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Knowledge transfer in service research - Service engineering in startup companies

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I dedicate this dissertation to my daughters

Kira, Svea and Nora Siegfried.

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Summary

Due to the influence of economic changes, young SMEs which are at the corporate identification stage of development must pay particular attention to general conditions such as the micro and macro environment. These often difficult starting points and *problem situations* make adjustment processes essential as there is freedom to act and the pursued strategies need to be reconsidered. Priority for all young SMEs is stable, sustainable and healthy growth. Therefore, it is a key management task to deal with the definition, planning and implementation of strategies.

The *objective* of this thesis was to generate practical knowledge for young SMEs in the area of strategic corporate planning and service engineering and establish a workable and applicable phase approach for management. Both disciplines hang together causally. Service development is oriented like the strategic planning in the long term and is structured in phases, too. This is one reason why both disciplines were presented.

Therefore, the research methodology used in this thesis is based on the guiding principles of applied research. Due to their economic importance, the focus was on SMEs, as in the case of young SMEs the entrepreneurial challenges of the future are great.

The envisaged *structure of the work* was to analyse the theory and existing studies in the form of *secondary research*. A concept of the necessary strategic corporate planning instruments by means of service engineering was created using the theory part. This means that the relevant science findings were de-

rived using *primary research* with respect to knowledge transfer. The research results were systematized and evaluated to an action plan for a solution of the problem. The applications of the different instruments have been evaluated for their practicality using *primary research* in 17 multiple case studies over a two-year period. The evaluations of these case studies highlight the applicability of instruments in young SMEs. Based on these results, consequences were derived and future strategic challenges were pointed out. The focus of the present thesis is laid on German SME, because studies showed that 40 percent of the young SME fail in the first year. On the other hand service industry gets more important in business. In 2009 73.4 percent of the employees worked in the service industry in Germany. The research project also laid the focus on SME in Germany in the technology sector because this area indicates weaknesses in the strategic planning and the service development.

In total, over 234 sources were considered for the *literature/study and document analysis* presented in this study.

1 Starting point of the study

Although not in the focus of public attention, small and medium-sized enterprises (hereinafter referred to as SMEs) shape decisively the economic structure of developed market economies [Brüderl et al. 1996, p. 11]. More than 99 percent of European businesses are SMEs; in Germany, they represent 60.8 percent of jobs [IfM 2009]. At the same time, in particular, start-ups and young companies-as a sub-group of SMEs, the majority of which have a low number of employees and limited resources-are increasingly seen [KfW founding monitor 2008, p. 10; OECD 2002, pp. 84ff; Schwarz/Grieshuber 2003, p. 1] as significant factors for the economy, as they are fundamental to the maintenance and development of the economy. The promotion of business start-ups and young businesses is, therefore, an integral part of the economic policy objective catalogue of the European Union and many of its Member States [www.foerderdatenbank.de; www.foerderinfo.bund.de]. Here the focus is on the increase in the number of business start-ups, as well as survival rates [Frank et al. 2002, p. 5]. This is because the risk of failure for these young companies is particularly high, especially in the early years after foundation [Kirchhoff/Acs 1997, p. 167]. An estimate of the failure rates (liquidations/bankruptcy) of business start-ups in Germany is 40 percent in the first year and 90 percent for the remaining companies in the course of the next ten years [Creditreform 2008, p 13ff; Timmons/Spinelli 1999, p. 52ff]. In the face of these failure rates, the search for factors that systematically influence the success of SMEs is of high topical relevance for the economic and labour market policies [Cooper et al. 1994, p. 371ff], SME managers as well as for the founders of young companies and their stakeholders. "We know no more about services today than people knew about iron in the Iron Age." With this provoca-

tive thesis, the Swedish scientist GUMMESSON (2002, p. 234) describes the current state of research in the field of SMEs. He claims that the object of the service, its components and their interaction are by far not yet fully explored. This is, however, a necessary precondition for the development of new, complex services that can be observed e.g. in the knowledge-driven advances in the development of increasingly complicated technical products. In increasingly dynamically growing markets, service providers achieve benefits not only through cost, quality and technology leadership. Rather, the simultaneous elaboration of innovative services as differentiation is gaining importance and increasingly becoming a crucial and unique selling point compared to competitors [Fähnrich et al. 1999, p. 9; Luczak et al. 2003, p. 444]. Frequently, however, start-ups are not able or only in a comparatively inefficient or ineffective way able to provide all the services required for own and research use so that they acquire or have to acquire these services from other specialised service companies. Therefore, the question of self-development or the use of expertise in the development of services arises. Existing findings from research services in the field of SMEs and in particular of start-ups are not available to a sufficient degree.

There is a gap between scientific knowledge and enterprise practice that must be closed to improve the innovation and the competitiveness of SMEs. With respect to start-ups, there is little information in the literature about their development opportunities. This thesis is attempting to deal with this issue. The secondary sector, which has lost much importance in the past few years, can also expand its range of services in the development of appropriate process models and thus enter the market in a stronger position. These new challenges that start-ups must face due to the changes in the environment are characterized by high uncertainty and unpredictability of the future.

The objectives of this thesis are the derivation of approaches to strategic planning and service engineering from literature and empirical research, the application of which can increase the efficiency and success rate for young SMEs. A case study based on strategic corporate planning instruments that can be implemented and applied by young SMEs is to be performed as a practice test and proof of success. *In summary*, two research objectives are being pursued.

The *content objective* of the thesis is to come up with copyable approaches for the implementation and application of strategic business planning tools for service engineering. The *methodological objective* of the thesis is to develop the theory and concepts for strategic planning and service engineering, to test and explore its concrete application in young SMEs, in order to produce knowledge for other young SMEs.

The *structure of the thesis* is based on the philosophy of applied science according to ULRICH (2001). However, this is not about basic sciences to the pursuit of general theories to explain existing realities, but about the development of practical and active design rules and models for the future to support the successful development and growth of young SMEs [Ulrich 2001, p. 19ff]. At the beginning, the operational problems are recorded and typed. Then, the collection, interpretation and specification of problem-relevant theories to the fundamental and formal sciences take place in the research process. In the next step, the application contexts are recorded and examined in order to derive from them the practical design models and recommendations for action. With these models and rules, a practical implementation in case studies is carried out to determine the suitability for use. As a result, several recommendations for the practice arise.

Conclusions from these versions of the research process in applied science are at the same time the cornerstones to the methodological approach:

- The practical relevance is constitutive for the determination of the methodical approach in the investigation. This requires that relevant problems taken from practice are worked out, and that practical information during the analysis and synthesis work is incorporated into the research process.

- A study of the influences of the business environment and the company itself is carried out on the basis of the analysis of the application context (strategic planning by young SMEs).

Against this background, the previously outlined problems and the mentioned research objectives, the following *research questions arise* that must be answered in the literature-study analysis, i.e. the secondary data and the case study as well as the primary data:

1. Do young SMEs use strategic business planning concepts?

   (secondary data from literature and study analysis)

2. What conditions apply to young SMEs in the case of strategic business planning?

3. Which applicable and feasible instruments do young SMEs use in strategic business planning?

   (primary data from the expert interview and the case study)

The structure of the thesis is divided in the following process phases:

The starting point underlying the present thesis was discussed in *Chapter 1*.

To create a terminological clarity and a common base for the present work, the literature review of strategic planning and services research are dealt with in *Chapter 2* and the existing research studies on these subjects are examined in terms of a secondary analysis.

In *Chapter 3* we have an explorative expert survey in 14 young SMEs regarding the strategic business planning as a primary analysis.

Based on these foundations the hypotheses and objectives of the thesis are presented in *Chapter 4*.

In *Chapter 5* the Material and Method Chapter we have the case study which is represented by 17 young SMEs. They have participated in the research project "Knowledge transfer service research". Thus, the relevance and the successful use of service engineering are proven based on primary data.

The *Chapter 6* shows the new research findings after the implementation and realization of service engineering.

Chapter 7 represents the Summary and the implication for science and practice and the opportunities for further research.

2 The literature review in the form of an analysis of secondary studies

2.1 The services sector as an industry of the future

The services sector is also called "tertiary sector" and has become increasingly important in the last few decades. The process of this occurring structural change is characterized by a significant increase in employment in the services sector. On the other hand, the former economic importance in traditional areas, such as agriculture and forestry, as well as manufacturing, is declining.

The relevance of the service economy in the Federal Republic is shown by the employment figures of 2007. Currently, 28.80 million persons are employed in the service economy, 10.12 million in the manufacturing economy and 0.84 million in agriculture (including forestry and fishing). The service economy employs 72.42 percent of the total workforce of 39.77 million [SVR 2008, p. 55]. In 1991, this proportion was only 59.48 percent. It accounts for 68.71 percent of the total value-added [SVR 2008, p. 54].

The service sector includes the following business sections:

- Trade and the hotel and restaurant industry,
- Transport and communication,
- Credit and insurance industry,
- Real estate and housing, renting, other economic services,
- Local authorities and social security,

- Education and training,
- Health, veterinary and social work, as well as,
- Other public and personal services.

The service can be divided into three different groups:

1. The term "service" is clarified by a list of examples (so-called *enumerative* definition).
2. The term "service" term is determined as a negative definition distinguishing it from stuff goods.
3. The term "service" is explicitly defined on the basis of constitutive characteristics, whereby it distinguishes between potential-oriented, process-oriented and outcome-oriented definitions. [Corsten 2001, p. 21]

In economic science, goods were mainly regarded as means of satisfying the needs of people [Blum 1992, p. 2]. This satisfying of needs is therefore considered a value-added feature. In the classification of the goods, services are included in intangibles.

The **enumerative approach** is defined by a list of performances that are considered services [Langeard 1981]. This approach can be found, where industries are listed which have a character of services in the economy.

In the case of a **negative definition**, services are delineated from other types of performance [Altenburger 1981]. They are shown as a residual of unmappable activity types. This approach eventually leads to the sector theory. All services are assigned to the tertiary sector, when they cannot be assigned to forestry and agriculture (primary sector) or industrial output (secondary sector).

In the **constitutive characteristic viewing** those features are identified that characterize service [Scheuch 2002]. In the area of services marketing, the third group is often favoured. In this case, the task-oriented definition is also considered in addition to the three previously mentioned definition approaches.

In the **potential-oriented** service definition, it is considered that potential created by people or machines can be regarded as service [Meyer/Mattmüller 1987, p. 187]. The **process-oriented** service assumes that: "Services in the broadest sense are addressing the needs of research serving processes with material and/or immaterial effect, whose implementation and use require a synchronous contact between performance provider and performance recipient or rather their respective objects to meet the demand [Berekoven 1983, p. 23]." From the **results-oriented** point of view services are intangible assets produced for sale. The service is seen as the outcome of the process [Maleri 1997, p. 4].

A further consideration is seen in the definition as an **activity-oriented service**. "Any human activity is in its actual and original sense a 'service,' i.e. a performance serving own or research interests." One can also say: "What one does when working physically or mentally with or without connection to the material world in order to satisfy human needs is a service [Schüller 1967, p. 19]."

In conclusion, the following definition can be presented:

"Services are separate, marketable benefits associated with the deployment (such as insurance) and/or the use of capabilities (e.g. hairdressing services) (potential orientation)." Internal (such as premises, personnel, facilities) and external factors (i.e. those who are not in the sphere of influence of the service provider) are combined in line with the creation process (process orientation). The factor combination of the service provider is used with the aim to achieve (results orientation) value-added effects (e.g. an inspection of a car) on external factors or people (e.g. customers) [Meffert/Bruhn 2009, p. 19]."

2.2 Service research studies

Until the late 1970s, the subject of service played second fiddle to material production [Häußermann/Siebel 1995, p. 134f]. In the classical economists service was regarded as unproductive, not adding value and very often as consumptive. Since the 1980s, the relevant economic literature has dealt more intensively with the topic of services. However, in the beginning, the focus was placed on the concept of service and quality of service [Nüttgens et al. 1998, p. 15]. In service sector research, services are increasingly examined in relation to technology, companies, economic growth, jobs, employment, innovation and prosperity [Gouthier et al. 2007; Streich/Wahl 2006; Baethge/Wilkens 2001].

In the face of this radical change in consideration of services research, the Federal Ministry for Education, Science, Research and Technology (BMBF) launched the initiative "Services for the 21st century" in 1994. Together with the developer DLR "Arbeit und Technik" (current name: "Work and Services") the BMBF has set up the funding area "service research." At the instigation of the BMBF, the first service meeting was launched in 1995 to advance and promote the service economy. Before there have been workshops on service marketing since 1991.

Another milestone in service research was the future report "Service 2000plus" with the development of six fields of research from which derived research projects funded for one or two years,"priority initial measures". Among other things, the project entitled "Market leadership through service bundling and customer-oriented service engineering" led to the publication of the "DIN report 75", as well as the special edition of the journal "Information management & consulting" under the title "Service Engineering" and thus formed the basis of the conception of service engineering as a discipline of its own [Bransch 2005,

p. 67f; Fähnrich/Opitz 2003, p. 89ff; Ernst 1998, p. 7ff]. Since 1999, the promotion was tendered by means of notices published as “guidelines”. Are an integral part of the BMBF and The service meetings are an integral part of BMBF and were held for the eighth time in the year 2010.

Other research approaches that deal with the matter of service research and service engineering are described in the the following:

At the DFKI-German Research Centre for Artificial Intelligence (www.dfki.de) there was the project **CASET-"Computer Aided Service Engineering Tool"** between 2000 and 2003. It was a computer-aided tool to document service engineering processes from brainstorming up to the provision of services. The subject of **"Learning in and with SMEs"** was the subject of a program of comprehensive exchange of experiences in so-called thematic networks from 2002-2007. In the newly formed German Federal States, there has been the project **"Economy meets science"** from the BMVBS (www.bmvbs.de) since 2007, which is looking for new approaches for improved transfer of scientific and technical innovations into economic applications. 25 projects were approved of in the first round and seven more in the second round. Sys-Inno, "Systematic development of bottom-up innovation" is a project for SMEs in the newly formed states, which analyses comprehensive innovation requirements (www.sys-inno.de). A research project of the BMBF on "export capability and internationalisation of services" was in place from 2005-2008, which involved among other things knowledge transfer between experienced companies and export newcomers, SMEs, in order to close the gap in service research (www.dienstleistungsexport.de). The BMBF launched the programme **"Innovation with services"** (www.hightech-strategie.de/de/250.php) in 2006. It is about the ability to enable SMEs to use appropriate management tools and design suitable processes. The ZIM, **"Central innovation programme SMEs"**

was launched in July 2008 and offers small and medium-sized enterprises (www.zim-bmwi.de) a reliable perspective to support their innovation effortsby the end of 2013. It also encourages collaborative projects between SMEs and research institutions. A transfer project is the project of the DHI-Deutsche Handwerksinstitut e.V. of 2007 on the subject of **"Service engineering-driving innovation in SMEs",** with the goal for SMEs to develop and test suitable business and process models. (www.service-engineering-kmu.de).

In July 2008 the Landesstiftung Baden-Württemberg has announced a two-year project titled **"Knowledge transfer services research-use services to remain competitive"**. This scientific knowledge concerning Service Engineering is intended to be put into practice by SMEs, in particular by the manufacturing trade.

It is therefore not a response to a legislative proposal from the Commission.

Based on the establishment of service research by the BMBF, one reacts to the increasing importance in service research and service development.

In summary, the following characteristics have emerged as a result of an intensive study of services:

- Services can be a differentiating competitive factor for manufacturing companies,
- Business-related services are on the increase,
- In the secondary and tertiary sectors services grow together to form hybrid solution offers,
- Customers are increasingly involved in the creation of services,

- Trends in the demographic development promote the service sector,
- Technically based services are produced and offered globally and must also face up to international competition.

On the basis of the increased examination of the production of goods, similar attention is now being paid to service research. This enables us to work out the concepts of a "hybrid value creation" and examine the "value-in use". An added value is thus created from the combination of products and services, in which the product has a lower value without the service. Therefore, service research should be seen as an exploration of both fields up to a service science. What is required are networks of multidisciplinary experts who combine these fields. "Customers do not look for goods or services per se, they look for solutions that serve their own value-generating processes [Grönroos 2000, p. 4]."

To date service engineering has made a significant contribution to the systematization and professionalization of service development. Services and tangible goods should no longer be considered separately from each other when it comes to their development. The customer is the focal point and expects a performance bundle of products and services. In the early 1990s, ENGELHARDT et al. [1993, p. 395ff] has performed studies on this subject. For these hybrid products global approaches must be created, including the adaptation of the methods, tools and process models. The first approaches of this development methodology "Hybrid product development" have appeared in the integrated development of inseparable product and service bundles [Spath/Demuß 2003, p. 497ff]. These developments cover only partial areas. Therefore, the topics that deal with hybrid products are a challenge for future work taking into consideration the subject of service engineering.

By way of introduction, it should be noted that the planned case study should not deal with the transfer of findings from all areas of service research, but that there should be a focus on the area of **service engineering** and service development. This should, however, take into account not only approaches to the systematics and professional development of "pure" services but also the integrated development of services and benefits to form hybrid service bundles, as one has to assume a broad identity of the procedure models, methods and tools to be deployed. Other topics referred to in the call for projects (in particular cooperation management, standardization and quality management) are therefore in the here proposed projects only of less importance, they can, however, not be completely disregarded in view of the diverse content links – a consideration of quality aspects for example is indispensable in the development of services. This content focus is justified by the intended in-depth specialization in the field of service engineering. In this respect, the present treatment of level of research focuses on this area.

The research field of service engineering has been developed more intensively since the mid-1990s. In this context, the term of service engineering [Scheer et al. 2006, p. 20] means the systematic development of services using appropriate approaches, methods and tools. In this respect, the terms service engineering and service development are used in the following text synonymously. The BMBF initiative "Services for the 21st century" founded in 1994 in conjunction with the 1. BMBF conference "Service of the future" held in June 1995 is often considered to be the "starting signal" for German service engineering research [Fähnrich/Opitz 2006, p. 88f]. This is true insofar as it was actually the first time that this topic had attracted a lot of attention, resulting in a variety of research projects and insights, and it has also led i.a. to the transfer of engineering methods to the services development. When looking at the state of research, it

should not be overlooked that the development of new and the improvement of existing services have already been the subject of business research. Service blueprinting SHOSTACK (1982) and the Gap model PARASUMARAN et al. (1985) are two instruments that have already been developed in the first half of the 1980s and also discussed in the German-speaking business literature and which are today an integral part of the spectrum of methods used in service engineering. Also the process model for the development of new services according to SCHEUING/JOHNSON (1989) that is often cited in literature on service engineering has its origins in business studies.

What can be stated with some certainty is that the true "service engineering-boom" got underway with the beginning of the BMBF initiatives and the provision of appropriate funding for engineering and business research (see the overview provided in the Appendix under literature). FÄHNRICH/OPITZ (2006) gives a very clear overview of the development of service engineering since the "starting signal" in 1995. Central contributions to the services research have emerged e.g. within the framework of the BMBF funding programme "Service engineering and service design" in the years 1999 to 2004. Important foundation work has been done already in the years 1998 to 2000 in Baden-Württemberg as part of the project "Service engineering-innovation and growth through systematic development of services" (funded by the regional Ministry of Science, Research and the Arts). Numerous projects with service engineering content on the priority topics "Export capability and internationalisation of services" and "Integration of production and services" are currently running under the BMBF programme "Innovation in services". In this respect, the range of existing process models, methods and tools for service engineering is continuously expanding-and in the meantime at a very high level. Therefore it will be necessary in the framework of the planned project, to take into account not only

the current state of research, but to access new knowledge of services research and to integrate it into the project. The status elaborated at this point may only have a provisional character. A clear overview is given in "Service engineering" BULLINGER/SCHEER (2006), edited by BULLINGER/WILHELM. Below, in particular the findings relevant for the present project are highlighted.

Research on service engineering tends to be based on services having three dimensions, which is a well-known concept from service marketing [Engelhardt et al. 1983, p. 398]: service provision, service creation process and service results. In this respect, it must be first determined that a systematic method-based service engineering must take into account all three dimensions, which means that product models, process models, and resource models are used, which, taken together, represent the **development methodology** [Fähnrich/Opitz 2006, p. 95].

An especially important role in the development of new services is played by **process models** that divide the process of developing a service into various phases, from the initial idea to the final realization, that have to be gone through systematically. The literature provides here a variety of concepts which can be broken down into process models, iterative process models and prototyping models [Schneider et al. 2006, p. 117].

In the various stages that are described by process models, different **methods and instruments** of service engineering may be used. In the course of time, a considerable range of those has developed in service research. The methods discussed are in part phase-specific, but also cross phase methods are considered. With regard to the performance dimensions similar can be said: The methods refer in part only to the three service dimensions but they also help in the design of two or even all three dimensions and thus contribute to the product, process and/or resource modelling. A comprehensive, but somewhat older

empirical study method used in practice can be found at FÄHNRICH et al. (1999). Exemplary methods and instruments of service development, which cannot be discussed in detail at this point, include: Cost-effectiveness analysis, cost-benefit analyses, requirement analysis, strengths- weaknesses-and opportunities-risks analysis, prototyping methods, target costing, analysis and effect analysis (FMEA), quality function deployment (QFD), service blueprinting, lead user concept, roadmapping, modularization/modular design principle and morphological box. This list is not exhaustive, and there can be overlaps in the content of these methods. The compilation shows what wealth of knowledge services research can now provide to service engineering in methodological terms.

Without a doubt, the **participation and integration of customers** plays a central role within the framework of service engineering. It runs through all phases of service development, and different phase-specific forms of customer integration can be used, RECKENFELDERBÄUMER/BUSSE (2006). In most cases this customer involvement also becomes apparent in the application of the above methods and instruments.

The outlined procedure models, methods and instruments which brought forth service research are therefore extremely varied. However, it is identified in the "Knowledge transfer service research" rightly that the implementation of these instruments in the field of small and medium-sized enterprises (SMEs) is still very inadequate. There are only few specific research results in this respect, because most research projects have not been adapted to the characteristics of SMEs. The exception was e.g. the BMBF-funded project "Service engineering-drivers of innovation in SMEs" of itb-Institute for technology of management in the German Crafts Institute e.V., which is however primarily focused on craft businesses. BMWT's "Central Innovation programme" launched 1 July 2008 is

expected to provide other findings, which are, howener, not presently available. However, further research is needed in this regard irrespective of the specific requirements for the application of practices and methods in SMEs or the modifications of existing concepts.

2.3 Studies on strategic corporate planning in SMEs

A 2002 study on corporate planning of the top German companies measured by turnover found that of the surveyed large companies, 80 percent have carried out strategic planning and 90 percent have operational planning in place [Link/Orbán 2002, p. 11ff]. The human and material costs of designing and implementing the strategic planning can be very high. Many SMEs do not have the necessary capacities to do this. To obtain a comprehensive overview, this chapter examines the existing studies and findings for young SMEs. Many of the studies reviewed and the following publications relate to SMEs as defined by the EU. This analysis also includes established SMEs and medium-sized enterprises.

How does strategic behaviour or strategic planning in young SMEs look like? Are there differences compared to large companies? In empirical studies, strategic plans are much more often examined in large companies than in SMEs. Therefore, an overview of the studies cited in this work is provided in *Appendix 1*. Subsequently, several studies are analysed in order to answer the specific **research questions** about the current state of research:

1. Research question:

Do young SMEs use strategic business planning concepts?

BANTEL/OSBORN (1995, p. 54) has determined that the absence of generic strategies (according to PORTER 1985) cannot be put on par with the lack of strategic direction. The focus on customer groups can also be described as strategy.

There are capable entrepreneurs who can run a business without having a strategic planning concept. Due to the dynamics of the markets and the uncertainties, the entrepreneur should also always keep in mind the company's goals and their status. The identification process of corporate strategy should be regarded as an investment in the future and the strategic planning should be conducted with the help of scenarios and variations [Pfohl 1997a, p.169].

KROPFBERGER (1986, p. 39) interviewed 161 Austrian SMEs and found out that only half of them did perform short-term planning, and about one-third carried out sales planning. LEITNER (2001, p. 165ff) experience looked at 100 Austrian SMEs and determined in these cases that 62 percent had written concepts of the company's policy, but that 31 percent carried out the strategies intuitively. 88 percent of the SMEs carried out the planning on the basis of. FRÖHLICH/PICHLER (1988) have also surveyed 107 Austrian SMEs and determined that 23 percent do not perform planning, 31 percent have short-term planning in place, while 45 percent carry out long term/strategic planning [Fröhlich/Pichler 1988, p. 112].

The study by OLSON/BOKOR (1995) considered 500 fast growing SMEs in the United States, with over half of SMEs not having a formal business plan at the time of their foundation [Olson/Bokor 1995, p. 34ff].

HAAKE (1987) looked at 127 SMEs in Switzerland, and found that 28 percent did not have strategic planning, while 31 percent and 41 percent used short-term and long-term strategic planning respectively [Haake 1987, p. 45f].

The ETH Zurich (1995) surveyed 1,667 SMEs in Switzerland for a study on the subject of success and risk factors. It turned out that ideas formulated in writing about the orientation and development in SMEs over a period of two to four years are rather the exception. For SMEs with less than 50 employees, 15 percent carry out a planning for marketing, 25 percent for sales and 18 percent for the production. SMEs act intuitively and changes in too many factors influencing the business areas make the implications for the entrepreneurs unmanageable [Sattes et al. 1995, p. 36f].

The bulk of the studies thus confirmed that in SMEs the planning is rather unstructured, sporadic, intuitive and incremental and if it does exist, it is not carried out in a comprehensive and formal manner [Naffziger/Müller 1999, p. 12ff; Sexton/van Auken 1982, p. 21]. This means that rationality in practice does not exist, and that there is a lack of rational decision-making processes. Rationality in decision-making can be used as "formal principle of decision logic" [Wiswede 1995, p. 28] with logical and normative consequences, but it is not necessarily consistent with the actual behaviour in SMEs. In the studies conducted by CROMIE et al. (1999, p. 23), REID et al. (1999, p. 49) and KURATKO et al. (1998, p. 38) factors were detected influencing strategic planning such as family ties (securing the future) or personal ties (autonomy, personal growth, income).

In a literature review, DEIMEL/Kraus (2008, p. 155ff) of 17 studies, which focused on strategic planning and business success, a positive link between planning and success could be detected in 64.7 percent of the studies. In 23.5 percent there was no traceable link and in 11.8 percent only a mixed context. Of the companies surveyed by DEIMEL/KRAUS (2008), 19 percent planned for a period of up to 12 months, 58 percent for a period of two to four years and 23.7 percent for longer than four years. The planning is carried out primarily by the

management. 53.1 percent of surveyed SMEs carry out a strategic plan for the combined company only, and not for the functional areas. 20 percent of SMEs planned for up to two more areas and another 20 percent for up to three functional areas (human resources, sales and marketing planning). In these plans for the functional areas, the quantitative planning instruments dominate in SMEs.

SILK/KALWANI (1982, p. 165f) conducted an empirical study in the form of a survey with owners or managers of 1.000 SMEs in Germany, Austria and Switzerland using a structured written questionnaire. Creditreform's address database of SMEs in the German-speaking countries was used as a basis. The response rate was 10 percent with 101 questionnaires. 89 percent of those surveyed expected a successful competitive position through strategic planning. 27.50 percent carried out no strategic planning. The reasons are likely to be lack of time and urgent demands from the daily business.

POSNER (1985, p. 1) noted that many SME managers are convinced that entrepreneurs should not plan, but use their time for operational activities.

A nationwide business survey on the subject of "Strategic planning in small and medium-sized enterprises" was conducted in Aalen from November 2006 to March 2007 by the HTW (2007) with 631 SMEs having been incorporated in the evaluation. This survey asked among other things, whether strategic planning is generally useful. Nearly 85 percent of the companies surveyed consider strategic planning to be very useful. The companies surveyed see strategic planning to over 42 percent as the key success factor for successful SMEs.

In 2005, in the study entitled "Entrepreneurship in Germany", more than 5.000 SMEs were surveyed by the consulting firm McKinsey, the Chair of Small Business & Entrepreneurship at the University of Bremen and the Chair of Business Development at WHU School of Management in Vallendar to provide success formulas for profitable growth, with 600 business surveys included in

the evaluation. A key message here was: "Too much belly, too little strategic planning [McKinsey et al. 2005, p. 4ff; ZWF 2006b, p. 3]." It became clear that there was no shortage of strategic planning methods. The problem often lies in the question of "know how." In many SMEs, the strategic planning process is not defined and it is difficult for many companies to select information relevant to their situation and to apply the appropriate methods.

ROBINSON/PEARCE (1984, p. 129) have found in their meta-analysis of 50 studies that a formal strategic planning to find more is in large enterprises, because small businesses are day business oriented and it often lacks resources and thus not strategic plan. PERRY (2001, p. 201ff), his study of 152 SMEs in the United States, confirmed this statement. SMEs with less than five employees do not use any strategic planning. Strategic planning is increasingly carried out from 15 to 20 employees.

The legal form plays a role in the execution of strategic business planning. This allowed ESSER et al. (1985, p. 495ff, 508ff) in a survey of 214 German industrial companies to establish that strategic planning is being used in GmbHs and AGs due not least to the size of these companies but also as a result of stakeholders having influence on the management.

In the STRATOS study (1990) (strategy orientation of small and medium-sized enterprises) 1.172 SMEs in eight European countries (D, FIN, F, UK, NL, B, CH, AUT) were examined regarding values, goals, and strategies with a standardized questionnaire. The Ansoff matrix with the basic strategies of market penetration, product development, market development and diversification was used in the survey to determine the fundamental strategic orientation of SMEs. 31 percent of the SMEs focused on market penetration strategy, 27 percent on product development strategy, 15 percent on market development strategy and 27 percent on diversification strategy. The existing written plans could be di-

vided into four planning orientations: a non-existent planning, short term planning (up to 1 year) and long-term planning in one or two functional areas. In the STRATOS group of the strategic planner, those SMEs were allocated which were planning in at least three functional areas. The extent of the planning increases with an increasing size of the company. The cluster analysis identified six areas of behaviour: entrepreneurial mission, entrepreneur-employee relationship, organizational principles, willingness to change, strategic awareness and behaviour towards society. Another finding identified four different types of entrepreneurs: the "all-rounder", the "pioneer", the "organizer" and the "veteran". When analysing these types of entrepreneurs across countries and sectors, there are no striking differences. However, the following should be noted: Micro-enterprises are run by all-rounders, companies with 100 to 499 employees tend to be led by pioneers and organizers and veterans are spread evenly. These types of entrepreneurs have different understandings regarding strategic planning [STRATOS-Group 1990].

HAAKE (1987, p. 35) identified three types of entrepreneurs in his investigations. These are the traditional family entrepreneur, the professional and the founder/pioneer. Strategic planning is done mainly by the professional. The implementation of strategic planning also depends on the training of the entrepreneur and of equity capital employed. This means that especially young founder/pioneer entrepreneurs need support for their strategic planning.

In summary, it can be established that SMEs rarely plan due to the following shortcomings and reasons:

- relatively limited time resources,
- limited expertise,

- lack of awareness of the necessity,
- lack of rationality in decision-making,
- SMEs are rather focused on the day-to-day business,
- Intuition of the decision maker outweighs everything else.

This realization is confirmed in the business survey of 631 SMEs conducted by HTW AALEN (2007, p. 27) in which they asked about the reasons for not planning. It is striking that 31.3 of the companies that do not use strategic planning cite limited time resources and 29.2 percent lack of awareness as reasons for the lack of strategic planning.

2. Research question:

What conditions apply to young SMEs in the case of strategic business planning?

Incremental processes of strategy formation can be derived according to SCHWENK (1995, p. 69) and EISENHARDT/ZBARICKI (1992, p. 48) when the entrepreneur approaches the decision-making process unsystematically, and the purpose of business dealings arises only in the course of searching for information. This issue is also pointed out by MINTZBERG (1978, p. 945) in their empirically derived patterns of behaviour of intended unrealised strategies and unintended realised (emergent) strategies. However, many entrepreneurs often remain on their chosen path and insist on the defined strategic plan. This does not only lead to individual failure possibilities, but there is also an increasing interaction and mutual reinforcement of various decision-making errors [Schwenk 1988, p. 44]. Estimation errors, such as the distorted assessment of

previous successes, the incorrect processing of underlying information of past strategies, can influence strategic planning [Wiswede 1995, p. 85ff]. WELTER (2003, p. 40) put together an overview of error possibilities. Errors already arise when identifying strategic issues when for example once made decisions are applied unchecked to new acts or when the status quo is not updated. Also, there are selective perceptions, and current and new information is often neglected. In the search and selection of strategic alternatives, causal relationships are associated to chance, representativeness is overestimated and desired results are seen as too high.

The cognitive dissonance theory can also be used as an explanation according to which the entrepreneurs dismiss the alternatives not selected in the planning decision to justify a lower effort used in the decision-making process and to get around otherwise occurring cognitive tension after a decision has been made [Kirsch 1998, p. 1983; Radetzki 1999, p. 90ff]. In this case we can speak of a tendency to persist on a decision once made, or an inadequate search for strategic alternatives or the recourse to existing strategies [Bartscher/Pompke 1995, p. 119ff; Lyles/Thomas 1988, p. 136]. Thus, risk-averse decision-makers act trying to avoid risks and struggle against the unknown, any long-term obligation and uncertainties. However, if serious cutbacks resulting in disadvantages can be expected due to external changes, this risk-averse action of decision-makers is understandable. In conflict theory, this is referred to as "defensive avoidance" or more colloquially as “muddling through [Lyles/Thomas 1988, p. 136]."

Young SMEs often have reduced resources, such as poor access to human and financial capital or a not fully developed administration, and hence a poor access to the sales market compared to large enterprises. Therefore, the term *critical mass* is often used, below which formal planning mechanisms fail to mate-

rialize [Karagozoglu/Lindell 1998, p. 44ff]. Consequently, SMEs often lack strategic plans [Kessler/Frank 2003, p. 237]. At the same time, SMEs also have many opportunities for the development of a strategy. SMEs have the advantage of being close to the customer and of possessing good knowledge of the market and, due to the high motivation and identification of employees and the influence of the entrepreneur, a rapid implementation is possible [Füglistaller et al. 2003, p. 42].

Based on the results of SME studies on planning, WELTER (2003, p. 36) comes up with three different strategy processes: "Muddling through", "reacting-acting and "shaping", "Muddling through" means situational behaviour representing a departure from long-term goals. This is often influenced by external factors. "Reacting-acting" describes a process with the transition to active shaping. "Shaping" means that there is a strong use of standardised strategies at the beginning, which are later developed individually into complex strategies. According to WELTER (2003) these three basic types of strategy processes WELTER (2003) are at the origin of the conflict theory of the decision-making process.

Decision-making and hence the genesis of strategy is often a feedback process and leads to learning effects and a dynamic approach. Empirical studies show that decision phases do not follow any given process, but can also progress simultaneously repeatedly. This is confirmed by MINTZBERG et al. (1976, p. 276ff) in the theory of "unstructured “strategic decision-making processes.

CARLAND et al. (1989, p. 23ff) found in the case of 368 US-based SMEs, that the personality (risk and innovation propensity, achievement orientation) and the type of planning (none, informal, formal) have a positive correlation to the success of the company. If that is so, the legitimate question must be asked why strategic planning has not been carried out.

The strategy development process is often associated with the management and therefore by one person or a small number of people [Brinkmann 2002, p. 13]. SMEs often lack knowledge, have prejudices, critical attitudes, or incorrect views regarding strategic business planning [Brouthers et al. 1998, p. 130]. There are also business owners who say that "real entrepreneurs do not plan [Posner 1985, p. 1]." You should use the available time effectively for operational or sales activities [Stone/Brush 1996, p. 633ff]. The time-stretched entrepreneur is limited by planning that may also suggest complete control and knowledge which in reality does not exist [Bernasconi/Galli 1999, p. 345; Mintzberg 1994, p. 107ff]. Start-ups consider planning to be ineffective due to the high uncertainty and time constraints [Bird 1988, p. 442ff].

The aforementioned reasons why strategic planning is not carried out is also supported by insights such as the rejection of external aids, traditional thinking, overestimating oneself, inadequate knowledge and fearing loss of flexibility and far-reaching changes [Robinson/Pearce 1984, p. 128ff; Scharpe 1992, p. 44]. Even employees have reservations about strategic corporate planning, because this is considered as an elitist and complex matter, which is to be carried out only by the Board or specialists [Carson/Cromie 1990, p. 5ff].

Shortcomings and problems in strategic corporate planning are often due to lack of time, the inappropriateness of some planning methods, fear of commitment and setting objectives, lack of information and uncertainty [Müller 1991, p. 268ff]. "Strategic planning is therefore often ad hoc and problem-focused and based on randomly acquired knowledge or information." The course is mostly informal and a mental process of the owner/operator behind closed doors. "The corporate goals of the entrepreneur tend to be described as being vague, pragmatic and of the short term character [Müller 1991, p. 273]."

PELHAM/CLAVSON (1988, p. 43ff) demonstrated empirically that due to operational time constraints, no strategic information is obtained, and instead the focus is on acutely relevant information to solve concrete problems. One reason for these characteristics can also be that the rejection of planning is founded on the fear to commit oneself to specific targets making the entrepreneur's actions verifiable for the employees [Pfohl 1997b, p. 169].

Companies also tend to adhere to the existing or to the well-known. Sensitive information may be withheld. Nevertheless, young SMEs need to adapt to change because of the growing momentum and push their search forinformation and analysis activities. Planning can also be a tool to understand and implement necessary changes [Brouthers et al. (1998), p. 137ff].

KÜPPER/BRONNER (1995) refers to the impact factor of the business person. Besides the existence of a plan, even if just an informal plan process, especially the quality of the performed planning plays an important role.

The term "strategic planning" is defined differently in the analysis of 18 empirical studies by PEARCE et al (1987, p. 659). In foundation research aiming at establishing a relationship between strategic planning and success, a general statement is not easily possible. KRAUS (2006) examined in a study of "Munich foundation study" nine empirical studies. In this study, about 1.850 entrepreneurs were surveyed. It was noted that thorough planning increases the probability of survival and the group of those who have performed a formal planning was more successful than the others [Brüderl et al. 1996, p. 160ff; Jungbauer-Gans/Preisendörfer 1991, p. 987ff]. Strategic planning has an impact [Berry 1998, p. 455ff; Smith 1998, p. 869; Stearns et al. 1995, p. 24ff] on survival, growth, development and success of young companies however, the application of strategic planning there is low. KRAUS (2006) sees a gap in research for strategic planning in young companies, mainly because only some

aspects are examined. This was also determined by RUE/IBRAHIM (1998) in their analysis of empirical studies. They identified strategic planning criteria such as literacy, longevity, formulation of objectives and strategies, evaluation and control of young companies [Armstrong 1982, p. 197ff; Rue/Ibrahim 1998, p. 25].

In summary, it can be stated that SMEs are influenced by the following factors:

- existence of rigid corporate planning,
- old successful strategies are copied,
- estimation errors, insufficient knowledge,
- lack of resources (finance/human capital),
- no proper analysis is performed due to time constraints,
- lack of awareness,
- fears of loss of flexibility.

3. Research question:

Which applicable and feasible instruments

do young SMEs use in strategic business planning?

In the case of young SMEs strategic corporate planning begins in the pre-seed phase. Here it must be noted that there are a number of studies on SMEs, but that there is no research available on the subject of the consequences of leaving out the pre-seed planning phase [Castrogiovanni 1996, p. 801ff]. Pre-seed planning as a process is an important component in the sense of the identification

phase, especially for young SMEs, as it helps to devise a vision for the future. Corporate resources and instruments are being used to develop a concept for the company [Sexton/Bowman-Upton 1991, p. 118]. The analysis of existing data is essential for the development of a business plan [Shuman/Seeger 1986, p. 7ff]. This pre-seed planning can range from general to detailed business plans. However, it remains to be noted that there is a clear lack of empirical-scientific reports on pre-seed planning [Gruber 2004, p. 164ff]. It even goes so far that this business plan is seen as a benchmark for effective planning, as it should include all relevant aspects of strategic business planning [Heriot/Campbell 2004, p. 1ff]. DELMAR/SHANE (2003, p. 1165) have found in 211 start-up companies in Sweden that a business plan created in the pre-seed phase increases the company's chances of survival.

Formal strategic planning promotes a process to deal actively with the objectives, strategies and plans of SMEs and thereby build knowledge [Baker et al. 1993, p. 83]. The fixing of a formal written business plan is more effective than an informal approach because the process of analysis and decision supports SMEs and the written record can be taken as evidence, traceability and control option [Baker et al. 1993, p. 82ff].

BRACKER/PEARSON (1986, p. 503ff) have identified in their study of SMEs eight planning instruments: the objective of an environmental analysis, SWOT analysis, strategy formulation, financial objectives, a functional budget, operational performance indicators and inspection procedures. These elements are divided into four levels: the structured strategic planning, operational planning, structured, intuitive design and unstructured planning. With this differentiation, besides the already mentioned options, a strategic business planning can also be made.

SIMON (1959, p. 262) developed a model of limited rationality, according to which satisfactory targets are pursued based on the principle of "satisficing" (maximizing the benefits) rather than optimal objectives. In order to ensure the long-term survival of the company, the entrepreneur focuses on a certain market share, revenue or profit, rather than maximising the profit. The decision-making process reflects the effort to make the best decision under the circumstances. Taking this assumption further, DEAN/SHARFMAN (1993, p. 589) also speaks of "procedural rationality".

The presence of "strategic awareness" influences the type of strategic business planning. This was established by BEERY (1998, p. 455ff) in a study of 30 young high-tech SMEs in the UK.

Approaches to the implementation of strategic business planning in young SMEs can lie in personnel qualifications, in consistent strategic approach through systematic market positioning and in the modernization of technologies. Time constraints and knowledge gaps have to be identified and the strategic direction systematically implemented. This means that employee potential should be used, and existing customer and service focus considered in the market development and simplification of operational procedures are to be examined taking into account the potential use of information technology to structure and optimize processes [Welter 2003, p. 240f].

A large portion of the strategic methods and tools stemming from the 1980s are tailored to large companies, but some methods that will be introduced in *Chapter 5* can be used in SMEs. In this case, however, the specific situation and the specific issues are to be considered specifically in relation to the relevant company [Wirth 1995, p. 15ff].

An approach for a simplified and actionable strategic planning is provided by MASUREL/SMIT (2000, p. 95ff), suggesting that employers should deal with

the strengths and weaknesses of the company and need to develop the anticipation of alternative future scenarios.

Young SMEs do not know much about the practice of strategic planning and its underlying mechanisms, in particular, the various dimensions of the phases.

In an analysis by HUBER (2008, p. 76f), in which more than 100 managers were involved, methods were evaluated in terms of their relevance and maturity. The various business types were divided into three groups of entrepreneurs-the "undecideds", the "followers" and the "established." The entrepreneurs of established SMEs use other methods than followers and undecided [Huber 2008, p. 76]. In addition to SWOT analysis of the market, competition and benchmarking analysis, the established also use "best-practice models." The followers work with portfolio, customer satisfaction and market attractiveness analyses. The "undecideds" need "5 forces" and "scenario-planning" to create the basis for further proceedings. This allocation and differentiation of the entrepreneur may also be a differentiation to be made in the company's life cycle phases.

For most SMEs it is about the use of simple but practical ways to establish the company in the difficult and often unknown market quickly without great expense. The dichotomy between theoretical and practical importance of corporate strategy is also reflected in the ratio of SMEs to the common instruments and methods of strategic planning. Another important aspect is the consideration of the time horizon. In literature [Rue/Ibrahim 1998, p. 24ff] and also in common practice, one assumes a minimum of three years of planning when establishing a business plan. This advance planning has several advantages. For one, the resources are considered at an early stage and, secondly, the entrepreneurs and employees are motivated to implement these goals. The targets set are controllable reflecting a target achievement [Collins/Porras 2005, p. 1ff]. It

should be noted, however, that especially in the case of young SMEs this timeframe may be too long. Therefore, the possibility of ongoing variable strategic planning should always be taken into account. Rigid planning approaches can have a negative impact on income especially in young growing SMEs. In this regard, ROBINSON/PEARCE (1984, p. 128ff) had also found that SMEs are planning on average for two years less than large firms.

The formalisation of strategic business planning is reflected in the fact that business objectives, strategies and plans are documented [McKiernan/Morris 1994, p. 31ff]. This approach was also used by LYLES et al. (1993, p. 38ff) found in the analysis of 188 SMEs, where a subdivision in *formal* and *non-formal* planning was undertaken. They determined that the formal planners have demonstrated a higher sales growth, which was due to the higher quality of strategic decisions. OLSON/BOKOR (1995, p. 34ff) were able to prove in the case of 500 fast-growing SMEs in the US that the formalisation of planning has a positive effect on success.

To support long-term strategic planning, tools are needed to make a structure specifying the objectives and the way leading to them. Predicting trends and changes, and making them projectable, are targets for the use of these instruments. Roles and responsibilities are distributed differently, in SMEs they are often in one hand. Therefore, a direct transfer of the instruments is not helpful [McKiernan/Morris 1994, p. 32]. Entrepreneurs are not aware of many of the instruments that have been shown in previous figures. It should be noted that the use of strategic planning tools is beneficial to the success of young SMEs. The available tools and instruments are part of the company's strategic planning, which cannot do without effective planning [Kreikebaum 1997, p. 62]. The implementation of the case study must therefore focus on previous knowledge and on the correct application of strategic planning instruments.

Any predictions that were created in the past must be checked and controlled in terms of current developments [Helms et al. 2005, p. 49ff]. The control function is used as a necessary means for optimal achievement. At the same time, controls can be used as employee motivation by profit sharing or bonuses linked to the achievement of certain targets [Collins/Porras 2005, p. 1ff]. In scientific studies, there is little information regarding this aspect of control options. Only WIJEWARDENA et al. (2004, p. 209ff) found that planning and goal achievement controls have a positive impact on the success of SMEs.

According to WEBER (1999, p. 54ff) the strategic business planning in young SMEs can be supported by a variety of instruments. Thus, instruments for the strategic positioning (e.g. SWOT analysis, gap analysis), for transfer to measures of structural design (including life cycle, experience curve, benchmarking, Value-chain) up to the implementation in operational execution (including break-even analysis) are listed.

BAIN&COMPANY (2003, p. 2f) has surveyed 708 companies on the use of management tools and also set up a satisfaction index (from 1/satisfied to 5/dissatisfied). Only those tools are listed in **Figure 1**, which are used in at least 45 percent of the companies surveyed.

The term “tools” is equated with the term “instruments” (e.g. balanced scorecard), management systems (e.g. total quality management), executive functions (e.g. strategic planning) or specific measures (e.g. outsourcing). Individual tools can be combined, for example by making a customer survey in customer relationship management, deriving figures obtained in it and incorporating them into strategic planning.

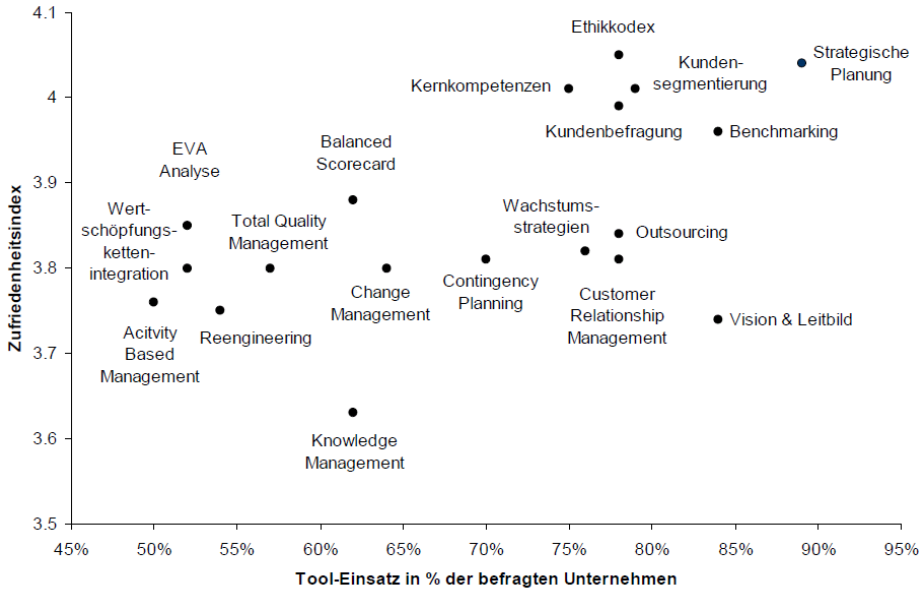


Figure 1: Use of tools for management control [Künzle 2005, p. 17]

In summary, it can be suggested that methods and tools of strategic planning with the following aspects should be used in SMEs:

- strategic awareness should be present,
- existing employee potential should be utilized,
- in the pre-seed phase, a business plan with an extension of 3 years is of advantage for basic orientation and attracting lenders,
- the procedure should evolve from unstructured, intuitive, operational, planning to structured strategic planning,
- the strategic planning process with goals, strategies, evaluation and control should be kept and pursued constantly,

- flexible planning should always be adapted to the situation of the respective SME by regular review/check-ups,

- important tools such as SWOT analysis, 5-Forces, scenario, benchmark and portfolio are currently used mainly in young SMEs.

Finally, the following investigation needs can be construed:

In several areas, the study fields of young SMEs and the staus quo of strategic business planning were pointed out, and the information analysed. Therefore, we can state that every young SME aims at long- term survival on the market. Numerous studies from different countries were considered. Thereby it became obvious that there is a positive relationship between strategic business planning and success in young SMEs. But it also turned out that there are a variety of instruments and that many young SMEs may know these but nevertheles not use them. The problems are, among others, due to the lack of time, expertise and human resources. Approaches to solve these problems can for example be found in the use of common tools and processes of large companies, which can be adapted to young SMEs. The relationship between strategic business planning and success has been shown in the previous studies.

2.4 Studies on determinants of success in SMEs

In a "study on the strategic competence of SMEs", which was published by the Technical University of Clausthal/Haufe Akademie (2007), 4.000 companies were surveyed and 228 questionnaires incorporated in the evaluation. From the point of view of German SMEs, corporate strategies are highly relevant to the company's success, but mostly exist only in the minds of management. The

restriction reflects the fact that, on the one hand, company strategies are only poorly fixed in writing in those companies and that existing strategies for the entire organization are only rarely and incompletely shared through all hierarchical levels of the company while, on the other hand, strategies consider only insufficiently in-house and external factors often delaying the flow the strategy process.

LÖFFLER (1995, p. 157) has examined in his review of 129 empirical studies and examined the relationship between strategic business planning and business success. The majority of these studies have shown that larger companies are more likely to have a formal strategic plan. A causal relationship between the intensity of strategic planning and corporate financial results has been ascertained. 34 of 48 studies alone confirm this positive relationship. LÖFFLER (1995) also comes to the conclusion that for "small businesses [..] the implementation of a formalized planning system even has a negative effect on the company's success". This statement, however, only applies to three of his studies analysed. Overall, the studies conducted by him show the diversity of intervening variables such as flexibility, coordination, communication, conflicts, information equipment and motivation. The causal position, which is assigned to these variables, varies often suggesting a specified relationship of influence or also a moderating or specifying effect [Löffler 1995, p. 192].

Some meta-analyses, e.g. by SCHWENK/SHRADER (1993, p. 145), ROBINSON/PEARCE (1984, p. 25), D'AMBOISE/BAKANIBONA (1990) found that there is a strong link between planning and financial success of the company. On the other hand, there are examinations by ROBINSON/PEARCE (1983, p. 18f), who found in a study that there is no explicit connection between planning and business success of any kind.

Other meta-analyses by GOODING/WAGNER (1985), CAPON et al. (1990), BOYD (1991) and Leitner (2001) show that the size of the company is not synonymous with business success. The company size has no causal meaning, but rather a facilitating role enabling tasks for the development and implementation of a strategic business plan to be assigned.

KRAUS/SCHWARZ (2006, p. 37) have also presented a comprehensive empirical analysis of strategic planning in young SMEs and its direct relationship to success. Business success is a key term in the conceptual and empirical economic research and practice [Schildknecht 1992, p. 52f]. Previously there have been many attempts to measure success and to identify indicators [Bamberger 1987, p. 90; Brush/Vanderwerf 1992, p. 157ff]. Among others FRITZ (1990, p. 91ff) has elicited more than 30 different operationalisations of the concept of success. Success is represented primarily as quantifiable flow size, such as the cash flow, and often refers to the company's financial results [Beutel 1988, p. 14]. In empirical studies, one further differentiates by using output-related financial indicators such as profitability, sales/profit growth [Gibson/Cassar 2005, p. 207ff; Rhyne 1986, p. 423ff]. A problem often existing in young companies is the fact that SMEs can rarely generate profits in their start-up phase and have not got large market shares yet. Therefore, there is a lack of evaluation criteria, with comparable or past data [Lenz 1981, p. 131ff]. Based on this, it is concluded that the most important indicator for the time being may be the survival over a period of time [Brüderl et al. 1996, p. 91]. In order to survive this phase, however, the company must have the ability to adapt to external and internal conditions of change [Boyd 1991, p. 353].

KRAUS/SCHWARZ (2006) have evaluated leading scientific journals on the subjects of entrepreneurship [Entrepreneurship Theory and Practice, Journal of Business Venturing, Journal of Small Business Management, Small Business

Economics] and strategic management [Strategic Management Journal, Long Range Planning, Journal of Business Strategy, Journal of Economics and Management Strategy, Journal of Planning and Corporate Management] dating from 1981 to 2005 in a comprehensive analysis. Moreover, a database search has been performed on EBSCO [EconLit, Business Source Premier, academic Search Premier], Science Direct, Emerald Management Xtra, the Web of Science and Wiso-Net. It identified 26 studies that deal with the topic of strategic planning and success in SMEs [Kraus/Schwarz 2006, p. 74ff]. In this analysis, KRAUS/SCHWARZ (2006) came to the conclusion that 73 percent of studies showed a positive correlation between success and strategic planning. A distinction between SMEs and small businesses shows that there is a connection in only 56.3 percent of the small businesses. The researched studies have shown that "planners" would typically have a good education and training. Difficulties arose from the fact that the various studies had different methodologies and ways of operationalizing or showed non-comparability of the statistical populations. Furthermore, the sample size was partially too small or the investigations focused on a specific sector or only on one region.

ORSER et al. (2000) were also able to show in another study that the business plan has a high impact on the company's success and contributes to growth [Orser et al. 2000, p. 42ff].

As a rule, one indicator for the success of young SMEs is their survival over a certain period of time (up to 10 years) (Brüderl et al., p. 91). Survival, on the other hand, is largely dependent on the company’s ability to adapt to changing conditions of the business environment. Strategic planning is a concept used to ensure this.

For the first time, success factor research was fundamentally investigated in the “Profit Impact of Market Strategies” (PIMS) study by BUZELL/GALE (1989)

in the 1960s which included 300 enterprises. Here, both internal and external success factors across all sectors were identified by applying multiple linear regression. Numerous critical objections were raised against the PIMS approach, e.g. regarding the limited representativeness of the data used, incomplete model specification, the use of cross-sectional studies as well as regarding the causal interpretation of the results. In the 1980s, some studies across all sectors were carried out. These, however, were very heterogeneous in terms of research approach and methodology as well as the results obtained (Fritz 1990, p.94 f; Göttgens 1996, p. 475 f). The Structure- Conduct- Performance Paradigm (SCP) was the preferably used research model in this context. This model looks at the market structure of an industry (supplier, customer, product differentiation and entry barriers), the steps taken by companies (F & E, price, advertising) and the economic performance (profitability) (Scherer/Ross 1990). Here, the success of an enterprise is looked at on the basis of its strategic adaptation. This is also about taking into consideration the core competencies, which finally implies that a strategic business planning concept can be established and implemented. When examining and analyzing success factors often mentioned in the relevant literature and in practice, strategic planning is referred to as one success factor. Further factors indicated are the market, the position of the enterprise, the value-added process, the portfolio technology and personnel & organization (Breid 1994; Buzzell/Gale 1989). On an overall basis, the results of success factor research vary. In a meta-study by CAPON et al. (1990), the significant success factors are compiled which were obtained from different studies that have chosen a financial success criterion (e.g. ROI, return on equity, profit) as a dependent variable. The results showed that there are differences between the analyzed independent variables resulting in a different presentation of the probability and the intensity of a positive or negative correlation to suc-

cess (Capon et al. 1990, p. 1148). The frequency with which the determining variables are mentioned indicates that agglomeration effects, the size of an enterprise, the amount of investments can be considered as being the most important success factors.

In another study of success factors in industrial enterprises, the aspects relevant for the success of a company have been examined (Adenäuer 2007) twice a year since 2005 by the IfM Bonn taking the data set of the BDI-medium-sized panel as a basis. In this context, the potential influence criteria and the corresponding test variables are determined too. Apart from considering situational factors such as the structure and the resources of a company, its objectives are also evaluated. These include team/performance orientation, global orientation, customer orientation and innovation orientation. The pursuit of market and quality leadership is also an important variable. One possible road to success for SMEs can also be focusing on a niche as determined in empirical examinations by IBRAHIM (1993, p. 20).

All this shows that there are multiple success factors. For this investigation, however, it is important to know that strategic business planning is a single important success factor. For measuring purposes, many financial key data are used, which is especially difficult to evaluate in the case of young SMEs. Particularly in the start-up phase and in the phase of early development high profits cannot be expected. Therefore the company age is an important measurable factor. The causal relationships and the correlation of different influences on the young SME are also something that can be obtained as a result from the previous considerations. Focusing on success strategies and strategic orientation will be relevant in the following explorative survey of experts.

In summary, the following success factors can be mentioned:

- There is a causal relationship between strategic planning and business success,
- Company size is not a factor for success,
- With SMEs, success is not measured in profits or market share, but in the duration of the company.

2.5 Results Obtained from the Literature/Study analysis

The results of literature analysis and the current state of research were comprehensively presented and analyzed in the previous chapter. To this purpose, scientific publications were analyzed relating directly to the core topic of this thesis. The present analysis is focusing on business management and, more precisely, on planning and organization. In a very concrete way, strategic business planning and the question which instruments are applicable and workable in terms of service development for young SMEs are dealt with. The present analysis focuses in particular on an inter-disciplinary approach meeting the demands of applied science.

When dealing with the question if young SMEs work at all and, in that case, with which instruments of strategic business planning, it became very obvious that many SMEs have no concepts, no written strategies and also lack the resources for working with these instruments. Although a great number of studies show that following strategic business planning promotes business success, see the analysis of 17 studies by DEIMEL/KRAUS (2008) indicating an overall

positive correlation between strategic planning and business success in 64.7 percent of the studies (Deimel/Kraus 2008, p. 155 ff), young SMEs do not pursue this strategic business planning thoroughly. WELTER (2003, p. 209) has also analyzed 56 empirical studies and confirmed that half of all SMEs in Germany have no concepts or strategies.

In a survey of 129 empirical studies, LÖFFLER (1995, p. 157) has examined the correlation between strategic business planning and business success, which proved that larger companies carry out strategic planning more often than SMEs.

Frequently, young SMEs develop business plans for creditors in order to get seed capital, shareholders or development loans. However, these strategic business plans are not continued in a sustainable way after the start of business operations. In this way, the meta-analysis of 50 studies by ROBINSON/PEARCE (1984, p. 129) shows that strategic business planning is primarily found in large companies rather than in SMEs.

In summary, it can be determined: In alignment with *Chapter 2*, all relevant information obtained from scientific literature in the field of business management was evaluated which point out the necessity of strategic business planning for successful young SMEs. When analyzing the present thesis, it must be noted that in the analyzed studies and research projects the practicability and applicability of strategic business planning processes as well as the corresponding methods and instruments in young SMEs have not been explicitly addressed to. It was and still is one goal of this thesis to close this gap in research.

The term practicability refers to the question whether the known strategic business planning instruments can be used by every company, exclusively by large companies or also by young SMEs.

The term applicability refers to the question whether these instruments of strategic business planning can be used, when implemented, in a simple, flexible way and by every entrepreneur whatever background knowledge they may have.

The *research questions* of the present thesis examine the question which conditions strategic tools must meet in order to be applicable in young SMEs. In this context, the analysis of the result, provides the following steps:

1. Determining the relevant implementation factors/dimensions for strategic business planning in general, based on the information in *Chapter 2* (Theoretical Concepts and Approaches),
2. Comparison of these requirements with the real situation existing in young SMEs, based on the information of *Chapter 2* (Research/Studies),
3. Subsequent personal assessment by the author of this thesis regarding the practicability and the applicability in the form of (--, -, o, +, ++),
4. Summary and preparation of the interview guidelines on the basis of the information obtained.

On the basis of this approach, the following seven important "Key facts" result has to be stated:

1. Strategic Orientation:

Strategic orientation means, among others, also the willingness to look at the future with a vision in mind and to push the long-term market- orientation of the activities of the company. DE (2005) calls this "management glasses" (DE 2005, p. 197 f) describing thereby at the same time the creation of action- and target-oriented incentives. The strategic and operative aspects in management and the direction of a company require that the entrepreneur has an eye for both internal and external factors.

Young SMEs have little strategic orientation. Few SMEs act in a rational way, most of them out of intuition. There is fear of losing flexibility and, at least in some cases, there is a lack of awareness that strategic orientation is necessary at all.

(++) The vision or rather the strategic target must not be lost along the way and is to be reflected by the instruments and the implementation.

2. Resources:

In order to be able to make strategic decisions and to put them into practice, the necessary resources are an important precondition. These have to be provided or developed. Resources can be divided into different groups, such as physical resources (machines, buildings), technological resources (in terms of abilities, patens, research and development), financial resources (cash flow, credit history), human resources (staff) and organizational resources (IT and process design) (Birker 2010, p. 462 f).

Young SMEs have only few resources, above all in terms of time, know-how, finances and staff.

(++) This is an important point, because the problem of resources has often been mentioned as an accompanying criterion in the studies. Therefore taking into account the resources will be important for the following analysis.

3. Strategic Instruments:

Strategic planning instruments are tools used for obtaining and structuring information as a basis of strategy development (Christensen et al. 1982, p. 186). The majority of planning instruments has been developed for large companies. Since SMEs and young SMEs in particular are mostly highly heterogeneous structures, the direct transfer without any adaptation does not seem to make sense (McKiernan/Morris 1994, p. 32). Moreover, the effectivity of using of

planning instruments seems to be restricted by the low level of information on both the market and the company itself as well as by the high level of insecurity. It is therefore presumed that only easily implemented instruments (e.g. environmental analysis, key figures analysis) are applied in SMEs, whereas a great number of more complex instruments (e.g. balance scorecard) are either not known or cannot be implemented in SMEs (because, for example, there is only one product or because the company is in a first phase of its life cycle).

Young SMEs have no experience in terms of using instruments of strategic planning. The recommended instruments are, for example, environmental analyses (PEST, Porters-5-Forces), business analysis (SWOT), the scenario or portfolio analysis.

(++) In the concept, the relevant instruments of business planning should be applied taking into consideration practicability and applicability.

4. Formalization:

The term "formalization" denotes the specification of business targets, strategies and plans in written form (McKiernan/Morris 1994, p. 31 f; Pearce et al. 1087, p. 659). This helps companies to gain a better understanding about themselves and their environment enabling them to identify strategic alternative courses of action more easily (Lyles et al 1993, p. 38 ff). With the help of formalization, information can be presented in a structured way, making connections visible, revealing gaps of information and giving support in situations when decisions are made. It is expected that the degree of formalization increases as the company grows (or rather the longer it exists) (Matthews/Scott 1995, p. 38), due to, among others, the greater availability of resources. Conversely, this means that particularly young SMEs have less resources in terms of time, staff or knowledge and therefore plan in a less formalized way. For this reason, it can be assumed that successful young SMEs plan in a formalized stra-

tegic way up to a certain extent, i.e. that the success or the survival is influenced by the degree of formality in planning.

Young SMEs have not yet specified strategies. Frequently, old strategies are copied and planning is done in a superficial and rigid way.

(++) To create concepts, a guideline must be developed that young SMEs can use for orientation and that facilitate the easy involvement of the staff.

5. Organizational Structure:

The term "organizational structure" denotes a conscious establishment of a target-oriented, hierarchical structure with areas of responsibility and decision-making powers exerted by the authorized person. Regarding organization, one has to differentiate between the process-oriented, the instrumental and the institutional term "organization". Thus, organizational structure is also a system of rules in an institution that is used as a target-oriented management tool (Bea/Göbel 2006, p. 2 f).

Young SMEs have not developed any organizational structure yet.

(o) For the present, the organizational structure is not necessary for the applicability of strategic planning instruments. It is only important that the decision-maker in the SME learns about the strategic planning instruments and that he understands and implements them.

6. Time Frame:

In the relevant literature written for large companies, the time frame of strategic planning is usually set at a minimum of three years (Rue/Ibrahim 1998, p. 24 ff). The long-term nature of targets and plans to reach these targets is regarded as an important factor of strategic planning (Nicolai 2000, p. 57). Determining a time frame of 3 years seems to make sense for large companies, but could be too long for young SMEs. The latter must be able to react in a flexible way in

the beginning and often have too little experience and knowledge and too few resources to plan so far ahead (Ramanujam/Venkatraman 1987, p. 19 ff).

In the start-up phase, young SMEs have a business plan because they need it to apply for funding or credit lines. Afterwards, planning is often carried out on an operative basis according to the company's day-to-day business.

(+) Focusing via a time frame should follow the three-year concept of a business plan so that the young SMEs are able to inform and convince potential investors with the help of this concept.

7. Permanent Analysis and Adaptation:

(This is the process of analyzing current developments in terms of prognoses made in the past (Helms et al. 2005, p. 49 ff). It is generally considered to be accepted that control can serve as a necessary means to reach a target in best possible way. Continuing comparison of budgeted and actual figures is important to spot possible deviations right from the start and to start a learning process. It can be assumed that learning from previously made mistakes can lead to more success.)

Young SMEs have no controlling bodies. Flexible planning is recommended.

(++) Especially young SMEs are still in their concept and growth phase. Mainly because of this, the strategic orientation must be permanently adapted in a flexible way and the tools should provide for that.

The compiled outline of dimensions serves as a basis for the development of the now following interview guideline in the empirical investigation.

3 The explorative expert survey in young SMEs regarding strategic business planning

One central feature of an explorative expert survey is the representative survey to find out present-oriented behavioral intentions of the economic entities (Marchazina/Wolf 2010, p. 838). Expert surveys have also become known by the Delphi Method which was developed by the RAND Corporation in the 1960s (Hansmann 1983, p. 22).

In *Chapter 2* an analysis of literature and documents of research studies was carried out. These secondary data underlined the importance of strategic business planning in young SMEs as an important criterion for success. The purpose of the following chapter is to confirm these theoretical assumptions explicitly for young SMEs in the form of a primary analysis. Do the established dimensions/factors, specially the seven **"Key facts"** also exist in reality or are there still other important findings? For this reason, an *explorative expert survey* is carried out in 14 young SMEs, which will also be evaluated in this chapter in order to establish a sound concept according to theory, research studies and practice.

3.1 The investigation procedure

In order to meet the demand of practicability and applicability of the relevant sciences particularly for young SMEs, the following expert survey will focus on the target group of the young SMEs (according to EU definition up to a company age of 12 years). In this survey, the experts are asked questions about their attitudes, experiences the concrete use of strategic planning instruments. Since

each entrepreneur is only interviewed once and since the processes of evaluating the meaning are carried out in retrospective, the present empirical study can be called a comparative cross-sectional study. The study is carried out in this way because a quantitative study often does not provide an analysis that is deep enough. Choosing expert interviews as a procedural method, it is expected that the entrepreneurs of SMEs will see a lot of practical approaches that may be lost in a qualitative survey. Thus the goal is to extract relevant aspects of how to carry out strategic planning by paying attention to what the entrepreneurs are saying "between the lines".

Qualitative research comprises the variability of the characteristic features of a research object by describing carefully selected single objects. This is an attempt to reach a deeper understanding of complex real life phenomena. In the survey to be carried out, the topic of strategic planning will be dealt with explicitly relating to young SMEs.

In empirical research, the analyzed data are then used as an important basis to generate information of decision-making relevance. Thus data collection is a systematic and purposeful activity to obtain information (Hammann/Erichson 2000, p. 80). The method used to collect data depends on the purpose of the survey and the object of research to ensure that the research questions can be answered with relevant data (Kutschker et. al. 1997, p. 14). The method of data collection used here consists of a survey in the form of a personally conducted interview and the analysis of company documents. The expert interview is a mixture of an open and a structured data collection (Lamnek 2002, p. 173; Meuser/Nagel 1991, p. 449). This type of interview prioritizes the experience and the interpretation of the interviewee. The statements of these experts can be regarded as being representative for a certain group (Meuser/Nagel 1991, p.

453). The experts provide an insight in existing expert knowledge as well as in their expertise.

Moreover, explorative interviews allow for a free course of the conversation and enlarge the interviewer's options. The interview partners are, for the main part, managing directors or rather executives of the second management level (authorized signatories) of young SMEs who are also the key players in an explorative analysis (Kromrey 1991, p. 267). This group of people is essential for implementing strategic business planning in young SMEs. During the interview, the interviewees have enough freedom to come up with further interesting answers that the interviewers might not have thought about (Friedrichs 1990, p. 224 ff). In this way, it is also possible to obtain, apart from the results to be expected, exemplary and generalized findings which are also transferable (Friedenshäuser 1997, p. 73).

One point of criticism regarding the qualitative method of data collection could also be, among others, that the interviewer influences the survey. The mutual perception, the expectations of both the interviewer and the interviewee, the situational interaction and nonverbal communication are regarded as possible impeding factors. Skeptics suggest that the results do not ensure any objective and methodological controls and that, therefore, the results cannot be assessed scientifically (Voelzkow 1995). Thus, researchers often consider explorative analyses as being not significant enough. Supporters call these sources of error also regulatory elements (Friedrichs 1990, p. 223). In the light of the above, the approach of qualitative research can be defined as the attempt "to document the constitutional process of reality, to reconstruct it analytically and, finally, to explain it by relating to it in a comprehending way" (Lamneck 1995, p. 25). Therefore, qualitative research has a constructivist interest in knowledge (Flick 2000, p. 161 ff; Lamneck 1995, p. 24 ff) covering several levels. First of all,

reality and its interpretation are reconstructed from the point of view of the interviewees. The interviewer directs and accompanies this process. When the interviews are evaluated, the interpretation and the theoretical classification by the researcher are added.

Explorative research strategies have disadvantages regarding their limited (internal) validity and the degree to which they can be generalized (external). These drawbacks, however, can be largely reduced if feedback is provided among the experts, the people concerned and the researchers (Schwaninger 1996b, p. 135). Moreover, it should be noted with reference to this topic: ”Through the triangulation of the perceptions of researchers and the people concerned, one-sided perspectives can be relativized and narrow horizons made broader. If different points of view are linked to form one productive interaction, adaptations and corrections leading to better models of relevant reality are likely” (Gergen1999, p. 48 ff).

3.1.1 Selection of research units

In most empirical investigations it is hard to analyze the population in a comprehensive way. Therefore, reference is often made to the results of a sampling. The sampling can be analyzed using individual or multiple cases. Looking at an individual case can be important in unique or critical cases (Yin 2009, p. 47ff). Additionally, it can evolve from the investigation of a representative, revealing or longitudinal case.

The analysis of multiple cases – the preferred way in this thesis- , however, permits a comparative analysis promising more substantial statements (Yin 2009, p. 53). Therefore, it is given preference to the individual case analysis (Yin 2009, p. 60). In qualitative research, the relevance of the investigated ob-

jects is of great importance (Merkens 1997, p. 100). According to EISENHARDT (1989), different cases frequently expose the aspects of a phenomenon better. Especially in young SMEs, there are different life cycles, such as the pre-start-up-, the start-up- and the early growth phase. These different conditions can be described using multiple cases and the causal connections can be compared to it. The different cases and the necessary number of cases should be selected with the help of replication logic, i.e. in a way that they promise (a) the same results (literal replication) or (b) deliver expected contradictory results (theoretical replication).

In order to explore the differences, the study falls back on data coming from diverse SMEs. An individual case analysis would not meet this demand (Eisenhardt 1989, p. 532 ff).

The present empirical study refers to young SMEs because there is a need of support alternatives due to shorter company life cycles and a high number of insolvencies and liquidations on the other hand. For reasons of economical research in qualitative studies, representative samples are dispensed with. However, it must be ensured that a good analysis is made so that the results can be generalized and transferred (Mayring 2001).

In the present investigation, a sampling is carried out on the basis of previously determined criteria according to PRZYBORSKI/WOHLRAB – SAHR (2008, p. 178 ff). The reason for this is that especially young SMEs are of interest for the purpose of this investigation because of the economic data and the findings regarding start-up activities, short-time work, liquidation and insolvency. Since a business plan frequently exists in the start-up phase due to demands of the creditors or the IHK (German Chamber of Industry and Commerce), SMEs operating on the market beyond the start-up phase are analyzed too.

The present thesis aims at establishing an adequate, comprehensible, flexible concept set out in writing for strategic business planning in young SMEs. In order to facilitate transferability to the bulk of young SMEs, different SMEs from different technology centers are selected for the expert surveys because mainly young SMEs can be found there. In this case, it is also possible to speak of a procedure of "qualitative sampling plans" (Kelle/Kluge 1999, p. 46 ff). This procedure is also used in the cluster analysis by assigning objects to a most similar group. In the context of the empirical study, the collection units were selected at random with the help of company lists to which the above mentioned criteria apply. The analytical generalization can be reached by the selection of typical cases. This is intended by the present investigation by matching the obtained data with the theoretical principles. The selected companies are typical examples of the complex of problems to be analyzed. The SMEs which have been selected for the following survey meet the following criteria:

1. SMEs with not more than 50 employees and a turnover of not more than 10 million euros,

2. Coming from technology centers in Baden-Württemberg,

3. From the manufacturing industry or the services sector,

4. With a company age of no more than 12 years,

5. The selected SMEs come from different economic sectors.

The 14 collection units matching the given sampling have been selected from the following three technology centers in Baden-Württemberg:

8 x Technologiefabrik Karlsruhe GmbH, Haid-und-Neu-Straße 7, 76131 Karlsruhe.

3 x Technologiezentrum St. Georgen, Leopoldstraße 1, 78112 St. Georgen.

3 x MITT e.V., Minimal Invasive Medizin & Technik Tübingen – Tuttlingen e.V., Gewerbepark Take-off 3, 78579 Neuhausen ob Eck.

The aim of this selection was the Analysis of Strategic Planning (context) in different young SMEs (analysis unit) by means of data collection, particularly in different groups of people (embedded analysis units). According to STRAUSS (1991), the number of the analysis units is adequate because the expected relevant differences are sufficiently represented in the survey to find contrasting cases.

3.1.2 The partly standardized questionnaire as a collection instrument

Upon completion of the literature and study analysis from which derived the dimensions/factors of strategic business planning, the first research aim has been reached and the following interview guide has been developed. The objective of this qualitative expert survey supported by a guide is to find out what instruments can be used and to present a practicable and applicable concept with strategic business planning instruments in *Chapter 5*. Since the approach to this topic is theory guided and explorative, the recommended collection method is a partly standardized questionnaire. It is established by means of an interview guide, which gives the interviewer the freedom to influence the course or rather the questions of the interview to a certain extent.

This form is often applied in qualitative research as a mixture of open questions leading to disclosure of empirical values on the part of the interviewee and of closed questions producing concrete statements allow for a comprehensive analysis (Flick 1987). By its structure, the interview guide provides orientation for the interviewer and ensures that relevant questions are not overlooked. Mix-

ing open and closed questions, the interviewer can direct the conversation, but he can also ask detailed questions and return to the guide if, for example, the interviewee strays too much from the point (Friebertshäuser 1997, p. 376 f). In the problem-centered interview, the theoretical previous knowledge serves a source for the guide (Witzel 1989, p. 235; Witzel 1996, p. 52). Therefore, the guide is to be understood as a "heuristic analytical framework" (Witzel 1989, p. 64).

The problem was identified in the problem analysis (Reinders 2005, p. 120). With the help of the literature and study research in *Chapter 2*, a first rough conceptualization of strategic business planning was carried out to this effect.

In the phase of guide construction, the first version of the structured guide is established aiming at getting as much detailed information from the participating companies as possible.

During the pilot phase, a pre-test is made with the responsible project leaders within the third party funded project "Wissenstransfer Dienstleistungsforschung" of the Baden-Württemberg Stiftung gGmbH, the former Landesstiftung Baden-Württemberg. The discussion, which was carried out in accordance with different authors (Kromrey 2000, p. 359 ff; Schnell et al. 1999, p. 324 f; Stier 1999, p. 184), focused in particular on the arrangement, the composition and the wording of the questions. Apart from the planned time for the interview, particular attention was paid to completeness, comprehensibility of questions and answers as well as to problems of interpretation. This was done to avoid a suboptimal arrangement of the questions, incomprehensible questions and the conception of multi-dimensional or suggestive questions that might falsify the result.

When conducting the interview for data collection the partly standardized questionnaire/guide was used. Here, closed as well as open questions are asked.

According to the previous analysis and the pre-test, the following focal points were determined for the questionnaire in the present empirical study:

- Short explanation of the survey and research background (10 minutes),
- Personal attitude/experience regarding the topic of "strategic business planning" (15 minutes),
- Strategic planning in the particular company (40 minutes),
- General operating data of the company (10 minutes),
- Key business figures and development of the company (30 minutes).

For comprehension purposes, the interviewer should beforehand acquire some basic knowledge of the topic and the planned questions. In practice, the questionnaire will be given to the interviewees in advance in order to guarantee a comprehensive reply to the questionnaire. The interviews last up to two hours so that there will be enough qualitative data material to be evaluated afterwards.

The participants in the interview were being interviewed specifically to the topic of "strategic business planning". When collecting the data, it should be pointed out to the interviewee that he has an expert status in order to quasi swap the roles of the researcher and the interviewee and to facilitate the reply to the questions through mutual (social) appreciation (Lamneck 2005, p. 388). The interviews with the 14 companies were conducted in the period between 2 February 2010 and 18 March 2010 on-site at the particular companies with the owners/managing directors. These interviews were, as already mentioned, specifically focused on the topic of the present thesis.

The interview was conducted with the following survey instruments:

1. The interview guide, beginning with the explanation of the survey and the research background, was supposed to create a mental barrier between the collection of the first pieces of information and the following interview that also aims at subjective impressions.
2. Recording is regarded as a standard for qualitative interviews (Witzel 1989, p. 237). It relieves the interviewer of the burden to take notes, permits concentrating entirely on the conversation and is able to record linguistic nuances.
3. After the interview, a postscript was written in which essential aspects of the interview were made a note of. According to WITZEL (1996, p. 57), it is necessary to pin down first ideas of interpretation already at this point.

When conducting the interview, openness is an important aspect to receive relevant information. In order to obtain a qualitative result of the interviews, RICHARDS (2005, p. 51) established five rules to collect data for empirical research projects. These are in detail:

1. Accuracy (accurate documentation, recording and transcription as well as verification hereof),
2. Reference to a context (documentation of the context when collecting the data),
3. Compactness (level of detail of description, documentation or transcription or also the accurateness/the exact fitting of a documentation),
4. Exploitation (relevant aspects must be thoroughly documented and arranged),
5. Reflection (reflecting one's own role during the survey, the preparation, the documentation and the recording).

In the following *Chapter 3.2*, the quantitative data, such as the general operating data, the key business figures and the development of the company will be dealt with first. In *Chapter 3.3*, the results of the open questions within the subject area "personal attitude/experience" and "strategic business planning" will be treated.

3.2 Results for the quantitative analysis of the explorative expert survey

The fourth part of the interview, asked for the general operating data, i.e. for general aspects such as the function, the contact details, the legal form and the founding year of the company. Moreover, the affiliation with the IHK/HWK and the industrial sector was included.

In detail, the following result was obtained: Altogether 12 SMEs have the legal form of a GmbH, one is a GmbH & Co. KG and one is a sole proprietorship.

Of the surveyed SMEs, five were founded within the last five years, seven five to ten years ago and two more than ten years ago.

13 of SMEs are affiliated with the IHK and one SME is affiliated with the HWK (German Chamber of Crafts). Of the surveyed SMEs, eight belong to the industrial sector "other community and personal services", two to "manufacturing industry" and "health care, veterinary and social services" each and one SME to "building industry" and "real estate, renting and business services" each.

In the interview, the owners/managing directors were also asked for the original founding idea and the initial founding process. In this context, the following similarities and particularities regarding the subject of this thesis were found:

All the founding ideas of the interviewed SMES are based on long-term orientation. One SME states that a new perspective came up when the company was founded and three SME founders wanted to become independent. In one case, it was a new product idea making the entrepreneur found the company. Four SMEs had developed new services based on problems faced by customers. Four SMEs became self-employed out of an existing employment to work for the company as subcontractors because specific customer problems could not be taken care of by the old company. And finally one SME was founded out of an interest group which found out that their marketing concept had market potential.

In the fifth part of the interview, the interviewer asked for the key business figures and the development of the company. Of the SMEs interviewed, ten belong to the class of micro-enterprises (up to 2 million euros turnover) and four SMEs to the class of small enterprises (up to 10 million euros turnover).

In the category products/services there are no concurrences among the interviewed SMEs. Therefore, the following listing indicates the respective focal point of the interviewed SMEs. The SMEs interviewed are active in the following business areas:

1. cleaning services,
2. machines for the beverage and gas industry,
3. standard software for engineers,
4. controlling software, data bases,
5. product data base for home delivery service,
6. building automation,
7. medical technology exhibition,

8. automation engineering/electronic development,
9. project business automobile industry,
10. online platform,
11. real estate and rental management,
12. technical, consulting service,
13. quality assurance, technical product development,
14. 3-D displays.

The product/services life cycle of the interviewed SMEs shows different time frames. Three SMEs talk about having to make permanent adaptations to their products/services, which eventually means that there is no product lifecycle that can be timed. Seven SMEs indicated a life cycle of their products of up to 5 years. One SME speaks of a life cycle of up to 10 years and three SMEs have an even longer product/services life cycle of more than 10 years.

In thirteen cases, the most important target groups for the interviewed SMEs are business customers. Therefore, this is mainly a B2B operation and only in one case the target group is the end consumer, i.e. a B2C operation.

Regarding the number of employees, eight SMEs can be allocated to the class of micro-enterprises and six to the class of small enterprises.

Five of the interviewed companies are family run with one owner, in seven SMEs there is more than one owner and two enterprises are not family-run companies.

Seven of the SMEs are directed by a managing director, six SMEs by two managing directors and one small enterprise by three managing directors.

Between 2007 and 2009, the number of employees registered a positive development in eight SMEs, a negative one in two SMEs and remained stable in four of them.

The development of the SMEs in the last five years from 2004 to 2009 was judged differently by the owners/managing directors. 65 percent are satisfied and 14 percent not too satisfied. 93 percent foresee a positive development for the next five years from 2010 to 2015; only 7 percent expect a stagnant development.

In the following, the interview parts two, Personal Attitude/Experience regarding Strategic Business Planning, and three, Strategic Business Planning in the Respective Company, are interpreted, put in categories and a summary of the different results is presented.

- **General operating data**

The majority of the SMEs are affiliated with the IHK and the services sector. The founding ideas vary, showing long-term orientation nevertheless.

- **Key business figures and development of the company**

In 79 percent of the SMEs, the products/services have a life cycle of five years or longer. In 93 percent of them, the target groups are located in the B2B sector. In this line of business, mainly long-term business relationships are being cultivated. These two aspects also call for an examination of strategic planning.

The years 2004 to 2009 are seen in a positive light by the SMEs. 65 percent are satisfied with the development, 72 percent are satisfied with the development of sales and 58 percent are satisfied with the operating results. 93 percent of the SMEs look to the future with optimism.

In view of this predominantly positive atmosphere, it can be assumed that the entrepreneurs of the young SMEs think in a strategically oriented way as the positive development is reflected in considerations for the future.

3.3 Results for the qualitative analysis of the explorative expert survey

After the introduction of the interviewer, the following open questions regarding the personal attitude or rather the personal experience regarding strategic business planning were asked in the second part of the interview.

In detail, the following statements were made by the entrepreneurs regarding strategic planning:

- Spotting trends, making contacts, influencing developments, recruitment and investment in well-trained staff, forming co-operations and opening new markets,
- Planning to ensure long-term business success and to achieve leadership in a target group segment (price or innovation leadership),
- Transforming the strengths of the company into an increase of value,
- Including all relevant factors in planning and involvement of all persons in the planning process, i.e. distribution of responsibility,
- Deducing a sound business model from an idea,

- Definition of business objectives, monitoring and correction. Market investigation and orientation of the market, research and development of new business segments,

- Establishing, implementing and evaluating activities and objectives rotating on a monthly, but also yearly basis,

- Thinking about the objectives to be reached, planning key figures to be expected, foreseeing market developments and making appropriate corrections at an early stage,

- Creating a business plan and finding a corresponding target market,

- A well-balanced product management with market investigation and different tests,

- Planning taking into consideration the market, the environment and framework conditions,

- Making long-term plans for the company. How do I intend to make money in the future? Do I have the right employees for this?,

- Adapting the company, including the services it provides, to the conditions and the changes of the market,

- Forward planning of today's and tomorrows heterogeneous markets on the basis of the company's own strengths and resources.

When asked what the entrepreneurs understood by the term "strategic business planning", the following statements were made, see **Figure 2**.

Figure 2: What does strategic planning mean for the SMEs? [own research]

All 14 interview partners stated that strategic business planning is basically very reasonable for SMEs. All of them referred to the owner or the managing director as the responsible person to carry out this strategic business planning. Eight interview partners referred to executive employees and five even referred to external consultants to carry out strategic business planning.

The majority of the interview partners, i.e. 10 of them, have a professional background as technicians, engineers, mechanics or information scientists. Two interview partners have a business management background; one is a banker and another one a retailer.

All entrepreneurs have professional and industry experience of many years. Six of them can look back on more than 10 years, seven on more than 15 years and two on more than 20 years of experience.

Good and well-qualified employees, strategic business planning and financial resources were mentioned among the essential success factors for SMEs, see **Figure 3**.

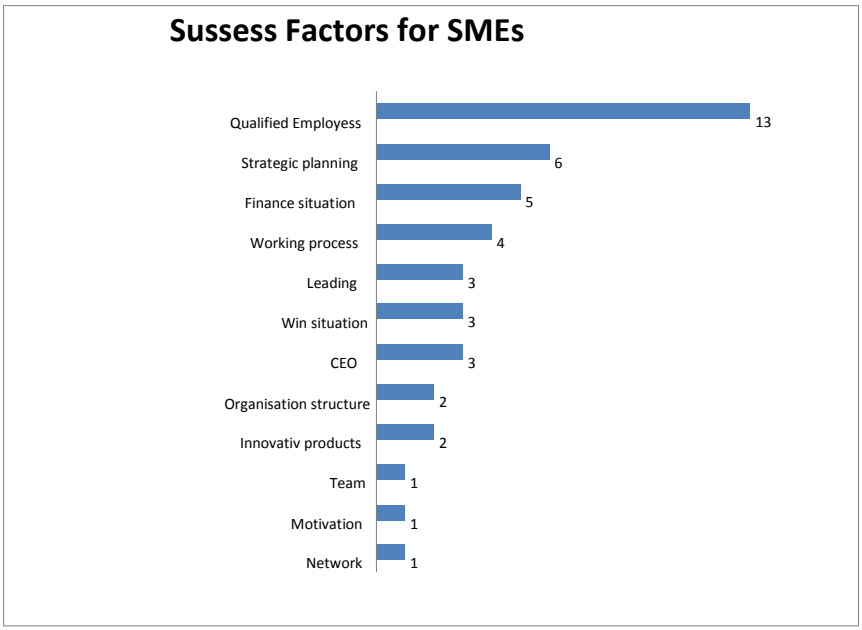


Figure 3: Success Factors for SMEs [own research]

On the subject of personal attitude/experience, the question was finally asked what influence the experience or rather the intuition of the entrepreneur has on strategic decisions. All interview partners regard the influence of experience and intuition on strategic decisions as highly important. The gut feeling must coincide with reason as it is the entrepreneur who carries the ultimate risk. In this context, it is also important that the decisions are supported jointly when being implemented.

In the third part of the interview, the following open and closed questions were asked on the subject of strategic business planning in the particular company. Here it became clear that, in all the interviewed SMEs, the management, in nine cases also the owner and in only one case the executive employees carried out strategic business planning. Three SMEs generally involve external consultants, six SMEs do so occasionally. Five SMEs never use external consultants as a

matter of principle. This shows that the use of external know-how is not generally accepted.

When evaluating supporting institutions, four of the SMEs stated that there was no support whatsoever. The other SMEs referred to the IHK (the German Chamber of Industry and Commerce), lawyers, business consultants, tax accountants and others.

To the question if the SME worked with a business plan six SMEs said that they had only established a business plan for the founding phase. The other eight SMEs have been using a business plan since the company was founded.

In ten SMEs, strategic business planning and analyses are both time- and event-related.

Another important point is if planning is communicated and, if that is so, to which groups of people. Here it became clear that only the management is primarily involved. In only five SMEs, the employees and the banks are informed about the concepts.

The interview was also supposed to find out the objectives to be achieved by using strategic business planning. The answers to this question revealed that the "acquisition of customers" has top priority, followed by "increase in sales" and ranking third "better resource management" and "improvement of earnings",

In order to determine what the activities of the SME were currently focused on, they were asked which two challenges/problem areas the company was facing at the moment. This being an open question, similar statements were summarized and categorized as follows. A ranking was established according to the responses:

Strategic challenges:

1. Sales/acquisition: expanding the range of products, innovations, the right multipliers, expanding services, convincing customers, modernization of the company appearance, improvement of the services offered, winning and keeping customers, finding partners of strategic importance.

2. Planning: integrated strategic planning, realignment of the internal organization, implementation of the founding process.

3. Finances/costs: decreasing internal costs, financial situation.

4. Staff: discussions with employees, selecting the right employees for the right customers.

In the SMEs, the used strategic business plans were mostly planned for a period of up to five years and adapted differently. Three SMEs adapted their plans rarely after they had been set up.

To the question what problems they saw regarding strategic business planning, 50 percent of the SMEs answered that the time factor was the biggest problem. 27 percent mentioned a lack of know-how, 18 percent a lack of resources and 5 percent costs as further critical factors.

For want of experience as strategic business planning had not yet been implemented, 22 percent of the SMEs considered the effort to carry out strategic business planning as high, 57 percent as low and 21 percent as moderate.

Of the SMEs implementing strategic business planning and analyses operatively, 44 percent used regular talks as a monitoring instrument, 25 percent an internal “strategic council” and 25 percent an external supervisory body.

When asked for the instruments that were known and used or rather not known, the following diagram resulted, see **Figure 4**. 50 percent of the interviewed SMEs used the SWOT analysis and the competition analysis. Only three SMEs

applied the instruments of benchmarking, portfolio analysis and scenario analysis. Widely unknown are, however, analyses for the industry structure, the environment, the experience curves, the value added chain and the Delphi method.

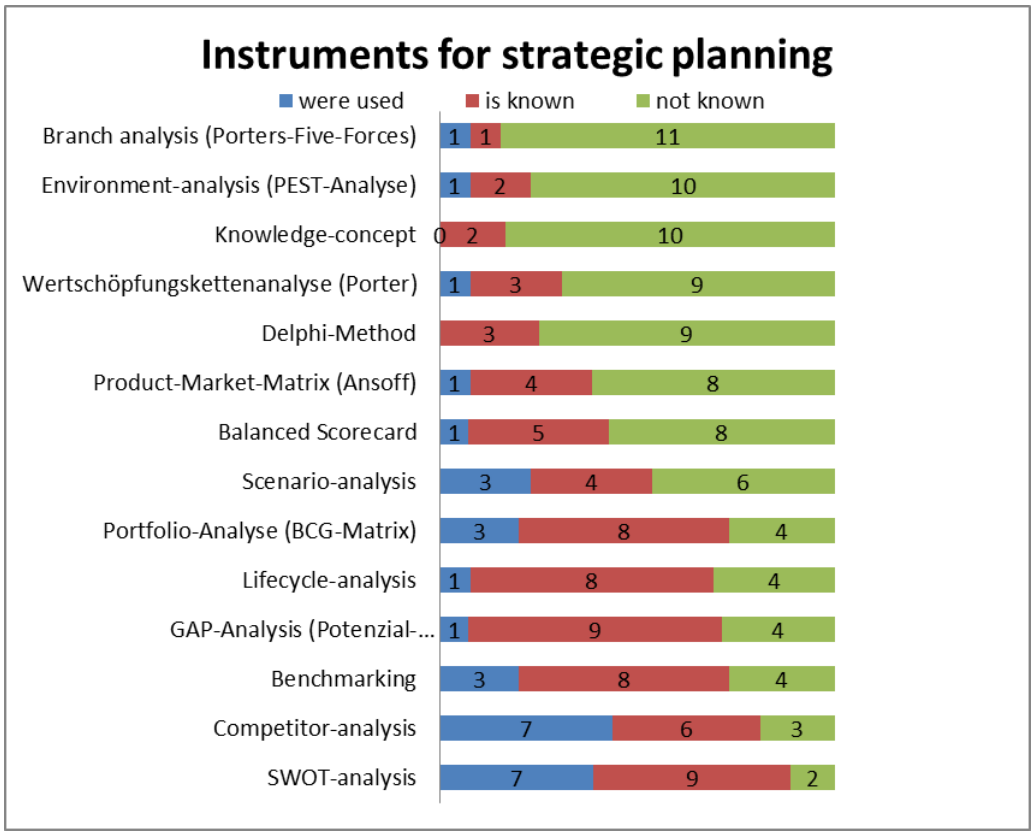


Figure 4: Strategic planning instruments in SMEs [own research]

The last question of this part of the interview aimed at a final evaluation which the entrepreneurs were supposed to give regarding strategic business planning.

In this context, the following thoughts and statements were communicated:

- "Without being well-known on the market, without market value, it is very hard to compete in the technology-oriented market."

- "The banks and the auditors regard revenue as paramount for growth-"

- "Planning is an ongoing, continuing process."
- "Strategic business planning is the basis, the foundation of success."
- "Information is essential for strategic business planning."
- Strategic business planning does not always work following a determined pattern."
- If consulting, then always by "old hands" having the relevant know-how."
- To be able to plan strategically, the entrepreneur needs to be financially independent."
- If an entrepreneur, a founder has not planned his strategy, if it is not in his head, if it is not clear for him, he will fail."
- "Setting up a business plan and subsequent monitoring or rather actualization."
- "Every entrepreneur had better call in external consultants to instruct him."

In the following, the interview parts two, "personal attitude/experience regarding strategic business planning", and three, "Strategic business planning in your company", are interpreted, categorized and the different results are summarized.

Personal Attitude or rather Experience regarding Strategic Business Planning

The statements made by the interview partners regarding strategic business planning were very positive showing that everyone is dealing intensively with resources, planning, innovation, the study of the industry, strengths and control-

ling measures. Upon evaluation, however, it turned out that strategic business planning is not implemented although all the SMEs, without exception, consider it as very sensible. In the eyes of the interview partners, the responsibility lies with the management. When stating the success factors, the good and well-qualified employees were referred to as the most important success factor, i.e., in this context, an essential approach to involve employees in strategic business planning is necessary as this is required for the success of the company. Experience and intuition had a considerable influence on long-term decisions. In this case, it also becomes clear that, apart from structured planning, "good feeling" must be taken into consideration too.

Strategic Business Planning in the Company

The SMEs consider external offers of consultation regarding strategic business planning as not existing or as not being qualified. 57 percent of the SMEs work with a business plan. Only 36 percent of the SMEs informed the employees about the corporate values. This, however, should be done if the employee is seen, as already mentioned, as a success factor. This also shows when the objectives of the company are stated. Only 7 percent of the SMEs thought that an improvement of internal communication and the involvement of the employees were important. The primary objectives of 79 percent of the SMEs are the acquisition of new customers and the increase in turnover stated by 64 percent. This orientation towards sales also became obvious when asking for the strategic challenges/problem areas of the SMEs.

43 percent of the SMEs work with annual plans, the others with longer-term business plans. Its adaptation differed, with 21 percent stating that they did not adapt the plan anymore after it had been set up. Implementation problems with strategic business planning were justified by 50 percent by the time factor and 27 percent by the lack of know-how. This is a contradiction to the statement of

57 percent of the SMEs who stated that the implementation of strategic business planning was only a minor effort. It can be assumed that the reason behind this is the lack of consistency, which could be helped by time management and delegation to competent employees.

Looking at the strategic instruments, it shows that not all the SMEs know the most common tools. Only 50 percent use the SWOT analysis and 50 percent the competition analysis. The other tools mentioned are not used because they are not known. All in all, using strategic instruments is considered as relevant by the SMEs. Looking at competition, it becomes clear that only 22 percent believe to have a presumably better planning than the competitor, i.e. also in this case there is a lack of consistency. Strategic business planning must be institutionalized better. Furthermore, a simple, understandable and applicable procedure must be possible to involve employees in the strategic planning process. The necessary communication promotes the employees' involvement and minimizes the risk of frustration.

3.4 Answering the research questions

The goal of the explorative expert survey was to get an impression of strategic planning in young SMEs. What challenges are the entrepreneurs facing and what are the findings regarding a possible recommendation for action? In *Chapter 1* three central research questions were formulated.

1 **Do young SMEs use strategic business planning concepts?**

2 **What conditions apply to young SMEs in the case of strategic business planning?**

3 Which applicable and feasible instruments do young SMEs use in strategic business planning?

This being an explorative study, the description of the situation has priority and representativeness does not exist. It is primarily intended to deduce a conclusive recommendation for action. In the 14 surveys that were conducted, the decision makers primarily involved in the strategic process of the company were interviewed.

In the following, two each of the surveyed 14 SMEs of the founding years 2000, 2005/2006 and 2008/2009 are being looked at individually on the basis of the three research questions.

1. Research question:

Do young SMEs use strategic business planning concepts?

SME 1:

Year of foundation: 2000, GmbH, industrial sector: healthcare, turnover of up to 1 million euros, 17 employees, the decision makers are university graduates and have 10 to 15 years of professional experience.

Strategic business planning is carried out by executive employees/the management. No external consultants participate in the planning. A business plan exists which is also strategically oriented and set up for two to three years. There is an annual adaptation. A quality management guide is being established. The executive employees and the creditors know the corporate values.

SME 2:

Year of foundation: 2000, GmbH, industrial sector: software development, turnover of up to 5 million euros, 25 employees, the decision makers completed a training and have a professional experience of more than 10 years.

It is mostly the management that carries out strategic business planning. The managing director of the technology center is involved as an external consultant. Banks are not instrumental in strategic business planning, only in financing. The company has a business plan, which is, however, too comprehensive for the bank. The planning and the analyses are carried out regularly and in an event-oriented way. Although the corporate values and the long-term objectives are not put down in writing, they are known to all the executive employees and to the house bank. The business plans are set up on the basis of months/quarters or even years.

SME 3:

Year of foundation: 2005, GmbH, industrial sector: construction, turnover of up to 1 million euros, 4 employees, the decision makers are university graduated and have 15 to 17 years of professional experience.

Strategic business planning is not used in this company. If long-term planning is carried out, an external consultant is involved. This planning should then be planned in two and five yearly stages. Strategic planning is currently not being carried out because it is not given the required attention. The focus is on the daily business and on the comparison with competitors. The development of the company in the past five years was satisfactory and the forecast for the next five years is also positive. There is a start-up plan with a planned development of the company. It is set up for five years and is only intended to ensure the continuity of the business. At the moment, the way of thinking is very result-oriented, i.e. if an employee is hired, there must be a demand/a volume of orders. Corporate values are only discussed with the banks. The operational focal points are currently growth and optimization of the process operation.

SME 4:

Year of foundation: 2006, GmbH, industrial sector: manufacturing industry, turnover of up to 1 million euros, 2 employees, the decision makers are university graduates and have 10 and 6 years of professional experience.

The management carries out strategic business planning with the help of external people. Although there is the IHK, the technology center or the research project EDDI, the strategic orientation is not implemented consistently. The existing business plan was foundation-related and the strategic components were the markets and the competitors. Currently, there is only an event-oriented planning, especially when it is about negotiations with banks when financial assistance is needed. There are no written corporate values. The still existing business plan is set up for five years and is evaluated every six months.

SME 5:

Year of foundation: 2008, GmbH, industrial sector: manufacturing industry, turnover of up to 1 million euros, 4 employees, the decision maker is a university graduate and has a professional experience of 9 years.

Strategic business planning is regarded as very useful and it is carried out by the managing director mostly in consultation with external persons. The company can also get help from accountants and lawyers. A business plan exists, but is not consistently actualized. But there are clearly defined objectives that are being pursued. The strategic business planning is changed when particular events occur. There are corporate values that are, in part, put down in writing. The employees are informed and involved from time to time. The plans are set up for five to ten years, with the written plans only being specified for one year. These are also adapted every two weeks.

SME 6:

Year of foundation: 2009, GmbH, industrial sector: services, turnover of up to 125,000 euros, 5 employees, the decision makers are university graduates and have 10 years of professional experience.

Strategic business planning is carried out by the management, the executive employees as well as by external consultants having entrepreneurial experience. These external consultants are also included in the technical advisory board of the company.

2. Research question:

What conditions apply to young SMEs in the case of strategic business planning?

SME 1:

The problem areas can be identified as the lack of know-how, competence and time. On the other hand, the entrepreneur says that the effort for strategic planning is minor.

Strategic business planning aims at the acquiring customers and increasing sales. For this purpose, weaknesses must be identified and the use of resources must be better controlled. The planning used so far has shown that sales had yearly doubled in the past five years and that the forecasts for the future are optimistic or even very optimistic. Anyway, strategic business planning is regarded as very useful.

SME 2:

The problem areas can be identified as the lack of resources, competence and time although the effort to establish strategic business planning is considered as low.

Strategic business planning is considered as very useful. The entrepreneur's experience contributes to its successful implementation. What is important is sustainability and strategic growth, only to a lesser degree the profit. Strategic planning is also important for the employee participating in the decision making process. The life cycles of the products are 4 to 6 years. The sales development of the past years was positive and the forecasts for the coming five years are very optimistic.

SME 3:

The main problem why strategic business planning is not implemented is the lack of time and the lack of human resources. On the other hand, the time needed for this is estimated at four to six man days. Therefore, the true problem is rather the lack of attention and the lack of determination. Although there are many possibilities to obtain the necessary information on trade fairs, competitors or partners, being an entrepreneur one has to keep up-to-date at all times.

If strategic business planning is carried out, its goal is to acquire new customers and to enhance the company's appearance to the outside. Strategic planning is regarded are very useful. Currently, however, planning is conducted out of intuition and only for a quarter of the year in advance.

SME 4:

The problems regarding strategic business planning are human resources, costs and time although the effort is only considered as moderate. Young founders of companies often have good ideas, but lack the competence, the time and the resources to plan them correctly.

Strategic business planning is regarded as very useful. On the one hand, there is a flexibility, on the other hand there are restrictions due to resources. Experience and intuition support successful planning. All in all, planning is necessary

to increase sales, to achieve a better control over the resources used and naturally also to improve the external communication with investors. The past five years were very satisfactory and the forecasts for the next five years are positive.

SME 5:

The time factor is the main stumbling point to implement strategic business planning. For comprehensive planning, a software support is planned in the company, which also is a cost factor. The effort that has to be made in order to implement strategic business planning is considered to be very high taking about 5 to 10 percent of the working time.

Nevertheless, strategic business planning is regarded as very useful. The influence of the managing director with his experience and his intuition is very high. If he does not back up the plans, they will not be carried out. All in all, strategic business planning is meant to increase sales, acquire new customers and, in this way, to improve earnings and to reduce costs. In the past years, the development was rather negative. The forecast for the development of the coming five years is optimistic.

SME 6:

The main problem why strategic business planning is not implemented is the time factor due to the daily business. The effort to implement strategic business planning is regarded as very high.

Strategic business planning is considered as vital, especially for young SMEs as they depend on large companies. Experience and intuition are implemented more easily in SMEs because fewer agreements must be reached. Using strategic business planning, the acquisition of new customers and a better control of

the resources used are possible. Looking back, the development is not satisfactory, but the forecast of the development for the coming five years is optimistic.

3. Research question:

Which applicable and feasible instruments

do young SMEs use in strategic business planning?

SME 1:

To recognize trends in time and to be able to influence developments, investments must be made in well-trained staff and the development of co-operations. Success factors for these objectives are the management and an existing strategic business planning. The instruments used are the environment analysis/PEST, the SWOT analysis, the competition analysis and the scenario analysis. Known, but currently not used are benchmarking, GAP analysis and life cycle analysis. Furthermore, a step-b-step establishment is recommended for a successful implementation.

SME 2:

Strategic business planning is an ongoing process growing with the company. The company uses specially developed software as an instrument analogous to the SWOT instrument.

SME 3:

There are consulting companies such as the RKW or the HWK where useful information can be obtained. There are also many other consultants, but it is hard to say anything about the quality of their work. The definition of the business objectives, their monitoring and correction, market observation and orientation are part of strategic business planning. Success factors for SMES include capitalization, good and well-qualified employees, strategic business planning

and optimal operating procedures. The instruments known are only the SWOT and the Gap analyses. Monitoring if objectives have been reached should be conducted by the management every six months.

SME 4:

Strategic business planning should be carried out with external consultants as there is the risk of being blind to the deficiencies of the company. The investors are also included in this group with whom a quarterly reporting is being conducted at the moment. The following instruments are used: SWOT, benchmarking and competition analysis. Known, but not used are the GAP analysis, portfolio, life cycle, balanced scorecard and the product market matrix.

SME 5:

It is of great importance to observe the market, that the right employees are in the company and, last but not least, that concrete statements are made to the customer. It is important to formulate the long-term goals in a few words. A concept with a bottleneck-oriented strategy is used as an instrument. The SWOT analysis and the GAP analyses are known, but not used. All the other instruments mentioned are mostly unknown. The managing director is the one to determine, coordinate and monitor objectives and deadlines.

SME 6:

A working business model is the basis of strategic business planning. This is about the status quo, the demand and the question how money is made. Apart from well-qualified and motivated employees, another success factor for SMEs is strategic business planning. In order to implement it, the following instruments are used: industry structure analysis, SWOT and competition analysis, benchmarking, value added, portfolio, balanced scorecard and scenario analysis. The management monitors the planning on a monthly basis.

3.5 Case Comparisons of the Empirical Study

Having evaluated the 14 explorative expert surveys, the seven dimensions/factors **"Key facts"** established at the end of *Chapter 2* can be answered in the following way:

1. Strategic Orientation:

The strategic orientation is considered as a forward-looking, long-term orientation. Market potentials are seen as opportunities to orient the company towards niche markets and new business segments in a customer- and goal-oriented way taking into consideration the market environment. Here, the company's own performances and strengths should be used and reinforced with the help of co-operations.

2. Resources:

Resources are divided into three parts. As a first basis, the financial independence or rather the economic stabilization with the help of start-up grants is looked at. The qualified employees are the second important aspect and finally the experience, the know-how of the young company is rated as an important resource.

3. Strategic Instruments:

Most of the young SMEs know very few instruments and hardly use the ones known. In the same order in which they are used, the instruments SWOT analysis, competition analysis, benchmarking, GAP analysis, life cycle and portfolio analysis are quoted. In the start-up phase of the company, there are company plans in terms of business plans, but those are mainly used to meet the demands of the investors. The business plans are not continued after the founding phase.

4. Formalization:

It appears that there is frequently no comprehensible planning system. The following statement serves as an example: “Planning is one thing, reality is something different.” The developments of young SMEs show that formalized planning is not mandatory.

5. Organizational Structure:

Due to the small number of employees, there are no clear department structures or areas of responsibility in terms of job descriptions. Responsibility is assigned orally and finally the employees take care of multiple tasks.

6. Time Frame:

The time frame cannot be confirmed comprehensively, because half of the young SMEs state a period of up to five years for their product/service life cycles and their strategic business plans. The other half, however, has plans of one, two or three years.

7. Permanent Analysis and Monitoring:

This hypothesis could be confirmed because 13 young SMEs monitor their plans regularly and 11 of them adapt them accordingly. The services offered are continuously being improved. By creating an awareness of the importance of strategic business planning among the employees, a continuous process is launched to “do everything correctly”. For this purpose, monthly evaluations are made by external persons too.

In the analysis of the *14 explorative expert surveys*, further relevant dimensions/factors, apart from the seven dimensions/factors **“Key facts”**, were stated for strategic business planning in young SMEs. Analogous to the first **“Key facts”** of the dimensions/factors, the newly found **“Key facts”** are regarded as guaranteeing success and can, therefore, be quoted as a result of the explorative

expert survey. The additional dimensions/factors **"Key facts"** are described by the interviewed SMEs as follows. Subsequently, a personal evaluation of the author of the present thesis will be given regarding the practicability and the applicability in terms of (--, -, o, +, ++).

1. The Previous Employer:

In the case of four SMEs, the final push to found the company either came from the previous employer, who recommended self-employment to support the foundation of the new company in order to profit from it, or the idea originated within the former company. If the company then supported the employees' motivation, this was also a reason for founding a new company.

(++): The impulse and the support given by the previous employer is certainly a big help. A young entrepreneur should use this option to start his new business concept with the experience and the support of the former employer, e.g. in terms of first orders. Another advantage is that existing business relations can help in the growth phase of the young company.

2. The Start-up Team:

Former colleagues became partners or an idea evolved from the time of university studies when fellow students got together to form a founding team. Good contacts and references from former colleagues supported the start-up plan.

(++): Especially at the start of a new company, it is important to work with "known" faces. This facilitates the start-up and the young entrepreneur can focus on other aspects in a goal-oriented way.

3. External Support:

All the SMEs interviewed belonged to a technology center, which is tantamount to a founding center. Here, the young SMEs are being supported in many business activities receiving service competences and know-how.

(++): External support can make up for a lack of qualification by coaching and guiding the young company in order to develop the areas in which competence is missing.

4. Staff:

Involving the employees in the decision-making process guarantees the success especially of young and small SMEs. To achieve this, a high degree of motivation and good professional training is needed to match the right employees to the right customers. The company must focus on the market-oriented approach.

(++): A very important focal point is the selection of the right staff. Particularly in the services sector, the selection, qualification, management and involvement of the personnel are very important.

5. Customers:

Customer-orientation and integration of the customers support a goal-oriented approach. Moreover, it is important to make concrete statements to the customer to show both credibility and reliability. In this way, customers can be attracted and retained.

(++): There is no turnover without customers and no growth without customer-orientation. When forming target groups, every SME must take the time to find the relevant market. Then the customer must be integrated in such a way that the growth of the SME coincides with the retention of its customers.

6. Challenges:

There are quite a few challenges for the interviewed companies. On the one hand, their financial situation must be taken into consideration; on the other hand, innovations are decisive for the future of the company. Finding partners and co-operations supports strategic growth.

(++): Young SMEs always face challenges because they are focusing on growth and the establishment of the SME on the market.

7. Entrepreneurship:

The entrepreneur must be open for networks and has to be prepared to form alliances. Focusing on a niche also contributes to the success of the company because, in this case, it responds to the needs of a specific industry sector creating a unique selling proposition.

(++): "Keeping one's eyes and ears open" when observing the market, thinking outside the box with the necessary curiosity of an entrepreneur, success is more likely than if the entrepreneur does not orient himself in his business environment.

In conclusion, it can be said that all the results and working hypotheses must be applied to ensure successful implementation particularly in young SMEs. The following **key statements/results** support the following approach:

- Already in the start-up phase, young SMEs have long-term objectives/ideas.
- Young SMEs plan using long-term life cycles of products and services.
- Young SMEs have to permanently adapt their products/services to the market conditions.
- Strategic planning is considered to be very important.
- Strategic business planning originates from the executive employees. Involving qualified employees is an important factor in this case.
- Experience and intuition influence all strategic decisions.

- A business plan is not required for successful development.
- Strategic business planning is always time- and event-oriented.
- Customer-orientation is the most important objective of strategic business planning.
- Strategic business planning must be actualized on a regular basis.
- Regarding implementation, the time factor is the biggest problem, followed by the lack of know-how.
- Strategic business planning must be kept simple and not complex.

Furthermore, it should be said that the process of strategic development in young SMEs is closely linked to the person of the entrepreneur. This process and making strategic decisions are intuitive, based on experience rather than being elaborated in a theoretical scientific way. In young SMEs, decision-making is often characterized by the interpretation of a specific situation and by the dynamics of events. Frequently, strategies cannot be identified. Formal strategic planning is expected from large enterprises, but it is often not practicable in young, growing SMEs. On the other hand, particularly the entrepreneurs say unanimously that strategic business planning is vital and necessary for the survival and the success of young SMEs. Just because of the fast developments in business and the necessary flexibility, a lack of planning is often the reason for the failure of young SMEs. There are indeed limiting factors such as time, know-how and resources; nevertheless there is a high demand of strategic planning instruments that can be used in young SMEs. Therefore, a possible concept will be presented in the following *Chapters*.

Question: Based on the present empirical study and the analysis, there is good reason to ask if it is necessary in the first place to carry out strategic business planning for young SMEs in the presently known way?

Nonetheless, the analyzed results of *Chapter 2* (theoretical principles) and *Chapter 3* (explorative survey) show that it is necessary to establish a practicable and applicable concept of strategic business planning for young SMEs.

The resulting consequences for the further course of the empirical study are as follows:

- Strategic business planning is useful. If qualified employees guarantee its success, the involvement and the qualification of all the individuals concerned must be given more consideration!

- The entrepreneurs have to delegate consistency, will and approach to change. With the help of additional training courses and qualifications, the relevant decision-makers can make up for a lack of qualification and methodological knowledge. The time needed to achieve this must be taken into consideration over a limited time frame.

- External consultants have to be involved in strategic business planning if the young SME is not able to implement it on its own. Financial reasons should not be used as an excuse for not doing so because funding programs can help.

- The simplest and most effective strategic planning instruments have to be found and must be recommended for application. An experienced coach can be of assistance the first time they are used.

- Strategic business planning must be institutionalized, if only to protect the core competencies. Both the qualified employees and the partners must be involved.

- Corporate business principles, business objectives and strategies must be elaborated in terms of knowledge management and set out in writing.

4 Formulation of hypotheses and objectives

4.1 Hypotheses for the present thesis

Using the secondary analysis performed in *Chapter 2* the following hypotheses are developed:

- SMEs need the strategic development of services in terms of service engineering to grow in the market.
- SMEs develop certain qualities when maturing the strategic orientation is related to the age and size of SMEs.
- The importance of long-term planning is due to the strategic use of control instruments.
- The strategic approaches and conceptual design of engineering services in the start-ups are dependent on the skills of the entrepreneur.

These causal hypotheses can be accepted as a basis at an early stage of the empirical study. In the course of the case study, it will be determined if these predictions can be confirmed.

Strategic Planning and Service Engineering is considered as an important factor for success of SMEs. SMEs that plan statigically and pursue service engineering are more successful than others. Based on this assumption, a literature review was conducted. The framework, the state of research, disclosed a research gap in this regard. The resulting empirical analysis conducted for start-ups showed that they do not plan in an entirely strategical way due to various factors and do not use service engineering. The exploratory approach in this empir-

ical study allows for the construction of a framework of various hypotheses that can serve as the basis for theoretical science goals and also for practical science goals. KOSIOL (1964, p.747f) requested in this context:" (.) it is to ask for a reality-based theory within economics that its axioms are intersubjectively testable and thus empirically substantiated and thus represent real hypotheses that (..) allow for the definition and forecasting of real phenomena of its subject area." This case study is not about the falsification or verification of hypotheses, but the clarification and identification of hypotheses and the identification of application problems.

Based on the results, causal hypotheses are being formed, which are also known as research hypotheses. These research hypotheses are "presumptions with respect to the objective of the study" [Bortz/Döring 1995, p. 461f] derived from "preliminary investigations, personal observations, thoughts and theories." These *research hypotheses* should deliver insights into the link between the examined population and the investigation carried out using random sampling. These are considered *related hypotheses* that make statements about positive and negative correlations of characteristics.

4.2 Objectives of the dissertation

The systematic development of new services today represents a key success factor for companies in the manufacturing sector. Innovation in the service sector constitutes an important basis for the acquisition and development of competitive advantages. This applies first of all to product-related services, which companies provide for their customers and completing their performance bundle designing hybrid products. Frequently, however, companies are not able or only in a comparatively inefficient or ineffective way able to provide all the

services required for own and research use so that they acquire or have to acquire these services from other specialised service companies, (so called "business-related" services). Especially in the field of small and medium-sized enterprises (SMEs), however, the problem often arises that they have not yet recognized the importance of services for their competitiveness or – insofar as they are aware of their relevance – are not able to promote development and maintenance of their service programme systematically. In both cases the result is that the now abundantly existing findings from research services in the field of SMEs have found far too little dissemination: There is a gap between scientific knowledge and enterprise practice, which must be closed to improve the innovative capacity and competitiveness of the numerous SMEs in the manufacturing sector in Baden-Württemberg. Targeted service engineering taking into account customer needs and the competitive conditions of the SMEs in the manufacturing sector itself, but also of the companies in the tertiary sector supplying them with the necessary corporate-related services can be seen as a key to success. Therefore, service engineering is at the centre of the planned project.

Against this background, the project pursues several objectives. The **core objective** can be expressed as follows: SMEs should be in the position to deliver to their customer innovative and promising service-oriented or -based services in the form of product accompanying services or hybrid performance bundles. Thus, the central issue is the creation of value propositions that are so attractive to customers that they give the vendors supplying them a unique selling point in the competition.

As a **secondary objective**, SMEs should be enabled to develop and create their value offerings possibly with the help of research business-related services. To achieve this, an intensive collaboration with the delivering service providers is required, in order to obtain adequately tailored services, that SMEs can either

integrate directly into their performance bundle offered to their own customers or use indirectly for theier creation (e.g. in the case of outsourced tool maintenance and maintenance services for their own machines).

Both of these goals can only be achieved if the SMEs become acquainted with the findings obtained in the serices research reagrading service engineering in a way, which enables them to use this knowledge independently on the long run. This is only possible if two conditions are met, which will also be included in the objectives of the project: The procedure models to be found in the service research, methods and tools should not not only be prepared, but also be checked with respect to the needs of SMEs and, where appropriate, be modified or developed. There are also transfer facilities to include, technology centers that can bridge the gap between the participating research institutions and SMEs practice because they have already established themselves as a partner and consultant of the affected companies for a long time. Because of this, the preparation of research results should be conducted together with the transfer institution to ensure target relatedness, This includes above all "breaking down" the often relatively abstract and complex methods and tools to the needs of SMEs, as well as a "translation" in a practice-oriented language, which is not regularly found in scientific literature because of its target audience. In this way, the transfer institutions should also be enabled to permanently support SMEs in the implementation of service engineering.

These objectives were taken into account in the organisation of the project. On the part of research facilities, there is an interdisciplinary cooperation between business and engineering sciences to meet the demands of the interdisciplinarity of service engineering, in which economic and technical approaches merge. Two facilities were elected as incubators/transfer facilities together with the technology factory Karlsruhe GmbH and the MITT e.V., both of which have

rich experience in consultancy and support to SMEs and access to their enterprise networks. This is seen as an important precondition to successfully implement the research findings on service engineering in the practice of SMEs. It was of particular interest in this context to open up a sectorial network in the area of medical technology through MITT e.V, while involving on the other hand the technology factory Karlsruhe GmbH as a partner that provides cross-sector support for SMEs and start-ups in particular. The result is a promising range of pilot companies. By means of the industry focus on the one hand and the sector independent approach on the other hand, one is aiming at making the results more generally applicable. This means that research results should basically be exploited for the service engineering in SMEs – last but not not least by making them available for other transfer facilities too.

5 Material and Method of the service engineering concept in young SMEs in a case study

The project will use a **four-step** approach:

- *1st step*: Evaluation of the state of services research on the topic of service development/service engineering: Procedure models, methods and tools
- *2nd step:* Revision and adaptation of the instruments combining them in a method toolbox according to the modular principle, incl. documentation (checklists, guides etc.) and transfer events
- *3rd step:* Practical implementation
    - Implementation at the transfer institutions: Information and qualification events, incl. evaluation
    - Implementation at the pilot companies: Preliminary talks and work-shops, implementation, testing and evaluation of appropriate models and methods
- *4th step:* Analysis of results; modification of the method toolbox if neces-sary; complete documentation for the transfer of findings and final sympo-sium

The individual steps are explained in detail as follows.

In the **first step**, the state of research on service engineering is fundamentally evaluated and analysed. First, the existing process models are identified and compared with regard to their similarities and differences. Next the essential stages of service development must be identified and concretized in terms of the

tasks to be performed at the various stages. Also in the first step, the methods and instruments developed by the service research for service engineering have to be prepared in a structured form. This includes, apart from a contentual description of their application, especially the elaboration of the purpose specifically associated with their use within service engineering. Moreover the evaluation should also determine what time and financial effort can be expected when using the respective methods. Sources of information that can be used in this first step are, in particular, written service research publications arising from research projects funded by the BMBF and other institutions, but also independent ones as well as Internet sources, not least those regarding development programs and projects. It must also be clarified what models and instruments of the involved transfer facilities and pilot companies are currently already known, and which may be or may have already been used with what experience. A period of three months is provided for this phase of the project.

The **second step** includes the revision and adaptation of the identified models and methods relating to the further development of SMEs. In this case it is particularly important to reduce the complexity of the concepts as well as to flesh out the steps involved. The objective is a method toolbox designed according to the modular principle, which should serve as a basis for the implementation phase following in *step 3.* This toolbox aims at enabling transfer institutions and pilot operations to make use of the most appropriate tools of service engineering for a given situation. For this purpose, three types of ways to implement the research findings into company practice are prepared, in whose drafting the needs of the practice partners involved are taken into account:

- Development of *written implementation aids* for the transfer facilities and pilot companies, amongst others:

- Action guidelines that describe the procedure when introducing and applying the various methods of service engineering,
- Checklists containing the points to be observed when introducing the different methods,
- Training materials on the models and methods that can be used in the context of seminars and workshops,
- Evaluation documents that can be used for the review of the implementation success of service engineering.

- Design and construction of a modular *seminar offer* at two levels:
  - Information and qualification events for the transfer institution to provide the required know-how regarding models and methods to support SMEs,
  - Information events for the pilot companies (and, where appropriate, other interested SMEs) conducted along with the transfer facililties to create basic knowledge on the importance of the customer-oriented design of value offerings with the help of instruments of service engineering.

- Planning a *workshop concept* for the pilot companies, including preliminary consultations, implementation consulting and follow-up, each involving the transfer facilities.

This phase will take a total of three months and will therefore be completed six months after the project started.

The **third step** and the third phase of the project will be entirely devoted to the implementation and requires a particularly high time demand, which is estimated at a total of twelve months. In this period, the implementation at the transfer

institutions as well as in the pilot companies should take place, including the evaluation of the implementation results.

To begin with, the implementation activities at the *incubators/transfer facilities* incorporate preliminary discussions, in which the need for training and the concrete qualification goals are defined. This should be followed by eight half-day information and training events for the transfer institutions. In the first event, the know-how to plan service engineering projects on the basis of process models is provided. The following six events serve to impart knowledge on the various methods and instruments of service engineering. The eighth and final event deals with the evaluation process of service engineering projects on the subject. The events take place on a monthly basis in the project months 8 to 15 with the participation of both transfer facilities involved. After the third and sixth event, there will be an intermediate evaluation followed by a final evaluation at the end of the series.

The implementation in the *pilot companies* comprises two areas: a modular series of seminars on the one hand and workshops with consulting parts on the other hand:

- The series of seminars themed "creating customer-focused value proposition as a growth engine" begins with a three-hour opening ceremony for all pilot companies, in which they are acquainted with the contents of the seminar series and the workshops. In preliminary discussions, it will subsequently be settled which participating SMEs are interested in the complementary implementation workshops. The training modules of the seminar series are logically put together and build upon each other. They should enable enterprises to independently evaluate their existing market offerings and diagnose in this way the need for further and new development with

the help of service engineering. They also have to acquire the know-how to generate ideas for new service-oriented value propositions more quickly, to estimate the market value of those ideas and to turn them into successful value propositions. The modules are structured in a way that each single event will be understandable and useful on its own. Each event is supposed to last two hours, during which 90 minutes are devoted to the given special topic, while the first 30 minutes are dedicated to classifying the special topic in the overall context of the qualification series. Six different training modules are planned that will be offered with each transfer facility to each pilot company and to other possibly interested companies that are involved. The seminars will take place in the project months 9 to 14.

- On top of the seminar series, up to ten pilot companies will have the opportunity to participate in additional, customized workshops in the future, in order to assist them in the implementation of service engineering. Each interested pilot company will take part in two half-day workshops in which methods are selected from the toolbox and tailored for use in the companies (first workshop). On this occasion, the question will also be included in the analysis, whether the services should be performed by the SME itself or purchased from a specialized service. Followed by an approximately three-month trial period, this ends with an appraisal and the development of methods (second workshop). The transfer institutions will also be involved in the workshops so that they have the opportunity to acquire practical implementation know-how. The workshops will take place in the project months 13 to 18 followed by the evaluation of the implementation successes in the pilot companies.

In the last seven months of the project period, the fourth and last step is planned: the analysis of the results, including the resulting consequences for the method toolbox and the transfer of results Based on the experiences gained in the pilot companies, the method toolbox must be revised and adapted to the practical requirements. The transfer of the results should be done by means of a written document and a final symposium, to which all participants in the project (from among the pilot companies at least those who have used the workshop program) should contribute. The symposium is intended for the purposes of the broadest possible transfer of the results the symposium should, however, also be, open to interested third parties. The presentation of the results includes a systematic exposition of the methods and instruments of service engineering tailored to the purposes of SMEs., including the developed action guides and checklists, so that further use is possible in the participating transfer facilities as well as in others, as well as a documentation of the activities in the pilot companies in the form of case studies. In addition to hands-on evaluation findings, however, the goal of a scientific exploitation of findings in the form of contributions to the Service Management in SMEs will also be pursued.

For the entire lifetime of the project, a systematic **project management** is planned covering the coordination between the project partners from academia, transfer facilities and the pilot companies.

A milestone schedule, see *Appendix 2*, demonstrates the organized approach.

5.1 Basics of the case study research

On the basis of the understanding adopted by applied research, the practically relevant problems identified in the previous chapters, the investigated application contexts, and the derivation of design models for their application and im-

plementation are examined. This means that the strategic leadership of young SMEs must assert itself in a complex environment, and must face,a complex and costly management task especially in its growth phase. .

This complex starting position justifies the use of a case study. Case studies are used in the social sciences as a research method, as complex social phenomena can be holistically characterised by case studies. Here, the data of a unit of ananlysis are collected and analysed [Boos 1992, p. 7; Müller-Böling/Klandt 1996, p. 81]. For this analysis, observations, surveys and analyses of the strategic tools employed are necessary. YIN (1994, p. 38) recommends the case study as a research strategy when "how"-or "why" questions have to be clarified. Since strategic planning is very complex, individual and specific in young SMEs, the following case study is carried out to facilitate the development process over a longer period. SCHRAMM (1971, p. 127) already stated that case study research can clarify how decisions or bundle of decisions are made and what results associated with it.

YIN (2003, p. 39ff) distinguishes between different dimensions in the case study research. He distinguishes between a "single-case study" and a "multiple-case study". There is also a differentiation of the number of analysis units within a given case. In this case, a person, a project or a company represents an analysis unit. A case study looking at one analysis unit is called a "holistic" case-study, whereasthose looking at several of them are called "embedded" case-studies. The case study aims at drawing a readable or explanatory picture of the observed person, program, or of decisions or events as well as institutions in order to understand the procedures and processes [Patton 1990, p. 388].

The case study research is a qualitative research and differs from quantitative research in the following criteria:

The objective of the research project: The goal is to make the complexity of decisions, projects or companies transparent considering the research subject. This is an inductive approach to theory development [Flick 1995, p. 10f].

Research tools: In qualitative research, various non-standard tools are used, the researcher himself being a part of the research result. In quantitative research, tools such as standardized questionnaires are used to keep the influence of the interviewer low [Flick 1995, p. 11].

Research process: Qualitative research follows the circular model, which allows a continuous reflection of the research project. In quantitative research, the linear model (consisting of theory, hypothesis, operationalization, sampling, data collection, data analysis, review) is used [Flick 1995, p. 59].

Selection of test persons: In qualitative research, the selction of test persons is based on the relevance of the research topic. In quantitative research, the focus is on representativeness to ensure the statistical validation of the results [Flick 1995, p. 81f].

Qualitative research is based on:

- the item adequacy of method and theory,
- the principle of openness,
- understanding as the principle of knowledge [Flick 1995, p. 12ff].

In the rather complex reality, very few phenomena can be described with isolated and individual characteristics. In the case study below, it will be possible to prove whether the chosen instruments of strategic planning can meet the stated requirements of feasibility and applicability in young SMEs and whether the

modular concept can be described as a heuristic, that the management of young SMEs can achieve adequate variety with.

On this basis, both consequences for practice and research and implications can be derived [Yin 1994, p. 30ff].

5.2 The implementation of the service engineering in the staff of young SMEs

One finding that keeps recurring in the studies and in the exploratory survey of experts is the lack of resources with respect to personnel, time and finances. It is therefore essential, to determine who asssumes the strategic planning responsibility. There are several opportunities for young SMEs.

In principle, corporate planning belongs is the responsibility of the **managing director** starting with the development of corporate philosophy, the definition of long term goals and defining strategies [Szyperski 1971, p. 639ff]. The executive staff must also be involved in these planning processes because this simplifies the acceptance and implementation as well as the coordination of the various divisions. Planning must be based on an economic basis, so it makes sense to use the know-how to improve the objectivity, independence, innovation and creativity [Gälweiler 1986, p. 33]. Here, the main task is for the management to establish a "circle" of competent employees. This is often the problem for young SMEs, which frequently do not have adequate staff with business background [Rautenstrauch/Müller 2006, p. 1616]. This inevitably means that the CEO is faced with a further problem, the time factor, leading to bottlenecks.At this point, the management has to recognize that long-term corporate planning also involves substantial time savings in itself [Mugler 1998, p. 97].

Controllers are not usually employed in small businesses and in medium-sized enterprises, this function is often assumed by the commercial director. The controller is located at the management level [Horvath 2009, p. 60ff]. The function of the controller is often associated with the company's objectives and one of its main tasks is assisting in the business planning [Hering/Rieg 2002, p. 12], thereby working at these goals ranging from strategy development, information gathering, analysis, operational implementation edit to monitoring the planning process. He must never lose sight of the company goals has to coordinate all business sectors. His job is to advise the management to enable them to assess, and then to make a decision.

RAUTENSTRAUCH/MÜLLER (2006, p. 194) established in their 1998 survey that in companies with up to 50 employees nine percent, in companies with 51 to 200 employees twenty percent and in companies with 201 to 500 employees 50 percent have a controller or controlling department. The performance of young SMEs is positively influenced by corporate strategic planning [Gibbons/O´Connor 2005, p. 171; Miller/Cardinal 1994, p. 1662]. The process of strategic planning and control can be implemented using a strategic controlling in young SMEs similiar to that in large corporations [Schwindt 2003, p. 1]. However, it should be noted that an intensely driven controlling can also mean a loss of flexibility for young SMEs [Günther 1991, p. 79f].

Another responsibility within a SME is the position of the **head of accounting**, who must deal with planning. Business planning refers to management accounting. But this will only be possible if the accounting is done in the company. Often small businesses have outsourced this. If an accounting manager is present, it will be necessary to determine whether he is able to master forward-looking accounting instruments due to past accounting. This may lead to an

additional workload because of the occurring planning tasks, which must then be avoided by assignment of tasks [Kosmider 1993, p. 196].

In view of the above mentioned problems the last option is to consult **external consultants** (management consultants, accountants, tax advisers). However, SMEs often want to avoid the high daily rates of consultants. Auditors must comply with the prohibition of self-examination, as corporate planning is also the main topic of the final evaluation and the auditor must not be the one who took care of the planning in the first place. If there is a tax consultant, he should also handle accounting in addition to the tax returns. Thus, he has access to relevant data that are necessary for strategic planning and to answer questions about the respective instruments. The accuracy of the data should, however, be checked, as these might be incorrect [Rautenstrauch/Müller 2005, p. 191].

It can thus be concluded that it is useful for young SMEs to have parts of their corporate strategic planning carried out by external consultants, because they have a greater objectivity. This is particularly helpful in the business analysis, because young SMEs are often professionally blinkered and frequently predict unrealistic subjective results [Gälweiler 1986, p. 32].

5.3 The realization and implementation of service engineering in young SMEs taking as an example a research project of the Baden-Württemberg Foundation gGmbH

The research project started on 1 January 2009 with 17 SMEs initially and ended successfully on 31 July 2011 with 14 SMEs. The title of the tender was "knowledge transfer services research-keeping services competitive." In this case, the research project was devoted to the topic of the systematic develop-

ment of new services for young SMEs in the manufacturing sector.In recent years, the discipline of "service engineering" has been accelarated by various programs of the BMBF amongst others. Against the background to transfer a transfer of knowledge from research services into the SME practice, the SMEs should be permanently placed in the position to create new service-oriented/-based offerings to generate customer-oriented value propositions. This project involved the orientation of young SMEs with the help of strategic planning tools that can be used in the development of services, particularly for young SMEs. Frequently, SMEs are not or only in relatively inefficient and ineffective way in the position to provide all information necessary for the internal or external demand services on their own. Therefore, the project pursued the objective to transfer the knowledge from the research services into the SME practice and to utilize it. This research project illustrates in a really striking way how young SMEs can be enabled to apply strategic planning. This project has worked with three technology centres/incubators from Baden-Württemberg acting as a liaison between the university and the young SMEs. This technology centres possessed a wealth of experience in advising and supporting young SMEs and had a corresponding corporate network.

Technology centres are organisations that help entrepreneurs to turn start-ups into competitive companies. The technology centre is a service centre that provides start-ups in their early stages with the holistic support for implementing their business ideas. The goal is to place possible services at the disposal of the new company or to arrange them, to transform the business idea into a marketable product in a short time. In Germany, technology and business incubators are public facilities for young companies, which are mainly located in the technology sector and need business premises, facilities and services for a period of time. Since 1988 there has been the Association of German Technology and

Business Incubators (ADT) that works as a Federal Association of German centres of innovation, technology and business incubation as well as of science and technology parks. The association wants to support technology transfer and innovation for start-ups. The economic base of innovative companies is meant to benefit from extended networks. Performance potentials are to be promoted as well as the exchange of information between the institutions and the promoters of these innovation centres. The names of these business incubators are partly different. This is why the centres are sometimes called science parks, business parks, or innovation centres.

There are currently 40 technology centres in Baden-Württemberg, where more than 850 companies are located. If one also includes the companies that have already left the centres, but where contacts still exist, then more than 1.900 companies with more than 15.000 workplaces are potential recipients, which could, for example, use appropriate seminars. In this case, contacts must be established and there must be an exchange of experiences between science and start-ups.

In the following, the process model in this research project is described starting, what strategic corporate planning tools were taken into account, and on the hand the implementation scheme is shown, i.e. how young SMEs can apply strategic planning.

5.3.1 Integration of service engineering in the process model of the research project

The process mode developed and used in the project was developed on the basis of various existing services research process models considering the needs of young SMEs and the goal of the research project. Analogous to *Chapter 2.2*,

where strategic planning will be presented, procedure models were analysed in the project focusing on planning, conception and implementation. The phase model of the Institute for future studies and technology assessment IZT (2004), the three phase model of JASCHINSKI (1998, p. 97), the five phase model of MEIREN/BARTH (2003, p. 17ff) and the module-based procedural model of the research project CASET computer aided service engineering tool [Meiren 2001, p. 39] were integrated into the new model. In addition, the DIN phase model (1998) were and the process model of RAMASWAMY (1996, p. 78) were taken into account. All these process models are tantamount to a strategic business planning model. The individual phases, the sequence, the contents and the direction are comparable. The process model of the third-party funded project has many connecting factors to the present thesis. This procedure model integrates all the strategic business planning instruments. These have been successfully deployed within the framework of the case study and successfully confirm the feasibility and applicability.

5.3.2 The application of service engineering in the research project

The analysis of studies in *Chapter 2* and the results of the survey of young SMEs in *Chapter 4* showed that the need and the importance of strategic business planning are considered to be very high. The problem is often the lack of time, resources and expertise. Therefore it is also crucial to communicate, transform and implement the strategic instruments with the help of the employees.

Therefore a methodological synthesis is presented in the following showing how young SMEs in particular can be put in a position to deal successfully with the instruments adapted to SMEs, see **Figure 5**.

Here, support performance using an external consultant should be given in the form of coaching.

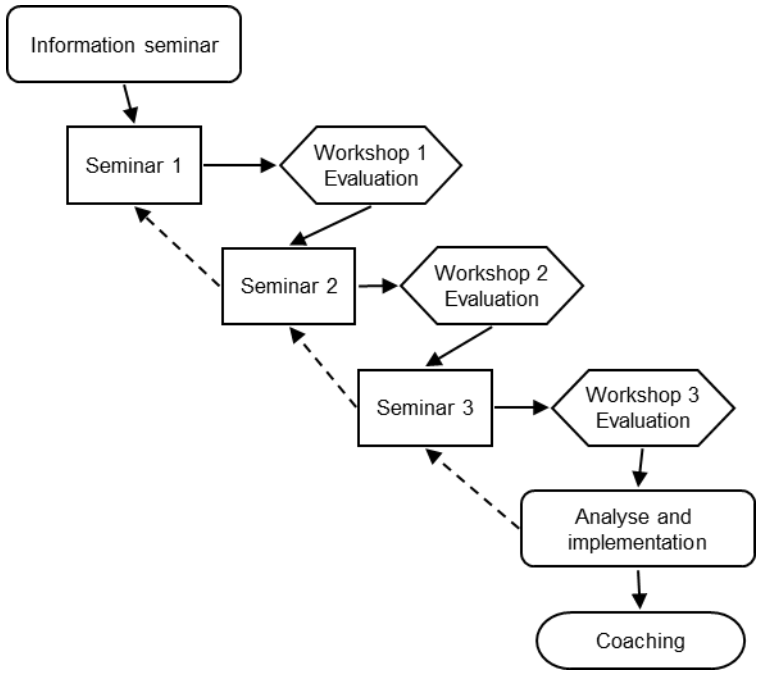


Figure 5: Implementation of strategic business planning in young SMEs [own research]

After the preparation phase to the project, an introductory event is held to provide an overview of the processes, best-practice examples and the results to be expected. During this event, the timetable and the steps are presented. In the first workshop, the initial situation is clarified and contexts and fields of tension are indicated. In the second workshop, the results obtained so far are analysed and further scopes for design and control are explored. In the third workshop the approaches are systematized, discussed, evaluated and prepared for realization and implementation.

All three workshops are repeated and worked up in the follow-up phase in order to obtain a sustainable learning effect and confidence through routine in young SMEs. After the evaluation and implementation more assistance in the form of coaching is planned.

It is, thus, a concept with support of expert knowledge and the gradual and linear implementation of a strategy development process, shown in **Figure 6**.

Phase	Contents	Aim
Information seminar	Preliminary discussion with the leading employees, besides, clear of the Status Quo, to the need, the action and the involved employees	Vote of the expectations, the mutual learn to know of the involved people
	Procurement of internal and external data	Purification of the initial position
	Preparation of Seminar 1	Preparation of the bases
Seminar 1	Introduction, overview, approach	Introduction of the methodology
	Development of the external and internal analyses	Purification of the initial position
	Positions, perspectives, network are based	Exchange of views force
Workshop 1 Evaluation	Processing and synthesis of the Seminar 1	Results develop
	Development of own enterprise analysis	Conversion of the learnt
	Preparation Seminar 2	
Seminar 2	Check network within the groups and the SME, discussion	
	Development of the aims and strategies	Creation and control possibilities compile
	Working on of the key questions	
	Indicators for the aim reaching fix	
Workshop 2 Evaluation	Processing and synthesis of the Seminar 2	
	Development of models	Conversion of the learnt
	Development of bases for the decision-making	
Seminar 3	Strategies introduce, judge and discuss	Problem solutions judge
	Project plans and action plans compile	Anstzpunkte for the conversion compile
	Installation of a strategical Controllings	
Workshop 3 Evaluation	Processing and synthesis of the Seminar 3	
	Conversion of the measures	Conversion of the learnt
	Integration of the certified employees	

Analyse and Implementation	Evaluation of all preceding measures	Summary of all results
	Konzipierung of a knowledge management	Developed know-how make handy
	Representation of the results	Judgement of the effectiveness and the efficiency
Coaching	Regular consultations in short time intervals	Coaching and support of the SME

Figure 6: Process of implementation [own research]

This procedure is planned to be linear, but can also be implemented in an iterative way. The persons involved are introduced to the topic by a team of moderators. The moderator team is responsible for the preparation and organization of the workshops, the evaluation and the synthesizing of the content and the evaluation of the strategy development process. Results and decisions are company-specific, and will be treated confidentially.At the end of this process, it is relevant to achieve the following results:

- Creating awareness of a necessary action for strategic planning in young SMEs,
- Promoting an understanding for the relevant thematic areas,
- Using common language and terminology,
- Developing concrete starting points for the strategic direction and design a product/service offer,
- Creating the awareness that not everything is over with the completion of the last workshop. Then, the young SMEs will need to work independently,
- Creating familiarity with the systematic way of thinking,

- Building methodological know-how,
- Establishing a corporate network of our young similiar SMEs.

This approach was also implemented in the research project, as shown in **Figure 7**.

	1	2	3	4	5	6
	Definition	**Requirement**	**Conception**	**Realisation**	**Market Implementation**	**Evaluation**
Duration	6-8 weeks	4-6 weeks	8-12 weeks	6-8 weeks	8-10 weeks	15-20 weeks after Market Implementation
Timetable	01.11.-18.12.2009	21.12.-22.01.2010	25.01.-02.04.2010	05.04.-21.05.2010	24.05.2010-23.07.2010	between 08.11 and 17.12.2010
Activities	Information Seminar, Seminar 1	Seminar 2, Workshop 1	Seminar 2 and 3, Workshop 2 and 3	Project 1	Project 2	Workshop 4
Surrender	Analyse, Ideas, Target, Strategies	Ressources, Competencies	Study, Design, Process, Organisation	Implementation, Simulation, Acceptance	controlled Market Implementation	Evaluation, Decision
	Service Design			**Service Management**		

Figure 7: Plan of action of the research project [own research]

The implementation of the strategic development of services was carried out as follows. After the preparation and the analysis of the state of service engineering research, the identified process models and strategic tools/methods were concretized in terms of the interests of young SMEs in the research project. This was used to develop the method toolbox and to establish action guidelines for the introduction and application of different methods and the training and evaluation materials for implementation success. Moreover, a modular seminar and workshop offer was created. In this context, information and training

events/**project meetings were carried out** for the transfer facilities/technology centres to impart the know-how of models and methods. The information events/**seminars** for young SMEs were held to impart basic knowledge for the use of strategic instruments. All the young SMEs took part in these seminars to create a communicative exchange and hence a networking. Based on the strategic instruments previously taught in the seminars, their implementation and application was then trained in individual **workshops**, which is shown in the *Appendix 5* with all the events that had been held. Here, the strategic planning was defined and the projects were implemented. Before and after the individual events there were briefings and evaluations by the young SMEs with regard to the assessment of the overall project. The results were presented in the final symposium with the promoter, the Ministry as well as the participating SMEs and the transfer institutions involved.

5.4 Structure of knowledge management for the support of service engineering in young SMEs

Despite the importance of knowledge as a resource, differences exist in SMEs. Knowledge potentials are not always optimally utilised, those having knowledge are not given further systematic training. This loss of ideas and possible synergy effects are not recognized. This can result in repeating research and projects independently from each other. Studies by Dataquest, Gartner-Group and Delphi show this loss of knowledge [Rohleder 2009, p. 66]. Especially young SMEs do without knowledge management on the grounds that there is no need for it due to the size of the company and its regional orientation. As a result of information technology, the access to information has become easier worldwide, so that the option of a knowledge management for

SMEs is becoming more and more interesting. A study of the TU Chemnitz from the year 2006 shows that 89 percent of the altogether 2.342 companies surveyed consider the target-oriented handling of knowledge as important.

Knowledge is the result of learning processes and the management of knowledge must be seen as a building block for strategic expertise in a learning system. The strategic competence of knowledge must be divided into *implicit* (personal) and *explicit* (transferable and archivable) knowledge [Pawlowsky et al. 2006 p. 10f]. In another study by PFAU et al. (2007) two-thirds of the companies surveyed emphasized the importance of using knowledge management.

The following aspects show the relevance of the construction of knowledge management:

- Increasing specialization of SMEs,
- due to the small size of the SMEs, the potential information overload must be to organized so that relevant information can be processed correctly,
- SMEs are dependent on the knowledge and skills of their employees [Pfau et al. 2007, p. 25].

EDLER (2003, p. 2) surveyed 497 German companies (55 percent of which were SMEs) asking for "use, motivation, effects and institutionalization of knowledge management". In this survey he discovered a relationship between knowledge management activities and the ability to innovate. KRIEGESMANN/SCHWERING (2005, p. 88) examined the relationship between innovation activity and knowledge or competence management in 451 companies. Here again it was shown that innovative and dynamic SMEs in all areas had higher knowledge management activities in all regards.

Barriers for the introduction are the lack of time, of transparency, of willingness to exchange information and the lack of knowledge of the importance of the resource [Pfau et al. 2007, p. 29]. Knowledge management in SMEs aims on the one hand at promoting the employees' cooperation with the customer and on the other hand at achieving a greater responsibility of the staff needed for the operations. Organized knowledge management can minimize the risk when employees leave or when there is a generational change and processes can be improved by profitable use of freed-up resources.

A transfer in young SMEs can be supported by determining a person who is responsible. The idea of a knowledge scoreboard for SMEs, a project of the BMWi (2008), which was piloted in 14 companies, is also helpful. With the help of this knowledge scoreboard the knowledge existing in the company, the skills and abilities are listed and developed and can be used as external means of communication to convince customers and investors of the company's potential. Furthermore, there are synergy effects for the internal communication, such as creation of transparency and trust. With the guide issued by the BMWi, SMEs can initiate a knowledge scoreboard themselves and implement it.

The research project MISTRAKO-SME study on the strategic competence of enterprises by the TU Clausthal/Haufe Akademie (2007) surveyed 228 SMEs on the instruments they used for knowledge management. Here, it is obvious that technology-oriented instruments are increasingly employed instead of human-oriented instruments. To build a strategic knowledge management competence, there must be a "healthy mix" of media (hard drives, CD) and staff (employees, departments). To avoid an "information overload", the SME needs to build an information infrastructure. These studies show that especially the documentation of knowledge can be the basis for continuous success of young SMEs. This also became apparent research project presented in the case study.

Here, written implementation aids were made available for transfer institutions and young SMEs in the seminars and workshops. These training materials and action guidelines served as the basis for the development of strategies in young SMEs. All produced information has been documented and processed for the individual instruments.

5.5 Application problems encountered with the realization and implementation of service engineering in SMEs

The investigated start-ups differ basically in their whole structure and alignment from large companies. In start-ups, the senior employees or the entrepreneur are responsible for controlling in contrast to controlling departments in large enterprises. The subsequent distinctive characteristics and features have become apparent in the course of the over 2-year-old case study:

Personnel capacity

Personnel capacity is an obvious distinctive characteristic for large companies. Start-ups have too little capacity enabling strategic planning. Although start-ups have flat hierarchies and decision-making and information channels are short and these companies are therefore very flexible, but the excessive demands placed on individual decision-makers prevent SMEs from using this advantage. This is due to the limited personnel capacity, which does not allow for detailed planning, management and control. As a result, the entrepreneur cannot delegate tasks. This leads ultimately to an excessive workload of the entrepreneur as well as to an increased orientation and integration into the day-to-day business. Long-term objectives are put on the backburner and it is only the short-term success that counts. Thus, the start-ups are not prepared for the risks either do

not see the opportunities offered to them by their alleged flexibility and innovativeness.

Management and organisational structure

The management structure of the investigated start-ups often corresponds with the central figure of the entrepreneur. The Managing Director is at the same time owner, developer and administrator. Thus, necessarily all functions and decision-making powers are united in one person. Thus the strategic decisions and future activities depend significantly on the entrepreneur's characteristics and interests, who is the owner and the leading figure of the start-up at the same time.

This can also be demonstrated by a study by FELTHAM et al. (2005, p. 4). Here three-quarters of all entrepreneurs rated the dependency of the company on their own personality as very significant. 64 percent of entrepreneurs also started that they bear the main responsibility in three out of five divisions (personnel, purchasing, marketing/advertising, finance/accounting, production) and make all the decisions for these areas. Start-ups have a low degree of formalization and relatively few divisions. Managerial tasks were hardly delegated and the entrepreneurs insisted on the patriarchal and authoritarian leadership style. Due to this concentration on one person, an overload of the entrepreneur was recognizable and this led to a number of problems, which ultimately resulted in intuitive decisions made by the entrepreneur. The entrepreneurs were often unable to cope with developing strategic planning and leading all by themselves, which led to improvisation. This intuition, however, is not sufficient in a complex and dynamic situation. Moreover, insufficient business knowledge and a form of overconfidence became apparent, which put the performance of the entrepreneur at risk. The central position of the entrepreneur which united all decision-making powers and information was a risk in the start-ups. Focusing

on one single leading person can threaten the existence of the start-up after this person has left the company. Due to the central position of the entrepreneur, strategic measures are initiated by him too. These decisions are regarded to be made by the entrepreneur only who runs the risk of being driven by personal motivations influenced by his own properties. This is ultimately the relevance, which was promoted by the initiation and implementation of strategic processes. The sphere of influence of the entrepreneur with the described personal objectives, motives and properties decreases with increasing growth and size of start-ups. The entrepreneur of a start-up has been an important and essential factor for the progress of the strategic concepts at any time.

Financial restrictions

The equity ratio of start-ups tends to be low, because there are limits in the procurement of equity. This was also the case in the investigated start-ups, which were often financed by foreign capital, e.g. with the help of banks and also business angels. Especially for small companies, funding for these companies is difficult as a result of Basel II [Kummert 2005, p. 158]. Due to the new "Basel Capital Accord" (Basel II), which came into effect at the end of 2006, the companies must submit themselves to a rating procedure. With Basel II, there was a change of quantitative assessment criteria to now qualitative ones and future credit assessments. Due to this rating process, an implemented internal control system has received a very high relevance for the assessment [Flacke/Krol 2005, p. 149ff].

With an increasing growth of start-ups, also the profitability is growing alongside the equity ratio. Another problem is also the missing strategic planning and inadequate corporate governance, caused at least in part by over-burdened entrepreneurs. According to GLEICH/HOFMANN (2006, p. 347), the financial risks for SMEs are more pronounced than the performance-related risks, which

can lead to liquidity shortfalls. Thus, the independence of start-ups is closely tied to the equity ratio.

Technical equipment

Start-ups are less well-equipped and cannot be compared to established big corporations. In all start-ups, the necessary hardware for controlling and data systems was available to permit the collection and analysis of data. The main problem lay less in the procurement of internal data, but rather in the procurement of external information. In this case, support was necessary. There are many software solutions for start-ups (such as Microsoft Navision, SAP all-in-one solution, Oxaion software etc.). Problems often lie in the outsourcing of accounting, as external tax consultants manage and use the data and figures especially for start-ups. The use of all-encompassing software depended on the entrepreneur, i.e. to what extent he wanted to deal with the issue.

Other problem areas:

Management focused on the past

Many of the entrepreneurs led their start-ups focused on the past. This is related to the integration of the entrepreneur in the operational day-to-day business together and that no importance is attached to long-term planning and control. There were hardly any controlling systems besides a balance or cost accounting systems.

Inadequate information gathering

Due to the lack of time of the entrepreneur and the missing capacities relevant information is often not obtained. Especially the access to external information is often difficult or obtaining it entails costs. Here, the support offered by coaching proved to be very helpful.

Managing and controlling in the informal personal contact

Entrepreneurs and employees are in close contact and there is mutual trust especially in the investigated start-ups. However, entrepreneurs only rarely delegate decision-making powers or functions to employees. The decision-making processes often lack formalization relating to commercial and business knowledge, missing information, and also the lack of awareness of the problems.

The problem of successors/substitutes

The resignation of the entrepreneur or even disease can lead to existential problems, if there are no agreements on who is going to be the substitute and no competence transfer has been made. In the investigated start-ups, there were stable structures and the missing leadership represented a great internal risk. This was due to the lack of willingness to hand over decision.making authority, problems of acceptance or a higher financial burden, if the employee had deserved a higher income because of leadership and competence authority.

6 Conclusion and new research findings after the realisation and implementation of service engineering

6.1 Development of a theoretical model of “service engineering” for the case study

The increased complexity and dynamics of the business environment and the problems of a young organization are treated extensively in the literature [Bleicher 2002, p. 34; Malik 1996, p. 86; Ulrich/Probst 1990, p. 23ff; Gomez 1999, p. 65]. This complexity is the core of the leadership role in a company [Malik 1996, p. 184]. STÜTTGEN (1999, p. 8) states in this regard: "A satisfactory answer to the question, according to which patterns complex social systems are to be designed to meet the proliferating environmental complexity facing an adequate intrinsic complexity of the company can be, in this context, a critical success factor for management."

How can young SMEs solve strategic problems in their companies?

ASHBY (1964, p. 86) has introduced a law of requisite variety, which can be used to solve a problem: "Only variety can absorb variety." SCHWANINGER (1999, p. 60) explains: "To keep a complex system under control, the control system must have a variety that is equal to the variety of the system to be controlled." MALIK (1996, p. 191) has commented on this statement as follows: "We can control a system with a given complexity only by using an at least equally complex system."

The analysis and survey of SMEs in the previous chapters clearly show the problem of existing planning deficits. One dilemma is that with the increasing complexity of a growing business the need for planning increases accordingly. The possibilities and the needs of corporate strategic planning are often diametrically opposed [Szyperski 1973, p. 26f]. In the foundation phase and in the early stages, entrepreneurs behave in part as "anti-planners" [Szyperski 1971, p. 645ff] and respond only to requests by e.g. investors [Picot et al. 1989, p. 172].

ZIDER (1991, p. 95) notes in this context: "The business plans of new companies are often inadequate, leaving out entire analysis blocks and do not address a variety of operational issues in the first place. That comes as no surprise, as entrepreneurs are doers rather than planners. They usually have neither the skills nor the discipline required to develop a strategy. They assumed leadership roles or technical tasks in their companies and are now aggressively pursuing an idea they believe in. They are not even looking for any signs that point to possible weaknesses in their strategy, their team or their plan, or refuse to recognize these signs."

The start-up and early development phase of young SMEs are challenges for any entrepreneur. They often shy away from the effort of focusing on strategy and planning, because the uncertain development of young SMEs makes planning difficult. Or the business idea is so ground-breaking that strategic planning is obsolete, or there is simply lack of resources such as time, expertise and staff, and the ongoing problems have priority [Szyperski/Nathusius 1999, p. 48].

In addition to the previous chapters, MÜLLER-BÖLLING/GRAF (1988, p. 615) found that:

- company founders lack or do not have any planning experience,

- the effort seems too high,
- the lack of time is characteristic of the start-up and early development phase and therefore no strategic planning is undertaken.

One possible cause is "Gresham's Law of Planning" which states that the leadership capacity focuses on operational acitivities with a tendency to the day-to-day-business at the expense of executive functions. This preference leads to neglecting strategic planning and focusing on short-term crisis management [Zahn 1979, p. 17f].

How can this problem be solved? On the one hand, non-systemic approaches to problem solving are possible. In this case, however, there is only a small variety of behavioural options to deal with the complex issues. The resulting depersonalized corporate processes/structures cannot solve the problems encountered [Malik 1996, p. 36ff]. On the other hand, systemic approaches are superior in that they support ASHBY's (1964) law of requisite variety. Here, structural and socio-cultural aspects are supported in young SMEs. The methods alone cannot guarantee success, but they support it.

The problem-solving approaches with systemic components must be implementable. This feasibility has already been investigated by ESPEJO et al. (1996). It was determined that insufficient understanding and insufficient consideration of the contextual factors lead to implementation gaps. Young SMEs have to set priorities. According to SCHWANINGER (1994), this already starts in the minds of entrepreneurs, who should not speak of “problems”, but of "facts" and use terms such as "create" or "find". Tellingly, VENNIX (1996, p. 49) says in this regard: "However, what is meant is that a clear purpose is need-

ed to focus the study and to decide what to include in the model and what to leave out."

The service engineering discipline is concerned with the selection and provision of appropriate methods to develop new services using appropriate process models and tools. While in science and in practice, the issue of service development has been treated for some time, there is still a strong need for appropriate methods, practices, and further exploration of the systematic, method-based service development [Fähnrich et al. 1999, p. 82ff].

Empirical evidence suggests that a positive correlation between the degree of formalization of the development process and the success of companies exists. This allowed FÄHNRICH et al. (1999, p. 74ff) to show that successful companies regularly develop new services and have a more formalized development process than less successful companies. 73 percent of the companies surveyed indicated a business need for service engineering and 51 percent would like to see organizational concepts.

In the field of service development LUCZAK et al. (2003, p. 7) assumes that 80 percent of future production costs are determined in the early stages of development. Other authors speak of a "significant proportion" of the costs incurred in the development [Eversheim et al. 2003, p. 418]. Thus, besides including the exact scope of the new service the complexity of products is determined and the kind of resources needed is decided on. "The earlier an error is detected, the more time benefits take to materialize, but the greater the benefit is in the end [Gundlach 2004, p. 17]."

The long-term security is regarded as one of the most important objectives for SMEs. Another goal is not surface growth, but a moderate and healthy growth. "Entrepreneurs found a way to manage growth rather than allow the growth to

manage them [Hisrich et al. 2002, p. 501]" Stability can be guaranteed at a moderate growth policy. Investments must be carefully considered and planned for the long term.

Range strategies are defined in view of the corporate culture and long-term business goals. The following strategies relate to the dimensions of sustainability and "govern the basic business strategy of a company" [Hungenberg 2000, p. 7]. They are about long-term business objectives, which relate to the design of resources and the market positioning of the company. These can be broken down into:

- Ecological strategies,
- Social strategies,
- Economic strategies.

The term *ecological strategies were* often understood as a concept of environmental management, which aims to minimize the side effects on the environment. "For the company, this results in a fundamental redesign of the entire value chain [Matten 2001, p.151]."

With respect to *social strategies* it is often spoken of open communication and regular meetings for strategic decisions. Good cooperation, constant willingness to talk and short communication channels lead to high conflict resolution skills. Especially when focusing on the strategy to be applied, the company can profit from the experience and market knowledge of long-term employees and long-term customer and supplier relationships.

Economic strategies can be supported by the previously mentioned strategies. This becomes apparent when new markets are entered with the help of green

products and a large turnover is generated. The social orientation may also affect employees and improve the situation. Regarding the economic strategy .the financial independence and the equity ratio play an important role.

Sustainability is a perspective showing the management the way to a strategic business plan. "For sustainability as a strategic business plan considers all those critical factors that are relevant to the future profitability of a company and that are therefore of vital importance to ethically and ecologically motivated and even conventional investors when making their decision [Hardtke/Prehn 2004, p. 75]." HARDKE/PREHN (2004) notes a relationship between sustainability management and competitive advantages. This is referred to by the authors as visionary leadership and is the result of a correlation of high performance respectively high commitment and high competitive advantage.

Service engineering is concerned with the "development and design of service products using appropriate process models, methods and tools [Bullinger/Schreiner 2003, p. 70]", see **Figure 8**.

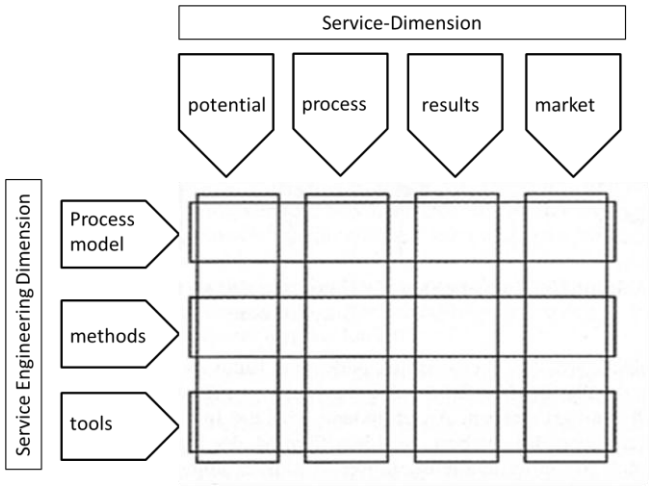


Figure 8: Service engineering framework [Bullinger/Scheer 2006, p. 75]

The process models are supposed to illustrate and structure, "what"there is to do, while the methods are to show "how" something must be done. The tools are designed to support and optimize the application of methods and should help to make the development process more efficient and to avoid errors. This definition is similar to definitions of product development, such as the one stated by the Association of German Engineers VDI offering in its 2221 policy recommendations for the development and design in the production area.

The use of methods and tools is used to increase the effectiveness and efficiency of the development process as well as to reach the goal of producing high-quality services. Service engineering is not only interesting for the industrial environment, but is also applicable to all industries [Luczak et al. 2003, p. 7f]. The services dimensions are divided into potential, process, profit and market dimensions. The interaction of these service dimensions with the dimensions of Service Engineering form the Service Engineering Framework.

As a comprehensive discipline, service engineering concerns the holistic design of the service process up to the customer, taking into account the strategic and organizational design factors. The aim of service engineering, is also to take all necessary, clearly defined steps for the development of services and to implement them together with the customer in a process of interaction. It is also important to act and react with the customer wishes.

A crucial factor for service engineering is the fact that the development of services should be systematic. The background to this is that in the development of materials and equipment or software, a systematic approach has achieved tremendous progress in the quality of the products [Schwengels 2003, p. 39]. This focus is very important, because in the past in the development phase, the quality did not matter and errors were only corrected in the rendering phase [Yang

2005, p. 22ff; Meiren/Barth 2003, p. 11]. The German Institute for Standardization (DIN, p. 18) defines quality as "the quality of a unit on its ability to satisfy stated and implied needs" According to EDVARDSSON/OLSSON (1996, p. 140) 70 to 90 percent of the errors are occurring in the provision of the rendered services. Surely, it should be mentioned that the quality of service, apart from the provider, also depends on the customer and his integration and interactivity potential, but nevertheless the provider should definitely contribute his part to the successful development of services. Implementing a service process aims at improving innovation and increasing the competitiveness of the company.

Research on service engineering usually assumes the composition of a performance from three dimensions known from the service marketing [Engelhardt et al. 1993, p. 398]: service provision, service creation process and service results.

In this respect, it should be noted that systematic method-based service engineering must consider all three dimensions, which results in product models, process models, and resource models being used, which together represent *development methodology* [Fähnrich/Opitz 2003, p. 95].

The elements that support it can be represented in the present model of the goals of service engineering. Likewise, models of service engineering are helping to reduce development costs, shorten development time and improve the chances of success in the market. The objectives are for example: Customer focus, Qualification Employees, Quality, Efficiency, Time-to-Market, Standardisation.

As part of a research project of the BMBF a software prototype has been developed to establish service engineering systematically differentiating it clearly from the model for product development. The process model is based on three steps to service development [Hohm et al. 2004]:

- Service creation,
- Service design,
- Service management.

As shown in **Figure 9**, there are in addition to the actual three main process steps (service creation, service design and service management) sub-process steps that are processed sequentially. Each of the main phases of the process is divided into the sub-processes "design" and "review." [Hohm et al. 2004] The service creation phase is divided into idea generation and idea evaluation. The service design phase is divided into service concept and concept evaluation. The service management phase is divided into introduction and service provision as well as service assessment (evaluation of the service).

This breakdown causes that within a major phase of the process, the work packages can be repeatedly evaluated and improved. It is also suggested in the study to carry out the topics marketing research and marketing concepts as cross-process measures and to design them separately. The research study conducted by the Institute for Future Studies explains [IZT 2004]: "Furthermore, it is important to give market research a fixed place as a mainstream function in exploring customer requirements, which was usually only a special aspect of service management in the previous models. Another cross-sectional task is the development of a marketing plan that affects all phases of service engineering."

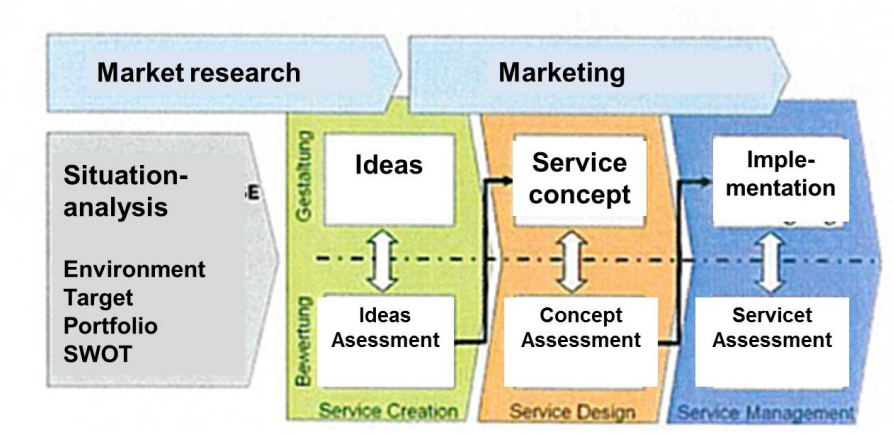


Figure 9: Phase model [IZT 2004]

The initial phase preceding the first process step (service creation) serves as an introduction to the process of service engineering. Within this start-up phase, a situation analysis is performed by using the SWOT analysis can finally provide appropriate starting points for the generation of ideas.

The initial phase is considered to be most the essential and the most critical step in successful service engineering.

What type of process models is used depends on several factors? For example, the complexity of the development object, the degree of innovation of the service to be developed, the time available and the experience of the developers involved play a significant role.

For planned development of services and to ensure comparability of experience, it is helpful to use process models. Using such process models the following potential improvements develope, such as:

- Introduction of a development guideline for quality assurance,

- Representation of resource requirements,
- Determination of cross-sectoral integration potential,
- Planning of customer integration.

In addition, process models allow the testing of their effectiveness in practice contributing to theory building model development by evaluating the findings obtained.

Modern management performance can be seen as a result of the process of business development. New conceptual tools/models are also beneficial. To use a more basic model, the DIN-model serves as a basis. In the context of standardization, the task group "service and regulation" developed a DIN technical report within the project "service 2000 plus", which proposes a standard phase model to develop services. This DIN-phase model, see **Figure 10** for the development of services, consists of 6 phases:

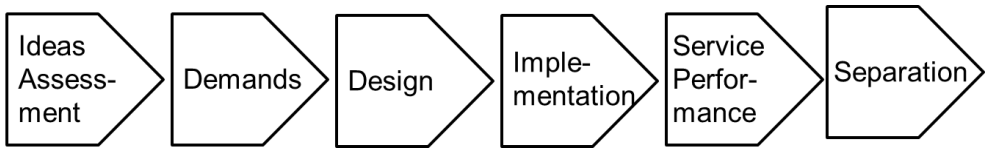


Figure 10: DIN-phase model for the development of services [DIN 1995]

Since it is kept very general with respect to concept and content, it should prove to be flexible enough for a variety of industries and business situations. The DIN-phase model goes well together with the Stage-Gate methodology. The sStage-Gate Model is an optimization model of development processes developed by COOPER (2002, p. 128f). Starting from the VDI guideline 2221 (methodology for the development and the design of technical systems and

products), a procedure model can be developed, emphasizing the project character of service developments. These projects start with an idea and ultimately result in (service) performance that is of interest to customers.

To use the DIN-practice model effectively, it was expanded by the CASET model kit and also made more flexible. The combination of a phase model and a variable checklist modules can be chosen from according to the project (result of the CASET project), has already proved successful with financial services. It also seems to be flexible enough to be applied to different types of services. In the construction phase, it is very similar to the DIN model. The contents, however, are understandable and should therefore, also be more relevant in practice. In particular, the names of the phases and the modular contents in the form of checklists offer a clear orientation as regards structure and content for service development projects.

When integrating systematically various fields of business and tasks (product development, production, marketing, sales) into the phases of the project, it becomes apparent, however, that the continuous application of the integration approach can only be achieved through a matrix structure. This is done by the inclusion of dimensional analysis, as suggested by MEIREN (2001). His matrix representation has many similarities to the modular system, but allows a more dynamic view of the dimension within the phases. For example, the market dimension is effective throughout all phases and can therefore be flexibly adapted to the content and enables the integration of market information in the entire project.

To organize the content of the phases, especially the systematic integration of the market dimension, elements of the model according to RAMASWAMY

(1996), see **Figure 11,** are used that takes into account the value orientation in the development of services.

In this case, two key elements are being considered that are not used in other models sufficiently or have been neglected entirely:

The (virtual or real) separation of market power in attributes as a prerequisite for the determination of performance standards, and the cyclical nature of service development, with each cycle ending with the task of "performance enhancement", while at the same time also starting the next cycle by searching for improvements. By asking for a (cyclic) improvement of the services offered, the model supports the innovation approach of service development.

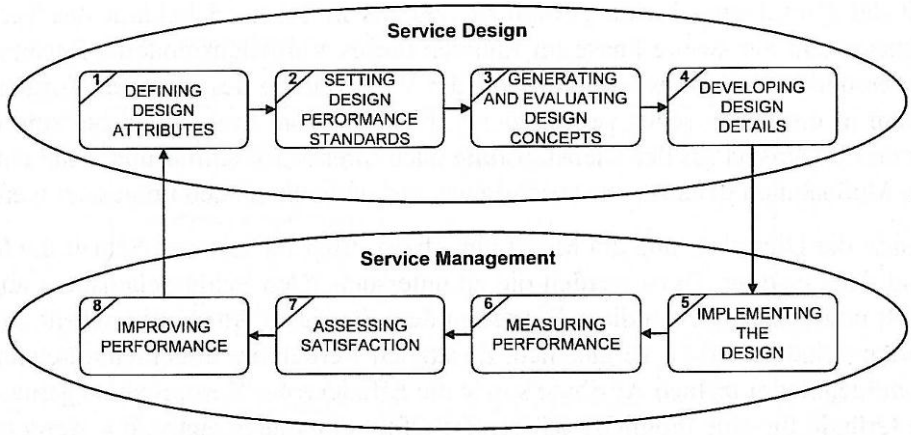


Figure 11: Process model according to Ramaswamy (1996)

Due to the previously analysed process models, the following procedure model can be developed to handle all relevant aspects, especially for start-ups, see **Figure 12**. The process model formed a matrix and has a total of six phases. In each case three of them can be related to service design (definition, requirements, design) and service management (implementation, launch, control) re-

spectively. During the various phases, tools that are relevant for SMEs are used over a period of several weeks taking into account the individual dimensions of the potential, the processes, and the results of the market. Each phase must be executed before the next begins.

Ramaswami-Zyklus

	1	2	3	4	5	6
	Definition	**Requirement**	**Conception**	**Realisation**	**Market Implementation**	**Evaluation**
Potential Dimensions	External/Internal Analyse	Ressources Competencies	concept, Project decicion	Employees, Facilities	Test	Benchmark
Process Dimensions	Ideamanagement , Feasibility	Specification	Service Development	Organisation, Processes	Controlling	Benchmark
Result Dimensions	Market Target	Requirements	Development	Acceptance, Usibility	Measurement	Optimization
Market Dimensions	Market View, Strategic Fit	Market Requirements, Prices	Offer Evaluation	Forecasting	Review Market Implementation	New Definition
	Service Design			**Service Management**		

Figure 12: Applied process model for service development [own research]

The exact description of the process and the basis for planning the service engineering concept can be illustrated as follows:

Process description and basis for planning:

For the actual implementation of the process model it is necessary to define the work packages within the phases, as well as to translate their planning into a real-time model. The proposed process model will help both to clarify the content and to ensure the consideration of all factors (described by the dimensional analysis).

Definition phase (6-8 weeks)

The results of the internal and external situation analysis define the search area for possible service offerings, which are then searched and evaluated. In this case, a feasibility check is just as necessary as the verification of compliance with the corporate goals. Thereafter, appropriate marketing objectives and the derived policy options can be limited.

Requirements analysis (4-6 weeks)

In the second phase, the market performance is described and verified in the form of a "preliminary" study in terms of the resources and expertise needed. Previously, the significant value attributes must be defined with regard to content and predetermined regarding their characteristics. Then a comparison with the anticipated market requirements and the company's strategic goals has to be made. First price proposals are derived from the requirements of the service. Data and descriptions are based initially on solid estimates.

Service conception (8-12 weeks)

This phase corresponds to the detailed study. It begins with the project approval for the development of services. Requirements (for Service design and process) and the need for resources are recorded in requirement and functional specifications. The business model is based on facts and figures, in particular, market opportunities must be analyzed and a conception of market development must be designed. This is possibly the last chance to establish contacts with external partners. The quality of the work of this phase largely determines the success of the project.

Service realisation (6-8 weeks)

In this phase implementation begins. The more precisely the work packages and the process were planned, the easier and more accurate the implementation will be. A critical success factor in this phase is the consistent provision of necessary resources, and the use of internal or external expertise. Once the processes have been implemented, they must be verified by simulation. In parallel, (based on prototypes or with lead users) the acceptance of the offer and the use processes can be submitted to an initial assessment. The planning of the launch must be concretized and the organization of acceptance tests must start.

Market launch of the service (8-10 weeks)

The market launch begins with a validation of customer requirements. For this purpose, an appropriate customer group must be selected that participates especially in the service and is willing to be involved in the elimination of start-up problems. Those customers should then be used in the general market launch as opinion-formers or at least as testimonials. The actual launch is accompanied by a systematic strategic planning, which can quickly respond to potential problems, and immediately collect data for future performance increases.

Service replacement (15-20 weeks after the market launch)

From the outset, it must be made clear that service offerings need to be developed further just like physical products. The controlling system provides data, by firstly performing an comparison of targets and actual figures with the intended project objectives, while additionally organizing a performance-enhancing benchmarking. The results of these processes provide opportunities for decision templates for possible performance improvement, or even for a replacement of the service if an improvement cannot deliver the desired results.

Instruments and instructions for the project schedule (work packages)

The steps within the model are determined by the following tasks, which represent different instruments of strategic and operational business planning:

Marketing audit (adapted to the specific situation)

- Audit of the marketing environment (macro environment, micro environment),
- Audit of the marketing strategy,
- Audit of the marketing organisation,
- Audit of the marketing systems,
- Audit of marketing productivity,
- Audit of marketing functions.

Analysis of the specific starting position

- External situation analysis,
- Internal situation analysis (portfolio analysis with portfolio management tool XWS, determining the current market value offer, WEBDUM analysis for core product area).

Target education

Strategy determination

- Strategic options based on location analysis and goal setting,

- Choice of strategy (in general and with regard to services).

Brainstorming for service offerings

- Benchmarking with competitors (SW-profile, expansion towards SWOT analysis)
- Analysis of customer activity,
- Benchmarking with best-in-class providers outside the company's own field of business.

Evaluation of ideas

- Basic selection (3 out of 10) according to general criteria (strategic fit etc.),
- Detailed examination of up to 3 ideas with the help of the value model,
- Determination of the offer value and WEBDUM score.

Idea selection

- Selection of 1-2 ideas for a business model to be developed.

Developing a business model for service offerings

- Development of a full business model for the selected service offerings (up to 2 per company),
- Planning is done with BCD software from XWS.

Project decisions and project planning

- Decision for the project to the defined service development,
- Support (resource sharing) by management),
- Appointment of the project manager in pilot company,
- Development of the project plan on the base of the (specifications) requirements from the business model.

Service development

- Project implementation,
- Launch planning and preparation,
- Launch planning is carried out with Brandmaker software.

Market launch of the services offered

- Accompanying the launch.

Final review of the business model

- Comparison of targets and actual figures within 6 months after launch,
- Analysis and communication of results.

The various strategic and operational planning instruments formed a common bridge following the adaptable development. Different tools were used, and the income situation and the relevant cost were permanently considered.

6.2 Expected project results and benefits for SMEs

As a central result of the project, it can be stated that modern scientific evidence of services research can benefit start-ups, in particular in the manufacturing industry. In this context, start-ups can profit from the project in two ways: on the one hand, inasmuch as they receive the results directly as pilot companies or recipients of the written documentation, on the other hand, by cooperating with better qualified transfer facilities as a result of the project. In the end, there should always be a higher value structure of the market offers of SMEs from the customer perspective.

This expectation was fulfilled very well, which the participation and the results illustrate 11 of the 14 pilot companies operations gave specific sales projections for the new service.

In the course of the project, incubators/transfer facilities gained know-how in the area of service development and service engineering by taking part in the described qualification events. Based on this knowledge, they can extend their own range of services in order to assist start-ups in the targeted design of service-oriented value propositions.

In a special way, the pilot companies could benefit from the project, because they got the opportunity of using otherwise hardly existing expertise. Especially those companies that also used the workshop program were able to utilize models and methods of service engineering for the development of new offers directly in collaboration with the project partners. They were individually introduced to the tools, while optimizing their offers at the same time. The "learning by doing" technique provided the opportunity to expand their own know-how

basis in a particularly sustainable way allowing for it to be also used independently in the future.

The satisfaction of the pilot plants and the structure of this project are clearly visible in the reflection in the feedback discussions.

In the present thesis a work plan and timetable with work packages and milestones were created, see *Appendix 4.* The work packages and the milestones were fully executed or achieved. This also becomes evident in the feedback questionnaire in *Chapter 6.3*, in which the pilot companies evaluate the project very positively.

6.3 Applicability and reflection of research results by the SMEs

The feedback questionnaire was answered by 14 pilot companies. The results are shown below. The comments summarize the individual statements of pilot plants and therefore provide an overview of the course of the project too.

1. Have your original expectations been met?

The project communicated confidence and was the basis for the realignment of the company. A methodology was importend, whose implementation was too short for lack of time. The project confirmed our own ideas and the feedback given by the advisor was very good. Information was analysed, processed and evaluated more consciously. The seminars were helpful to prepare the theory. The expectations were exceeded with regard to the organization and structure.

2. How did you feel about the structure of the project with its constituents "Interview as analysis;"” Seminars on imparting theoretical pronciples; "Workshops as practical implementation"?

The schedule, the structure of the project and and the support were very good. The time approach was too optimistic (1 year). The proportion of repetition in the seminars and workshops was too much. A further project monitoring would be desirable. Contents were presented in an understandable way, new models of thinking inspirednew considerations. Within the seminars, group discussions were missing. More workshop parts and permanent coaching would be helpful.

3. Would you have participated in the project even without the information, invitation and support provided by your transfer agent?

It does not work without transfer centres, because there are many offers. Similar previous offers have been disappointing. The project was neutral in contrast to management consultants. One relied on the experience of the transfer centres. Personal contact played a crucial role in this context.

4. Did the project help you to plan the development of services strategically and to implement them successfully??

A new orientation of the company as well as its relocation is planned for 2011. The project was of help in the orientation in a new field of business. The implementation was not possible due to time constraints, but spillover effects are expected for other projects. A guide, which had been lacking in the past, was provided by the project. The innovation voucher, was intended for the market analysis, but not approved. Many models were familiar from our studies however, the emphasis placed on them was of advantage and helped a lot. The instruments as well as the attribute table helped us with the strengths and weaknesses.

5. Has the project helped in general to optimize your strategic business planning in your core business too?

Although the economic crisis had triggered a reorientation, the project itself gave more impetus. With the help of the project, the service offers to customers were optimized. Due to the shortage of capital and resources, these business-segments are suspended. What is new is the possibility of group decision making with an improved quality of the decision. There has always been the know-how for effective planning in our company but the project created a concrete added value. Through the project, customer orientation is more in focus. By looking at the strategy, the core business was automatically included, was questioned and therefore optimized. I received an important wake-up call. A new awareness was created. We were inspired to reflect thoroughly on what we are able to do enhancing the companies profile in this way. But this has not been put into practice yet.

6. What was the relationship between costs and benefits in the project?

There were no problems at all. There were too many appointments, the brainstorming was very good. Participation in methodological training and workshops were in the foreground and were felt to be appropriate. A know-how transfer took place. The homework was not always understandable. The time was very intense, but it was no effort. Through the project structure and the communication of information, the current business could be described more llearly and, above all, also affects future planning operations. As a result, additional revenue has already been generated. The sense of achievement was missing because the implementation did not take place. The expenses were relatively low, in view of this the benefits could have even been greater as the strategies have not been implemented yet in the company. Generally, moderated workshops are desirable. Expenses for knowledge transfer/acquisition were acceptable and practicable.

7. What problems did you become aware of in the course of the project?

Sluggish participation of some companies in the seminars. Individualization was missing.The lines of businesses too different. Doing the homework was too much. The implementation got lost in the day-to-day business. There was not enough information available for market segmentation. Staff turnover was inconvenient for the course of the project. Due to the lack of time, only a know-how transfer could take place. There should be follow-up projects for the introduction and implementation. Due to time constraints, a lasting compliance with the methodology is not feasible without software support. 6 companies felt that time was the biggest problem. In the start-up phase, there are no standards; it's all very instable because there is no core business. Knowledge transfer in the seminar was unsuitable to implement transfer. Unfortunately, prioritization was always in favour of daily business.

8. What should we do differently/better if we could start the project again?

Offering marketing opportunities.4 companies suggested the integration of a project team member into the company. Streamlining the entire content and focusing only on the models. The time required for research, data collection and processing was underestimated. A follow-up project and software would be desirable. Promoting the exchange of pilot companies. Pointing out the relevance and benefits at the beginning. The mix of industries and of the participants was very important. Conduct knowledge transfer as a coaching workshop program. Resources should be provided for the transfer of knowledge.

9. What would the funding programme of your dreams be like if you could set one up that meets your needs best?

Receiving support when applying for funding programs. The project team should develop a business concept (in the form of an incubator). Offering prac-

tical assistance or coaching was desired by 8 companies. Innovation voucher. Promoting the exchange of companies with each other.

10. What statement comes to your mind finally? What else would ypu like to add?

It would be a pity if the project died. Go on! Promote talks, networks. The mix of the participants was good. Take advantage of the seminars to introduce pilot companies. The project was worth solely due to. The know-how transfer alone was worth the project. Initiate a "get together" before the first meeting. "Best practice" companies should present themselves. Companies should be grouped according to their individual priorities. The implementation of on-site workshops was very good. The project is an uncut rough diamond. One is grateful for the opportunity to participate in the project. Further cooperation in future projects would be desirable.

The core issues for the final interviews can be summarized as follows:

- The expectations were, for the most part, (5times) or even perfectly met (4times), there were met at least in part in four cases.
- Only one participant found that his expectations had not been met at all, while they were even exceeded in two cases.
- The project structure with the two main constituents, seminars and workshops, was considered 7times as optimal, 8times as adequately or as appropriately adequate in total. In just one case, it was seen as partially unbalanced.

- The role of incubators/transfer agencies can be regarded as indispensable. In total, 17times they were referred to as a trigger and relevant to their needs. Not single participant had independently searched for such an offer.

- 12times the participation in the project was considered as relevant for the strategic planning of services. Only one participant regarded it as as hardly or not at all useful respectively.

- In addition, it was stated10times that it had exerted an influence on the strategic planning of the core business. 3times this hardly the case, once it did not apply at all.

- 10times the cost of the participation in the project was viewed as appropriate, in 4 cases, the participants felt that the benefits were clearly higher than the effort. Twice the cost was regarded as too high, and once no benefit could be detected.

- On the whole, the project was assessssed as being largely helpful and successful by the participants

- There were difficulties in implementation, which were seen in their companies own by most participants.

The project structure and the course seem to be appropriate for the service development in SMEs. But the SMEs want to have a higher individual share, more support for the implementation. The start-ups who stopped qualifying after a given stage because they did not follow the instructions of service engineering, mostly had substantial survival problems and ran the risk of leaving the project.

Looking at the processes of the realization and implementation of strategic planning in the start-ups, the following problems became obvious, which, however, are due to the entrepreneurs themselves:

- The entrepreneur is an all-round manager and does everything,
- (He is owner, administrator and performer at the same time),
- The personality of entrepreneurs,
- Missing expertise on the part of the entrepreneur,
- The time factor,
- The resources (staff and finances),
- The missing information systems.

As rapporteur for the Committee on Civil Liberties, let me state very clearly that, in my view, and setting aside some justified criticisms of the Vienna agency, the agencies that fall within our sector are well managed. Their work is of high quality, and I do not see what other structures could do a better job of performing the specific tasks accorded to the existing agencies. The positive verification of the thesis allows the conclusion to the preformulation, which has the knowledge related premises:

- Service engineering is regarded as very important to identify market share, competitors, and customers.

- From these activities resulted that the start-ups cannot implement service engineering on their own and that therefore coaching and control is needed too.

- Entrepreneurs only look at operating systems. But these arise from service engineering, which also becomes evident in the abstract thinking an entrepreneur of a start-up must have.

- The success and the benefits that result from the application of the instruments of service engineering depend on the constellation of the combination of the applied solution with the strategic approach in the form of a consistent strategic business planning.

7 Summary and Implications for science and practice

7.1 Conclusion of the examination

The goal of the present thesis regarding contents and methodology was , to investigate the practice of strategic planning and the implementation and application of service engineering in young SMEs on the one hand and on the other hand specifically for young SMEs, whose performance and the probability of success can be increased by its application. These two goals have been achieved.

The generation of action-relevant knowledge for young SMEs in terms of strategic corporate planning is modelled on the approach of ULRICH (2001, p. 19ff), the philosophy of applied research. It was about designing rules suited to be applied in practice, to provide a vision of a reality to be created. The starting points were the operational circumstances of SMEs that do not necessarily orientate themselves towards the respective basic sciences, but to those which are usually not disciplinary.

Therefore the applied methods mix with secondary research as theory reference and existing studies, conducted expert interviews, identifying challenges, a set of recommendations for action and ultimately the proof of a successful implementation and application of all featured strategic corporate planning tools on the basis of a primary research used in a two-year case study in a third project was used.

In detail the following can be noted:

The starting point, the situation in which young SMEs find themselves and the theoretical approaches linking strategic business planning, service engineering, and the success of the company, were briefly outlined in *Chapter 1*, the introduction.

Chapter 2 dealt with the literature review, theoretical concepts and approaches of strategic planning and of service engineering. Here, the definitions and basics of the terms that are important limiting the object of the investigation were treated. Therefore, the corporate life cycle at the various stages was considered first because the life cycle is an important criterion in the strategic orientation of a young company for its continued existence. On the basis of research studies, it was then shown that there is a research gap especially in young SMEs when it comes to the successful use of strategic corporate planning instruments. How can strategic planning and service engineering be defined and what theories and practical approaches are available? This was comprehensively analysed while at the same time taking into account business success factors and their causal connections. In *Chapter 2.5* we summarise the seven *"Key facts"* for strategic planning.

In *Chapter 3*, we prove the theoretical analysis with an explorative expert interview. The companies are the same as in the case study. So we find out more *"Key facts"* for the successful strategic planning.

The hypotheses and objectives for the study were formulated in *Chapter 4*.

Chapter 5 presents the adaptation of the results and helped to develop a type of implementable and applicable service engineering. Therefore an operational structure different Instruments was designed. This logical approach to service engineering was based on the previously determined results. *Chapter 5* intro-

duced a two-year case study within the framework of a research project of the Baden-Württemberg Foundation. The core element of this successful case study was the functional approach in the form of an iterative phase approach with interviews, seminars and workshops on the one hand and the human integration of the entrepreneur on the other hand. This showed very clearly that the implementation and application of strategic business planning must evolve through a process of learning over an extended period. Another important criterion was the external support by technology centres/incubators or coaching that accompanied and controlled the young SMEs throughout. It is also important that the respective entrepreneurs fill with content/information primarily all strategic business planning instruments and independently undertake the implementation in their companies. Finally, it should be noted that knowledge management is an important criterion for the necessary data collection/processing/use. Strategic planning with its focus on the planning, management and control of young SMEs is also an important success factor for young SMEs. Precisely this criterion was identified in the analyses on the reasons why companies fail.

In summary, it can be observed that in addition to the existing theoretical approaches of strategic corporate planning and service engineering, *Chapter 2* provided new impulses for the further development of the theory, because many concepts have been developed primarily for large companies and can therefore not automatically be used for young SMEs. Yet, the focus was on the simplicity of application to increase acceptance. The case study, which was carried out over a two year period in young SMEs, proved that young SMEs are able to plan strategically. Prerequisites for this are systematical and controlled coaching and the introduction of entrepreneurs to the use of these instruments The strategic process is a learning process and it became evident that it converges

with increasing age and an increasing size of the company In addition to staff, time is an important resource must therefore lead to a

Flexible iterative approach

of strategic corporate planning

in young SMEs for the successful use of service engineering

Strategic planning and service engineering are highly heterogeneous. This result had already been there at the beginning of this research project, and was confirmed in the course of the thesis project with the exploratory survey of experts and the conducted case study.

Which methodological implications for practice and research can be derived from the present work?

- Especially for young SMEs, the concepts must be prepared in a simple and understandable way.
- Over a long period of time, the entrepreneur must be made familiar with strategic corporate planning and service engineering.
- Coaching in the form of seminars and workshops will ensure a sustainable application of strategic business planning.
- The relevant staff must be integrated into the planning processes.
- There must be a documentation of the results to make these available for use in other instruments too.
- As a basic principle, a certain degree of flexibility must always be possible in the procedure.

The strategic challenges for young SMEs are:

- The task of the company is to keep analysing the environment ciritically, especially in terms of the changes and their effects on the respective SMEs.
- Especially while growing and establishing themselves, young SMEs must be prepared to face changes with the highest corporate flexibility possible.
- Business opportunities must be recognized quickly and the potential must be focused on these markets.
- Restructuring measures can be regarded as a chance and exit scenarios must be debated and implemented too.
- It is the task of the entrepreneur to establish the strategic orientation and the structure within the company.
- All employees in key positions must be included in the strategic discussions.
- Basic knowledge in the implementation of strategic business planning instruments must be provided for the employees.

7.2 Opportunities for further improvemen of service engineering in the service of research

Starting from the dominance of the production of physical goods, or the dichotomy of product and service, service research reaches an equal consideration of both phenomena to begin with. On this basis, one can establish the concepts of

a "hybrid value creation" based on "value-in-use". Added value therefore arises from the combination of a physical good and a service, in which the physical good has no value without the service and the service cannot be provided without an object. Therefore, service research should be seen as an exploration of both fields up to a science of service. Networks of multidisciplinary expert cultures combining these fields are required. "Customers do not look for goods or services per se;" "they look for solutions that serve their own value-generating processes [Grönroos 2000, p. 4]."

To date, service engineering and strategic planning have made a significant contribution to the systematization and professionalization of service development. Services and goods cannot be considered apart from one another anymore, when it comes to their development. The customer is the focal point and expects a performance bundle of products and services. Already in the early 1990s, ENGELHARDT et al. (1993, p. 395ff) made his contributions. Comprehensive development plans must be created for these hybrid products, including the adaptation of the methods, tools, and process models. The first approaches of this development methodology were "Hybrid product development" for the integrated development of inseparable material and service bundling [Spath/Demuß 2003, p. 497ff]. However, these developments only cover some parts and must be worked out in further detail.

For regional innovation activities, important financial resources provided by the EU structural support 2007-2013 are available. During this period, EUR 308 billion for funding by the European Commission are made available. Here the strategic approach is used with the compensation-oriented cohesion policy being closely associated with the "Lisbon and Gothenburg strategy". According to the European Fund for Regional Development, an orientation towards growth and innovation is persued. Thus, the funding focuses on categories that are clas-

sified as "Lisbon relevant". These include research and technological development, innovation and entrepreneurship, the information society, renewable energy, human resources and environmental protection [KOM 2006, p. 76ff]. Many of these support areas are closely related to the determinants of the regionally differentiated innovation activities of knowledge, networking and financing.

This thesis could give an insight into the strategic work and the use of strategic business planning and service engineering in start-ups. As the findings raise new questions, new impulses will be given to new focuses of research.

On the one hand, it is necessary to deal with the strategic direction and viability of start-ups and the use of strategic planning, on the other hand, it is important to deal with the following research questions:

- Is there a strategic realignment of national advice organisations due to a changing environment?
- Are there ways of political action for the sustainable preservation of European competitiveness in the globalised environment of start-ups?

Further research questions arise from foundation research:

- Can start-ups develop positive employment impacts over a longer period and does this support the sustainability of foundation support?

For the continuation of the present case study, the following procedure appears possible after analyzing the results to promote innovative services using strategic business planning for start-ups.

Structure:

First level: One single point of contact in the federal state governments.

Task: focal access point BW, referral to the 15 multipliers of the second level in the regions.

Second level: 12 points of contact (one in the IHKs), further 3 from regions with strong needs (can be associations or other organizations).

Task: examination of the eligibility, support with the application, assistance during the approval procedure, referral to one of the 50 places of transfer (according to regional and industry-specific criteria).

Third level: 40 Incubators/technology centres and 10 other transfer facilities take over the supervision of individual projects.

Task: organization of individual funding projects, coordinating the implementation with the project partners (to be chosen by the transfer authority in coordination with the funded enterprises, certified service consultants).

Regarding its contents, the project design and development is incumbent on the author of the present work and a university (cooperating organisations). This ensures that the program can always be kept on the current state of scientific knowledge. In addition, a more flexible kind of support as well as a specialization in different areas of responsibility according to the core competencies of the cooperating organizations is possible through this structure. The transfer facilities determine a supervisory board, which closely cooperates with the cooperating organizations and ensures the practicality and effectiveness of the programme.

The individual project management is performed by using a combination model consisting of:

- Analysis (specific terms and conditions of SMEs),
- Competence (seminar cycle for participating SMEs),
- Implementation (workshops and coaching units on site).

At least 50, maximum 500 certified service advisors are needed for this task, to train the above-mentioned cooperation partners.

II Appendix

Appendix 1: Table of the quoted studies in the dissertation

Authors	Methodology	Year	Examined confirm	Result
Bain&Company	questionaire	2003	n=708 companies	Application of management tools in an overview
Bantel / Osborn	analysis	1995	n=200 bancs from GB	A missing strategy is not to be equated with a missing strategical orientation
Bernasconi / Galli	empirical study	2004	n=1.000 SME from D / A / CH	27.5% of the SME carry out no strategical planning on the basis of lack of time
Berry	explorative written interview	1998	n=30 High-Tech companies from GB	42% hold long-term planning for very important, 69% work on the business plan 1-2 sometimes in the year, 45% pursue formal / explicit planning, 62% have a planning horizon of 3-5 years
Boyd	meta-analysis	1991	n=23 studies, 2.496 companies	Strategical planning and financial success stand in a connection
Bracker / Pearson	questionaire	1986	n=188 small old SME from USA	There are 8 planning instruments: the objective, an environmental analysis, the SWOT analysis, a strategy formulation, finance aims, a functional budget, surgical achievement identity figures as well as controlling procedures
Brüderl et al.	personel interviews	1996	n=1.849 foundation SME from GER	51% have observed the market before the foundation, 63% have planned the foundation max. 3 months, 18% had a written planning draught
Capon et al.	meta-analysis	1990	n=20 studies	There is a positive respect between quality and success
Carland et al.	questionaire	1989	n=368 SME from USA (<250 Employees)	Connection between personality and planning
Creditreform-Insolvenzen / Neugründungen / Löschungen	analysis	2010	n=federal information from GER	Investigation to insolvencies / new establishments / deletions in Germany
Cromie et al.	questionaire	1999	n=1.065 family SME from IRL, GB	Connection between enterprise objectives and strategical behaviour
D´Amboise / Bakanibona	literature study	1990	n=12 secondary studies	in KMU are to be found rather surgical as a strategical planning; there is a positive connection between kind, extent of the planning and success

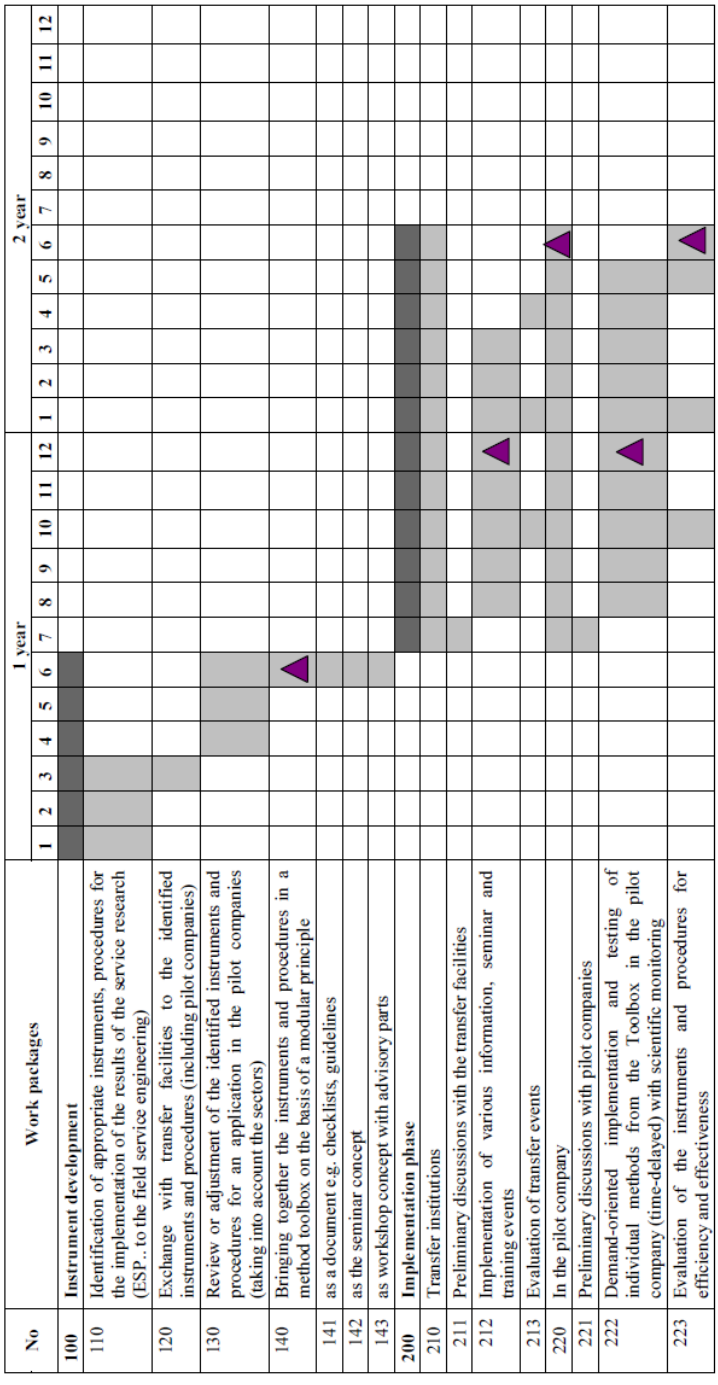
Dean / Sharfman	study	1993	n=52 decisions in 24 companies	Incomplete decisions influence the planning success
Deimel / Kraus	literature review	2008	n=17 studies	Strategical management a little exists in KMU, with 64.7% a positive connection is to be recognised between strategical planning and enterprise success
Delmar / Shane	personel interviews	2003	n=211 foundation SME from SWE	Planning raises the degree in enterprise organisation / product development and raises the survival likelyhood of young SME
Edler at al.	analysis	2003	n=497 companies (55 % SME)	There is a connection between knowledge management and innovation ability
Esser et al.	written questionaire	1985	n=214 german industry companies	Use of strategical planning correlates by the legal form, in GmbH und AG it is planned rather strategically
Fritz	analysis	1990		
Fröhlich / Pichler	personel interviews	1988	n=107 SME from AUT	23% no planning, 31% of short term planning, 33% of long term planning, 12% of strategical planning
Gooding / Wagner	meta-analysis	1985		Enterprise size is not synonymous with enterprise success
Haake	personel interviews	1987	n=127 SME from CH < 500 Employees	27.9% no written planning; 31.4% only short term planning; 26.9% of long term planning, strategical planning with 13.7%
HTW Aalen	questionaire	2006	n=631 SME	85% of the SME hold strategical planning for sensible, 42% see in it an essential successful factor
Huber	analysis	2008	n=100 manager	SME use different strategical methods, established use other like undecided or how pursuer's enterprise
Jungbauer-Gans Preisendörfer	empirical analysis	1991		Half of all enterprises founded anew does not survive the first five years
Kosmider	analysis	1994	SME	57% of all big small and medium-sized companies apply a potential analysis, 57% use the BCG matrix
Kraus / Schwarz	study analysis	2006	munich founder study with 1.850 founders	Foundation planning raises the survival ability of KMU, nevertheless, strategical planning exists in young small enterprises slightly

Kriegesmann / Schwering	questionaire	2005	n=451 companies	There is a connection between knowledge management, competence and innovation ability
Kropfberger	written questionaire	1986	n=161 SME from AUT	27% carry out a multiannual planning, 49% of short term planning and 31.7 no sales planning
Küpper / Bronner	questionaire	1995	n=240 SME from GER <500 Employees	Hardly long-term planning technologies, success of the experience of the enterpriser and the motivation of the employees dependent
Kuratko et al.		1998		Person engaged and family drawee factors influence the strategical decisions
Leitner	personel interviews	2001	n=100 SME with 50-500 Employees AUT	Strengths / weaknesses analysis with 55% in place 1; product life cycle and port folio analysis are <20%, 88% fix strategies on the basis of experience and 31% on the basis of intuition, 62% have an attached enterprise politics
Link / Orbán	questionaire	2002	Companies GER	80% of the questioned large-scale enterprises carry out a strategical and 90% a surgical planning
Löffler	study analysis	1995	analysis 129 empirical studies	Bigger enterprises carry out more often a formal strategical planning like SME, there is a causal connection between the intensity of the strategical planning and financial enterprise result
Lyles et al.	questionaire	1993	n=188 SME <500 Employees USA	Formal planning has an influence on the enterprise growth, not formal planning less
Masurel / Smit	questionaire	2000	n=900 SME from Vietnam	There is a positive connection between strategical planning and success
McKinsey / UNI Bremen / WHU	questionaire	2005	n=600 companies	Employers of Germany. The conversion poses a big problem. A lot of belly feeling, a little strategical planning
Olson / Bokor	questionaire	1995	n=500 SME from USA	50% of the quickly growing SME had no business plan
Orser et al.		2000		A business plan has a high Eifluss on growth and success in SME
Pearce et al.	analysis	1987	n=18 empirical studies	There is a connection between planning and financial success

Pelham / Clavson	empirical analysis	1988		With operationalem pressure of time only relevant information is procured
Perry	questionaire	2001	n=152 SME from USA	There is a positive connection between strategical planning and success, planning reduces the likelyhood of the failure, SME with up to 5 mA make no strategical planning
Pfau et al.	questionaire	2007		Research project "MISTRAKO", Two thirds of the enterprises value the knowledge management high one
Posner		1985		Entrepreneurs do not plan, they use the time for operation ale to activities
Reid et al.		1999		Person engaged and family drawee factors influence the strategical decisions
Robinson / Pearce	questionaire	1983	n=85 small bancs USA	No connection between kind of the planning (formally versus Informal) and profit
Robinson / Pearce	meta-analysis	1984	n= 50 result from studies	A little formal planning, rather at short notice oriented planning, positive connection between external support by planning and success
Rue / Ibrahim	questionaire	1998	n=253 SME (< 15 Employees) USA	There is a positive connection between written planning and sales growth
Sattes et al.	questionaire	1995	n=1.667 companies from CH (ETH Zürich)	SME <to 50 employees carry out 15% a marketing planning, 25% of sales planning, 18% of production planning
Schadenhofer	questionaire	2000	companies AUT	92.9% of the enterprises know the competition analysis, only 37.6% apply it
Schwenk / Shrader	meta-analysis	1993	n= 14 secondary studies	Positive, significant connection between planning and financial success
Sexton / Van Auken	questionaire	1982	n=357 SME from Texas	18% of the enterprises plan strategically, 25% dispose of strategical thinking
Silk / Kalwani	questionaire	1982	n=1.000 SME from AUT, D, CH	Strategical planning leads to more success in the positioning compared with the competition

STRATOS-Group	study analysis	1990	n=1.172 SME from 8 european countries	Enterprises plan 31% of market penetration, 27% of product development, 15% of market development, 27% of diversification
TU Clausthal / Haufe Akademie	questionaire	2007	n=228 SME	Strategies have a high relevance for success, strategical planning often exists only in the heads of the enterprisers
Welter	analysis	2003	n= 56 empirical studies	No draughts have half all SME in Germany for the management, 25% pursue an annual planning, 22% a multiannual planning
Wijewardena et al.	questionaire	2004	n=97 SME from Sri Lanka	Planning and Target control have a positive influence on the enterprise success

Appendix 2: Milestone overview



No	Work packages	1 year												2 year											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
300	**Result transfer**																								
310	If necessary, the revision of the method Toolbox based on the evaluation results																								
320	Treatment of results for use in transfer facilities																								
330	Conducting a final symposium																								
340	Final documentation																								
400	**Project management**																								
410	Coordination of the project partners with transfer facilities and pilot companies																								
420	Contact maintenance to the developer																								
430	Preparation of interim reports and final report																								

Half-yearly verifiable milestones (MS):

MS 1: Method Toolbox based on a modular system

MS 2: Intermediate results on the use of individual instruments, procedure in the framework of events of transfer facilities

MS 3: Intermediate results on the employment of individual instruments, procedures in the pilot companies

MS 4: Result of the evaluation of the method toolbox at transfer events

MS 5: Result of the evaluation of the method toolbox for pilot applications in companies

MS 6: Final documentation on the use of the method Toolbox

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IV Scientific activity Patrick Siegfried

Publications connected to the dissertation:

2012: SIEGFRIED, Patrick: Strategic Business Planning in Young Small and Medium Enterprises, Publishing House of Wroclaw University of Economics, ISSN 1899-3192, p. 75-84.

2010: SIEGFRIED, Patrick: Applied service engineering for SME, scientific Writings of the WHL, ISBN: 978-3-86692-175-7, 55 pages.

2010: SIEGFRIED, Patrick: Applied service engineering for SME, GRIN publishing company, ISBN: 978-3-640-64252-6, 60 pages.

Publications not connected to the dissertation:

2011: SIEGFRIED, Patrick: The meaning of the ethical for the economic process, AVM Academic publishing company community, ISBN 978-3-86924-089-3, 114 pages.

2011: SIEGFRIED, Patrick: The selfverification with Augustinus, GRIN publishing company, ISBN: 978-3-640-81240-0, 64 pages.

2011: SIEGFRIED, Patrick: Fire brook: Basic lapping of the dialectic, GRIN publishing company, ISBN: 978-3-640-81234-9, 76 pages.

2010: SIEGFRIED, Patrick: Heidegger: Sensory understanding!, GRIN publishing company, ISBN: 978-3-640-64863-4, 84 pages.

Conference and Workshop Papers connected to the dissertation:

2013: Internationalisation, International Research Conference, 20.03.2013 University of Volgograd/Russia.

2012: Using controlling in German companies, 17. Polish scientific conference controlling, 15.-17.10.2012 University of Wroclaw/Poland.

2012: Service engineering in Start-ups, 2. International Summer School, 04.-18.08.2012 University of Kaposvár/Hungary.

2011: Success with services-Applied service engineering in young SMEs, 16. Polish scientific conference controlling, 10.-12.10.2011 University of Wroclaw/Poland

2011: Success factors in SME, economic jurors Offenburg, 05.10.2011.

2011: Applied service engineering in young SMEs, 8. ESU-European University Network on Entrepreneurship, 12.-17.09.2011 University of Seville/Spain.

2011: EDDI-success by services – Closing workshop, knowledge transfer service research, WHL academic Business School Lahr, 23.05.-12.07.2011, Karlsruhe, Saint Georgen, Tuttlingen/Germany.

2011: EDDI-success by services conclusion symposium knowledge transfer service research-land foundation Baden-Wurttemberg, 03.10.2011, WHL academic Business School Lahr/Germany.

2010: EDDI-success by services-Workshop 3+4, knowledge transfer service research, WHL academic Business School Lahr, 27.09.-05.11.2010, Karlsruhe, Saint Georgen, Tuttlingen/Germany.

2010: Strategic business planning in young small and medium Enterprises, 7. ESU-European University Network on Entrepreneurship, 22.-28.08.2010 University of Tartu/Estonia.

2010: EDDI-success by services-seminar 4, knowledge transfer service research, WHL academic Business School Lahr, 28.04. + 11.05.2010, Karlsruhe, Tuttlingen/Germany.

2010: EDDI-success by services-seminar 3, knowledge transfer service research, WHL academic Business School Lahr, 30.-31.03.2010, Karlsruhe, Tuttlingen/Germany.

2010: EDDI-success by services-Workshop 2, knowledge transfer service research, WHL academic Business School Lahr, 01.03.-29.03.2010, Karlsruhe, Saint Georgen, Tuttlingen/Germany.

2010: EDDI-success by services-seminar 2, knowledge transfer service research, WHL academic Business School Lahr, 03.02. + 02.10.2010, Karlsruhe, Saint Georgen/Germany.

2010: EDDI-success by services-Workshop 1, knowledge transfer service research, WHL academic Business School Lahr, 07.01.-02.02.2010, Karlsruhe, Saint Georgen, Tuttlingen/Germany.

2009: EDDI-success by services-seminar 1, knowledge transfer service research, WHL academic Business School Lahr, 25.-26.11.2009, Karlsruhe, Tuttlingen/Germany.

2009: EDDI-success by services, prelude symposium knowledge transfer service research-land foundation Baden-Wurttemberg, 11.12.2009, Stuttgart/Germany.

2009: EDDI-success by services, prelude event knowledge transfer service research, WHL academic Business School Lahr, 22.-23.09.2009, Karlsruhe, Lahr, Tuttlingen/Germany.

2009: Strategic business planning in young small and medium Enterprises-problem and Solutions-6. ESU-European University Net-

work on Entrepreneurship, 08.-13.09.2009 University of Sannio/Italy.

Doctorate colloquiums connected to the dissertation:

2010: Applied service engineering for SME, HHL Graduate School of Management Leipzig, 19.05.2010, Leipzig/Germany.

2009: Applied service engineering in company, WHL academic Business School Lahr, 22.07.2009, Lahr/Germany.

2009: Strategic corporate planning in young KMU's-problem fields and solution attempts-HHL Graduate School of Management Leipzig, 24.04.2009, Leipzig/Germany.

2009: Strategic corporate planning in young KMU's-problem fields and solution attempts, WHL academic Business School Lahr, 04.03.2009, Lahr/Germany.

Research Project Participation connected to the dissertation:

2009-2011: Research project „Knowledge transfer of service research“ of the county foundation Baden-Wurttemberg gGmbH, from 01.05.2009-31.07.2011.

Scientific employee/Professor at a university of applied science:

2008-2012: Full scientific employee, Assistant of the rector Prof. Dr. habil Reckenfelderbäumer and the chair of general BWL/marketing, WHL Management business school Lahr/Gemany.

2012-2014: Full representation professorship for trade management/studies logistic/trade, faculty of Economy + economic engineer, University of applied science Offenburg/Germany.

V Curriculum Vitae

Mr Patrick Siegfried was born on 18 February 1967 in Kassel.

He attained his secondary school leaving certificate at the Gustav-Stresemann school in Bad Wildungen on 20 May 1987.

From 1987 to 1989 he completed his military service in the field of logistics and currently holds the rank of Lieutenant Colonel of the Reserve.

From 1989 to 1992 he completed his first degree in business administration at the University of Cooperative Education in Mannheim in the field of trade. On 30 September 1992, he completed his studies with the degree in business management.

From 2002 to 2004 he attended the University of Bradford/UK Master in Business Administration course and completed this on 10 December 2004 with the degree "MBA-Master in Business Administration."

From 2009 to 2012 he was at the University in Wroclaw/Poland attended the course European Doctoral Program in Economics, Management and Finance, and completed these studies on 19 April 2012 with the "Doctor" degree.

In his **professional career**, Patrick Siegfried has worked from 1987 to 2008 in six different companies as a Senior Executive, Manager and Managing Director in the sales, purchasing, administration and logistics, in different sectors (textile, food, teaching, and service) and distribution (retail, wholesale and industry). In all these jobs he had personal responsibility for over 30 to 400 employees and annual sales responsibility from € 3 million to € 250 million.

In his **teaching career**, Patrick Siegfried has since 2003 carried out over 73 teaching assignments in various core subjects with focus on management, marketing and logistics at 9 different universities of applied sciences. Since 2004 he was supervisor for 160 Bachelortheses at five universities of applied sciences. Therefore he was in the board of the final oral examinations at these five universities of applied sciences too.

From 2008 to 2012 he has worked as a research assistant at the Chair Management/Marketing at the WHL academic Business School Lahr.

Since 2012, he has a representation professorship at the university of applied sciences in Offenburg for retail management.

In the **scientific area,** Patrick Siegfried has worked on the project of Baden-Württemberg Stiftung gGmbh entitled "Knowledge transfer service research" from 2009 to 2011, where he assisted 17 young small businesses over 2.5 years in the use of strategic business planning instruments and service engineering. He has processed the experiences from this research project in the present thesis and presented it at various international conferences and publications.

VII List of figures

VI Summary Hungarian

Összefoglaló:

A két éves kutatási projekt eredményeként megszületett disszertáció a mérnöki szolgáltatást (Service Engineering) jelentőségét szándékozik bemutatni, ami az utolsó tíz évben a vállalatirányításban egyre inkább meghatározó területté vált.

Mivel a feldolgozóipari vállalkozások és a velük együttműködö, kapcsolódó üzleti szolgáltatók számára a szolgáltatáskínálat szisztematikus fejlesztése meghatározó versenytényezövé vált, éppen ezért a szolgáltatáskutatás vizsgálata meghatározó jelentőségű.

A terület tudományos kutatására kutatóintézetek kaptak támogatást, többek között a Szövetségi Oktatási és Kutatási Minisztériumtól (BMBF). Azonban kevesbé vették figyelembe,hogy a kidolgozott eljárási modellek, módszerek és eszközök gyakran nem alkalmazhatók a kis-és közepvállalkozások (KKV) számára, mert egyrészt a transzparencia, vagy a koncepció hiányzik, illetve a kezdeményezőkészség. Emellett ezek a modellek nem figyeltek eléggé a kis-és középvállalkozások sajátos igényeire.

Ennek tükrében a disszertációban bemutatott kutatási projektünk azt a célt szolgálja, hogy meginduljon a tudástranszfer a mérnöki szolgáltatások kutatása és a KKV-ék követett gyakorla között, olyan módon hogy a mérnöki szolgáltatások kutatásának tudományos ismereteit a KKV-ék, s azon belül különösen a feldolgozó ipari kis és középvállalkozások használni tudják.

Nekik a projekt befejezése után abban a helyzetben kell lenniük hogy ügyfeleiket kiszolgálják, megteremtve saját új szolgáltatás orientált kínálatukat, melyek értékek létrehozására alkalmasak, illetve ügyfél orientált értékeket kinálnak. Az eredmények tartós biztositását szolgálja, a projekt-

konzorciumához tartozó két inkubator (transzferintézmény), akik sok éves tapasztalattal rendelkeznek a kis-és középvállalkozásokkal együttmüködés és a tanácsadás terén.

Ezek az inkubatorok a projekt során szerzett tapasztalatok, illetve know-how-k felhasználása mellett a projekt futamidején túlmenöen is, a kidolgozott modellek és módszerek gyakorlati átültetésével fogják támogatni a mérnöki szolgáltatásokat.

A projekt elsö szakaszában a szolgáltatáskutatás jelenlegi helyzetének felmérése volt a tervezett feladat. Ehhez kapcsolódik második lépésként az elözöleg azonositott modellek, módszerek, szerszámok/gépek átdolgozása, kiegészítése, illeszkedve a KKV-ék igényeihez, aminek az adott eszközkészlettel való kompatibilitását is biztosítani kell. Ebben a fázisban írásos anyagok formájában kidolgoztunk egy transzfer koncepciót, ami magába foglalja a transfer-rendezvényeket.

A harmadik fázis magában foglalja a tovább fejlesztet koncepció gyakorlatba történő átültetését és végrehajtását, amit követnie kell az egyes módszerek és eszközök alkalmazásának a kisérleti üzemekben történő tesztelése követett, mint fontos mérföldkö amely információ és az értékelés (kontrolling) szempontjából egy fontos mérföldkő a mérnöki szolgáltatások számára.

Végül a negyedik és egyben az utolsó lépés magába foglalja a projekt eredményeinek átadását. Az eredmények teljes dokumentációját a transzferintézmények valamint a kísérletben résztvevő KKV-ék számára átadtuk, de emellett egy záró szimpózium formájában megtörtént az erdemények disszeminációja.

Ha sikerül a résztvevö Inkubatoroknak e projekt segítségével a KKV-ék bevonása révén a –a szolgáltatáskutatás gyakorlati ismereteinek közvetitőjévé válnia, illetve további önerős, a felhasználó igényeire szabott projektek kiadolgozására ösztönöznie a KKV-ékat, akkor a diszzertáció alapjául szolgáló projektünk elérte a célját, s modellül szolgálhat a további modellek és módszerek terjesztésére.

Ez jelentősen hozzájárulhat, a kis-és középvállkozások erdeményesebb működéséhez, valamint erősítheti ezek innovativ kapacitását és versenyképességét Baden – Württemberg tartományban.

A disszartáció alapjául szolgáló projekt elsödleges feladata a kutatási hiányosságok megszüntetése volt.

Összegzés:

A gyors gazdasági változások miatt éppen a döntéshozatali szakaszban kell a fiatal kis-és középvállalkozásoknak a mikro-és makrogazdasági feltételekre, valamint a keretfeltételekre ügyelniük.

Az említett keretfeltételek és problémás helyzetek teszik szükségessé a kiigazítási folyamatokat, mivel cselekvőképes mozgástér létezik és a követett vállalati stratégiákat át kell gondolni. Prioritás minden fiatal kis-és középvállalkozás számára a stabil, fenntartható és egészséges fejődés. Ezért kulcsfontosságú központi vállalatirányítási feladat, hogy a menedzsment foglalkozzon az előkészitési, tervezési és végrehajtási stratégiákkal is. A jelen disszertáció célkitűzése az volt, hogy a fiatal kis-és középvállalkozások a vállalati stratégiai tervezés és a mérnöki szolgáltatások (Service Engineering) területén egy müködöképes, megfelelő, gyakorlatorientált koncepciót

dolgozzon ki. Jelen disszertáció a kutatási módszertana az alkalmazott kutatás irányadó elveit követi.

Azért választottuk a kis-és középvállalkozásokat vizsgálatunk célcsoportjául mivel gazdasági jelentőségük meghatározó, illetve mert a fiatal kis-és középvállalkozásokat érintő jövöbeli üzleti kihivások jelentősek.

A dolgozat szerkezeti felépítése magába foglalja az elméleti alapok vizsgálatát,

a meglévő szakirodalom elemzését.

Az elméleti rész alapján, a szükséges vállalati stratégiai tervezési eszközökre egy koncepció készült a mérnöki szolgáltatások módszertana alapján. Ami azt jelenti hogy a

szekunder kutatás által nyert tudományos eredményeket a további tudásátadásra előkészitették. A kutatási eredményeket rendszerezték, s a probléma megoldásának szemszögéből egy cselekvési tervben összefoglalták, kiértékelték. A különböző eszközök alkalmazásával, a másodlagos kutatás által nyert tudományos eredmények felhasználásával, két éven keresztül 17 esettanulmány készült a projekt erdeményeinek gyakorlati felhasználhatóságára vonatkozóan. .

Az esettanulmányok kiértékelése megerősiti az eszközök alkalmazhatóságát a fiatal kis-és középvállalkozások esetében. Ezen eredmények alapján felmutathatók a jövőbeli stratégiai kihívások és az ezt követő következtetések levonhatók. A tanulmány összesen 234 szakirodalmi forrásra támaszkodott.

Dr. Patrick Siegfried

Kaposvár, den 31.03.2013