# Chapter 3

# Exploring the Autonomy of Corporate Ventures

This chapter investigates *RQ1: What are the dimensions reflecting the autonomy that corporate management grants to venture managers?* The prevailing view in the ongoing scientific discussion is that corporate ventures require a high level of autonomy in order to develop new businesses successfully (see, e.g., Kuratko et al., 2009).

This chapter is based on the following two publications[1]:

Gard, J., Baltes, G., & Katzy, B. (2012). **Towards a Concept of Autonomy for Teams Developing a New Business within Existing Companies**. In the proceedings of the 18th International ICE Conference on Engineering, Technology and Innovation (ICE), pp. 226-238. Munich, Germany.

Gard, J., Baltes, G., & Katzy, B. (2013). **Managing Autonomy of Teams in Corporate Entrepreneurship – Evidence from Small to Medium Firms**. In the proceedings of the 22nd International Conference on Management of Technology (IAMOT), pp. 134-154. Porto Alegre, Brazil.

While it is recognized that autonomy may be associated with many conditions, the dimensions reflecting the autonomy of venture managers are not well understood so far in studies by corporate venture scholars (cf. Birkinshaw & Hill, 2005; Crockett et al., 2013). Thirteen interviews are

[1] The author would like to thank his co-authors and the publishers of the ICE 2012 and IAMOT 2013 proceedings for their permission to reuse relevant parts of the articles in this thesis.

conducted in seven SMEs with corporate managers and venture managers (see Appendices A1 and A2) to understand (a) how SMEs renew the business portfolio through corporate ventures and (b) how the autonomy works that venture managers may enjoy. Literature research is conducted to explore the dimensions reflecting the autonomy to be observed. The chapter is structured as follows. Section 3.1 presents related work. The research methodology is given in Section 3.2. Section 3.3 describes two case studies contrasting the level of autonomy that venture managers may enjoy. In Section 3.4, literature research is conducted in order to explore the dimensions reflecting the autonomy observed in the cases. Section 3.5 summarizes the results of the study.

## 3.1 THE RELEVANCE OF AUTONOMY TO EXPLORE NEW BUSINESSES

Innovative products are generated through new product development teams involving representatives from different functional areas (e.g., experts on sales, manufacturing and design). Concurrent engineering is applied broadly as a management philosophy for these cross-functional teams (cf. Susman & Dean, 1992; Gerwin & Moffat, 1997). The basic requirement for concurrent engineering is that the product development team is able to work in an autonomous manner. The required level of autonomy can be described through two types. First, the team needs to be functional autonomous from the rest of the corporation, thus incorporate all experts on function required to perform their task. Second, the team needs to be able to make job-related decisions without approval (cf. Gulowsen, 1972 ; Klein, 1991; Gerwin & Moffat, 1997; Boyle, Kumar, & Kumar, 2005).

Such cross-functional teams are known by scholars in corporate entrepreneurship as corporate ventures (see, e.g., Hill & Hlavacek, 1972; Alterowitz, 1988; Christensen, 2004; Kuratko et al., 2009). Similar to the new product development team, the corporate venture team is interdisciplinary as it involves distinct experts on function (see, e.g., Christensen, 2004). In contrast

to the new product development teams, innovation is however not limited to product development but also requires to build the business for commercialization. For instance, the corporate venture team may develop a new product to enter a novel business domain where collaborations, customer contacts or distribution channels are yet to be established. Thus, for successful commercialization the corporate venture team has the challenge to develop a new product as well as the business around the product. At this point we should see the relevance of autonomy in exploring new businesses. Corporations providing adequate support to their corporate ventures are able to capitalize on emerging business opportunities and thereby achieve superior long-term performance by introducing strategic renewal to the business portfolio (see, e.g., Stopford & Baden-Fuller, 1994; Zahra & Hayton, 2008; Kuratko, 2010; Simsek & Heavey, 2011).

Adequate support involves however more than money and people, but also requires a certain level of autonomy that enables corporate ventures to behave in an entrepreneurial manner (cf. Simon & Houghton, 1999). Lumpkin and Dess (1996) highlight that autonomy is the "freedom granted to individuals and teams who can exercise their creativity and champion promising ideas that is needed for entrepreneurial behavior to occur" (Lumpkin & Dess, 1996: 140). However, the concept of autonomy is complex for two reasons: (1) corporate ventures are in contrast to independent ventures (i.e., start-ups) not fully autonomous and (2) autonomy may reflect many conditions such as oversight, dependence or decision authority (cf. Johnson, 2012).

It is criticized that the label autonomy is often "too simplified" (Lumpkin et al., 2009) as corporate ventures cannot simply be characterized as autonomous or not autonomous (cf. Hill & Hlavacek, 1972; Thornhill & Amit, 2000; Kuratko, 2010). Instead, it is assumed that the autonomy of corporate ventures differentiates among distinct dimensions and degrees of autonomy (e.g., Johnson, 2012). This understanding is critical. Corporate venture research assumes generally that autonomy is essential for corporate venture success (see, e.g., Simon & Houghton, 1999;

Birkinshaw & Hill, 2005). Organizational life-cycle theory supports this view and finds that growth can only be achieved when corporate management disperses an adequate level of autonomy throughout the corporation (cf. Greiner, 1997). However, the understanding of the dimensions reflecting the autonomy of corporate ventures remains ambiguous (see, e.g., Lumpkin et al., 2009; Crockett et al., 2013).

The purpose of this chapter is to contribute to the conceptual understanding of autonomy by exploring the multiple dimensions that reflect the autonomy of venture managers. We conduct case study research in combination with literature research in order to identify distinct dimensions that determine the autonomy of venture managers. The research methodology is presented in the following section.

## 3.2 RESEARCH METHOD

The research is based on an explorative methodology in combination with literature research. The research approach is described in the Subsection 3.2.1. The data collection is reported in the Subsection 3.2.2 and the data analysis is described in the Section 3.2.3.

### 3.2.1 RESEARCH APPROACH

Initially, we aimed to understand how SMEs renew their business portfolio by developing new strategies. It is acknowledged by scholars in strategic management that the development of new strategies is a social interaction process that involves various actors (see, e.g., Ansoff, 1967; Andersen, 2000). Researchers have recognized that such "social processes are not captured in hypothetical deductions, covariances and degrees of freedom (thus quantitative research). Instead, understanding a social process involves getting inside the world of those generating it" (Rosen, 1991:9). Therefore, we have given priority to qualitative research. More specifically, explorative case study research is carried out. This approach enables to examine the social process of strategy

making (a) in its full complexity from a holistic perspective and (b) in real-life settings (Yin, 2009). Following an interpretive approach, we focus on the perception of individuals to generate our insights into the phenomenon of business portfolio renewal (cf. Patton, 2002).

While the scientific value of qualitative research is sometimes questioned, a literature review provides evidence that the qualitative research methodology is well established in publications by management scholars (see, e.g., Bluhm, Harman, Lee, & Mitchell, 2011). Nevertheless, the author is aware of the limitations associated with qualitative research. Most notably, the generalizability of the qualitative research results is questionable for two reasons: (a) the perception of people is gathered, which is not objective and (b) in our case the sample size is quite small. Therefore, we carry out literature research in order to bring our qualitative results into line with prior studies (see Section 3.4). Moreover, it is important to note that the qualitative research presented in this chapter is only the first of four research steps carried out in the thesis. An overview of the four research steps is reported in Section 1.3. The following subsection describes the data collection that is carried out in this chapter.

### 3.2.2 DATA COLLECTION

Data was collected from May 2011 to April 2012 through two series of semi-structured interviews (overall thirteen) in seven SMEs with a time frame between 1 and 2.5 hours. The *first series* of six interviews (see Appendix A1) was conducted with corporate managers (in the role of the CEO) in six different SMEs (Company 1 to 6) across three German high-tech industries (Photovoltaic Industry, Information Technology and Automotive Supplier). In order to obtain initial insights, the first interviews were guided by the research question: “how do SMEs develop new strategies to renew their business portfolio?” The research question that guided the *second series* of interviews was more specific, well informed by the answers to the first research question. The second series of interviews (see Appendix A2) was guided by the following research question: “how do SMEs

enter novel business domains in order to diversify their business portfolio?" In order to answer the second research question, seven interviews were conducted with three corporate managers (in Company 2, 5 and 7) and three venture managers (in Company 3, 4 and 5) in four out of the initial six SMEs (Company 1, 2, 3, 4, 5 and 6) and one additional SME (Company 7). An overview of the overall thirteen interviews (six plus seven) is given in the Appendices A1 and A2. The analysis of the interview data is described in the Subsection 3.2.3.

### 3.2.3 ANALYSIS OF THE INTERVIEW DATA

We used grounded theory as a methodology to analyze the interview data (cf. Strauss & Corbin, 1994). Therefore, the interviews were transcribed and coded. The coded data was used to write case descriptions (final cases are presented in Subsections 3.3.1 and 3.3.2) and to compare the cases (in Subsection 3.3.3). The detailed data analysis procedure is described in the following.

The interview data of the first six interviews (Company 1 to 6) was coded in order to gain initial insights into how SMEs develop new strategies to renew their business portfolio. Based on the coded interview data, discussions were conducted between the researchers (the authors of the two publications on which this chapter builds) in weekly Skype conferences. The outcome of these discussions were rough case descriptions which summarized the observations. The case descriptions showed that the real-world problem of the CEOs (corporate managers) was not related to the strategy-making associated with the established businesses. Instead, the challenge of the corporate management was to develop new strategies to enter novel business domains, outside the scope of the established businesses.

**The first series of interviews**

Building on these initial insights, the business portfolios of the six corporations (first series of interviews) were examined based on the interview data and through web research. The results

showed that the business portfolio of four (Company 2, 3, 4 and 5) out of six corporations was diversified (more than three business domains where established) whereas the portfolio of two corporations was limited to one or two business domains only (Company 1 and 6). Interview data indicated that the four diversified companies attempted to systematically enter novel business domains. The two other companies had no history of systematical new business development.

**The second series of interviews**

Accordingly, the second series of interviews was conducted with the four diversified corporations (Company 2, 3, 4 and 5) in order understand how corporations systematically diversify the business portfolio by entering novel business domains. An additional interview was conducted with one further SME. This company (Company 7) was not part of the first series of interviews. Nevertheless, it was promising to incorporate the company in the second series of interviews as its business portfolio was also diversified. Correspondingly, the second series of interviews was conducted with five SMEs (Company 2, 3, 4, 5 and 7).

The interviews were transcribed and coded in the same manner as the first interviews. The discussions between the researchers based on the coded interview data was continued through weekly skype conferences. The coding of the data revealed a common pattern through which three of the five corporations entered novel business domains (Company 4, 5, and 7). They did so by establishing small entrepreneurial teams (corporate ventures). Two of them were able to establish successfully new businesses through the corporate ventures (Company 4 and 7) whereas one corporation tried to do so but was not successful (Company 5). Essential differences were not found between the two successful corporations. However, one aspect distinguished fundamentally between the two successful corporations and the one unsuccessful corporation: the level of autonomy that was granted to the venture manager was contrasting.

**The assumption arrived at**

Based on the interview data, the researchers carefully developed the assumption that "the level of autonomy which the venture manager enjoys will influence the success of the corporate venture". Some evidence for our assumption is provided in the two case descriptions reported in the Subsections 3.3.1 and 3.3.2. The first case (Company 4) refers to one of the two corporations that successfully entered novel business domains with corporate ventures. Only one of the two successful cases is reported since the autonomy granted to the venture manager was quite similar in Company 4 and 7. Describing the cases of both successful corporations would thus not have provided further insights into the formulated assumption. The second case (Company 5) refers to the corporation that was unsuccessful with entering a novel business domain with corporate ventures. Both cases are reported in Section 3.3.

## 3.3 CASE STUDIES

Two cases of new business development through corporate ventures are described in this section. The first case (Company 4) describes an SME within the photovoltaic industry that levers growth by entering successfully novel business domains with a corporate venture. The second case (Company 5) refers to an SME within the information technology industry that exploits successfully existing businesses but is rather unsuccessful to enter novel business domains with corporate ventures. The two cases are described in the Subsections 3.3.1 and 3.3.2, respectively. In Subsection 3.3.3, the two cases are compared with respect to the autonomy that the corporate managers grant to the venture managers.

### 3.3.1 THE CASE OF COMPANY 4 (PHOTOVOLTAIC INDUSTRY)

The case study on Company 4 refers to a company in the photovoltaic (PV) industry with around 130 employees and a turnover of about 25 million Euro. The company's solutions focus on the

improvement of production processes for PV wafers, cells and modules. The company provides quality measurement equipment, chemical additives for production and consultancy for quality management. Despite the consolidation and fierce price competition in the PV industry, the company was able to generate continuous growth by developing a new business domain through a corporate venture. The case of successful new business development is described below in seven stages.

**Stage 1: Company 4 started as a distributor**

Founded in 1999 as a university spin-off, Company 4 had high knowledge related to production processes for PV cells and modules, resulting from university research. At this early phase, the business was based on production process consultancy. Some time later, consultancy was combined with hardware sales of quality measurement equipment. Therefore, a partner was identified who had developed quality measurement equipment, i.e., for production processes in the semiconductor industry. Cooperation between the two firms was started with the aim of combining the process knowledge of Company 4 with the hardware knowledge of the partner. The outcome yielded quality measurement equipment for laboratories and in-line production processes in the PV industry. Company 4 acted as a representative and received a sales commission, whereas the partner signed the contracts and provided the equipment.

**Stage 2: The turnkey business was explored as a new business opportunity**

Involved in sales activities, the interviewee (leader of the team that developed the new turnkey business), still working part-time at the university, became more and more involved in business development activities. Based on his interaction with customers when conducting sales activities, he recognized that the customer's knowledge related to PV quality management was low. This was not only the case for the equipment that Company 4 provided but also for third-party equipment (e.g., scales or microscopes). He perceived this lack of knowledge as a business opportunity and

developed the business idea to combine Company 4's process know-how with market-available quality measurement equipment in order to offer a turnkey package to the customers. The package included the equipment, service and operational training related to the equipment.

**Stage 3: A small team developed the turnkey business, guided by a powerful team leader**

Driven by this idea, the interviewee initiated and coordinated several team activities for developing the new business. First, a marketing concept was developed. Based on the different customer needs (e.g., high quality vs. high quantity production), differentiated standard packages were developed and productized as hybrid products (e.g., brochures, flyers, sales presentations and the webpage were redesigned). Second, the interviewee initiated business partnerships and signed cooperation contracts with the different manufacturers of equipment (e.g., Carl Zeiss AG). Third, a training concept was developed in order to support the end-customer in implementing the equipment into their production processes. Fourth, a team was built to train end-customers and provide field service. These activities were conducted by a cross-functional team (i.e., team members from marketing, sales and service) that the interviewee supervised and coordinated.

The newly established business was unique in the PV industry. Company 4 offered a productized hybrid bundle or a comprehensive set of quality measurement equipment, implementation service, field service and training. As the partner only provided one part of the range of this bundle, the interviewee was in a good position for re-negotiating contractual conditions. Based on the argument that the customer requires turnkey offerings that only Company 4 could offer, the authority for signing the contracts was transferred to Company 4. Thereby the interviewee was put in the position to establish relationships with customers based on intensified interaction (e.g., conducted training and provided service). The interactions provided deeper customer understanding that was important for further developing the market solution, which subsequently improved Company 4's market position.

This new position paved the way for reaching a new customer group – PV turnkey manufacturers (companies providing ready-for-operating production facilities for solar cells and modules). The new business enabled Company 4 to establish a temporary monopoly in this market segment, leading to contracts with every turnkey manufacturer in Germany. Before building the new business in 2005, Company 4 was still small (with less than 20 employees), many projects were conducted with external consultants and production capacity did not expand beyond prototype level. The business was changed through the new business fundamentally. Sales as well as sales margins increased significantly. Similarly, the number of customer relations as well as the number of employees increased.

**Stage 4: The turnkey business was internationalized**

In 2006, the demand for turnkey solutions began to decrease in Germany and to increase in Asia, simultaneously. Consequently, the turnkey manufacturers entered the Asian markets. The interviewee recognized this development due to his intensive interactions with these customers. Accordingly, he perceived entering the Asian market as another business opportunity. Based on this idea, he initiated a deal with turnkey manufacturers that Company 4 would provide a comprehensive quality measurement bundle (e.g., providing the equipment, consultancy, training and service) in the turnkey projects. As the agreement was settled, the first projects (three at the same time) were conducted in Taiwan. To deliver the contract volume, the interviewee set up a small team of experts, most of them worked earlier for Company 4 as external consultants (now hired fulltime). The team started with the three parallel projects and initiated further sales and service activities. According to the interviewee, “the team was the nucleus for the sales and service organization that was built later on”.

These projects opened access to the Asian markets. The interviewee engaged in further sales activities and was able to sign contracts for follow-up projects as well as projects with new

customers without the support of the turnkey manufacturers. Ultimately, the interviewee established a stand-alone position (with an own market presence) in the Asian market which was the basis for further growth. Retrospectively, the interviewee stated: "We would have never managed to enter the Asian markets without the turnkey partners. We had not even been present at a single trade fair."

Subsequently, sales increased significantly in 2006 and the interviewee hired local employees (from Asia) and invested in their qualifications in order to be able to manage the increasing number of projects. While the initial team members were sent to Asia with German employment contracts in a freelancer's scheme, international employment and business law became more relevant with the international employees. Since 2006, Company 4 spent tens of thousands of Euros on consultancy in order to sort out these legal aspects. In this context the interviewee stated: "If we had done everything strictly following international employment and business law, we could never have afforded to enter the Asian markets. Today, we have of course solved these legal issues, but the required consultants were very expensive."

**Stage 5: The turnkey business turned into an international sales and service organization**

In order to scale sales and service, the team in Asia was expanded into a new organization. The interviewee had the choice to build their own sales and service organization or to outsource sales and service to one of the local organizations specializing in these fields. When the first projects were conducted, the interviewee immediately recognized that it was of significant importance to guarantee reliable service because only good service would ensure production stability for the customers. He further realized that "there is nothing better than a reliable service if you want to sell again and again to the same customer". He therefore decided to build the company's own sales and service organization based on the existing team. More than that, engaged in sales in Asia, the interviewee realized that their customers utilized the trademark "Made in Germany" of their

quality measurement equipment as a marketing aspect. He decided that a unique product design, highlighting the German brand, would be helpful. To achieve a new product design, the interviewee initiated the redesign of the hardware, the webpage, brochures, sales presentations and so forth.

**Stage 6: Research and development was insourced**

In line with that, the CEO and the interviewee decided that it was time to no longer rely on the equipment of the partner company but develop their own equipment: "Thus, with a forerun of 1 to 2 years, we invested several millions in product development." Software development was the core activity of the hired engineers whereas the production of hardware was outsourced. In 2010, the development department comprised more than 20 engineers. In product development, it was decided to develop equipment for high quality production processes instead of high quantity production processes. The interviewee stated that "the customers asked to have the equipment at a lower price, but customers always have a tendency to get things cheaper in order to increase their margins". It was expected that production process optimization towards high-end products would become the key success factor for manufacturers of wavers, modules and cells. Years later, this anticipation of market demand turned out to be true as was seen in 2011 when high-end modules achieved at least a 50% higher price than average modules and manufacturers of high-end products seemed to be secure whereas others went bust (e.g., German producers such as Q-Cells or Sunways collapsed).

**Stage 7: The turnkey business achieved significant growth**

When the crisis in the PV industry hit Germany around 2008 to 2009, the international run of solar cell and module manufacturers in the Asian market started. This crisis was based on the fact that the Chinese government subsidized Chinese PV manufacturers with billions of Euro. Thus, Chinese manufacturers were able to provide solar cells and modules for one third of the price

compared to their competitors in Europe (some offers even below factor costs). Company 4 took advantage from this crisis situation because they were able to provide mature quality measurement equipment solutions (e.g., sets of equipment, training and service) to these companies. Well in time, market-ready equipment was just produced when sales increased. High sales rates in combination with significantly increased sales margins determined the company's growth. In 2011, the interviewee stated that entering the Asian market has been essential for survival. Most companies with a similar business model were squeezed out of the market at that time. In contrast, Company 4 grew from around 20 employees in 2005 to 130 employees in 2010 and the company's major revenue was generated in Asia.

**Lessons learned**

Our research describes the case of a company in the photovoltaic industry that performed corporate venturing successfully and was thereby able to achieve significant growth when the industry shifted from boom to bust. The following four lessons can be concluded based on the case description.

- Establishing corporate ventures is an effective means for corporation to enter novel business domains for realizing strategic renewal and growth
- A venture manager that thinks entrepreneurial and acts proactively is required to pursue business opportunities through to completion
- Venture managers require a significant level of autonomy to engage effectively in explorative activities for inventing the new business
- Venture managers should be established as cross-functional teams with experts on distinct business functions

### 3.3.2 THE CASE OF COMPANY 5 (INFORMATION TECHNOLOGY INDUSTRY)

The case study on Company 5 refers to an IT consulting company with a turnover of around 2 to10 million Euro. The company provides solutions for visualization in management control systems, product-life-cycle management (PLM) and collaboration platforms. Due to fierce price competition the company had to cash-out the mainstream business (PLM) and develop new businesses. Below, we first describe the company's situation in four stages with respect to the mainstream business (PLM). We then report on two trials through which the company engaged with the aim to develop new businesses with corporate ventures.

**Stage 1: The PLM business was successfully exploited**

Around 1996, the CEO had the vision that web-based technologies would change the way people work: "Everybody laughed at me these days but I went my way." He developed a solution for integrating product-life-cycle relevant applications (PLM) in firm-specific portals. The value proposition for the customer was, for example, that the integration of different engineering applications enabled internationally distributed engineers to operate as a team. The solution was so innovative that Company 5 won competitions with global players such as HP and IBM for projects with the major OEMs within the automotive industry (Germany). Highly customized projects with a timeframe sometimes between 10 and 15 years were conducted successfully. These projects materialized in solutions that were tailored perfectly to the customer's requirements which resulted in high customer satisfaction. Consequently, the company grew to a level of complexity (e.g., number of projects and employees) where the CEO alone was not able to manage the company by himself. Accordingly, he qualified managers responsible for the respective business units. These managers became strategic assets for the company. Based on their experience, they developed their own vision for the respective business units.

**Stage 2: Managers left Company 5 to found their own company**

In order to develop their respective businesses accordingly, they required a level of autonomy that the CEO was not able to provide. The interviewee said: "There were demands expressed, a demand for autonomy which I was not able to fulfill … I had debts which I needed to pay back to the investor … there was a large list of prohibitions (enforced by the investors)… my people required a level of autonomy that I didn't even have myself." In fact, the CEO was unable to provide his managers with the requested level of autonomy as the investor enforced harsh contractual conditions in order to avoid any uncontrolled activities, such as investments in other firms or inter-firm cooperation. Due to the limited autonomy, the managers were unable to develop their business units according to their vision and perceived the conditions in Company 5 as an obstacle rather than being supportive. As a consequence, the managers left and founded their own company in 2000. The drain of managerial competence was not constrained by binding instruments such as contractual clauses (e.g., a non-competition clause was not included in employment contracts).

In order to build their business, the managers recruited some of the best people from Company 5 as well as specialists that at the time were in the job application process at Company 5. Company 5's CEO stated: "I have invested a lot in qualifying managers, with the effect that I generated my own competition. I qualified every chief executive manager including some executive managers of the company my own people founded." The company they founded has grown to more than 100 employees successfully and is in a good market position.

**Stage 3: In consequence the CEO cut the competences of his employees**

As a result, Company 5's CEO decided to cut the competences of his employees in order to avoid such events in the future. For example, employees were only trained in competences which were at the core of their job (e.g., sales). Moreover, the CEO found out that an employee of Company 5 worked secretly for the newly founded company. The employee had full access to Company 5's

intranet which was a repository for business-relevant knowledge. Subsequently, some of the stored information was used by the employees of the new company (e.g., sales presentations). The CEO of Company 5 limited his employees' access to the intranet to a minimum immediately when he realized that the knowledge was leaking.

The cutting short of competences as well as the limiting of access to business-relevant knowledge, however, caused new problems after a while. The CEO stated: "I seriously cut the competences of my employees. It seemed to work. However, the company lost its ability to generate further growth … this was simply too extreme." He created a rather "mechanistic" organization in which employees followed documented guidelines, working procedures, regulations and business processes in order to do their job.

The organization was sufficient for managing existing projects efficiently. But as the CEO claimed later, the company lost its ability to generate innovative solutions for customers and to generate new business. The lacking ability to generate new solutions was particularly tremendous for the PLM business where the company transformed gradually from a tier-1 supplier to a tier-2 supplier. A long-term customer in the automotive industry even refused follow-up projects with the argument that the degree of innovation on offer was too low.

The economic outcome displayed its full effect when the economic crisis hit the automotive industry in 2008. The PLM business that had provided steady growth for the past 10 to 15 years started to stagnate. The CEO was not surprised as he had noticed standard solutions dominating the market whereas prices for specialized programmers (Java) had been dropping continuously. In contrast, Company 5 focused on individualized solutions. At a point before the financial crisis in 2008, he decided that it was time to cash-out the old business and create a new business.

**Stage 4: The mainstream business was unable to develop new businesses**

Correspondingly, the CEO forced his employees to work on developing new business ideas. However, he stated: "I failed. I seriously tried everything but the company was neither moving forward nor backwards. I would never have believed it if I hadn't seen it with my own eyes … Everybody was used to coming to work and to having work … The Company needed that shock if you ask me today." The shock was that no new business was developed. Instead, employees stuck with "business-as-usual". As a result, around 25 specialized programmers had no project when some of the long-term projects ended. Subsequently, the CEO downsized the business over a two-year period from around 75 to 30 employees without generating losses. The result was surprising because the company generated exactly the same (absolute) profit with 30 employees as it had before with 75 employees. After that, the CEO managed the remaining projects himself.

The CEO recognized that new businesses (e.g., in new business domains) would not emerge from the mechanistic type of organization (mainstream business) that had evolved over the years. Therefore, the CEO engaged into two trials (A and B) to develop new businesses with corporate ventures, outside the scope of the mainstream business. In trial A, two subsidiaries were established. The hope was that the subsidiary/venture managers were able to enter novel business domains (other than the known automotive industry) with the established PLM solutions. In trial B, a small team was established at the company's headquarter some time later for the purpose to develop the new "collaboration platform" business. The two trials are reported below.

**Lessons learned:**

So far, our research describes the case of a company that capitalized successfully on the mainstream business while failing to renew the business portfolio strategically. The following five lessons can be concluded based on the case description.

- Corporations require strategic renewal to achieve long-term survival

- A lack of autonomy limits the ability of employees to act proactively
- Managers that think entrepreneurial require supportive organizational settings
- Cutting the competences of employees reduces their ability to think entrepreneurial
- The corporate mainstream business is not necessarily a good place to pursue the development of new businesses

**Trial A – Stage 1: Two small teams were established to enter novel business domains**

The CEO recognized that his executive managers needed more autonomy and decided for organizational change. Two of his executive managers were given the opportunity to establish their own businesses in a new environment. For that, subsidiaries were established in Ingolstadt and Stuttgart with the executive managers in charge. Each executive manager was provided with one major customer (automotive industry) and a small team of programmers and consultants. The aim of both initiatives was to maintain existing customers and gain new customers in industries other than the automotive industry. In fact, the teams were allowed to conduct projects with existing customers, engage in further sales efforts (70% of the executive manager's work time) and human resource development activities for building their own team. Every other business function (e.g., R&D, marketing and controlling) was provided by Company 5 and the executive managers were controlled tightly by the CEO.

In the interviews it became clear that basic decisions (e.g., how brochures and other marketing material should be utilized, when and where an offer should be made and which customer should be contracted) were basically made by the CEO. Similarly, the influence of the team leaders on the current concept of strategy was rather low. The CEO stated that he discussed strategic issues with three employees (chief of development, chief of product management and chief of finance). The team leaders were, however, not part of this group.

Not surprisingly, new business did not emerge and one of the subsidiaries was closed. It was argued that the team leader did not have the ability to acquire new customers and the nearly 10-year-old project with the main customer ended without a follow-up project. At the beginning, things went wrong in the second subsidiary as well. The team leader had trouble managing the programmers in his team. He was a consultant, and thus struggled to provide constructive feedback on the technical side and to guide programming activities. The team leader agreed with the CEO that it would be best to abandon programming activities for his business. Accordingly, the business was adapted with the focus on process consultancy. The business started running when after a while the team acquired a new OEM in the automotive industry and several smaller customers. Strategically, however, the CEO still saw the initiative in a cash-out position for cross-financing the development of new businesses.

**Trial B – Stage 1: A new business opportunity was explored**

Over the years, the CEO recognized that business process integration in a "collaboration platform" is not only a topic for large companies but also for SMEs. However, he knew that individual solutions (which his company developed in the PLM business) were not marketable because they were simply not affordable for SMEs. Nevertheless, technology in this field advanced and standard solutions (such as Microsoft SharePoint) appeared on the market. Thus, business-process integration became suddenly affordable for SMEs and a new business idea was born. The value proposition was to generate individualized collaboration platforms (based on the standard software) that integrated information and applications from different systems in a short time and at low cost.

**Trial B – Stage 2: A small team was established to develop the new business**

However, the CEO argued that the mechanistic part of his company would not be able to develop such a new business. He stated that this team was good for administrating and conducting projects

but unable to think outside the box and not willing to enter unknown terrain. It was further argued that the guidelines, regulations, procedures and processes that were helpful for the mechanistic team hindered innovative people to create something new. The CEO stated: "I want to create a team that is completely detached from the rest of the organization, so they can create their own culture, their own spirit. And I don't want to be their leader in terms that I pull them like I have done in the past … honestly, I am tired … they can get every support they require but they need to generate growth themselves. This is now something new, a trial … but I believe that it will work."

With this basic idea in mind, the CEO established a small team of around four full-time employees with the aim of developing the new business. In the beginning, the team members developed the conceptual design of the new business. While the business solution matured, the team engaged increasingly in sales activities and human resource development. Questions such as what activities to pursue and how to develop the business were made primarily by the team members. Even strategic issues (e.g., research focus, development activities, which solutions should be developed, and issues of qualification) were decided by the team. The CEO stated: "I don't want to tell them what to develop or give them other directions for the content of their business as long as the business is moving forward … The only guideline they have is the vision to generate collaborative solutions for SMEs and their budgets."

Still, the new business was causing trouble with the key performance indicators and controlling procedures derived from those in the established businesses at an early stage. Targets (e.g., budgets and turnover) were planned but did not reflect real-world conditions. Milestones such as number of customer acquisitions and cost coverage seemed to be more valid and were implemented. After a period of excessive customer acquisition, first projects were initiated and turnover started to increase around two years after initial investments were made (break even was not yet achieved).

**Lessons learned:**

Our research continued with describing the two trials of corporate venturing through which the CEO pursued the development of new businesses. The CEO learned five lessons from these trials which are concluded in the following.

- Establishing corporate ventures as separated subunits is not necessarily effective
- A venture manager that thinks and acts entrepreneurial is required to purse the new business in a novel business domain
- Corporate management should not expect that corporate ventures reach profitability in a short time
- Corporate management should disperse autonomy to the corporate venture for enabling to learn how the new business works
- Small teams with limited budget are already sufficient to test new business ideas

### 3.3.3 COMPARING THE AUTONOMY OF THE VENTURE MANAGERS IN THE TWO CASES

In this subsection, the case of successful new business development in Company 4 is compared with the case of Company 5 where new business development was rather unsuccessful (which is at least evident in the first trial). Both cases are meticulously analyzed with emphasis on the contrasting level of autonomy that was granted to the venture managers.

**Company 4 – Enabling corporate venturing through autonomous action**

The case of Company 4 (Photovoltaic Industry) describes how a new business was developed successfully through a small team (corporate venture). The team leader (venture manager) developed the new business by adapting the business model various times, in accordance with the opportunities that he explored by interacting with customers (market stimuli). The business model was adapted four times. *First*, the distributor business was turned into the turnkey business (Stage

3), which increased growth in terms of both sales and employment. *Second*, the venture manager internationalized the turnkey business (Stage 4) and was able to achieve a stand-alone position (while first contracts were not made with the end-customers but with the turnkey manufacturers). *Third*, the venture manager established an own sales organization in Asia (Stage 5), which resulted in further growth. *Fourth*, own equipment was developed instead of relying on the supplies of the partner company (Stage 6).

Empowered by the corporate manager, the venture manager was able to adapt the business in all four cases (Stage 3 to Stage 6) through autonomous action. In *Stage 3*, the venture manager (a) developed a new marketing concept, (b) initiated business partnerships, (c) developed a training concept and (d) built a team to train end-customers and provide field service. These business development activities were decided and implemented without the approval of corporate management. In *Stage 4*, also autonomously, the venture manager (a) initiated a deal with turnkey manufacturers, (b) set up a team in Asia, (c) engaged in sales and service activities in Asia and (d) sign contracts for follow-up projects. In *Stage 5*, the venture manager decided without consensus seeking (a) that is was necessary to build an own sales and service organization based on the existing team and (b) to establish a new product design for the Asian markets. In *Stage 6*, several million Euros were invested to establish an own product development department, a decision which was made in consensus with the corporate manager.

In a summary, the case of Company 4 highlights that the venture manager was able to act autonomously, which was essential to develop the new business in accordance to the experiences that the venture manager made through interaction with market stimuli.

**Company 5 – Impeding corporate venturing due to lacking autonomy**

The case of Company 5 (Information Technology Industry) illustrates that the lack of autonomy can have tremendous negative effects on the ability of an organization to development new

businesses. The following three situations that were observed in Company 5 describe the negative effects of lacking autonomy.

*First*, the business unit managers developed their own vision for their business unit in Stage 2. They recognized the necessity to collaborate with other firms in order to realize their vision. However, the corporate manager had to prohibit any collaboration (which would have implied investments though other corporations) due to the contract concluded with his investor. As a consequence of the lacking freedom to act, the business unit managers left and founded their own company, which has grown to more than 100 employees. This growth potential could have had also materialized in Company 5 if the business unit managers would have had sufficient autonomy to act.

*Second*, the corporate manager reduced the autonomy of his employees significantly in Stage 3 when the business unit managers founded their own company and recruited therefore some of the best employees of Company 5. The reduction of autonomy is indicated through the following three reactions. Reaction 1: the corporate manager enforced directive leadership as all projects were managed by himself. The projects were before managed rather autonomously by the project managers. Reaction 2: employees were now treated as functional specialists with restricted qualification, training, strict job descriptions and limited access to the intranet. Reaction 3: rather than treating employees as independent decision-makers, decisions were now almost exclusively made by the corporate manager. Consensus exists that directive leadership (reaction 1), limitations concerning the employee's competences (reaction 2) and centralized decision making (reaction 3) indicate limited autonomy which decreases the organizational ability to generate innovation (cf. Burns & Stalker, 1961; Lawrence & Lorsch, 1967). Confirming this assumption, it is described in Stage 4 that the reactions of the corporate manager (a, b and c) had negative effects on the ability

of his company to generate innovation. The corporate manager stated, that due to his reactions, the employees at his company were unable to invent new business ideas.

*Third*, the corporate manager learned that the ability to generate a new business is directly associated with an increase of autonomy. He initiated two trials to develop new businesses through corporate ventures. In the first trial, two corporate venture (subsidiaries) were established in Stuttgart and Ingolstadt in order to enable the venture managers (subsidiary managers) to act autonomously. In fact however, sales targets were set by the corporate manager mindful of tight budgets, basic decisions (e.g., which commercials to provide or where to place an offer) were made by the corporate manager and the operational business influenced through close project plan reviews and other controlling instruments. New businesses did not emerge and the corporate manager engaged in a second trial where he established a corporate venture that should develop the collaboration business rather autonomously. In contrast to the first trial, the corporate manager stated that he would like the team to act autonomously in order to develop the new business.

Although, the new business was at an early stage when interviews ended, we may conclude that the corporate manager recognized through his learning experience (the three described situations) that sufficient autonomy is a prerequisite for the ability to develop new businesses successfully through corporate ventures.

## 3.4 ABSTRACTING FOUR DISTINCT AUTONOMY DIMENSIONS FROM THE CASES

The two cases of Company 4 and Company 5 give a first idea to how the autonomy of the venture manager is characterized. Literature research was conducted to explore the dimensions of autonomy that were observed in the cases. In the Subsections 3.4.1 to 3.4.4, we identified four autonomy dimensions, namely, (1) functional autonomy, (2) decision autonomy, (3) strategic autonomy and (4) job autonomy.

### 3.4.1 FUNCTIONAL AUTONOMY

*Literature research:* In the engineering literature, functional autonomy is an established concept. Consensus exists that new product development teams should be functional autonomous, thus incorporate all experts on function in order to perform their tasks concurrently (cf. Clark & Fujimoto, 1991; Susman & Dean, 1992; Gerwin & Moffat, 1997). Corporate ventures are similar to new product development teams cross-functional. Corporate venture teams generally involve representatives from distinct functional areas (e.g., sales, marketing, R&D) (cf. Hill & Hlavacek, 1972; Burgelman, 1983; Alterowitz, 1988; Brazeal, 1993). Corporate ventures with full functional autonomy would operate independent from the corporation as functional complete subunits.

*Refection:* In the case of Company 4, the level of functional autonomy was rather low, which is evident from a high sharing of experts on function (e.g., marketing and sales) between the corporation and the corporate venture team. For example, the turnkey business was developed and internationalized through a cross-functional team (e.g., experts in marketing, sales, training and service). However, many of these experts on function (e.g., concerning sales, training or marketing) worked actually for Company 4 and were only involved in some venture activities. In contrast, the sharing of experts on function was rather low in the case of Company 5. Only one expert on function (sales) was temporarily provided by the corporation in the first trial. In the second trial, the team was functionally complete.

### 3.4.2 DECISION AUTONOMY

*Literature research:* Decision autonomy is described in prior studies as the authority to make operational decisions without consensus seeking or the freedom from excessive control (see, e.g., Hornsby, Kuratko, & Zahra, 2002a; Kuratko, Ireland, Covin, & Hornsby, 2005). Decision autonomy is seen as one major antecedent for entrepreneurial initiatives to emerge and thrive (cf. Kanter, 1989; Lumpkin & Dess, 1996; Hornsby et al., 2002a; Kuratko et al., 2005; Lumpkin et al.,

2009). Negative implications on corporate venture success are expected when corporate management does not provide venture managers with the authority to make operational decisions (e.g., Quinn, 1985; Crockett et al., 2013).

*Reflection:* High levels of decision autonomy enabled the venture manager in Company 4 to act with greater flexibility when developing the new business. For example, the venture manager recognized the turnkey business opportunity and made several decisions responsively in order to develop the business. He decided which third party equipment manufacturers to collaborate with, to develop marketing and training concepts and to establish training and service teams. These decisions were made basically by the venture manager (interviewee) without time-consuming approval meetings with the corporate manager. Thus, decisions related to business development activities were made flexible and free from direction and limitation enforced by the corporation. In Company 5, the decision autonomy granted to the venture managers in charge for the teams in Stuttgart and Ingolstadt (first trail) was rather low as only some decisions referring to project management and human resource development could be made without the approval of the corporate manager.

### 3.4.3 STRATEGIC AUTONOMY

*Literature research:* In strategic management, strategic autonomy is a further measure underpinning the concept of autonomy (Floyd & Lane, 2000). This dimension of autonomy can be characterized as the authority to make strategic decision without approval (Andersen, 2004). One stream of research in strategic management builds on the assumption that new strategic influence evolves bottom-up (cf. Mintzberg, 1973, 1978; Mintzberg & Waters, 1985; Bower, 1986; Mintzberg, 1994; Burgelman & Grove, 1996). It is acknowledged that such a bottom-up approach requires autonomous strategic decision-making across the corporation in order to enable new strategic influence to emerge (cf. Hart, 1992; Andersen, 2000). Accordingly, strategic influence

may be achieved by allowing venture managers to make strategic decisions without approval (cf. Burgelman, 1983; Andersen, 2004).

*Reflection:* In Company 4, high levels of strategic autonomy enabled the venture manager to develop the strategic direction of the turnkey business. The strategy to enter the Asian markets and to establish a sales and service organization subsequently was not intended when the venture manager decided to develop the turnkey business in the first place. Rather, the venture manager recognized the tendency of turnkey manufacturers to enter the Asian market through close interaction with these customers. Perceiving this tendency as an opportunity, he made the strategic decision to enter the Asian market in cooperation with the turnkey manufacturers. Similarly, the strategic decision to establish an own sales and service organization in Asia emerged when the venture manager recognized (when he engaged in first sales activities) that service reliability was one major value proposition for Asian end-customers. Another strategic decision referred to the strategic direction of R&D activities. Here the venture manager decided without approval to focus on quality measurement equipment for high quality instead of high quantity production processes (based on experience gained from trade fairs). Thus, the level of strategic autonomy was rather high in Company 4. In Company 5, the venture managers (Stuttgart and Ingolstadt) had a rather low influence on the strategic direction of their businesses. They were not part of the group in which strategic issues were discussed and strategic decisions were made by the corporate manager.

### 3.4.4 JOB AUTONOMY

*Literature research:* In work design scholars, job autonomy can be described as the authority to make work-mode decisions without approval or the authority that one holds in his job (cf. Hackman & Oldham, 1975a; Hackman, 1990). Work-mode decisions refer to the legitimacy to autonomously choose the work methods, define the scheduling of the work and select the work criteria (cf. Gulowsen, 1972 ; Breaugh, 1985). Job autonomy alludes to the independence of

individuals to fulfill a job free from restrictions (see, e.g., Lumpkin & Dess, 1996), which is a major motivation for people to perform their job (cf. Spector, 1986) and show creative work involvement (Volmer, Spurk, & Niessen, 2012).

*Reflection:* The case of Company 4 shows that the venture manager was the only driver for making work-mode decisions. When it was decided to adapt the business model towards the turnkey business, he decided how to do the job and coordinated marketing experts, composed a training team, mobilized experts that worked for the company beforehand and managed the work of these experts when conducting first projects in Asia. Similarly, the job to establish the sales and service organization in Asia was also conducted autonomously by the venture manager. In the case of Company 5, the level of job autonomy (Stuttgart and Ingolstadt) was moderate. The corporate manager took over the work-mode decisions for both teams when the business showed bad performance (i.e., lost key customers and where not able to acquire new projects). For example, the corporate manager decided how the teams should go over the job and rescheduled the activities of programmers (Stuttgart) and sales experts (Ingolstadt). The insights that can be drawn from these characterizations are concluded in the following.

## 3.5 CHAPTER CONCLUSION

This chapter answers *RQ1: What are the dimensions reflecting the autonomy that corporate management grants to venture managers?* The dimensions reflecting the autonomy of venture managers were explored and characterized. The results indicate that the venture manager's ability to launch a new business for the corporation is determined through four autonomy dimensions: (1) functional autonomy, (2) decision autonomy, (3) strategic autonomy and (4) job autonomy. The identification of the four autonomy dimensions provides the conceptual framework for Chapter 4

where the autonomy dimensions are operationalized in an initial four-dimensional autonomy construct that reflects the autonomy of venture managers.