depth 0.31 versus -0.05 with men, $F=10.1^{**}$, $\alpha<0.01$). Compared to successions and active participations as alternative types of professional independence within existing businesses, startups show a less sophisticated staff planning depth (startups -0.11 versus 0.14 with successions/active participations, $F=7.7^{**}$, $\alpha<0.01$). Apparently, defining duties and competences in a new venture setting is more difficult than in an existing business with an established employment configuration.

Table 1.2 Planning Depth Dimensions

| | <i>n</i> | <i>Ø</i> | <i>Std. dev.</i> | <i>Std. err.</i> | <i>25 % Quart.</i> | <i>Med.</i> | <i>75 % Quart.</i> |
|--------------------------------|----------|----------|------------------|------------------|------------------------|-------------|------------------------|
| Financial planning depth | 585 | 0 | 1 | 0.04 | -1.23 | 0.31 | 1.10 |
| Profit and Loss planning depth | 585 | 0 | 1 | 0.04 | 0.50 | 0.50 | 0.50 |
| Staff planning depth | 585 | 0 | 1 | 0.04 | -0.75 | -0.75 | 0.42 |
| Marketing planning depth | 585 | 0 | 1 | 0.04 | -0.83 | -0.83 | 1.51 |