

**A STUDY OF STRATEGIC PLANNING PRACTICES IN THE
SOUTHERN GERMAN CONSTRUCTION INDUSTRY**

By

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Abstract

This research explores how strategic planning practices are facilitated, and constrained, by organizational processes and structures that characterize particular firms. The investigation of different aspects of strategic planning practices in the construction sector has yet to receive sufficient research attention. This is supported by the emergent perspective on strategic practices not as stand-alone phenomena, but as complex organizational processes.

Semi-structured interviews provide primary data that serve as the basis for this qualitative investigation of construction enterprises in Southern Germany. In this study, theoretically informed questions about business strategy, the formulation of objectives, and planning practices guide the process of both data collection and its analysis. The construction companies selected for 33 interviews are located in the proximity of Munich, Augsburg, Ulm, Günzburg, Landsberg, and Ingolstadt in Swabia and Upper Bavaria. The primary qualitative data were generated over four months between November 2013 and February 2014. This study explores different aspects of strategic and planning practices by investigating encoded answers to corresponding questionnaire items.

In the majority of micro and small construction companies that took part in this study, an intuitive and ad hoc approach to planning predominates. Forecasting methods are in use owing to their contribution to the minimization of short-term business costs and risks. Scenario methods are considered as involving overly long planning horizons that are unsuitable, owing to rapid changes and volatility occurring in the construction industry. For only some of the more medium companies, financial and strategic planning are differentiated, which could be because strategic plans are presented mostly to superiors and supervisors, planning is a hierarchical and formalized process, and the companies have predominantly regional- and national- scale operations.

This study has followed an activity-based framework and extended theoretical research by exploring an emergent perspective that analyses strategic planning practices as tools-in-use. Significantly different patterns of various aspects of planning practices clearly indicate that planning tools are highly likely to affect their selection, utilization, and outcomes. Thus, this study demonstrates that planning practices and their associated tools are complexly related with other organizational processes. This study also suggests that the goals and motivations of owners and managers engaged in strategic planning are intricately related to planning outcomes in organizations.

Attestation

I hereby attest that the content of this dissertation is my original work and that this study has not plagiarized the work of others. I have followed the University of Gloucestershire's manual outlining moral conduct in research. I have abided by the rules and regulations mentioned by the University manual thereby upholding ethical standards in social research that do not cause harm to others.

Alexander Lindermayr

Date

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1. Introduction

1.1 Overview

This research explores strategic planning practices and organizational processes among construction business managers operating in Southern Germany.

As the strategic planning activities of owners or managers are mediated through the use of concrete tools and methods, it is necessary to explore different aspects of the tools and methods used in such planning. Qualitative methods are best suited for this research on strategic planning, as they are connected to an ideographic methodological position that examines interpersonal aspects of organizational practices. This corresponds to the objectives of the present research, which investigates the tools and methods applied to strategic planning activities undertaken by owners and managers of construction firms in Southern Germany. Given this qualitative research approach, interviews are the main method used to generate information from research participants.

Semi-structured interviews served as the source of qualitative data. Responses were recoded to enable qualitative evaluation of strategic planning practices and their organizational contexts. This process of analysis is presented and discussed in detail in later sections of the thesis. The findings of this research lead to new insights about strategic planning practices in the Southern German construction industry and their relationship with different characteristics of their organizational contexts. More specifically, this study finds that when operations did represent the main area of planning discussions, brainstorming was used as a planning technique. Moreover, according to this study, when unstructured planning techniques were used, contingency plans were not included in planning and no formal planning rules were applied. Whenever planning was not unaided, planning activities were never performed continuously and the planning effectiveness review always included a reflective process.

Whenever planning was continuously undertaken, the planning review was a reflective process. Additionally, whenever plans were presented to superiors, no division of planning labour was present. Concerning planning techniques, tools, and artefacts, this study indicates that brainstorming is frequently used as a planning technique. In almost all cases, contingency plans, forecasts, scenarios, and predicted states of affairs all represent the range of outputs to which the planning process leads. According to this study, the strategic role of business planning is related to forecasts as results of planning activities. This research also indicates that the use of alternative tools in planning is related to the hierarchical nature of the planning process as well as to the application of formal planning rules. This research likewise finds that the application of formal planning rules is related to the inclusion of the scenario method into planning.

These findings provide a fresh perspective on broader conceptual issues, such as a more refined understanding of the practical and organizational aspects of the utilization of strategic planning tools (Jarzabkowski & Kaplan, 2015).

1.1.1 Theoretical Background

This study examines both the various practice-related aspects of strategic planning, such as the different methods used, and organizational contexts.

Organizational structures, primary actors, practical activities, and interactions between organization members represent constitutive components of strategic practices. In particular, formal strategic practices are likely to be involved in setting strategic directions, ensuring strategy continuity, and effecting strategic changes. On the basis of previous studies, strategic practices can be described as interactive, emergent, and subjective processes that demand qualitative investigation (Jarzabkowski, 2003). Similarly, the application of strategy tools by strategy makers cannot be understood in separation from the organizational contexts in which they are used. Thus, selection and application of strategy tools should be understood as an interplay between affordances and the practices of strategy makers that ultimately shape the strategic outcomes of their respective organizations. Therefore, an empirical investigation of strategy tools needs to concentrate not on the success or failure attributed to their application, but rather on the interrelated aspects of their use in organizational practice (Jarzabkowski & Kaplan, 2015, p.537).

The strategic practices that this study investigates are planning and forecasting activities. The present study approaches its conceptual subject matter from the perspective of analysing strategy as an activity-based practice (Engeström, 2003). According to this perspective, strategic practices as organizational processes are constituted by what strategy makers ‘do’ (Harrison, 2008, p.481). At the same time, in its exploration of strategies as practices, the present research seeks to answer its research questions qualitatively. Given the lack of a coherent conceptual or theoretical approach to strategic practices, it is necessary to approach them from different perspectives to ensure the validity of research findings (Jarzabkowski, Balogun, & Seidl, 2007, p.5).

Even though strategic planning, its significance, and its place in relation to other organizational practices are relatively well investigated in management research, the relationships between different aspects of strategic planning practices in the construction sector have yet to receive sufficient research attention. This is particularly true for interrelations between strategic planning processes and other organizational practices in construction firms, which have only recently been addressed by empirical studies. Different organizations are likely to have significantly different configurations of relationships between various aspects of strategic planning practices. Whereas firm size and organizational structure can be expected to be among the more important factors that influence the

choice and application of strategic practices, specific characteristics of strategic planning, such as the degree to which they are formalized and communicated as a written strategic plan, can be significantly related with other organizational aspects of strategic practices. Similarly, different characteristics of strategic practices can be related with the business environments in which these firms operate (Murphy, 2013, p.151). Additionally, although previous research has approached strategic practices as a series of tools that strategy makers can use, such as scenario planning, the manner in which these strategic tools are integrated into larger organizational practices continues to be insufficiently explored. From this perspective, rather than being related to organizational characteristics, strategic practices upon investigation are likely to be more adequately described as complex, internally interrelated phenomena (Spee & Jarzabkowski, 2009, p.223). This is especially important because of the inconclusive evidence regarding the effectiveness of different strategic planning tools in comparison with companies that do not deploy formal strategic planning practices, such as written business plans, particularly with regard to company growth and size (Brown, 2008, p.iv). However, one reason for findings that indicate the ineffectiveness of strategic planning practices could be their use of quantitative methodology that can be expected to omit the qualitative relationships between different organizational aspects of strategic practices, owing to a narrow focus on measurable outcomes of strategic planning (Kaplan & Jarzabkowski, 2006, p.1).

This is supported by the emergent perspective on strategic practices, not as stand-alone phenomena, but as complex organizational processes that are critically affected by the selection of particular strategic planning tools and by the characteristics of the practitioners involved in the application of these tools and in the manner in which these practices are implemented after strategic plans or forecasts are produced. To explore these relationships, it is necessary to pay special attention to the organizational contexts of strategic practices and the manner in which they shape variation in the forms these practices take (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015, p.1). More specifically, the specific tools that are used in the course of these practices are likely to influence significantly strategic practices as organizational processes. Furthermore, they help steer the choice and direction of strategic practices. For this reason, it is important to undertake an investigation of strategic planning tools and different characteristics of strategic practices, especially from a qualitative perspective that can help uncover the dynamic aspects of these relationships. Thus, particular strategic planning tools may significantly cohere with specific characteristics of strategic planning processes (Werle & Seidl, 2015, p.67).

Through this focus on strategic practices as organizational processes, the present research seeks to explore how strategic practices are facilitated and constrained by organizational processes and structures that characterize particular firms. This approach enables the application of a qualitative method to the analysis of different organizational aspects of strategic practices. This can offer valuable strategic management insights into the manner in which particular strategic planning tools

are put to use in specific organizational contexts and how this relationship is affected by various characteristics of strategic practices. Furthermore, this approach explores the place that the agency of strategy makers occupies in the complex, interwoven relationships among other organizational practices and planning outcomes (Vaara & Whittington, 2012, pp.285–286).

1.1.2 Research Objectives

The reason for this study is based on the necessity of investigating strategic planning activities undertaken by owners and managers of construction businesses operating in Southern Germany. In this context, this study seeks to reveal relationships between different aspects of strategic planning practices and organizational contexts.

The reason for choosing construction enterprises in Southern Germany for this study is their tendency to preserve traditional planning and forecasting practices with regard to strategic planning. These construction businesses tend to prefer using traditional forecasting approaches because of the relative accuracy of tracking quantitative changes taking place in the market, such as changes occurring with construction permits, the labour market, and interest rate indicators. Traditional planning practices in this industry thus comprise monitoring quantitative changes, while focusing on particular strategic goals, such as a firm entering or exiting the private, commercial, or industrial construction sector. By applying quantitative forecasting methods and short-term, single-issue planning, businesses can pursue only a limited range of goals for strategic planning. This relatively limited range of activity in traditional strategic planning presents an opportunity for investigating variation in planning practices and their relationships in this industry sector.

The following three research questions (RQ) compose the principal focus of this study:

RQ1: To what extent can strategic planning practices and organizational processes of micro to medium enterprises (SMEs) in the Southern German construction industry be analysed and how are they related?

RQ2: From the perspective of strategic decision makers, how is the nature of strategic planning tools and methods, especially forecasting methods, related to their selection and application within SMEs in the Southern German construction industry?

RQ3: How are the objectives of strategic decision makers related to planning outcomes within SMEs in the Southern German construction industry?

Based on these research questions, the research objectives (RO) of this study are as follows:

RO1: To investigate different aspects of strategic planning practices and organizational processes within SMEs in the Southern German construction industry.

RO2: To explore the nature of strategic planning tools and forecasting methods and their selection and application within SMEs in the Southern German construction industry.

RO3: To investigate the goals and motivations of decision makers and organizational planning outcomes within SMEs in the Southern German construction industry.

1.2 Dissertation Structure

Chapter 2 presents an overview of the German construction industry. This chapter describes structural and economic aspects of the German construction industry. Based on this national industry overview, this chapter narrows its focus to the Southern German, Upper Bavarian, and Swabian regions. To highlight the specificities of the regional and local construction industry, an analysis of particular threats and opportunities for companies operating in Southern Germany is provided. The characteristics of construction firms operating regionally are also explored. This provides a review of various practices and concerns of companies operating in Southern Germany.

Chapter 3 reviews literature on strategic planning, forecasting methods, and planning theory in business organizations. This includes the exploration of specific methodologies and methods used in strategic planning. After a review of strategic planning activities in the construction industry, different forecasting methods applied to strategic planning activities in organizations are examined. The possibilities and constraints of various forecasting methods are explored in the context of different industries, in general, as well as in the construction sector, in particular. Based on this investigation of planning and forecasting practices, this literature review supplies a theoretical background for an empirical investigation of strategic planning and forecasting activities in the Southern German construction industry.

Chapter 4 elaborates on the qualitative methodology that is applied in this research. This chapter also reviews ethical considerations, such as the need to protect the identity of the interviewed company owners and managers as research participants.

Chapter 5 presents the qualitative research findings. This chapter provides insights into the primary research topic based on relevant quotes from transcripts of the interviews conducted with firm owners and managers in the Southern German construction industry. These research results provide descriptive material that serves as background for the discussion presented in Chapter 6 of the analytical findings of this study.

Chapter 6 discusses the conclusions of this research and the potential contribution it makes to scholarly literature in view of the research questions. The implications of this study for forecasting and planning practices in the construction industry are also outlined. The managerial implications of

planning outcomes of the present research are also discussed. Furthermore, a reflection on the shortcomings of this research and recommendations for future research are presented.

2. Industry Overview

2.1 The German Construction Industry

2.1.1 Economic and Structural Composition

The German construction industry “has encountered turbulent structural changes over the past 15 years, thus resulting in general downsizing processes and loss of economic value” (Lichtblau, 2008, p.99). However, since 2010, the German construction industry has been on the road to recovery. Contributing to this recovery are factors such as consumers using lower interest rates for financing housing and property and an increasing number of investors searching for long-term secure returns on their investments (Stiepelmann, Kraus, & Weitz, 2012).

The German Department of Economic Statistics (2012) (Statistisches Bundesamt) estimates that the construction industry contributes up to 4.5% of Germany’s gross domestic product (GDP); the remaining portions are 30% provided by finance, real estate, property management, and self-employment; 26% provided by producers of manufactured goods; 22.5% covered by public services; 16% from trade, hospitality, and transport; and 1.0% from agriculture, forest, and fishing. The Department’s segmentation, however, is challenged by the independent Institutes of Economic Research (Lichtblau, 2008). The Institutes argue that goods and services of diverse industries such as real estate, finance, manufacturing, and logistics must be included in the construction industry share; hence, the industry contributes not 4.5%, but actually 11% to Germany’s GDP. According to the German Institute for Economic Research in Berlin, estimates show that German construction firms generate gross revenue of €306 billion for their goods and services (Gornig, Görzig, Hadedorn, Steinke, & Zambre, 2012).

Germany’s construction industry is divided into five primary branches; these branches serve as references throughout the industry. In 2012, the German Department of Economic Statistics noted the five market segments as follows: 57.9% private residential construction (*Wohnungsbau*), 23% industrial commercial construction (*Wirtschaftshochbau*), 6.9% private civil underground construction (*Wirtschaftstiefbau*), 4.5% public project construction (*öffentlicher Hochbau*), and 7.7% public civil underground construction (*öffentlicher Tiefbau*). The primary contributors to Germany’s construction industry’s turnaround have been private residential (e.g., single, double, and multiplex buildings) as well as industrial and commercial (e.g., logistical, administrative, and manufacturing facilities) sectors during the past three years.

In 2013, there were approximately 75,200 construction and construction-related companies employing 755,000 people; 90% of the firms consist of 1 to 19 employees, 7.1% of 20 to 49 employees, 2.6% of 50 to 199 employees, and 0.3% of 200 or more employees (Stiepelmann, Kraus, & Weitz, 2012). In

terms of market orientation, a number of generalizations may be provided. Firms with 1 to 49 employees focus primarily on private residential construction projects. Firms with 50 or more employees specialize in larger commercial, industrial, and civil engineering projects as well as publicly tendered projects.

Within the labour pool of 755,000 people, one must differentiate among the various levels of employers, employees, and apprentices. On the employer level are the company's owners and managers (*Inhaber*). They are considered the firm's stakeholders, planners, and executors. On the employee level are administrative staff members (*Angestellte*). They are in charge of areas such as finance, human resources, and purchasing. Also included are construction site foremen (*Baustellenführung*), specialized and skilled labourers (*Facharbeiter*), and construction site support workers (*Fachwerker* and *Werker*). Apprentices (*gewerbliche Lehrlinge*) also play an active and important role in the industry.

Additional statistical information about the German construction industry's wages and material prices, company filings for insolvencies, owners' equity, and EBIT margins are given below; they are considered the industry's leading indicators. According to the German Association of the Construction Federation (2013), the price of labour has risen moderately during the past five years. The current hourly net wage for a German construction worker is €17.07. Contributing substantially to net wages are ancillary wage costs of 87%; ancillary costs include disability and health insurance, holiday pay, and a poor weather surcharge. Despite having reduced the ancillary costs by 23% (Stiepelmann, Kraus, & Weitz, 2012) during the past eight years, German construction firms are exploring alternatives to subcontracting with external service firms in an effort to reduce costs further and regain competitive advantage.

According to the German Department of Economics and Statistics (2012), prices for building materials and energy have increased significantly during the past decade. For example, the price of steel rose 115%, energy 81%, and oil-based construction materials 497%. These price increases have challenged the margins of all construction firms; alternatives to these building materials are difficult to procure or nonexistent.

During the past decade, insolvency rates have decreased by almost 60% from 4,909 to 1,999 cases. This positive trend is a result of a difficult and lengthy restructuring process and economic improvements throughout the construction sector. Alongside firms' diminishing rates of insolvency are improvements in owners' equity margins; this trend includes their EBITs. According to the German Federation of Banks (2012), during the past decade German construction firms have increased their EBITs by 3.4%; on average, they generate EBITs of 5.9% annually. During the past decade, owners' equity margins have also increased by 10%; in 2012, the margins reached a level of 13.1%. These trends confirm the positive turnaround in the German construction industry.

Lichtblau (2008) suggests there are five primary groups interacting in a vertical manner with each. Preconstruction planning, coordinating, and permitting include all services of architects, planners, engineers, lawyers, and public notaries. Construction financing involves all services of long-term investors, banks, and public and private equity institutions. Construction with construction-support firms consists of all services of main construction services and sub-branches, such as other producers of concrete prefabricated components, concrete, steel, and miscellaneous material delivery-suppliers, as well as finishing trades of carpenters, electricians, plumbers, welders, etc. Construction building administration and optimization comprises infrastructure services such as streets, equipment, and building support, including energy optimization, security, cleaning, billing, and general administration. Construction building maintenance and change-order execution takes into account building repairs, small additional projects, and complex technical or electrical maintenance, including facility management.

The five groups of preconstruction are (1) planning, coordinating, and permitting; (2) construction financing; (3) construction firm services; (4) construction building administration and optimizing; and (5) construction building maintenance and change-order execution, which all become part of the vertical process chain. These individuals or groups of people are commonly referred to as actors (*Akteure*) and are part of the construction industry's activity structure (*Tätigkeitsstruktur*).

Lichtblau's (2008) horizontal process chain stresses the flow of sales and purchases that take place among the actors, construction firms, planning/organizing firms, and end users (clients), as shown.

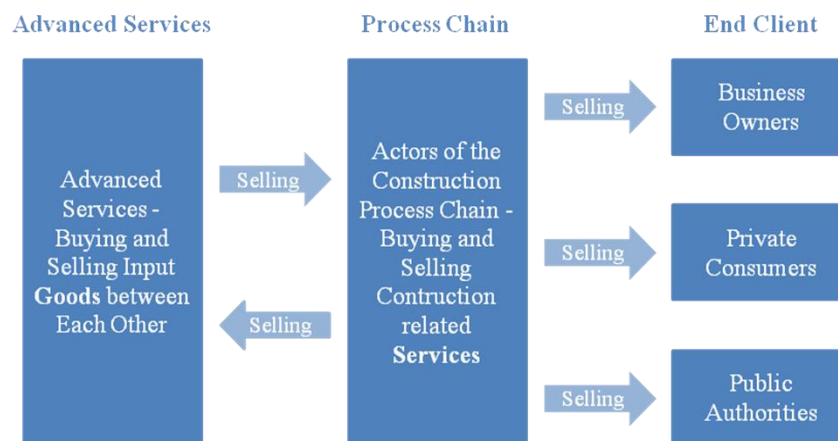


Figure 1: Lichtblau's (2008) Horizontal Construction Industry Process Chain Adaptation

The central idea behind this horizontal process chain is that advanced services are primarily involved in purchasing and selling input goods and services. Goods and services transactions include the following aspects, which take place between actors or firms. For example, raw materials such as steel, sand, gravel, water, and wood are sold through vendors or clearing houses to concrete prefabrication manufacturers. Concrete, steel, wood (to create precast moulds or forms), and labour (located in

concrete precasting plants) become integrated into the process chain. The result of combining raw material and human effort is the creation of concrete prefabricated building components. Manufacturers sell the completed prefabricated concrete parts back to advanced services. Advanced services in turn deliver the prefabricated parts to construction assembly teams or the actual construction firms. Construction teams finish the structural assembly of a building using the prefabricated parts. The assembled building is handed over to the business owners, private households, or public authorities. Although the exchange of goods and services between advanced services and the process chain (i.e., raw materials and partially finished goods) is bilateral, the services that flow in the process chain between construction firms (assembly) and end users (finished goods) remain one directional. This activity generally involves the sale of fully completed buildings or structures.

2.1.2 Construction Industry Forecasting and Planning

Different types of forecasting sources and planning practices exist in Germany's construction industry. This section explores qualitative and quantitative forecasting practices used in the construction industry, such as working with lead indicators. In the construction industry, the three primary forecasting methods are qualitative in their nature. These techniques include the subjective, naive, and executive judgment forecasting methods (Institute for Economic Research Munich 2014). It is common practice for trade and labour organizations or private research firms to start the inquiry process of "general business climate and order back logs" (Gluch, 2013, p. 49–50). Some prominent German research firms that provide empirical data to the construction industry are the Labour Community of Economic Research Institute (Arbeitsgemeinschaft der Wirtschaftsforschungsinstitute), German Institute for Economic Research Berlin (Deutsches Institute für Wirtschaftsforschung Berlin), Institute for the Global Economy Kiel (Institute für Weltwirtschaft Kiel), Institute for Economic Research Munich (Institute für Wirtschaftsforschung München), Expert Advisory Council (Sachverständigenrat), Institute for Economic Research Halle (Institute für Wirtschaftsforschung Halle), Institute for Economic Research Essen (Institute für Wirtschaftsforschung Essen), and Global Economic Research Institute of Hamburg (Hamburgisches Weltwirtschaftsinstitut) (Kraus, 2013). In construction industry research, inquiries are conducted periodically. Inquiries primarily involve direct contact with architectural firms, executing planning offices, property developers, and construction firms (German Institute for Economic Research Berlin 2014).

In the construction industry, information sources that are habitually used to generate quantitative construction industry forecasts include the German Agency of Statistics [Statistisches Bundesamt(DESTATIS)] and Bavarian Census Department for Statistics and Data Processing (Bayrisches Landesamt für Statistik und Datenverarbeitung).

These organizations specialize in processing statistical information. The Bavarian Census Department for Statistics and Data Processing (2012) focuses on the construction sector and collects, reviews, and presents data, such as the number of building permits and planned building investments as well as the tracking of residential, industrial, commercial, or industrial projects. The German Agency of Statistics (2013) primarily applies quantitative time-series forecasting methods. The Agency also frequently tracks changes in factors such as the labour market, capacity or equipment utilization, and raw material prices. The data are obtained directly from construction firms via surveys or online programs. Regardless of the required forecasts, reliance on both qualitative and quantitative forecasting methods is widely accepted and practiced throughout the construction industry in Germany.

2.1.3 Literature Gaps and Critique of Construction Industry Planning

Three main issues in the literature on business forecasting and on forecasting and planning practices in the Southern German construction industry demand further research. First, industry forecasters track data as far back as ten years. However, they project their information a maximum of one year forward using DESTATIS (2013). The one-year forecasts reduce planning horizons significantly. Second, forecasters appear to focus research on statewide and country-wide levels only. Specific regional studies, especially surrounding cities such as Augsburg, Ulm, Landsberg, and Ingolstadt, are nonexistent (Swabia's Construction Guild Association, 2013). Third, although forecasters currently publish material on construction forecasting methods, they exclude the literature exploring the linkage between forecasting methods and the strategic planning process (Institute for Economic Research Munich 2014).

2.2 Bavarian Construction Sector

2.2.1 Geographic Overview

The state of Bavaria (Bayern) is one of the 16 states in the Federal Republic of Germany; the remaining 15 states are Schleswig-Holstein, Lower Saxony, Mecklenburg-West Pomerania, Brandenburg, Saxony-Anhalt, Saxony, North-Rhein-Westphalia, Thuringia, Hesse, Rhineland Palatinate, Saarland, and Baden-Wurttemberg (Company, 2013). The Bavarian state is located at the southeastern part of Germany; the Bavarian state also shares common borders with Austria and the Czech Republic.



Figure 2: Germany's 16 States (Courtesy of the Internal Trading Company)

2.2.2 Economic and Structural Composition

The Bavarian construction industry, compared with the German construction industry, shares only a fraction of the country's gross revenue. For example, in 2012, the Bavarian construction industry generated €17 billion in revenue, whereas Germany had earned €306 billion. In the same year, a positive growth rate of 4.4% was achieved in commercial and industrial, 2.2% in residential, and 0.5% in public projects, such as infrastructure and administrative buildings. The industry generated growth rates of 13.4% in 2011 and 7.1% in 2012; the growth was mainly driven by lower interest rates, higher rent and real estate prices, and housing shortages in metropolitan areas such as Munich, Augsburg, and Ulm (Hess & Luchtai, 2012).

The Bavarian construction industry's back order logs have remained stable during the past years, with contract lengths spanning 2.6 months in 2011 and 2.7 months in 2012. There are approximately 13,300 Bavarian construction and construction-related firms employing 130,000 individuals. Of the 13,300 firms, 97.1 % employ 1 to 49 people and 2.9% employ 50 or more individuals (Statistics, 2013). The higher percentage of SMEs confirms that on the state level, as on the federal level, medium construction firms continue to dominate the industry.

2.2.3 Current Issues, Threats, and Opportunities

Currently, five primary issues exist that the Southern German or Bavarian construction industry is monitoring for opportunity and threats in the market; they include the management and development of infrastructure, energy, contract laws, tariffs with wages, and education (Hess & Luchtai, 2012).

According to the Bavarian Federation of Construction Industry (2012), the first issue addresses the uninterrupted development of Bavaria's infrastructure. In particular, the state is currently investing approximately 15% of its annual household budget on its infrastructure. The projects include improvements to the state's roads (e.g., highways, freeways, and bridges), railway (e.g., train stations, freight distribution centres, tunnels, high-speed city-to-city connections), and water ways (e.g., logistics, canals, and floodgates). Included in the projects funded by this budget are administration, schools, hospitals, retirement, and incarceration buildings. The maintenance of existing buildings and the construction of new buildings are both on the state's agenda. The projects provide future opportunities and revenue to local construction firms. The contracts are, however, difficult to obtain because of firms' strict one-time public bidding process.

The second issue covers the immediate need for the construction of alternative energy sources. Because the price and demand for energy is on the rise, construction companies are providing alternate power sources in their search for new market niches and opportunities. By 2022, and owing to stricter environmental legislation all over Germany and Bavaria, nuclear power plants are scheduled to go offline. Alternate sources of power-generating stations are being explored by engineering and construction industries, with the goal of covering Bavaria's energy needs of 88TW/h. As a point of reference, the power increments are terawatt (TW), megawatt (MW), gigawatt (GW), and kilowatt (KW). Firms are also investigating the construction of solar, water, and wind power systems. Such services include planning, engineering, and assembly of alternative power units as a complete package.

The third issue explores the unification and progression of construction law, taxes, and accounting system. The EU sets its own standards and mandates; German federal laws are also being changed. However, with regard to financing, contracting, purchasing, risk, quality control, and compliance harmonization, German state laws were not aligned with EU standards at the time of writing. For example, construction firms are predominantly pressured and measured by their owners' equity and earning margins. As such, partial payments to firms are listed on the debit or liability side. Accounting positions shift, however, only to the credit and asset side when certain services have been rendered completely. This condition is also fulfilled only when a construction firm handles all forms of quality control issues and all building sections are handed over to the owner's full satisfaction. This requirement leaves many construction firms with lower than deserved credit ratings or credit lines at fiscal year's end.

The fourth issue is the negotiations of employees' wages and social policies. To offset increases in living expenses throughout Bavaria, employees' demands for higher wages continuously confront employers. To placate employees' demands, employers have provided a recent wage increase of 5.3%. Employers must factor in wage increases because unions and guilds demand adjustments to

cost of living increases, especially during economic upturns in the construction industry. However, enforcing the minimum wage is another matter. Through tougher enforcement, customs and district attorneys are attempting to control unfair trade practices industry-wide; they have uncovered unfair wage practices by construction firms that are paying their workers below the required minimum wage. To counter this problem, local law enforcement agencies have stepped up efforts and conducted unannounced audits and site inspections. The results of such audits reveal not only deliberate accounting gaps in payments below the minimum wage, but also deficits in ancillary payments, thereby indicating tax fraud. Firms are also required to pay a 2% mandatory levy into the system; this levy acts as a safety fund for unforeseeable poor weather conditions and a reduction in workload. It must be paid regularly to the Department of Labour (Bundesagentur für Arbeit). Construction firms are finding ways in which to circumnavigate these payments by outsourcing their labour services or applying unjust billing methods.

The fifth issue addresses maintaining an adequate level of education within the Bavarian construction industry. Because construction deals primarily with providing services to the market place, human capital and education remain in the industry's foreground. Bavaria and the construction industry have adopted a dual-educational approach similar to that of other German states. During apprenticeships, individuals attend both vocational schooling and on-site job training, thus combining theoretical with practical learning. Once an apprenticeship is completed, individuals may continue to specialize into positions such as foreman, coordinator, engineer, or administrator within accounting, human resources, and purchasing.

2.3 Swabian und Upper Bavaria's Construction Sector

This section provides quantitative as well as structural information on construction firms in Swabia (*Schwaben*) and Upper Bavaria (*Oberbayern*).

2.3.1 Geographic Overview

The state of Bavaria is segmented into seven districts. The seven districts are Lower Franconia, Upper Franconia, Central Franconia, Upper Palatinate, Lower Bavaria, Upper Bavaria, and Swabia (Company, 2013). The two areas of interest for the present study are Swabia with its capital of Augsburg, and Upper Bavaria with its capital of Munich; the reason these districts are important is discussed in detail in the methodology and methods section below. For now, we note that this region is considered one of the most dynamic growth centres in Germany. The map below shows the location of Bavaria's seven districts.

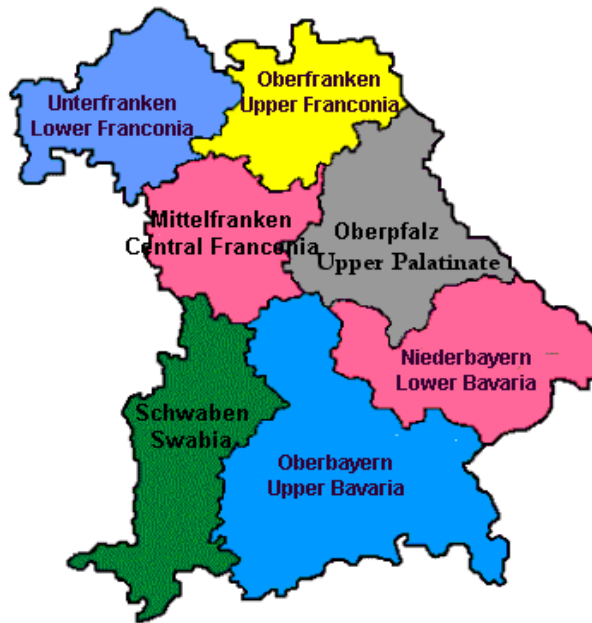


Figure 3: Bavaria's Seven Districts (Courtesy of the Internal Trading Company)

2.3.2 Districts Including Swabia and Upper Bavaria

Currently, construction and construction-related finishing firms may register at one of two primary trade and association guilds: Swabia's Construction Guild Association (Bauinnung Geschäftsstelle Schwaben) and the Upper Bavarian Construction Guild Association in Munich (Bauinnung Geschäftsstelle in München). Registration improves a firm's competitive position through quality standards, access to industry information, and active involvement with the community. Of the 13,300 firms operating throughout Bavaria, 3,000 are registered with Upper Bavaria's guilds and 600 are registered with Swabia's guild. The disproportionate number of registrations between the guilds is attributed to different housing demand rates surrounding suburbs or larger cities, such as Munich, Augsburg, Ingolstadt, and Ulm. The structural composition of these firms is similar to those throughout Bavaria, wherein medium companies with 1 to 49 employees dominate the industry. Firms are managed predominately by second- or third-generation family members, and their ownership remains in private hands. For economic reasons, construction companies operate in a narrowly defined geographic proximity. Most firms never bid or participate in projects that are located farther than 30 miles from their home base. These firms have developed traditional relationships with their financial institutions, planners, real estate developers, engineering firms, suppliers, finishing construction firms, clients, guilds, and trade organizations. The history and dynamics between firms and these actors compose part of this research, components of which are investigated in the methodology and methods section below.

According to the Construction Guild Association in Munich (2014), firms provide to their clients or specialize in one particular, several, or all services. Complete construction services are termed turnkey

projects (*schlüsselfertiges Bauen*), whereas specialization in only one type of service is called shell or partial construction services (*Rohbauleistung*). The latter includes activities such as excavation, drainage, foundation, masonry, concrete enforcement, steel enforcement, dry walling, insulating, tiling, wood working, and roofing (Swabia's Construction Guild Association, 2013). Structural composition of the region's 3,600 construction firms also reveals partial or turnkey services provided to clients as well as two regional markets.

2.3.3 Conclusion of the Industry Overview

On the basis of this review of the German construction industry, factors such as low interest rates, housing shortages in metropolitan areas, and the search for long-term secure investments with high returns are contributing to the industry turnaround. The construction industry contributes 11% to the German GDP. This share includes both actual construction services and construction-related support services, such as the delivery of raw and partially finished building materials. Currently, private residential construction and industrial commercial construction are providing increasing numbers of contracts to German construction firms; public and private civil underground and public projects are following their lead in respective order. A structural overview provides an overall perspective of all the 75,200 construction firms contributing to the German economy. To understand the industry's construction processes, a vertical activity structure shows the sequential steps of actors involved in construction projects. A horizontal process chain illustrates the flow of goods and services between the involved actors.

While the construction industry's scope of this review was narrowed to focus on Bavaria, as 1 of the 16 German states, a geographic overview is also presented. The region is profiting from metropolitan growth centres such as Munich, Ingolstadt, and Augsburg. Bavarian firms are currently encountering five primary issues: three may be future business opportunities, two possible obstacles. First, the development of Bavaria's infrastructure is a possible business opportunity; 15% of the annual household budget is the state's government spending target. Projects such as improvements in roads and railway and waterway systems provide potential contracts for construction firms. Second, the search for alternative energy sources provides another future opportunity for construction firms. In 2022, all German nuclear power plants are scheduled to go offline. Solar, water, and wind power are alternative sources to nuclear power, and growing public interest currently drives this demand. Third, the misalignment of Bavarian with EU quality conformance laws and accounting practices poses threats to construction firms. Partial payments of clients are not included on the credit and asset side until a project is fully handed over to clients to their complete satisfaction. This affects firms' credit lines and ratings, especially at fiscal year-end. Fourth, industry-wide compliance to employee minimum wages and ancillary payment laws presents another potential threat to businesses. In some instances, construction firms interact with subcontractors illegally and falsify labour or delivery

records. Fifth, education in the state's construction industry provides additional future opportunities. Through additional educational and vocational training programs, employees can advance their future marketability and explore new job prospects.

3. Literature Review

This chapter presents various strategic planning theories as a conceptual background. More specifically, this chapter examines various aspects of major theorists within strategic business planning, including directions and methods. This research also concentrates on the dimensions of strategic planning that are particularly relevant to the Southern German construction sector. In doing so, this chapter identifies gaps in respective bodies of scholarly literature related to strategic planning.

Because forecasting methods represent a significant component of strategic business planning, this chapter dedicates a separate section to its fundamental characteristics. Given their basis in quantitative analysis tools, forecasting methodologies and the affordances of forecasting methods are also addressed in a detailed discussion. Scenario business planning, which corresponds to a qualitative approach, is likewise included in this chapter. Given their contrast to forecasting methods and application in the construction industry, scenario planning methodologies merit a thorough discussion. Their explication sheds further light on the challenges that the implementation of this approach to business planning faces in the construction sector. Through this examination of strategic planning methods, gaps in the scholarly literature regarding the application of these methodologies are also identified.

This study aims to explore the applicability of Jarzabkowski and Kaplan's (2015) perspective on strategy practices as tools-in-use emphasizing the agency of strategic planning actors. As such, this chapter also provides a detailed overview of Engeström's (2003) activity theory in relation to planning. Via this analysis, business activities are approached as individual-level and interindividual processes. Finally, underexplored interrelations between business planning activities are also identified.

3.1 Strategic Business Planning

This literature review focuses first on planning and strategy as two separate concepts and then on strategic planning as a distinct conceptual construct. This section also provides an overview of strategic planning methodologies and methods, while concentrating on strategic planning in the construction industry. Finally, current literature gaps are identified.

3.1.1 Strategic Planning Aspects

To tackle the complex nature of strategic planning in organizations, Mintzberg (1994) suggests a practical approach. He divides strategic planning into two separate concepts: planning and strategy.

To achieve this, Mintzberg introduced the concept 'planning' by providing a brief summary of the work of his predecessor, George Steiner. Per Steiner (1969), 'planning' originated 2,000 years ago from the Latin word *planum*, meaning "a flat surface" (Steiner, 1969, p.5). Four hundred years ago, *planum* entered the English language, now meaning 'plan' to refer to maps, blueprints, and administrative documents. Hence, even though the meaning of 'plan' remained the same, its definition evolved into "a formalized procedure to produce an articulated result, in the form of an integrated system of decisions" (Mintzberg, 1994, p.14).

First, Mintzberg stressed that planning requires social formalization. As a procedure, formalization must be embedded into business organizations for them to function as entities. Formalization as a process includes the following elements: decomposition, articulation, and rationalization" (Mintzberg, 1994, p.13). 'Decomposition' refers to the systematic analysis of the environment, 'articulation' to the organization and communication of relevant findings, and 'rationalization' to logic and reason creating a common understanding within a group of people involved in the planning activity. The formalization process in planning also includes the division of labour within the organization and its members. Thus, to achieve formalization, support and management staff must be assigned to specific tasks to monitor the progress of the planning activities. As a result, quality control mechanisms and project deadlines should be clearly defined and understood by all participants involved in the planning process.

Second, Mintzberg argued, planning requires decision-making. This process challenges business organizations "not so much with the making of decisions as with the conscious attempt to integrate different ones" (Mintzberg, 1994, p.11). With this proposition, he appears to be suggesting that organizations should learn to integrate decision-making and decisions from more than a single source or from more than one method. The process, thus, explores and expands on different perspectives originating from other individuals who are outside the intended planning circle. By questioning or introducing different perspectives into the decision-making process, prior to the actual finalization of decisions, new organizational opportunities may emerge or threats may be minimized. In this case, the decision-making process includes "activities which are concerned specifically with determining in advance what actions and/or human and physical resources are required to reach a goal. The issues include identifying alternatives, analysing each one, and selecting the best ones" (Snyder and Glueck, 1980, p.73, in Mintzberg, 1994, p.9).

Third, Mintzberg suggested that planning requires future-oriented thinking. This process includes skills such as adaptive learning throughout organizations and focusing on maximizing future competitive advantages. Organizational future-oriented thinking is here intended “to [promote the] understand[ing of] future implications of present decisions” (Loasby, 1976, p.301, in Mintzberg, 1994, p.17). In their attempt to develop the skills necessary for future-oriented thinking, organizations may encounter significant challenges. Organizations are taxed with having to “prepare for the inevitable, pre-empt the undesirable, and control the controllable” (Starr, 1971, p.315). To do so, organizations must increase their ability to understand sequences leading up to specific events. For example, an organization may have to prepare for a collapse in market prices by pre-emptively adjusting plant capacities. Ultimately, an organization would have to react to this potential change by adjusting variable and fixed operating costs. Such chains of events, also known as sequences leading up to specific consequences, require broad and long-term thinking about future developments as well as complex thinking experienced in scenario planning. Therefore, firms must learn to expand their future-oriented thinking capabilities to maintain their competitive positions in the market place.

Mintzberg also discussed different aspects of business strategy, which he defined as “a direction, a guide or course of action into the future, a path to get from here to there” (Mintzberg, 1994, p.21). The author suggested strategic planning could yield either an intended or emergent position. The intended strategic position develops out of activities and actions that are part of an organization’s history. These activities may be understood as predetermined behavioural patterns that are carefully planned and executed by members within an organization. An intended strategy, according to Porter (2004), is thus an explicit strategy. At the end of the planning activity, an organization could either realize or not its strategic plan. An emergent strategic position, by contrast, does not draw on past experience or history, nor does it rely on any formalized planning. An organization develops a course of strategy as situations change within the environment, giving an outsider the impression that the strategy was created in an ad hoc fashion or changed in real time. Porter (2004) called this style of strategy “implicit.” However, an emergent, or implicit, strategy may give organizations a greater degree of freedom during strategy development and execution.

Strategy may also include an organization’s ability to consider different types of strategic directions and to see their internal and external environment from multiple perspectives. Traditionally, Porter’s (2004) low price, differentiation, and focus have been the most commonly accepted directions for strategic business planning, but strategic redirection may also change a firm’s performance dramatically. For example, over the course of its existence, a firm may have to switch its strategic direction to emphasize low prices to offset pricing pressures from competitors entering the market.

When considering strategic position, engaging with multiple perspectives of the organization’s internal and external reality may also become a significant part of strategic and scenario planning.

During the strategy formation stage, strategists have a tendency to look at their environment from an insider's perspective. Strategists focus primarily on the organization's strengths and weaknesses, and analysis of external opportunities and threats becomes a secondary issue. Mintzberg, however, challenged this approach by reversing traditional perspectives. Namely, he considered the viewpoint of an outsider before that of an insider. He claimed, "changing the direction such as low price, differentiation and focus within a perspective may be easy; changing perspective, even while maintaining the position, is not" (Mintzberg, 1994, p.28). For many organizations, the ingrained single perspective of their internal environment remains a difficult position from which to break free, thereby precluding a perspective change to multiple ways of perceiving and interpreting reality.

3.1.2 Strategic Planning Directions

A strategic direction can be defined as an activity that intends to steer "the direction and scope of an organization over the long term, which achieves advantages for the organization through its configurations of resources within a changing environment and [seeks] to fulfil shareholders' expectations" (Johnson & Scholes, 1999, p.10). The aim here is to maximize an organization's profits and returns on investments.

For a small firm, a single strategic direction may suffice for planning purposes. For large companies, however, it is not unusual to expect and execute several different strategies all at once, even though corporations may initially start with one central direction. Small organizational units may also choose their own strategic directions to maximize their profit. The summaries of various directions of strategic planning at for-profit organizations by Porter (2004), Bowman and Faulkner (1997), Parsinia (1997), and Johnson and Scholes (1999) inform the following analysis.

The cost leadership strategy emphasizes optimizing costs at the organizational level. In this strategy, economies of scale are reconfigured so improvements made to an organization's operations reduce the overhead costs of producing goods and services. Savings are passed on to customers who benefit from lower-priced products and services. This strategic position also allows a firm to realize an advantage over its competitors with lower prices.

The low price and low added value strategy places modest value on the differentiation of goods and services. The emphasis of this strategy is put on selling a higher volume of goods and services at lower prices, while stressing their perceived value. Higher levels of economic performance are thus achieved through mergers and acquisition of production facilities or expansion into new markets.

The differentiation strategy specifically targets the exploitation of the economic potential that the perceived value of products and services provides to the market place. In this strategy, it is necessary to identify the aspects of products and services that can provide market differentiation with respect to either their uniqueness or attractiveness.

The hybrid strategy of moderate price and moderate differentiation selects a balanced combination of competitive prices and a sensible mix of goods and services provided to the market. The aim of this strategy is to assist customers in equating the perceived value that they receive in return for paying higher, or lower, prices with the quality of the goods and services being purchased. The focus strategy is deliberately aimed at high-end buyers, niches, or products. This strategy enables providing products and services to the market that have high levels of perceived quality at premium prices. As part of this strategy, companies shift their focus to the quality, not quantity, of the products and services they provide to their clients.

The high price and low value strategy is applied to a monopolistic market environment. The threat of competitors providing substitute products does not exist; therefore, prices are raised to premium levels. The low value and standard price strategy provides a product or service of lower than normal quality for a market-average price paid. This strategy is usually short-lived because consumers tend to change their demands back to the competitors, who may offer better quality products or services for the same price.

The growth strategy focuses on an organization's activities, such as the horizontal or vertical integration of smaller business units and other product lines. The stability strategy is considered after restructuring efforts have been completed, and development of the firm's revenue and costs are foreseeable and manageable. No further changes to the organization's structure or systems are necessary. The environment-led fit strategy places the focus on a firm's external context. All external changes such as political, legal, or environmental factors are analysed and then reconfigured to fit a firm's new strategic direction. The resource-led stretch strategy leverages internal resources to gain a competitive advantage over other companies in the industry. The differences between the above strategies are summarized in the following table.

Table 1: Strategic Planning Directions

Strategies	Primary Emphasis	Recommendations	Results
Cost leadership	Optimisation of costs at the organizational level	Reduce the overhead costs of producing goods and services	Savings passed on to customers
Low price and low added value	Selling a higher volume of goods and services at lower prices, while stressing their perceived value	Merge and acquire production facilities or expand into new markets	Higher levels of economic performance
Differentiation	Exploitation of the economic potential of the perceived value of products and services	Identify the aspects of products and services that can serve the purpose of market differentiation	Higher levels of uniqueness or attractiveness of products and services
Hybrid of moderate price and moderate differentiation	Balanced combination of competitive prices and a sensible mix of goods and services provided to the market	Assist customers in equating the perceived value with the quality of purchased goods and services	Higher, or lower, price levels
Focus	High-end buyers, niches, or products	Shift focus to the quality, not quantity, of the products provided	Products and services that have high levels of perceived quality at premium prices
High price and low value	Threat of competitors providing substitute products	Maintain a monopolistic market environment	Prices raised to premium levels

Low value and standard price	Risk that consumers switch to competitors who may give better quality	Provide a product or service of lower than normal quality	Market-average price paid by the client
Growth	Organizational activities	Horizontally or vertically integrate smaller business units and other product lines	Higher levels of economic performance
Stability	Operational costs	Not make any further changes to an organization's structure or systems	Development of a firm's revenue
Environment-led fit	Firm's external environment	Analyse external changes	New strategic direction
Resource-led stretch	Internal resources	Leverage internal resources	Competitive advantage

Strategic planning directions provide choices to business organizations when attempting to accomplish long-term strategic planning goals. When choosing a certain direction for strategy, qualitative aspects such as the “integration of perceptions, thinking and actions” (Heijden, 2005, pp. 53–55) inevitably come to light and become part of a complex social planning process. This complex process makes strategic planning, as well as forecasting and scenario planning, a phenomenon that entails new challenges for members in business organizations who become involved in the process. The next section examines organizational strategic planning in terms of related activities such as strategy formulation, implementation, and evaluation (Parsinia, 1997).

3.1.3 Strategic Planning Methodologies and Methods

Strategic planning methodologies and methods in business introduce the planning process as a model containing particular individual steps. Given the emphasis of strategic planning on organizational learning and development, Heijden’s (2009) five-step methodology considers actions and activities as a sequence of steps. During strategic planning, individuals scan both internal and external environments before defining their business idea. Then, objectives, motives, and goals are identified, quantified, re-evaluated, and assigned as a group activity. During the master planning, the group aligns the firm’s available resource base with the newly formed objectives. Efficient cross-departmental utilization of resources becomes the focus; an analysis of internal competencies also plays a role. During project planning, strategic objectives, available resources and gaps, and critical success factors are identified. Afterwards, business plans and budgets are developed, financial targets are determined, and feasibility studies concerning operational objectives and financial requirements are introduced and aligned. As strategic plans are implemented, organizational activities are monitored through benchmarking or review panels, while company data are compared with those of industry. Even though Heijden’s five-step methodology may appear complex, its basic principles of strategic planning have been applied to planning in diverse industries (Heijden, 2009).

Mintzberg’s (1994) six-step strategic planning methodology is more elaborate than Heijden’s model. It introduces additional parameters and sophistication in planning, such as the evaluation of opportunities and threats of the external environment and strengths and weaknesses of the internal environment. In Mintzberg’s (1994) model, an objective setting concerns a general direction a firm or

its small business units should take in the future and who will be required to accomplish the necessary tasks. External appraisals include forecasts of future external firm-relevant developments. As forecasts, a combination of intuition, opinions, and quantitative techniques may be used. These forecasts may be driven by an analysis of political, economic, social, technological, or legal developments. Internal appraisals include an analysis of the strengths and weaknesses of a firm and/or its subunits. This may involve Ansoff's (1988) competence and capability profile, which includes an analysis of facilities and equipment, personnel skills, as well as organizational and management capabilities.

Strategy formulation involves choosing a specific position, while considering a firm's moral obligations to society and evaluating its management's ethical positions and strategic orientation. Afterwards, the economic feasibility of the planned strategy is reviewed, as project cost in relation to future returns is evaluated. At this planning stage, an analysis of "return on investment, opportunity schedules, risk, shareholder value, market-to-book, and computer simulations" (Mintzberg, 1994, p.59) may be conducted to review feasibility. During strategy implementation, the master plan, which "includes the objectives, budgets, strategies, programs, and operating plans" (Mintzberg, 1994, p.62) is communicated to corporate, business, or functional levels across long-, medium-, or short-term project timelines.

Mintzberg's (1994) methodology suggests an alternative to Heijden's (2009) work because it considers two additional steps and parameters to identify and analyse external and internal factors potentially affecting an organization. Mintzberg's methodology includes analysis of potential external threats and opportunities from factors attributed to political, economic, social, environmental, and technological changes and uncertainties. The methodology also considers analysis of potential strengths and weaknesses of an organization's internal aspects such employees, information systems, or production equipment.

Porter's (2004) strategic planning model illustrates the interaction of multiple factors within the formation of a competitive strategy. Porter's model shows that strategic planning does not always follow a linear and sequential step-by-step progression. Rather, it is a dynamic and interactive process. Porter (2004) indicates that firms continuously analyse internal strengths and weaknesses through critical evaluation of their capital structures, information systems, and resources. According to this model, firms review their industry's environment with focus on prospects and dangers. Factors, such as macro-level changes occurring in politics, economics, environment, technology, and society are of importance in the analysis. Firms are also considered in light of the legal and moral issues their actions may raise in relation to the community at large.

Porter's (2004) methodology proposed that factors essential to planning are complexly interrelated, especially when they involve internal as well as external perspectives, or logical as well as creative

thinking. By contrast, models by Mintzberg (1994) and Heijden (2009) failed to address the interrelations between internal organizational factors and external industry factors. Thus, Chermack (2011) suggests that organizations must scan external factors for changes and uncertainties. Past organizational experiences must be compared with changing environmental factors to ensure that organizations achieve greater adaptability and growth, reflect on their experiences, and shorten decision-making cycles. McNamera (2006) proposed that strategy is a process that plays an active role throughout all stages of planning undertaken by top management. Because the success of this approach to strategy is predicated on the maintenance of short and reliable communication paths for the exchange of communication to flow flawlessly, management should monitor and facilitate interactions between all departments.

By contrast, Johnson and Scholes (1999) focused on both internal and external factors: firm's resources are the primary internal factors during analysis and planning, whereas a growing product niche is an external factor. McNamera (2006) suggested this approach is useful for when an organization would like to focus simultaneously on internal resources and its mission statement. This approach is primarily employed when a firm places core competencies and its strategic vision on the same planning level. Examples include future improvements in the delivery systems of goods and services and the creation of added value in sales and marketing.

Heijden (2005) approached strategic planning through a focus on issues that emerge during implementation when planners have the freedom to incorporate emerging issues into their original strategic plans to add flexibility and break up mechanized routines to avoid managerial tunnel vision. At this stage according to McNamera (2006), strategic planning should prepare organizations for the possibility of unforeseen events. Even with a strategic plan, however, senior management must prepare alternative scenarios to their original strategic plan, such as outlining different types of strategic plan outcomes. Therefore, different approaches to strategic planning make available particular options to organizations engaged in this activity.

3.1.4 Construction Sector and Strategic Planning

This section presents strategic planning issues as well as strategic approaches prevalent in the business environment of the construction industry (Warszawski, 1996), such as total quality management, lean production, and supply chain management (Vrijhoef & Koskela, 1999).

In the construction sector, firms formulate their mission statement on the basis of the manner in which "the stakeholders define the firm's objectives, activities and scope" (Warszawski, 1996). For example, a firm's scope or the line-of-business in the private, commercial, or public sectors includes specialized activities, core competencies, and planning services, such as architectural layouts or building specification. In this context, construction companies analyse their external business environment,

such as the market's dynamics of growth, contraction, or stagnation. Environmental factors such as competition, suppliers, and customer behaviours are relevant for this activity (Webb, 2011). In addition, construction companies routinely perform an internal audit of their resource base during which their strengths and weaknesses are analysed (Duff, 2013). In the course of this process, items such as "capacity, procurement, logistics, personnel, finance," (Warszawski, 1996), and information systems are also frequently examined. External environmental factors are matched with internal resources, such as via benchmarking or cost-benefit analysis, with the aim of leveraging and optimizing company synergies. Firms then develop strategic plans that include strategic perspectives, directions, and positions. Before implementation, firms create action plans of who does what, when, and where during the execution of strategic plans.

Business process reengineering "identifies weaknesses by using cross-disciplinary reengineering teams," yielding, "high risk/high payoff by leveraging organizational structure, human resource and IT systems" (Kwak, Clark, Grilo, Betts, & Ibbs, 1995, p.5). In construction firms, business process reengineering may be used when radical internal organizational change or restructuring is required. Total quality management focuses on quality controls and customer satisfaction. In the construction industry, "companies with significant gaps between customer expectations and company performance should consider" this approach (Warszawski, 1996, p.201). Firms may apply total quality management when shifting their internal focus to external strategic planning issues.

Time-based competition allows architecture, engineering, and construction firms to operate and build "facilities and make profits earlier by completing projects ahead of time. Conversely, [such] firms can avoid liquidated damages from project overruns" (Kwak, Clark, Grilo, Betts, & Ibbs, 1995). Within time-based competition, the strategic planning process stresses both internal and external factors such as time management and client-firm interactions. By contrast, the lean production approach places its strategic emphasis on "teamwork, communication, efficient use of resources, eliminating waste and continuous improvements" (Kwak, Clark, Grilo, Betts, & Ibbs, 1995). This approach is primarily concerned with internal issues on an operational level.

The computer-integrated construction approach focuses on the strategic planning issues of "integrating an engineering database for planning, design and construction processes" that can "improve performance, quality and resources" (Kwak, Clark, Grilo, Betts, & Ibbs, 1995). This process involves critical planning issues regarding internal-external exchange of information and activities such as interfacing graphic software programs. The strategic planning approach of supply chain management focuses on analysing the "two directional [sic] flow of information and materials" (Vrijhoef & Koskela, 1999) between different actors involved in construction projects (also see Figure 4). This method focuses on streamlining the information and materials exchange processes to optimize operations and reduce general costs (O'Brien, Fornoso, & Vrijhoef, 2008).

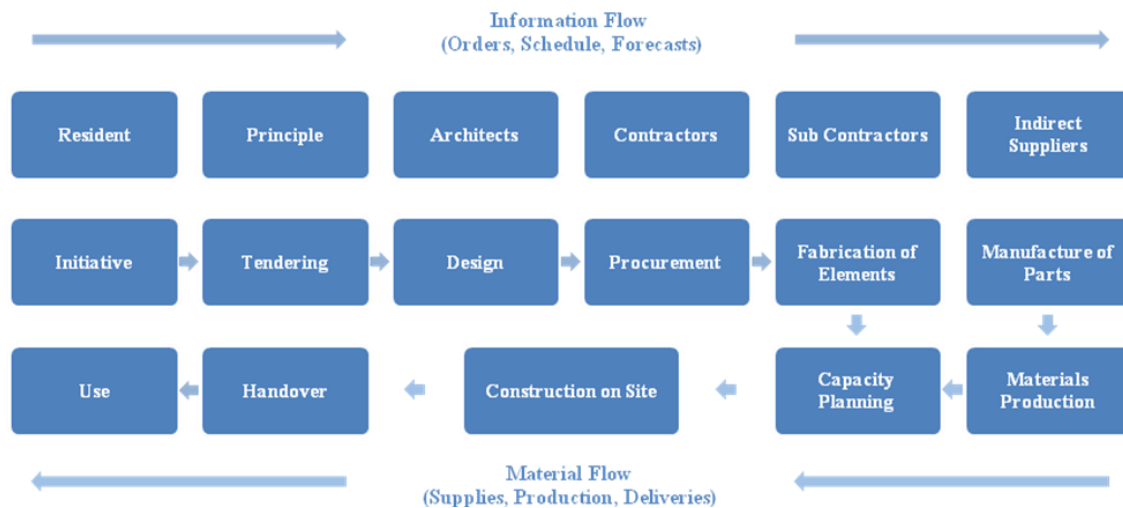


Figure 4: Vrijhoef and Koskela's (1999) Supply Chain Management

3.1.5 Literature Gaps and Critique of Strategic Planning

General applications of strategic planning practices in large publicly traded construction firms, including their small business units operating in an international environment, have been well-researched (Warszawski, 1996; Vrijhoef & Koskela, 1999; Kwak, Clark, Grilo, Betts, & Ibbs, 1995; Webb, 2011). Strategic planning as an activity in the private construction sector, however, remains insufficiently explored. In particular, research and literature about historical and current strategic planning practices in Southern Germany's small and medium construction businesses is nonexistent.

Because strategic planning frequently involves internal, confidential information related to competitive advantage, it can be difficult for external researchers to gain access to data regarding strategic and planning practices (Bavarian Federation of Construction Industry, 2012). Especially when firms are confronted with economic downturns and their consequences, they are likely to be engaged in organizational restructuring, activity consolidation, and strategic planning (Swabia's Construction Guild Association, 2013; Upper Bavarian Construction Guild Association in Munich, 2013).

Furthermore, whereas studies in the oil industry indicate that long-term strategic planning frequently involves qualitative information and scenario-based plans and medium-term strategic planning tends to utilize quantitative information and financial analyses, similar studies in the construction industry have yet to be conducted (Grant, 2003). Though company managers may prefer using particular strategic planning tools in specific organizational contexts, such as corporate communication, these interrelations have not been explored across different industries, in general, and in the construction industry, in particular (Grant, 2003; Jarzabkowski & Kaplan, 2015). In other words, there is a need for

additional research on the manner in which strategic practices affect planning-related organizational activities and which particular activities strategic planning practices involve (Harrison, 2008). Additionally, scholarly literature continues to lack micro-level studies on strategic planning practices, due to the overwhelming concern of management research with macro-level analyses (Harrison, 2008).

While strategic planning practices are likely to involve the division of planning labour, various planning tools, and corresponding organizational rules, their particular configuration and interrelations in the construction industry remains under-researched (Harrison, 2008; Murphy, 2013). Especially because strategic planning is a multidimensional and context-dependent phenomenon, the measurement instrument that this study applies is likely to shed light on the underexplored aspects of strategic planning and their interrelations in the Southern German construction industry (Murphy, 2013). More specifically, because the utilization of strategic planning tools can be driven not only by instrumental considerations, but also by organizational dynamics and planning tool properties, the interrelations between the latter are in need of further investigation (Spee & Jarzabkowski, 2009). In particular, the selection and use of strategic planning tools are likely to be related to the degree to which an organization has a hierarchical structure (Whittington & Caillaet, 2008).

Furthermore, different strategic planning tools may fail to be integrated to the same extent within planning practice (Beer & Eisenstat, 2000). Additionally, the introduction of novel strategic planning practices can be expected to be closely interrelated with the presence of other planning practices that organizations already regularly implement. However, the implications that the formalization of strategic planning practices has for other planning activities demand further research (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015). According to recent studies, the utilization of documents as means for strategic planning is significantly associated with organizational decision-making and various planning artefacts (Vaara, Sorsa, & Pälli, 2010). Thus, formal planning procedures oftentimes delivered by external professionals may lead to a low level of readiness for organizational change, while influencing other organizational practices related to strategic planning (Vaara & Whittington, 2012).

3.2 Business Forecasting

3.2.1 Fundamentals in Business Forecasting

To introduce business forecasting in strategic planning, Hanke and Reitsch (1992) provide an overview of what forecasts intend to do and how they serve organizations. According to these authors, business forecasts are required because “almost every organization, large and small, private and public, uses forecasting either explicitly or implicitly, because almost every organization must plan to meet the conditions of the future for which it has imperfect knowledge. In addition, the need for

forecasts cuts across all functional lines as well as across all types of organizations. Forecasts are needed in finance, marketing, personnel and production areas; in government and profit-making organizations” (Hanke & Reitsch, 1992, p.3). These authors continue with their definition by stating that the business planning process “involves the study of historical data to discover their underlying tendencies and patterns and the use of this knowledge to project data into future time periods as forecasts. As the world of business becomes more complex, the need to assess the future...has grown and forecasting has assumed a prominent position in the business administration process” (Hanke & Reitsch, 1992, p.1).

These definitions of forecasting require further analysis. In particular, the reference to tracking historical and future periods and discovering internal and external patterns create the basic parameters of forecasting. This process involves active learning, such as learning from past data and planning for the company’s future. Included in the forecasting parameters are also specific variables: for instance, evaluating internal company data, analysing the industry’s environment, and specified timeframes to serve as reference periods. Because management interlinks variables from both the external industry environment and internal data, this information becomes part of the forecasting process and a “prelude to strategic planning” (Krueger, 2008, p.1).

On the one side of the forecasting spectrum, planners and managers interact with basic forecasting variables based on quantitative and objective characteristics. Hanke and Reitsch (1992) argued that this includes the use of designated statistical and graphical tools such as formulas, algorithms, and models. However, on the other side of the spectrum, planners and managers focus on variables that utilize qualitative and subjective characteristics and, therefore, rely heavily on personal judgment and intuition. Under intuitive forecasting, planners and managers engage in open dialogues and forums: common practice encourages the exchange of creative ideas and requires flexibility, with no formal rules, agendas, or biases.

Given the above-identified central characteristics, it is possible to indicate that forecasting helps business organizations think about the future as well as devise strategic directions. In doing so, forecasters rely on either a quantitative and objective or qualitative and subjective approach while strategizing.

3.2.2 Forecasting Methodologies and Methods

Forecasting methodologies and methods describe specific sequential steps undertaken by organizations while conducting business forecasting. Hanke and Reitsch (1992) proposed data collection as the most crucial and difficult part of the forecasting process. According to Hanke and Reitsch (1992), forecasters, planners, and managers must question and decide on the data’s relevance and the source’s reliability. This applies to both qualitative and quantitative forecasting approaches.

Data reduction affects the forecast's accuracy. For example, the variable of time must be reduced to a manageable and realistic timeframe. It is unusual for business forecasts to exceed more than 20 years because uncertainties become too significant to factor all pending environmental risks.

Model building appropriates the reduced data and places it into a forecasting model. Simplicity and accuracy are key factors here. During model building, a planner or manager attempts to reduce misunderstandings and interpretative errors. Model extrapolation includes the tracking of historical and future data. Internal and external variables are also measured. External variables may track environmental changes, such as changes in demographic or technological trends. Internal variables may track changes in business sales, manufacturing, or inventory levels.

By contrast, Krueger (2008) proposed a different approach to a forecasting methodology. Krueger (2008) suggested that determining the right type of forecasts requires managers or planners to choose what is necessary for the organization and the analysis. Under basic review, there are objectives such as cutting costs, generating revenue, or selecting capital investments. The identification of a family of techniques determines whether a quantitative or a qualitative type of forecasting is used. Analysis of the external environmental and internal business factors plays a decisive role. Testing and comparing techniques identify external and internal factors with their sources for relevancy and correctness. The tracked changes provide a review of potential forecasting errors and shifts in structural patterns. After methods and models are defined, short-, medium-, or long-term time horizons are chosen.

Krueger's (2008) approach provides a different perspective to that of Hanke and Reitsch's (1992) methodology. Krueger includes technique testing and change tracking with his methodology; these two steps provide additional safety parameters to the forecasting process. The steps indicate that the forecasting methodology has undergone a process of critical review and continuous improvement. Checking the validity and accuracy of internal and external sources may also impact forecasts and ultimately have an effect on the strategic planning process.

The second portion of this section examines forecasting methods. Examples of qualitative and quantitative forecasting methods are defined and discussed below; their advantages and disadvantages are discussed in the next section. On the one side of the forecasting spectrum are qualitative methods. Qualitative methods "generally employ the judgment of experts in the appropriate field. A key advantage of these procedures is that they can be applied in situations where historical data are simply not available" (Reference for Business, 2009, p.3). The main emphasis on qualitative applications is the utilization of not just judgment, but also subjective factors, such as human feelings and intuition.

For instance, the Delphi method "may be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (Linstone & Turoff, 2002, p.3). The Delphi method focuses on

collecting ideas and opinions of groups of people, usually consisting of industry experts or business professionals, in multiple rounds of interviews. The method aims to remove redundant or irrelevant information from the data collected from the interviewees.

By contrast, the scenario method “starts with different sets of assumptions. For each assumption, a likely scenario of business outcome is charted out” (Business Group, 2009, p.2). As a qualitative method in forecasting, the scenario method comprises both creative and rational thinking as its underlying characteristics. It aims to generate long-range multiple perspectives in strategic planning.

The executive judgment method “creates forecasts that are made by an individual based upon his experience and whatever facts he wishes to consider” (Krueger, 2008, p.7). The executive judgment method includes collecting opinions from senior corporate executives and senior planners. The qualitative nature of the data is obtained through a single round of interviews. This method aims to understand subjective experiences of previous events. It focuses primarily on understanding the wishes of individuals in forecasting.

In contrast, the naive method “provides [qualitative] forecasts of environmental factors” (Armstrong, 1983, p.14). The naive method is an individual or a group exercise in qualitative forecasting. The method aims to investigate how and why change occurs in the external environment, such as when consumers and technological trends first bring about change and then have a direct influence on employees of a division or even an entire organization.

The Bayesian method “often is applicable in situations where estimates of the probability of unknown future events are determined and then modified after collecting samples and evidence” (Hanke & Reitsch, 1992, p.460). The Bayesian method applies future-forward thinking (Mintzberg, 1994). The relationships of the outcome of expected newer situations with previously occurred older situations are compared, such as a firm having to alter its previous strategic course because of unexpected changes in consumer interests. The method aims to understand specific changes in an organization's ability to compare the past with the future. The analysis engages thinking that considers future estimates of probabilities and data taken from past performances.

In contradistinction to the Bayesian method, the subjective method “allows individuals participating in forecasting decisions to arrive at a forecast based...on the premise that a human mind can arrive at a decision based on factors that are often very difficult to quantify” (Reference for Business, 2009, p.2). The subjective method directs its focus on understanding the subjective aspects of individual's decisions and forecasting activity. The method aims to generate rich qualitative data, which becomes useful in describing the forecasting experience.

Qualitative forecasting methods are primarily concerned with the views, opinions, and ideas of individuals in organizations. At the same time, qualitative methods not only are oriented toward past experiences, but also aim to create future options for individuals and their businesses.

On the other side of the forecasting spectrum are quantitative methods. Quantitative methods “are used when historical data on variables of interest are available. These methods are based on an analysis of historical data concerning the time series of the specific variables of interest and possibly other related times series” (Reference for Business, 2009, p.5). The main emphasis of quantitative applications is statistical tracking and manipulation of numerical data. Within quantitative forecasting, two primary groups of methods exist: (1) time-series forecasting and (2) causal forecasting methods.

Time-series forecasting includes the decomposition method. This method “assumes a cause-and-effect relationship between time and the output of a system” (Hanke & Reitsch, 1992, p.464). The decomposition method measures changes in events in predefined time spans, such as in trends, and seasonal and cyclical fluctuations occurring in the marketplace and in an organization's ability to first identify these changes and then make adjustments to its capacity to optimum levels such that it can maintain profitable margins in the near future. With this type of forecast, a firm is capable of preparing the required information to meet potential demand from its clients.

Time-series forecasting also includes the moving averages method. This method is “arithmetic or weighted averages of a number of past demand observations that may be adequately forecast” (Krueger, 2008, p.8). The moving averages method is used to calculate econometrics data, whose measurement includes changes found in sales contract tracking from specified periods from the past and in an expected volume of sales orders in the near future. Short- to medium-term projections are also used to make adjustments to the number of employees expected to process the expected orders.

The smoothing method is also included in time-series forecasting. This method is “used to remove random fluctuations from the data and identify the underlying patterns, which can then be correlated with economic variables or used for further univariate time-series analysis” (Evens, 2003, p.198). The smoothing method removes irregular fluctuations of occurrences found in internal patterns of data, such as random changes in inventory levels and expected purchase orders. This method does not, however, consider aspects of seasonal fluctuations or changes in trends. Because of this consideration, the smoothing method is fundamentally different from the decomposition method, which focuses primarily on external aspects such as changes attributed to trends, seasons, or cycles.

Also included in time-series forecasting is the autoregressive method. This method “is employed with economic variables to account for relationships between adjacent observations in a time series” (Hanke & Reitsch, 1992, p.465). The autoregressive method measures data changes in a country's GDP and its fluctuating levels of exports, imports, currencies, and capital investments. Therefore, this

quantitative method bases forecasts on the statistical relationships between a nation's aggregate growth, or contractions, and changes of macro-economic variables. Tracking GDP changes in macro-variable relationships is, however, deliberately kept to shorter ranges of time, such as those seen in the release of monthly or quarterly forecasts.

Time-series forecasting likewise includes the Box-Jenkins method. This method is used "to isolate the basic pattern and construct a model that specifically represents that pattern. Exponential smoothing is a special case of the Box-Jenkins method" (Krueger, 2009, p.9). The Box-Jenkins method is designed to illustrate specifically the different types of data in the form of graphs and models. In organizations, these types of illustrations assist planners in explaining changes in patterns found in their data. For example, patterns may help illustrate changes that have occurred in the firm's history of accounts receivables and accounts payables, which are also known in accounting as cash conversion cycles. With this planning method, the forecast contains the quantitative data in graphics or illustrations. These contain the information that helps the organization conceptually understand its projected future cash flow. The approach may also be applied to help guide the firm in planning capital upgrades or investments in the near future.

Similarly, planners can use causal forecasting by applying regression analysis. This method "assumes a cause-and-effect relationship between the input to a system and its output" (Hanke & Reitsch, 1992, p. 464). The regression analysis is a forecasting method that considers the change taking place between two types of quantitative variables. For example, this change includes expected price increases of raw materials that will be used in a product and its proportional effects on the price for a finished good being offered to the market. Since, tracking this change remains on only two types of quantitative variables, the limitation to this type of forecast creates therefore potential problems for managers. Here, the problems include forecasts that require the analysis of more than two variables.

Causal forecasting also includes the multiple regressions method that "assumes a cause-and-effect relationship between more than one input to a system and its output" (Hanke & Reitsch, 1992, p. 464). The multiple regression method is used to determine the relationships between the data of more than two types of variables. For example, the forecasting is seen in situations where wages an industry is expected to pay its workers with the proportional change in the workers' years of practical experience and years of schooling invested in their profession. This forecast considers therefore more than two types of variables in the forecasting equation, which in this case, may have an effect on the aggregate wages of the workers in the industry.

Therefore, in strategic planning, it may be assumed that there exists one type of group of planners who prefer to work strictly with numbers, variables, and statistics in their strategic planning activities. This group may also argue that quantitative forecasts assist them in ensuring the accuracy and validity that will be needed to make strategic planning a successful practice. There exists, however, a different

type of group of individuals with a preference that may diverge from the first one. This different group of individuals may become irritated or defensive when asked if they should change their preferred methods from qualitative to quantitative in their strategic planning activities. This reaction could become more intensified as they are asked to change their preferred qualitative forecasting method. They had previously determined this method was more suitable for planning multiple, complex issues with longer timespans and occurring in a world filled with ambiguities and uncertainties. This particular dilemma presents, therefore, new challenges in strategic planning. The exploration of using other types of forecasting methods, such as the qualitative scenario method as an alternative to the traditional quantitative types of method, also opens up new frontiers in strategic planning. To understand these possibilities, both the advantages and the disadvantages of forecasting need to be explored.

3.2.3 Advantages and Disadvantages of Forecasts

Forecasting is advantageous “when there is a consistent and ongoing correlation between variables in the business environment persisting over time. It is closely related to the rationalist assumption that there is one right answer to the strategy question and the art of strategizing is to get as close as possible to it” (Heijden, 2005, p. 107). Specifically, implied here is the accuracy of choosing the right kinds of variables, such as those found in the study of relationships existing between the costs of producing a specific type of good or service and the price of selling the product. The ability to understand the correlation between the two variables has a direct effect on the planner’s ability to then formulate a successful strategy.

Another advantage of forecasting presents itself when planners and managers have agreed on methodologies, methods, and models within the organization. The formalized agreement speeds up the forecasting preparations and analysis portion prior to the actual strategic planning. The statement on formalization reflects the ideas of Mintzberg's (1994) on strategic planning. Formalizing here includes not only engaging with the analysis of the different types of tools and methods being applied to planning. However, it also means how effectively the planners apply the forecasting tools and methods.

Forecasting can also be advantageous when an organization’s micro-level issues such as labour, equipment and plant investments, inventory and sales, and financing factors are being reviewed and planned for by management. This is also the case when macro-level issues such as, “pricing trends, market shares, market growth, and competitive actions” (Krueger, 2008, p.2) are reviewed as planning process variables. Here, it is suggested that successful forecasting depends on the planner’s ability to accurately interlink internal micro-specific company issues with external macro-specific environmental factors.

Forecasting can also have its advantages when the business environment is stable and predictable (Heijden, 2005) and when the forecasts are intended to cover short- to medium-term activities or business cycles. It becomes especially advantageous for companies when they learn how to apply it to their monthly profit and loss (P&L) statements and specific types of short- to medium-term quantitative forecasts, such as time-series forecasts mentioned by Hanke & Reitsch (1992), to further develop their strategic plans.

In contrast, forecasting is likely to be disadvantageous when limited amounts of resources, such as time, personnel, and funds (Heijden, 2005) are available to an organization or department. Included here is the disadvantage when the organization lacks sufficient knowledge about the different types of qualitative and quantitative forecasting methods that are available as alternatives to their strategic planning exercises.

Forecasting can similarly be disadvantageous when creativity and innovation in an organization are required, such as thinking outside-the-box, and the current culture is conservative and rigid. This particular problem becomes increasingly more evident as organizations prefer to remain loyal to their traditional practices, instead of being innovative and exploring new types of tools and methods that may replace older ones in strategic planning.

Forecasting can also have its disadvantages when planners or managers are short-sighted. This narrow perspective “leads to two types of symmetric errors: people either overestimate or underestimate the phenomenon” (Godet, 2006, p.31). A potential problem exists by treating the perspectives of operational and financial planning as separate entities. The separation of the two perspectives creates dangerous gaps for planners. The gaps begin to surface especially in times when planners encounter difficulties in making connections in cause and effect relationships between two variables. Their ability to understand the causes and effects to potential future outcomes is therefore being hindered.

Forecasting can bring little advantages when there is an “unavailability of data in the company’s records, historical records are limited in scope, or records are unavailable in usable form” (Krueger, 2008, p. 18). Forecasting is likely to prove being disadvantageous when an environment is unstable or when “extremely large environmental changes such as wars, depressions, shortages” (Armstrong, 1983, p. 19), disasters, regulations, or innovations are pending or have already occurred. The aforementioned threats have the potential of affecting an organization’s existence. This awareness to emerging or sudden threats from the external environment becomes, for many organizations, the main reason to consider changing previous traditional, conservative to more modern, flexible forecasting methods in strategic planning.

Based on this summary of the advantages and the disadvantages that business forecasting can have, it is possible to note that disadvantages of forecasting indicate that a lack of knowledge of the

differences in quantitative and qualitative methods creates a potential obstacle for individuals engaging in strategic planning activities. It seems that the above outlined disadvantages can require undertaking a change to traditional strategic planning practices. In other words, the choice of forecasting as a strategic planning tool is likely to shape the range of objectives this planning practice enables achieving, such as meeting profit targets (Whittington, 1996).

However, despite its increasing importance in contemporary business environment, forecasting as a tool of strategic planning remains under-researched, especially in relation to its interrelations with the planning context. In scholarly literature disagreement exists concerning the interrelations between organizational context-related factors and the choice between either qualitative or quantitative forecasting methods. This demands further research into the interrelations between forecasting tools and strategic planning objectives (Giullian, Odom, & Totaro, 2011). Thus, the temporal dimension of organizational practices, such as the utilization of narratives as results of strategic planning, is likely to affect the form that forecasts take and their eventual application (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015; Kaplan & Orlikowski, 2013)

3.3 Scenario Business Planning

3.3.1 Definitions of Scenario Business Planning

As mentioned in the previous section on forecasting, one of the methods of qualitative forecasting is scenario planning. This is a planning method that can assist managers in better understanding their internal and external environment. The method creates a general awareness of dramatic environmental changes that may be related to volatility, uncertainty, complexity, and ambiguity (VUCA) (Chermack, 2011, p.5). VUCA, and especially “environmental uncertainties” (Cornelius, Van de Putte, & Romani, 2005, p.95) ultimately impact and change organizational thinking and behaviour, causing an organization to reevaluate its future direction and position. The following discussion draws on the work of Porter (1985), Schwartz (1991), Schoemaker (1995), Van der Heijden (1997), and Wilson (2000). These authors demonstrate how challenging and complex but also beneficial scenario planning can become for the individual as well as for organizations.

According to Porter (1985), scenario planning is “an internally consistent view of what the future might turn out to be, not a forecast, but possible future outcomes” (Porter, 1985, p.63). As he begins to introduce the discussions of a central theme found in scenario planning, Porter’s reference to scenario planning provides, however, an entirely different perspective to the previous one made by the Business Group. Porter argues that scenario planning actually plays a much bigger role in the qualitative forecasting that usually assumed, since it stimulates the exploration of ideas, intellectual limitations, and future possibilities.

Similarly, according to Schwarz (1991), scenario planning is “a tool for ordering one’s perceptions about alternative future environments in which one’s decisions might be played out” (Schwarz, 1991, p. 45). Schwarz attempts to add to Porter’s previous idea on creating new perspectives. The author introduces another different conceptual idea of scenario planning. Here, he considers taking a sequence of steps prior to actually carrying out the planning. First, he suggests that individuals should become increasingly more aware of their understanding of their perceptions of their environment. Second, he mentions that through the analysis of these perceptions, the process should further enable individuals to prepare themselves for making better decisions about the future. The author proposes, therefore, to establish a sequence of steps in scenario planning.

Likewise, Schoemaker (1995) defines scenario planning as “a disciplined methodology for imagining possible futures” (Schoemaker, 1995, p.25). Schoemaker adds yet another perspective to the definition of scenario planning. His idea proposed here is also different to ones made by the previous two authors. Schoemaker states that scenario planning includes the activity of connecting previous experience to creating new ideas. This allows planners not only to create better scenario stories about the future, based on their previous experience, but also to engage in more complex types of thinking, when they begin to structure and place the contents into their stories about the future.

In Van der Heijden’s (1997) view, scenario planning can be defined as “internally consistent and challenging descriptions of possible futures... a causal line of argument, linking an action option with a goal, or one path through a person’s cognitive map” (Van der Heijden, 1997, p. 5). Van der Heijden adds another different perspective to the one mentioned by Schoemaker. This author claims that goals must be well analysed and understood, before options are mapped-out and alternative actions are considered. Writing down different scenarios, therefore, generates this mapping-out of options. Here, creating the different scenarios or stories includes considering not only the analysis of specific actions, goals and outcomes, but they also should focus on understanding how their contents are different from one another. This argument is similar to Heijden's (2005) proposition to explore causal links between organisational structures, patterns, and events in scenario planning. These causal links can be specifically investigated as interrelations between actors and their environment.

Furthermore, Wilson (2000) defines scenario planning as “a management tool used to help executives make better, more resilient strategic decision” (Wilson, 2000, p.24). Thus, Wilson suggests that scenario planning is actually a unique tool, specifically designed to improve the strategic decision-making process. His idea differs from Schoemaker’s previous claim in that the mentioning of the word methodology now implies reference to a specific type of tool (scenarios), which is being created and applied by management. This modern type of tool (scenarios) is considered to become an asset to an organization, which intends to improve the qualitative forecasting experience. Scenario planning

becomes, therefore, also an alternative tool to ones that were previously unsuccessfully applied to the strategic decision-making process.

The five previous definitions provide different types of perspectives of what the scenario method intends to do for organizations. Throughout the scenario planning exercise, it is important to emphasize that it is management's responsibility to apply intuition and judgment, especially when evaluating external environmental changes and uncertainty and internal organizational strengths and weaknesses. Scenario planning involves aspects of reasoning and/or creativity. According to Heijden's (2005) definition, the scenario planning process involves reasoning with the ability to interpret structures, patterns, and events in a latitudinal format. Second, in Fahey and Randall's (1998) view, the scenario process takes place when humans engage with their creativity when working with elements such as forces, plots, logics, and end states in a structured manner. It is, however, Heijden (2005) that proposes that scenario planning requires logic when identifying relationships between causes and effects, on the one hand, and events, patterns and structures, on the other hand.

According to Heijden (2005), events may be unexpected and isolated but may also appear organized in some instances. Included in the events are significant changes in "geopolitics, technology, climate, resources (including water and food), education, demographics, war, terrorism, social unrest, ecosystems, biodiversity and health" (Done, 2012, p.4). More commonly accepted and practiced is the STEEP analysis. According to Heijden (2005, p. 104), STEEP stands for social, technological, economic, environmental, and political events that cause significant changes and uncertainty in the business environment.

Within this approach, patterns are primarily made of trends, "multiple movements of co-variances and similar variables, in spatial or temporal closeness" (Heijden, 2005, p. 105). Some examples are changes in regional consumer trends and industry demand patterns. Patterns create and change events. Patterns also link events with underlying structures. Structures are identified as micro-level variables and can refer to institutions, organizations, businesses, groups, or individuals. In some instances, when structures come together they form a pattern such as a community. These structures may or may not bring about changes and uncertainty through legislation, finance, or other legal activities, either from the inside-to-outside, or vice versa. This cause and effect process is also known as causality (Heijden, 2005, p. 105).

As the three elements interact via the "causal links" (Heijden, 2005) with each other, it becomes evident that the structures create patterns, and patterns create events. In the world of business, environmental events may also cause changes in patterns and these patterns may bring about dramatic changes and uncertainty in structures. Since the flow is unilateral, it may bring about new activities, such as companies entering or exiting markets, introducing or discontinuing products and services, or

changing strategic planning methodologies and methods. In the second model, Fahey and Randall (1998) propose four sequential elements to the scenario learning process.

According to Fahey & Randall (1998), driving forces are elements that “drive and propel the story described in a particular plot” (Fahey & Randall, 1998, p.10). Since driving forces can be environmental and institutional, they pose the highest degree of risks or threats, since they can cause uncertainty and change. Therefore, these driving forces need to be identified to develop the stories of strategic planning. The plots and stories are “stories that connects the present to the end states; it illustrates what would or must happen for a specific future or world to come to be” (Fahey & Randall, 1998, p.11). To consider connecting the present with the end states, a suitable fit between the external and internal driving forces also must be developed here. The logic is explanations of why forces behave in a certain manner. “This is where also externalization and internalization processes have to be developed and analyzed” (Fahey & Randall, 1998, p.11). The logical analysis that takes place between the driving forces, and their present and end states, must be checked for plausibility and validity. The end states are explanations as, “to the conditions and circumstances that prevail at the end of the scenario period” (Fahey & Randall, 2007, p.12). Here, the end states are also known to include creating and understanding different types of stories (scenarios) about the future, scenarios in which events may, may not, or may perhaps occur in the future. This particular type of thinking of three different, yet possible end states or outcomes also illustrates the potential for humans choosing to engage with multiple perspectives and future thinking.

As discussed, scenario planning involves two different aspects of cognitive processes, including a person’s ability to engage with reasoning and creativity. Heijden’s (2005) model explains the challenge of understanding of the process of reasoning behind the analysis of relationships existing between structures, patterns and events via creating causal links. Fahey and Randall’s (1998) model discusses a different challenge of engaging with the process involving creativity, especially when preparing to create and write about driving forces, plots, logics, and end states in scenario planning. The work of these authors also helps create an awareness and understanding of a divide that exists between the qualitative scenarios vs. the quantitative forecasting methods.

3.3.2 Methodology and Methods of Scenario Planning

Chermack’s (2011) general approach to scenario planning suggests a series of steps that comprise its methodology, which could be incorporated into a long-term strategic plan. The preparation step of this approach includes outlining the project’s budget, identifying the participants, and the planning time. During this phase, the general problems the organization has experienced in previous strategic planning activities are defined. The exploration step of this approach includes a current external environmental analysis, such as STEEP or VUCA factors, and internal organizational factors, such as reviewing contents of business plans and financials and operational structures and systems. The

consideration step of this approach evaluates the scenario's timeline, such as medium- to long-term. This can range anywhere from 5 years minimum to 20 years maximum. Industry trends may also be identified. The development step of this approach includes ranking of impact and uncertainties of current external and internal factors on a scenario matrix (see the Figure of STEEP changes vs. organizational analysis below). Clustering of internal factors may depict and question potential structural relationships or dramatic divergences. The implementation of this strategic planning methodology creates four scenarios that illustrate possible future environmental states. Attention is not only placed on cause-and-effect relations between internal and external factors, but more importantly, also on factors clustering around the high impact and high uncertainty contents of the scenario stories. The review stage of this approach has scenarios integrated into the strategic plan. It depicts internal operational objectives and addresses how an organization will meet future environmental conditions.

Fahey and Randell's (1998) methodology extends Chermack's ideas as an industry-specific approach to scenario planning. According to Fahey and Randell (1998) industry scenarios are, "driven by internal and external forces, and monitor an industry's evolution over time. Internal forces include the actions of competitors, the entrance of rivals providing substitute products or services, innovation by suppliers, channels, and end customers and changes by the firm's development of new products and services. The external forces that need to be analyzed include: political, social, economic, environmental, and technological change" (Fahey & Randall, 1998, p.192). Within this approach, a description of the current industry context contributes to the analysis of relevant factors such as industry growth rates, products, and service demands. Within this methodology, focus is also placed on competitor behaviour and current substitutes. This planning step may include Porter's (1980) five-force industry analysis. Identifying the firm's business idea examines an organization's current business unit challenges or problems. The issues under management's review are primarily internal aspects. When this approach is implemented, internal factors, such as product and service prices, organizational structures, and information systems, are analysed.

Determining the purpose of the scenarios addresses issues that need to be included in the scenarios. Additionally, the type of scenario method is selected. Identifying individual driving forces locates and lists the industry's individual driving forces. The question of how the forces affect the industry is discussed and documented. Identifying aggregate driving forces combines current individual industry driving forces into aggregate forces. The rates of change and degree of uncertainty are examined, with the highest aggregate forces considered for the next step. Determining end states discusses future scenario end states. Differences and similarities of aggregate driving forces are evaluated. Scenario writing prepares scenarios by including the following primary conditions. These conditions relate to identifying yet to be played out factors where aggregate driving forces significantly impact the development of the industry, identifying accepted factors where aggregate driving forces bring about

minor changes within the industry, and identifying impossible factors where driving forces bring about no changes in the industry. Developing planning logic involves a review of scenario conditions and logical connections that take place between the present and future environmental states in the scenarios.

In fundamental contrast to Chermack's ideas on methodology, Fahey and Randell (1998) argue that two types of criteria exist that are necessary to make scenario writing a success. The first of these criteria is the selection of external and internal links between aggregate driving forces, such as price increases of natural resources, will result in higher manufacturing costs, which must be considered for a suitable match. The second criterion is logical connections between the present and future business condition, such as higher manufacturing costs having to be passed on via higher future market prices. According to this approach, these two criteria need to be correctly aligned.

Among other scenario planning methods, it is possible to include the Actor's Scenario method, which involves the development of an understanding based on the assumption that, "people do what they believe is in their best interest" (De Mesquita, 2010, p.3). In this case, it may be the leader of an organization or an organization itself. A leader or an organization's qualities such as, "wants, beliefs, and reactions" (De Mesquita, 2010, p.3) are the primary issues. The person's influence and power over others in the organization play a decisive role here. The Business Scenario method is "developed out of permutations of the macro-level forces. It identifies forces that define the boundary conditions of an organization's operating in its environment. In other words, the scenarios are typically defined by trends and forces that are outside the control of the company" (Thomas, 2012, p.3). The macro-level factors include among other things the analysis of (PESTEL) political, economic, social, technological, environmental, and legal forces that have a direct impact on the organization's performance.

The Industry Scenario method "delineates the scope and boundaries of the industry, identifying current and emerging change in and around one industry, projecting its evolution and future structure" (Fahey & Randall, 1998, p. 189). The Reference Scenario method "starts out with an idealized scenario of a desirable future. To be effective, such a scenario should be interesting and provocative. It should show what to change to evade the mess of problems in an organization's given strategic situation" (Chermack, 2011, p. 25). The reference scenario first focuses on one problem in the organization. The organization then works itself around the specific problem hypothetically before it actually takes place. The Event Driven Scenario method "tends to be about the impact of an event, action or dilemma within the context of the immediate or near-term business setting" (Thomas, 2012, p.3). The possible impact of such events, actions, or dilemmas considered here are mergers between competitors, changes of regulations to the industry, or threats from natural disasters and war.

The Probability Scenario or Cross-Impact method creates a list of hypotheses. The cross-impact method may contain as many as 50 variables or drivers, including macro as well as micro issues concerning the business. The variables are ranked and grouped. The highest are consolidated and used to create hypotheses. Each hypothesis is “appraised to the conditional probability of a hypothesis to occur or not to occur” (Godet, La Prospective, 2011, p.3). The highest ranking hypothesis creates the plots within the scenarios. The Procedural Scenario method creates a link between macro-economic models and scenario writing. “The manipulation of macroeconomic models is a mechanism by which vague assumptions are translated into projected values of an economy or industry. These models used in these approaches are computer driven and provide a good example of procedural scenarios incorporating intuitive and quantitative techniques” (Chermack, 2011, p.26). The procedural scenario method provides an option for strategic planning that allows the combination of qualitative as well as quantitative forecasting techniques.

3.3.3 Advantages and Disadvantages of Scenario Planning

Scenario planning is advantageous when the external macro-factors are changing rapidly in an environment, and a high degree of uncertainty becomes an organizational threat or opportunity. The macro-factors specifically considered here for the analysis are the political, economic, social, technological, environmental, and legal forces (PESTEL). Scenario planning is also advantageous when organizations want to engage in mid- to long-term strategic planning. This applies to planning that reaches beyond one-year operational and financial budgets or five-year business plans, including preparations of capital investments. The usual time span for scenario planning covers a timeframe of five to twenty years. Scenario planning can provide benefits when managers “address key uncertainties through chains of causes-and-effects. Scenarios let the decision-maker look not just at outcomes, but also at the driving forces that could move the business in one direction or the other” (Heijden, 2005, p.108). Heijden’s (2005) model makes specific reference to the benefits of understanding interrelationships between the dynamics of causes and effects.

Scenario planning can also be advisable when multiple perspectives of organizational problems are required. This process may not only involve senior administrators and line managers but also outsiders, such as academics and consultants, “experts on topics such as demographics, political processes, and industry evolution, and representatives of distribution channels, end customers, technology sources, and suppliers” (Fahey & Randall, 1998, p. 34). Scenario planning can, similarly, lead to positive outcomes when organizational learning, such as the development of critical and creative thinking, is required. Scenario planning is especially effective when ideas and opinions are collected through open forums, such as expert interviews or the Delphi technique. Scenario planning can also be recommended when individuals apply process theory, examining “causal structures in events,” and identify how and, “why things happen as they do” (Heijden, 2005, p.107).

By contrast, scenario planning can be a disadvantage when organizations traditionally rely on and are practicing contingency, sensitivity, or computer modelling or are applying uncomplicated algorithmic planning techniques. This planning method can constitute a disadvantage when an institution focuses its planning activities on using the variance theory or interpretations based on “consistent and ongoing correlations between variables in the business environment persisting over time” (Heijden, 2005, p. 107). Scenario planning can have a negative organizational impact when organizations have limited amounts of financial resources and time available to conduct extensive strategic planning. An overly conservative culture and internal political tensions also hinders the planning process. Scenario planning does not represent an advantage when organizations place exclusive emphasis on work and opinions of experts from one planning department “away from where the decisions are being made” (Heijden, 2005, p. 108). Similarly, scenario planning is not likely to be effective when misunderstandings between the planners using quantitative and qualitative methods persist within an organization. A lack of team level consensus of either using one or both of the qualitative or quantitative methods could cause potential tension and conflict and a failed strategic plan.

3.3.4 Challenges in Construction Industry Scenario Planning

The application of scenario planning is not without challenges in the construction industry, since this planning methodology has been found to be rudimentary in its structure and content. It has however proven to be an effective tool in the field. For example, the scenario methodology of, “task identification and analysis, key decision factor appraisal, identification of driving forces, trends and issues, ranking, alternative projections, scenario development and interpretations” (Rateliffe, 2000, p.4) is widely practiced throughout the construction industry.

Nevertheless, scenario planning may fail to be applied, since it requires more time than other planning methods. Since this methodology includes conjoining environmental analysis, scenario writing and strategic planning, organizations are currently encountering problems when making efforts to apply this methodology, due to time constraints: “Scenario planning as a method is often the responsibility of senior managers, the time they can dedicate to the task is limited as they also have the day-to-day operational responsibilities” (Soetanto, Goodier, Austin, Dainty, & Price, 2011, p. 3–7). The suboptimal time management and insufficient resource allocation to analysis, writing and planning in this industry constitutes a major management problem in the industry.

Also with regard to the choice of the type of scenario method, such as exploratory or normative, managers may run into problems with their departments. For example, the choice between “exploratory scenarios representing plausible self-consistent future worlds that would emerge from present conditions through credible, cause-and-effect and feedback developments whereas normative scenarios represent desirable future worlds (Ratcliff, 2003)” (Erdogan, Abbott, Aouad, & Kazi, 2009, p. 3) are difficult for management because of the need for hypothetical thinking. Under these

constraints, construction firms are being challenged in thinking and comprehending the scenario method's potential. Management has been forced to use analytical as well as imaginative skills now more than ever, especially when having to position their organization toward a strategic direction that will cover a 10 to 20-year time span.

3.3.5 Literature Gaps and Critique of Scenario Planning Methods

One may argue that there is a tendency to focus scenario method research on industries where pre-existing case studies on the topic are already widely in circulation. Current studies also favour larger industries such as natural resources, manufacturing, and logistics (Soetanto, Goodier, Austin, Dainty, & Price, 2011). These industries are often publicly traded and provide therefore greater transparency into their organizational structures and systems. These industries also possess financial reserves that provide resources for in-depth consultancy projects. Specific scenario case studies, especially in the context of strategic planning within the construction industry, represent a marginal phenomenon.

Research on scenario planning within the construction industry is primarily focused on the development of international strategies, such as studies of construction firms operating in multiple countries (Erdogan, Abbott, Aouad, & Kazi, 2009; Kwak, Clark, Grilo, Betts, & Ibbs, 1995). Specific regional case studies of small and medium construction firms operating within the Southern German region that potentially apply scenario planning to strategic planning do not exist. Thus, a gap in the literature exists regarding the application of scenario planning. This particular gap in the literature presents an opening for this academic research to make a contribution to the body of empirical studies on scenario planning, especially since no scholarly consensus on the effectiveness of scenario-based tools of strategic planning (Bowman & Moskowitz, 2001).

Additionally, business organizations may be reluctant to adopt the scenario method, since the formulation of possible both positive and negative scenarios is likely to have important implications not only for organization members, such as employees, but also for executive managers as individuals responsible for the success and failure of their companies (Hodgkinson & Wright, 2002; Jarzabkowski & Kaplan, 2015). In other words, hierarchical power relations within business organizations are likely to be significantly interrelated with the utilization of the scenario planning method. However, this interrelationship is yet to be fully explored in scholarly literature (Spee & Jarzabkowski, 2009). Likewise, there are insufficient empirical studies on which organizational characteristics and contexts are closely related to the use of scenarios in strategic planning as opposed to other planning tools (Kaplan & Jarzabkowski, 2006).

By contrast, Jarzabkowski and Kaplan's (2015) perspective on strategic planning practices as tools-in-use indicates that strategy tools are likely to be interrelated with their application, selection and outcomes. In other words, Jarzabkowski and Kaplan's (2015) analytical framework rests on these

interrelations, as well as other types of complex organizational activities, as their formalized expression. Furthermore, Jarzabkowski and Kaplan (2015) explicitly support the proposition that strategy tools are interrelated with the characteristics of the actors that make use of them. Thus, this perspective on strategy tools can serve as a basis for this empirical research. More specifically, rather than arguing that the affordances of strategic planning tools, their selection, application and outcomes and the agency of planning actors have a particular pattern of causal effects on each other, Jarzabkowski and Kaplan (2015) surmise that these strategic planning aspects are interrelated in a mutually shaping, recursive manner.

This thesis can, therefore, be considered as an empirical exploration of these theoretical, highly general interrelationships, while proposing that they can be tested using statistical measures of inter-correlation. Given that these interrelations remain both empirically and analytically under-explored, this research into the selection, application and outcomes of strategic practices in different organisational contexts is likely to contribute to the clarification of strategic planning decision-making, motivations, related organisational processes, and specific effects they have in the industry under study (Jarzabkowski & Kaplan, 2015).

3.4 Activity Theory and Planning

This disquisition into activity theory is related to the objectives of this study, because it provides a conceptual foil for this investigation of the activity of strategic planning actors, especially with respect to their planning tool selection, organizational environments and associated affordances (Jarzabkowski & Kaplan, 2015). Furthermore, since this thesis also enquires into the objectives of strategic practices and relationships between their different aspects, activity theory provides a cogent perspective on business planning (Engeström, 1999). Given that the research questionnaire of this study is semi-structured, activity theory provides a conceptual rationale for this inquiry into the relationships between different aspects of strategic planning practices, especially since planning methods employ mental models deployed by individuals involved in these activities (Heijden, 2005). This corresponds to the research objectives of this study.

3.4.1 Introduction to Activity Theory

The first generation model of the activity theory is based on Vygotsky's idea of mediation being a part of human activity. According to Vygotsky, the process of mediation always takes place between subject(s) and tool(s). Prior to the actual activity, the tool(s) are first reviewed and identified by the subject(s). The subject(s) then selects tools; the tools here include mechanical devices, verbal as well as nonverbal forms of communication. Then the tool(s) is applied to move towards a specific objective or a goal. Human motivation, whether positive or negative, remains the driving force behind

the process of mediation between subject(s) and tool(s). This first generation activity theory model centres its attention mainly on the activities of individuals or groups.

The second-generation model of activity theory is an extension of Vygotsky's ideas of artefacts, such as tools, signs and language, as still playing a role during the mediation process. Within the framework of this model, motivation remains a driving force during all forms of activities. Additional elements, however, such as rules, community, and division of labour, are now added for the first time into the whole activity process. The new elements of rules, community, and division of labour thus become an "integral and inseparable" (Engeström, 1999, p.29) part of activity theory's original parameters of subject, tools, and object. With the combination of old and new elements, Engeström (1999) suggests that this merging now enables humans to grasp a better understanding of all forms of activities, from a micro to a macro or an individual's to a community's perspective. The relationships between the two may now be analysed as that of being a part of a much larger collective and expansive social process.

In the second generation activity theory, Vygotsky's original idea of motivation driving mediation between subject(s) and tool(s) is maintained. What is different in this activity theory model, however, is that "object-oriented actions are, explicitly or implicitly, characterized by ambiguity, surprise, interpretation, sense making, and potential for change" (Engeström, 1999, p.10). In addition to motivation, Engeström also introduces the concept of contradictions and tensions that emerge during explicit or implicit activities. Contradictions and tensions may emerge because of sudden changes or developments from previous activity. Situations of contradictions and tensions may emerge as new members with revolutionary ideas are introduced to other groups of people with conservative views, or an older planning method is being considered for replacement with a newer one.

The third generation model of activity theory builds upon Vygotsky's original ideas of motivations, contradictions and tensions, to explore the reasons behind collective social change and development. The third generation activity system model of Engeström encompasses subjective meanings, planning objects, outcomes, artefacts, rules, communities, and division of labour. In this model, subjects consist of individual or groups conducting the activities, e.g., university professors, researchers, business managers and owners. The object includes objectives in the activities, e.g., identifying business planning methods and firms successfully using them. The outcome identifies the final goal of the activities, e.g., accomplishing academic programs, understanding aspects of strategic planning, and potentially transforming the practice of planning in companies. The mediating artefacts include tools and language mediating the activity, such as specific methodologies and methods assisting or transforming the successful strategic planning practice. The rules place certain restrictions or regulations on activity, such as industry norms and trade practices. The community consists of collective groups partaking in the activities, e.g., the university community and members of an

industry. The division of labour identifies roles and functions in the activities, e.g., researching, analysing, and planning by those involved in the activity.

According to Engeström (2001), the third generation activity theory model focuses primarily “on joint activity or practice as the unit of analysis for activity, not individual activity, on the process of social transformation including conflict of social practices, and on the process of instability (social tensions) and contradictions that are the motive force of change and development” (Engeström, 1999, p.9). As planning theory and industry practice are merged with one another, tensions, conflicts and contradictions are destined to occur between participants, as Engeström illustrates. According to Leont’ev (1978), three levels of activity related to operations, actions and activity also exist. From this perspective, operations question how an activity is conducted, is carried-out without deliberate awareness, and reflects, in some instances, routines and habits. Individuals have formed such behavioural patterns throughout historical practices. Actions that question what goals an activity is trying to achieve are conscious, may be deliberate, and involve groups or individuals. Activities question why the activity is being conducted while recognizing the meaning and motive behind activity.

3.4.2 Business Activities as Individual-Level Processes

As subjects move through engagement with an object and then to an outcome, they must explore and question the meaning behind cultural, historical artefacts, generating thereby interpretive errors in forms of contradictions along the inquiry process. Part of the subject–artefact–objective mediation process is accomplished through different levels and cycles of human learning. According to Heijden (2005), the cycles of learning go through four sequential steps, the theorization of which draws on the work of Kolb, Lewin, Dewey and Piaget. Heijden (2005) adaptive learning loop model indicates that individuals “have experiences, some of which are important. In particular, interesting are experiences that we perceive as related to our previous actions” (Heijden, 2005, p.37). Thus, concrete experiences are being created from actions and activities. As individuals “reflect upon these experiences. They are the product of observation and reflection. They create a growing awareness of new patterns and trends in events we did not perceive before. Reflection is related to our ability to differentiate between existing mental models and the new reality which they are integrated into a new theory” (Heijden, 2005, p. 37).

Heijden’s (2005) focus is on the process of identifying new patterns, trends and events that have occurred. Through the process of reflection on the events, individuals enable themselves to interpret and understand their experiences from the past, since “cues of causality develop new theories on how our ideas about the world need to change as a result of these observations and reflections. The old mental model and the new reality are integrated into a new theory” (Heijden, 2005, p.37). This part also includes Weick’s (1995) process of “sense-making” or Ancona’s (2007) ideas of “relating,

visioning, and inventing.” The formation of abstract concepts and theories are the product of analysis, especially the type of thinking seen in inductive reasoning. The outcome of inductive reasoning leads here to the introduction of new theoretical concepts and ideas. Individuals “use these new theories to plan new steps and continue to turn this plan into action” (Heijden, 2005, p.37-38). Testing theory in new situations in the form of interventions is seen and understood as one type of action that can help adapt theoretical constructs to a new practice. The transformation is also known to contribute to potential organizational change.

Heijden’s adaptive learning model points out that as individuals return to the point of origin in this learning cycle, new experiences must be processed through periods of self-reflection that includes understanding how and why individuals have learned and developed over time as well as adapted to change differently. To discuss how expansive learning can further be applied to research, Engeström’s (2001) work suggests that the learning process must go through a succession of steps, working first with contradictions and tensions, and then modelling and reflecting on the process. Learning can be “characterized by specificity of response, which – right or wrong - is not subject to correction” (Bateson, 2000, p.293). For instance, this type of learning takes place in organizations, where undertaking potential corrections to errors found in strategic planning are considered not being relevant to the actual practice. Learning can also be “characterized as change in specificity of response by correction of errors of choice within a set of alternatives” (Bateson, 2000, p. 293). For instance, this type of learning takes place in organizations, where making correction to errors exist within a pre-defined set of alternatives. If the outcome of the strategic plan is a failure, then the ineffective quantitative may have to be replaced with a considerably more effective qualitative method. Changes to the way the choices between the two types of methods in strategic planning were made must be undertaken.

Furthermore, learning can likewise be “characterized as change in the process of learning [...], e.g., a corrective change in the set of alternatives from which a choice is made, or it is change in how the sequence of experience is punctuated” (Bateson, 2000, p. 293). For instance, this type of learning takes place in organizations, where making corrections to errors exist within a more narrowly defined set of alternatives from a previously given set of choices. If the outcome of the strategic plan is a failure, then the sequence of different types of qualitative and quantitative forecasting methods must be changed. Thus, the choice of a specified forecasting or planning method must be made to make the strategic plan a success in the future. Changes are not only made by narrowing-down the set of specific choices but also their sequence and how they are applied to conduct the actual activity of strategic planning have to be considered. Learning can also involve “a corrective change in the system of set of alternatives from which choice is made” (Bateson, 2000, p. 293).

For instance, learning can take place in several small business units reporting to an organization's headquarters, where making correction to errors not only exist within a pre-defined set of alternatives and sequences of applying these alternatives, but also the learning of the types of change that may cross over several different types of activity systems. For example, if the outcome of a strategic plan for a company's headquarters is a failure, then it should not only focus on alternatives choices and sequences of alternatives in the primary system. Rather, headquarters should also consider whether the causes of the problems are related to the flawed approaches to planning of the smaller business units. Headquarters must learn to not only examine the small business units' flawed approaches to strategic planning, but it also must learn and understand how these individual plans have contributed to the failure of its general strategic plan. This may also mean bringing about fundamental changes to the approach of strategic planning in their small business units. However, it can be assumed that this type of learning cannot take place in business organizations, since they can only learn to change to a certain degree, especially when companies are expected to go beyond their normal capacity to learn from previous experience. Bateson (2000), thus, suggests that different forms of learning are applied forms of understanding and coping with change.

Ludwig (2011) and Hartmann & Bresnen (2010) present two case studies addressing activities that take place between contractors and subcontractors and collaborative interactions that take place during partnership formation in the construction industry, respectively. For example, in Ludwig's (2011) case study contractual tensions and resolutions between main contractors and subcontractors are investigated. In this particular case, contractual tensions and resolutions were the shared object within the activity model and contractors and subcontractors were "seen as one system" (Ludwig, 2011, p. 543). Hartmann and Bresnen's (2010) case study revealed that forming partnerships between construction firms is a viable strategic option to gain competitive advantages. These authors indicate that partnerships have "contextually embedded practices which are constituted through the social interaction of individuals" (Hartmann & Bresnen, 2010, p.13). These practices consist of "historically grown and cultivated routines and habits" and "prevent individuals from resolving contradictions, disturbances and conflicts, which often become manifest through unexpected occurrences or other changes in the maintenance regime" (Hartmann & Bresnen, 2010, p.13).

3.4.3 Literature Gaps and Critique of Activity Theory

The present literature review suggests that there is a lack of studies that consider the relationships between the above-mentioned elements of activity theory, such as the subjects, division of labour, community and rules, mediation of tools and methods, objectives, and outcomes of strategic planning (Engeström, 2003; Harrison, 2008). This calls for an investigation of the relationships between the elements, especially since activity theory emphasises that the study between strategic practices and planning tools as both technical and psychological artefacts, can contribute to both organizational

continuity and change (Jarzabkowski, 2003). However, extant research does not fully explain how strategic practices and tools are implicated in other organizational processes (Blackler, 1993). This issue is articulated in the first research objective (RO1), as it considers different aspects of strategic planning activities and organizational processes within SMEs in the Southern German construction industry.

Given that planning activities emerge from the relationship between organizational actors, organizational tools, and other planning practices, their specific configurations in particular business contexts is appropriate for qualitative research (Jarzabkowski, 2003). More specifically, recent studies indicate that strategic planning methods, such as SWOT, are likely to be related with the application of formalized, reflective or structured planning procedures (Jarratt & Stiles, 2010). This follows from the mutually constitutive nature of strategic planning practices (Vaara & Whittington, 2012). This can also lead to the integration of strategic practices with other aspects of organizational activities, such as the division of labour, community resources, and rules and regulation, related to the strategy process (Jarzabkowski & Balogun, 2009). More specifically, technological systems or software tools may also be expected to significantly affect and steer strategic planning activities, which demands additional research into the process of mediation between planning artefacts and other organizational practices (Whittle & Mueller, 2010). These concerns are codified in the second research objective (RO2), as it explores the extent to which the nature of particular planning tools and forecasting method selection and applications are related within SMEs in the Southern German construction industry.

Existing scholarly literature does not provide sufficient insights into the relationships between strategic planning practices, tools and method selection and application, and especially their effects on planning outcomes in micro to medium construction firms in Southern Germany in particular. The third research objective (RO3) responds to this gap, as it investigates the goals and motivations of organisational decision makers, as well as planning outcomes within SMEs. Similarly, activity-based and tools-in-use research in micro, small, and medium construction firms located throughout Southern Germany is nonexistent, especially in relation to strategic aspects, forecasting choices and planning outcomes.

3.5 Literature Review Summary

According to Mintzberg (1994), planning requires social formalization, decision-making and future-oriented thinking. Business strategy, thus, includes an organization's ability to consider different types of strategic directions and see internal and external environment from multiple perspectives (Porter, 2004). For a smaller firm, a single strategic direction may suffice for planning purposes. For larger companies, however, it is not unusual to execute several different strategies (Johnson & Scholes, 1999, p.10).

Strategic planning directions provide choices to business organizations when attempting to accomplish strategic planning goals in the long-run (Heijden, 2005). Strategic planning methodologies and methods in business introduce the planning process in the form of a model containing particular individual steps (Heijden, 2009). Thus, the formulation of strategy involves choosing a specific strategic position. Porter's (2004) strategic planning model illustrates the interaction of multiple factors within the formation of a competitive strategy. Porter's (2004) methodology proposes that factors essential to planning are complexly interrelated with one another. By contrast, Heijden (2005) approaches strategic planning through a focus on issues emerging during the implementation stage.

In the construction sector, firms develop strategic plans that include strategic perspectives, directions, and positions (Warszawski, 1996). However, research and literature about strategic planning practices in Southern Germany's small and medium construction businesses remains nonexistent (O'Brien, Formoso, & Vrijhoef, 2008). It can be difficult to gain access to data regarding strategic and planning practices, due to their confidential character. Additionally, scholarly literature continues to lack micro-level studies on strategic planning practices (Harrison, 2008). Their particular configurations and relationships between particular aspects of strategic planning practices in the construction industry remain under-researched (Harrison, 2008; Murphy, 2013).

Based on this literature review, it is possible to indicate that forecasting helps business organizations think about the future as well as devise strategic directions (Hanke & Reitsch, 1992). Krueger (2008) suggests that determining the right type of forecasts will require managers or planners to choose what type of forecast is necessary for the organization and the analysis. Qualitative forecasting methods are primarily concerned with the views, opinions, and ideas of individuals in organizations. On the other side of the forecasting spectrum are quantitative methods. The main emphasis of quantitative applications is statistical tracking and manipulation of numerical data, such as time-series forecasting and causal analysis.

Forecasting can be advantageous when an organization's micro-level issues are being reviewed and planned for by management. In contrast, forecasting is likely to be disadvantageous when limited amounts of resources are available to an organization or department (Heijden, 2005). The choice of forecasting as a strategic planning tool is also likely to shape the range of objectives this planning practice enables achieving (Whittington, 1996). However, forecasting as a tool of strategic planning remains under-researched, especially in relation to its interrelations with the planning context.

One of the methods of qualitative forecasting is scenario planning. Porter (1985) argues that scenario planning plays a significant role in qualitative forecasting. Chermack's (2011) approach to scenario planning suggests that its methodology could be incorporated into a long-term strategic plan. While scenario planning can be perceived as an industry-specific approach to business strategy, scenario

planning can be a disadvantage when organizations are applying uncomplicated quantitative planning techniques (Heijden, 2005).

In the construction industry, scenario planning has been found to be rudimentary in its structure and content (Rateliffe, 2000). Scenario planning may fail to be applied, since it requires more time than other planning methods (Soetanto, Goodier, Austin, Dainty, & Price, 2011). Research on scenario planning within the construction industry is primarily focused on the development of international strategies (Erdogan, Abbott, Aouad, & Kazi, 2009; Kwak, Clark, Grilo, Betts, & Ibbs, 1995). There are insufficient empirical studies on which organizational characteristics and contexts are closely related to the use of scenarios in strategic planning as opposed to other planning tools (Kaplan & Jarzabkowski, 2006).

Jarzabkowski and Kaplan's (2015) perspective on strategic planning practices as tools-in-use indicates that strategy tools are likely to be related with their application, selection and outcomes as well as to other organizational processes. In addition to tool mediation, other activity-based aspects of the division of labour, community resources, and rules and regulations should be further considered and researched (Engeström, 2003). The present literature review suggests that there is a lack of studies that consider all of the above-mentioned aspects of strategic and planning practices (Harrison, 2008). The specific configurations of relationships between different planning activities and, in particular, business contexts also demand undertaking further qualitative research (Jarzabkowski, 2003). Existing scholarly literature does not provide sufficient insights into planning and forecasting practices in micro, small, and medium construction enterprises in Southern Germany.

4. Methodology and Methods

4.1 Introduction

The primary aim of this research is to investigate different aspects of strategic planning practices and organizational processes within SMEs in the Southern German construction industry. This is expected to shed light on the applicability of Engeström's (2003) activity-based framework as well as Jarzabkowski and Kaplan's (2015) perspective on strategy practices as tools-in-use in various organizational contexts. Additionally, this study seeks to explore the extent to which particular forecasting tool selection and use are interrelated with other organizational processes on the basis of semi-structured interviews. This will also allow for the investigation of the objectives of organizational decision makers and their planning outcomes within SMEs in the construction industry.

For this qualitative investigation of construction enterprises in Southern Germany, interviews have provided primary data that have served as the basis for a further analysis of planning processes and activities. This study particularly aims to investigate organizational and strategic planning methods in construction SMEs in Southern Germany. This research has investigated the activities of owners and managers from a first-hand perspective of an industry insider. Professional relationships lasting up to 15 years have helped the researcher form bonds of trust with construction firm owners and managers. Thus, a network of work-related contacts to recruit research participants has been used. This study has utilized knowledge gathered from literature review, industry overview, and qualitative methodology to engage with the research subjects in face-to-face encounters. In particular, by exploring planning-related issues in their organizational contexts, this research has attempted to gain first-hand knowledge of strategic planning practices found in the construction businesses in Southern Germany.

This choice of the qualitative methodology is based on Denzin & Lincoln's (1998) position that "qualitative research stresses the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such research emphasizes the value-laden nature of inquiry. Researchers seek answers to questions that stress how social experiences are created and given meaning." (Denzin & Lincoln, 1998, p.8). Bryman & Bell (2011) suggest that quantitative research focuses on collecting data obtained through methods such as questionnaires or surveys and analysing statistical relationships or divergences. In contrast to quantitative research, the specific research methods applied in qualitative research include case studies, interviews, observation, and ethnographic studies.

Therefore, through its use of qualitative research methods, this study aims at gaining a better understanding of the perceptions of construction business owners and managers, thoughts, and actions while they are engaging in strategic business planning activities. Furthermore, this study seeks to generate instrumentally and intrinsically valuable research results aimed at benefitting a large society.

4.2 Research Paradigms

A paradigm can be defined as “a set of basic beliefs (or metaphysics) that deals with [...] first principles. It represents a worldview that defines, for its holder, the nature of the world, the individual’s place in it, and the range of possible relationships to that world and its parts” (Guba & Lincoln, 1994, p. 107). Paradigms are, thus, “clusters of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, and how results should be interpreted” (Bryman, 1988, p.4).

Burrell and Morgan (2005) suggest that the functionalist paradigm focuses on social or organizational phenomena. Given an objective orientation of the functionalist paradigm, a researcher adopting this paradigm “chooses a realist, positivist, determinist and nomothetic perspective, is interested in investigating the status quo, order, consensus, integration and solidarity, and aims to provide practical solutions to practical problems, such as moderate social change or understanding order through the use of models and methods of natural sciences to study human affairs” (Burrell & Morgan, 2005, p.26).

By contrast, the interpretivist paradigm is associated with “a nominalist, positivist, voluntarist, and ideographic perspective, show[ing] interest in cohesive, ordered and integrated activities, and focus[ing] on topics such as status quo, consensus, solidarity and actuality in which conflict, domination, contradiction and change play no part in a theoretical framework” (Burrell & Morgan, 2005, p.31–32). The interpretive paradigm represents a subjective perspective on social phenomena.

The radical humanist paradigm investigates radical change processes in themselves and in organizations from a subjective perspective. The radical humanist paradigm is thus associated with “a nominalist, anti-positivist, voluntarist and ideographic perspective, places priority on radical change, domination, emancipation, deprivation, and potentiality during which a release from the constraints which exist in social arrangements are placed upon human development” (Burrell & Morgan, 2005, p. 32–33).

The radical structuralist paradigm examines social conflicts and radical changes. This paradigm “focuses on social phenomenon from a realist, positivist, determinist and nomothetic perspective, investigates structural relationships within a social world and drives the research on deep-seated internal contradictions, conflict, change, power, and deprivation which are caused by political and economic crisis” (Burrell & Morgan, 2005, p.33–34).

Associated with empirically testing hypotheses and theories, the positivist paradigm is characterized by “realism, dualistic and objective, and experimental and manipulative perspectives. [From this perspective, a]n apprehendable reality exists and is driven by natural laws and mechanisms of causes

and effects...investigator and the investigated object are independent entities without influencing one another through personal opinions and judgment” (Guba & Lincoln, 1994, p. 109–110).

Allowing researchers to investigate phenomena in their environments, the post-positivist paradigm is characterized by “critical realism, dualistic and objective, and modified experimental and manipulative perspectives. Reality is assumed to exist but to be only imperfectly apprehendable because of basically flawed human intellectual mechanisms. Critical traditions with pre-existing knowledge and the critical community will ensure the replicated findings as probably true but always subject to falsification. The researcher [adopting this paradigm] aims to falsify hypothesis in the research” (Guba & Lincoln, 1994, p. 110).

The critical theory paradigm is associated with a “historical realism, transactional and subjective and dialogic and dialectical perspective. Reality is assumed to be apprehensible and over time shaped by a congeries of social, political, cultural, economic, ethnic, and gender factors. Based on this paradigm, the findings are crystallized into a series of structures taken as real, natural and immutable where during this process the investigator and investigated object are assumed to be interlinked with the value of the investigator influencing the inquiry and the findings are value mediated” (Guba & Lincoln, 1994, p.110). Thus, the critical theory paradigm can especially enable gaining a rich understanding of dynamic processes, such as changes and transformations.

The constructivist paradigm approaches social phenomena from a “relativists, transactional and subjective, and hermeneutical and dialectical perspective. According to this paradigm, reality exists as apprehensible forms of multiple, intangible mental constructions, socially and experientially based, on the individual persons or groups holding the constructions. During the investigation the investigator and the object of investigation are assumed to be interactively linked so that the findings are literally created as the investigation proceeds. Constructions are interpreted using conventional hermeneutical techniques, and compared and contrasted through dialectical interchange” (Guba & Lincoln, 1994, p.111). Constructivist research primarily relies on personal interactions and nonstructured interviews as sources of new discoveries based on qualitative data.

In contrast, the feminist paradigm approaches social phenomena from a “critical standpoint”, as it examines “lived experience, conversation, emotion, and reflexivity” in relation to “race, gender, class” (Denzin & Lincoln, 1998, p.27). Since the cultural theory paradigm provides a cultural critique of social phenomena, it examines the manner in which “race, class and gender are produced and enacted in historical specific situations” (Denzin & Lincoln, 1998, p.27).

Thus, the present study subscribes to the interpretivist paradigm of empirical research, since it seeks to arrive at its research objectives through the collection of semi-structured interviews reflecting the subjective perspectives of research participants on strategic planning. At the same time, this thesis

also includes elements of the post-positivist paradigm in that it assumes the objective existence of organizational processes, seeks to either corroborate research objectives and strives to arrive at replicable findings.

4.3 Research Ontology

In its basic form ontology attempts to provide answers to questions of “what sort of a world this is” (Bateson, 2000, p.313) and “what the nature of reality is and what can be known about it” (Guba & Lincoln, 1994, p.108). Ontology attempts to answer “whether social entities can and should be considered objective entities that have reality external to social actors, or whether they can and should be considered social constructions built-up from the perceptions and actions of social actors” (Bryman & Bell, 2011, p.20). As a general philosophical view of the world, ontology establishes therefore a divide between internal or external properties and processes. According to Burrell and Morgan (2005), a clear divide exists in ontology between nominalism and realism.

According to nominalism, reality exists externally and has multiple forms. This external reality is however internally interpreted and understood in the minds of social agents and through cognitive processes. Since reality is created internally out of “nothing more than names, concepts and labels they are regarded as artificial creations whose utility is based upon their conveniences as tools for describing, making sense of and negotiating the external world” (Burrell & Morgan, 2005, p.4). Rather than being abstract objects or ideas of reality, names, concepts, and labels help humans create an understanding of their reality.

Realism is based on the premise “that there is an independent external reality to which scientists direct their attention and separate reality from the description of it” (Bryman & Bell, 2011, p.17). According to realism, there is “a world made up of hard, tangible and relatively immutable structures that exist as empirical entities, in which the individual is seen as being born into and living in a reality of its own” (Burrell & Morgan, 2005, p.4).

This study seeks to combine these ontological perspectives in that it both concedes that social agents create external reality through their cognitions and asserts that social reality exists independently of its individual descriptions, which corresponds to the nominalist and realist ontology respectively.

4.4 Research Epistemology

Epistemology refers to the manner in which “we know anything, how we know what sort of a world it is, and what sort of creatures we are that can know something of this matter” (Bateson, 2000, p. 313). Epistemology interrogates “the nature of the relationship between the knower or would be knower and what can be known” (Guba & Lincoln, 1994, p.108). Epistemology, thus, seeks to provide an answer to “the question of what is (or should) be regarded as acceptable knowledge in a discipline and

whether or not the social world can and should be studied according to the same principles, procedures and ethos as the natural sciences” (Bryman & Bell, 2011, p. 15).

According to positivist epistemology, the search for explanations for and predictions of “what happens in the social world by searching for regularities and causal relationships between its constituent elements and that the growth of knowledge is essentially a cumulative process in which new insights are added to the existing knowledge and false hypotheses are eliminated” (Burrell & Morgan, 2005, p.4). The positivist epistemology to generating and interpreting knowledge is associated with an objective perspective, a value-free approach, deductive analytical processes, and internal and external consistency, which contribute to the replicability of positivist findings.

By contrast, anti-positivist epistemology, also known as interpretivism, is characterized by “a view that the subject matter of social sciences – people and their institutions – is fundamentally different from that of the natural sciences” (Bryman & Bell, 2011, p.16). According to this epistemology, the social world “is essentially relativistic and can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied” (Burrell & Morgan, 2005, p.5). Anti-positivism is associated with a subjective point of view, in an attempt to understand why people think and act the way they do in relation to their social settings. Anti-positivism primarily uses inductive reasoning and generates new theories and knowledge with the help of its findings.

Furthermore, an ideographic approach to social research claims that it is necessary to “place [...] considerable stress upon getting close to one’s subject and exploring its detailed background and life history. The analysis of the subjective account which one generates by getting inside situations and involving oneself in the flow of life and letting one’s subject unfold its nature and characteristics during the process of investigation” (Burrell & Morgan, 2005, p.6). According to the ideographic approach, researchers’ process needs to be focused on subjective, interpersonal, and qualitative aspects, in an effort to understand the thoughts and actions of research participants through dialogue, interviews, and observations.

The nomothetic approach stresses “methods employed in the natural sciences, which focus upon the process of testing hypotheses in accordance with the canons of scientific rigor. It is preoccupied with the construction of scientific test and the use of quantitative techniques for the analysis of data. Surveys, questionnaires, personality tests and standardized research instruments of all kinds are prominent tools” (Burrell & Morgan, 2005, p. 6). The nomothetic approach to research aims to verify or falsify scientific theories through hypothesis testing.

Therefore, the present research is positioned within the realm of interpretive epistemology, since it seeks to arrive at its findings through inductive methods, approaches strategic planning practices through the point of view of research participants, and seeks to explore the interrelations between

strategy practices and their social settings. Nevertheless, this study also incorporates elements of both positivist and nomothetic epistemologies, without subscribing to their methodological assumptions. Thus, this thesis also seeks to uncover relationship patterns between various aspects of strategic practices and their organizational contexts, while engaging in a qualitative examination of research objectives.

4.5 Research Approaches

According to the deductive approach to research, “the researcher, on the basis of what is known about a particular domain and of theoretical consideration in relation to the domain, deduces a hypothesis (or hypotheses) that must then be subjected to empirical scrutiny. Embedded within the hypothesis are concepts that will need to be translated into researchable entities and deduce a hypothesis into operational terms. This means that the scientist needs to specify how data can be collected in relation to the concept that makes up the hypothesis” (Bryman & Bell, 2011, p.11). The deductive approach is concerned with hypothesis testing on the basis of which hypotheses are either confirmed or rejected. Within this approach, empirical data are collected via quantitative methods, such as surveys.

According to the inductive research approach, “theory is the outcome of the research, and the process of induction involves drawing generalizable inferences out of observation” (Bryman & Bell, 2011, p.13). This research approach primarily makes use of a qualitative research methodology such as interviews. The process of the evaluation of collected data will also include a qualitative analysis. Since inductive reasoning follows a sequence of steps of introducing a qualitative methodology, selecting qualitative methods, collecting qualitative data, and evaluating qualitative findings, this research makes inductive conclusions based on its research findings.

4.6 Research Position

This research has been conducted from an insider’s, emic perspective. This research position demands immersing oneself into “a cultural setting, developing longer-term relationships with informants and taking on social roles and pursues with this activity a more structured program of interviews and observations” (Morris, Kwok, Ames, & Lickel, 1999, p.782). The goal of this perspective is to draw on previous knowledge of the subject matter and therefore create a better understanding of a specific phenomenon that is being investigated. For the analysis of qualitative findings, the emic position uses inductive reasoning and qualitative research methods. The emic position attempts to capture the specific aspects of individual actions within a specific cultural setting and a time frame.

For this research, the etic position has not been found to be suitable, since as an outsider’s perspective it involves “brief, structured observations of several cultural groups and these observations are made in a parallel manner across different settings” (Morris, Kwok, Ames, & Lickel, 1999, p.782). The goal

of this perspective is to understand human practices that take place across different social groups, while using quantitative research and data collection methods, such as surveys using large samples. This research position particularly fits comparative studies of cross-cultural behaviour across different countries.

The emic research position conducted from an insider's perspective is suitable for this research, because the principal investigator has developed working relationships with research participants over fifteen years, which has enabled conducting interviews with these individuals. Even though gaining access to these research participants has been based on pre-existing relationships of interpersonal trust, the data collection process has demanded the application of research ethics, as part of making sure that sensitive information about participating companies or planning or strategic practices is not disclosed. To understand the nature of different aspects of strategic and planning practices taking place in Southern German construction firms, individual thoughts, perceptions, and actions of their owners and managers historically have been investigated through semi-structured interviews.

4.7 Analytical Framework

In this study, Engeström's (2003) activity theory and Jarzabkowski and Kaplan's (2015) perspectives on strategic planning practices as tools-in-use have guided the process of both data collection and data analysis. To obtain empirical data, this study has applied the qualitative methodology of semi-structured interviews. These semi-structured interviews have examined various aspects of strategic and planning practices, such as the relationships between the research subjects and their tools and methods, community resources, division of labour, rules and regulations, and objectives that have served as parameters for subsequent data analysis. The interviews were conducted in German. Afterwards, their transcripts were translated into English. These initial interview findings have been coded to enable their qualitative analysis. The resultant data have been examined with the aim of understanding similar or different aspects of corresponding strategic and planning practices.

Since firms are different in their organizational characteristics and practices, these organizations are likely to have firm-specific configurations of choices and preferences between different dimensions of strategic and planning practices. An owner or manager of a privately managed small enterprise with a single business unit is likely to apply different strategic and planning practices from those of a manager operating a large firm with several divisions. Therefore, this study has examined the degree to which the strategic and planning profiles of the companies that research participants represent significantly differ from each other with respect to corresponding activities.

This study has also sought to understand the internal thought processes behind the selection of planning methods, external precedents of engaging in strategic planning activities, and the relationships between organizational characteristics and the choice of strategic planning tools and

practices. Since, in the construction business, these tools may involve traditional or modern planning methods, this study focuses on investigating the nature between different aspects of strategic planning practices in the context of their particular organizational settings.

4.8 Data Collection Methods

4.8.1 Research Participants

According to the EU Commission's (2003) report, SMEs can be classified into three categories of micro, small, and medium firms. The factors determining the categories are enterprise staff headcount and either turnover or balance sheet total.

Table 2: EU Recommendation 2003/361 SME Classifications

SME Category	Staff Headcount	Turnover In € Million	Balance Sheet Total
Micro	< 10	< 2 m	< 2 m
Small	< 50	< 10 m	< 10 m
Medium	< 250	< 50 m	< 43 m

Prior to the actual interviews, the researcher contacted the owners and managers in September 2013. The researcher obtained preliminary data concerning SME staff headcount and annual turnover. This data enabled the researcher to classify the enterprises into the EU Commission's (2003) suggested categories and prepare for interviews set at later dates.

Table 3: SME Interview List

SME Category	Staff Headcount	Turnover Mil. €	Construction Firm Name	Address	Postal-code
Micro	1	x < 2	Anton Rauner Bauunternehmen GmbH & Co KG	Grottenaustr. 15, Jetting-Sheppach	89343
Micro	3	x < 2	Schmid Dominik Bauunternehmen GmbH & Co. KG	Lindlstr. 33, Kissing	86453
Micro	4	x < 2	Schneider Bauunternehmen GmbH & Co. KG	Gebrüder Frisch Str. 13, Kissing	86316
Micro	6	x < 2	Rohrmoser Josef Bauunternehmen GmbH & Co. KG	Riedener Str. 19, Dasing	86453
Micro	7	x < 2	Maurus Bauunternehmen GmbH & Co. KG	Siemensstr. 8, Gersthofen	86368
Micro	7	x < 2	Lindermeir Bauunternehmen GmbH & Co. KG	Hauptstr. 12, Aindling	86447
Micro	7	x < 2	Gerbl Franz X. Bauunternehmen GmbH & Co. KG	Schulweg 7, Aichach	86551

Micro	7	$x < 2$	Asam Josef Bauunternehmen GmbH & Co. KG	Dorfstr. 5, Tödtenried	86577
Micro	8	$x < 2$	Klostermair Bauunternehmen GmbH & Co. KG	Augsburgerstr. 17, Affing	86444
Small	10	$x < 10$	Miller Anton Bauunternehmen GmbH & Co. KG	Marktanger 9, Aindling	86447
Small	10	$x < 10$	ZS Wohnbau Bauunternehmen GmbH & Co. KG	Burgstr. 2 b, Dillingen	89407
Small	10	$x < 10$	Winter Karl Bauunternehmen GmbH & Co. KG	Laugnastr. 38, Wertingen	86637
Small	13	$x < 10$	Kramer Stephan Bauunternehmen GmbH & Co. KG	Gartenstrasse 26, Langweid	86462
Small	13	$x < 10$	Wittkopf Bauunternehmen GmbH & Co. KG	Aichacher Str. 35, Inchenhofen	86570
Small	15	$x < 10$	Bradl Thomas Bauunternehmen GmbH & Co. KG	Hochgrasweg 50, Friedberg	86316
Small	16	$x < 10$	Sturm Hubert Bauunternehmen GmbH & Co. KG	Sägmühl 1, Rehling	86508
Small	17	$x < 10$	Stoll Leo Bauunternehmen GmbH & Co. KG	Hedwigstr. 22, Meitingen	86405
Small	18	$x < 10$	Maurer Tobias Bauunternehmen GmbH & Co. KG	Ortsstraße 2, Hafenhofen	89356
Small	20	$x < 10$	SAS Bauunternehmen GmbH & Co. KG	Josef-Felder-Str. 40, Augsburg	86199
Small	20	$x < 10$	MH Conceptbau Bauunternehmen GmbH & Co. KG	Auf der Kohlstatt 27, Rettenbach	89364
Small	21	$x < 10$	Kraus Ulrich Bauunternehmen GmbH & Co. KG	Erlinger Str. 6, Meitingen	86405
Small	21	$x < 10$	Frauenknecht Bauunternehmen GmbH & Co. KG	Augsburger Str. 61, Rehrosbach	86495
Small	22	$x < 10$	Höger Bauunternehmen GmbH & Co. KG	Färberstr. 2, Aindling	86447
Small	29	$x < 10$	Ruisinger Bauunternehmen GmbH & Co. KG	Jägerbreite 1, Baar	86674
Small	40	$x < 10$	Ausperger Bauunternehmen GmbH & Co. KG	Alte Wertinger Str. 9, Zusamaltheim	86637
Medium	70	$x < 50$	Mayr Emil Bauunternehmen GmbH & Co. KG	Kapellenstr.7, Ettringen	86833
Medium	75	$x < 50$	Züblin Bauunternehmen GmbH & Co. KG	Finninger Str. 64-66, Neu Ulm	89231
Medium	118	$x < 50$	Bendl Bauunternehmen GmbH & Co. KG	Lußweg 2, Günzburg	89312
Medium	150	$x < 50$	J.Dobler Bauunternehmen GmbH & Co. KG	Unterfeldstr. 12, Augsburg	86199
Medium	151	$x < 50$	HBW Bauunternehmen GmbH & Co. KG	Im Krautgarten 15, Thannhausen	86470

The construction companies that were selected are located in the proximity of Munich, Augsburg, Ulm, Günzburg, Landsberg, and Ingolstadt in Swabia and Upper Bavaria. Currently, all of the selected companies are held in private hands and are directly managed and owned by family

members. Only a small fraction of the medium construction firms have been sold off to larger firms. Based on limited partnership criteria, GmbH & CO. KG enterprises in Germany exhibit similar characteristics as LLCs in the United Kingdom and United States (Neubert, 2017). For example, some similar characteristics can be found in enterprise formation, ownership, management, liabilities, and taxation. For this study, 33 owners and managers of limited partnership SMEs have been selected for interviews scheduled from November 2013 to February 2014. The SMEs also have been subdivided into three categories of micro, small, and medium firms at this stage of the research.

4.8.2 Research Questionnaire

The utilization of a structured research questionnaire in the course of data collection has been based on the premise that semi-structured interviews “ensure that interviewees’ replies can be aggregated, and this can be achieved reliably only if those replies are in response to identical cues [...]”. Interviewers are supposed to read out questions exactly and in the same order as they are printed on the schedule” (Bryman & Bell, 2011, p.202). Consequently, the questions of these semi-structured interviews have been amenable for their coding, due to their correspondence to different aspects of strategic and planning practices such as the subject, artefacts and tools, rules, division of labour, community, and objectives. These aspects have supplied the structured framework for the interviews that were conducted.

Therefore, the research questionnaire has served as the basis for this inquiry into the strategic planning activities on the individual or groups level, such as those of business owners or managers, family members, and the staff. Various questionnaire items have also addressed specific planning artefacts, tools, methods, and resources that mediate and facilitate strategic planning activities. These questions on planning artefacts and tools have explored the place of various types of basic planning methods, computer software, and personal intuitive skills as tool-in-used in strategic planning practices.

The questionnaire has also explored restrictions and regulations that are brought to bear on the stage prior to planning activities and during strategic activities (e.g., industry norms, trade practices, and/or financial regulations). Corresponding questions have inquired into internal and explicit external rules that owners and managers applied with regard to strategic planning activities. In this study, implicit rules are interpreted as internal rules created by company owners and managers themselves, while explicit ones are external rules created by the industry, consultants or accounting firms. Given that rules are likely to become more formalized at firms applying more elaborate the planning methods, this questionnaire comprises items referring to different types of rules strategic planning activities may invoke.

The questionnaire has also sought to inquire into the manner in which communities, collectives and groups contribute, or not, to strategic planning activities (e.g., regional, national and international members or groups). The relevant questions have explored different forms the relationships between the owners and managers and the construction community can take, such as actively dynamic or static ones. The questionnaire has also probed into the assignment of various types of roles and responsibilities to different people during the strategic planning activities (e.g., analysing, brainstorming, and communicating ideas to/with other members in an organization). The corresponding questions have prompted responses about the manner in which roles, tasks, and responsibilities are defined or designated during the process of strategic planning.

Additionally, the questionnaire has investigated objectives as motivations and goals underpinning strategic planning activities (e.g., defining and understanding past practices in planning and/or introducing an entirely new method as an alternative to strategic planning). Through questions about these aspects of strategic practices, this study has sought to identify the reasons for the sake of which company owners and managers conduct strategic planning as an activity oriented toward a certain goal.

The questionnaire that has guided semi-structured interviews can be found in Appendix I.

4.8.3 Semi-Structured Interviews

Due to the unique focus of this study that was conducted in Southern Germany, the questions that were asked during semi-structured interviews were translated into German, given that German-speaking company owners and managers were the subjects for this study. In view of the fact that Southern Germany consists of the regions of Upper Bavaria and Swabia with locally specific dialects and expressions, this study demanded the utilization of regional dialects while conducting the interviews with research participants. After the interviews were transcribed and translated into English, the transcripts were recoded for qualitative analysis purposes only. The template according to which semi-structured interview transcripts have been formalized as separate variables to identify what is unique [1] and common [0] can be found in Appendix II.

4.8.5 Data Collection Process

The primary empirical data was collected in the course of four months between November 2013 and February 2014. As previously mentioned, the English interview questions were first translated into German. The 37 translated interview questions were printed on interview forms. It should be mentioned that as an interviewer, the principal investigator took two sets of German interview forms to the owners and managers participating in this study. One interview form was presented to the firm owners or managers, while another form remained with the primary researcher for the purpose of recording the responses. The questions were read to each owner or manager in German and in a

structured manner, to make different interview items easy to follow. On average, the interviews lasted between one hour and two and half hours. In the course of each interview, the researcher recorded the answers of research participants in writing on the duplicate interview form. The German-language data collected during the interviews was transcribed afterwards. The interview responses were translated from German into English in two subsequent months. In the results and analysis sections of this thesis, all references to particular enterprises or individuals have been removed from the English-language transcripts made, based on translations from German originals as sources of qualitative data, to protect the privacy and anonymity of owners and managers participating in this study.

4.8.4 Qualitative Analysis

This study “provides an opportunity to consider and study a situation, individual, event, group, organization, or whatever appropriate as [its] object” (Wisker, 2001, p.190-191). In this research, owners and managers of variously sized construction companies operating throughout Southern Germany have been chosen for semi-structured interviews, the results of which have provided a basis for their inductive analysis for the purpose of exploring “the relationship between theory and research” (Bryman & Bell, 2011, p.60). The qualitative data collection method of semi-structured interviewing has generated a data sample that was subsequently coded and analysed.

For the purposes of the qualitative methodology, the transcripts of semi-structured interviews have undergone formalization. As Appendix II demonstrates, each interview transcript was encoded into a data file. In the process of this, open-ended responses have been encoded as unstructured text entries. Furthermore, given that in the cases several aspects of planning practices could be mentioned in a single response, using variables to encode responses to a single question was deemed to be the most appropriate manner to capture the complexity of the qualitative interview results.

This research approach largely follows therefore the qualitative methodology, since it serves “the purpose of comparing the cases that are included [into a given sample].” Bryman & Bell, 2011, p. 63). Furthermore, the application of the qualitative method allows researchers to “compare and contrast the findings deriving from each of the cases. This approach in turn encourages the researchers to consider what is unique [0] and what is common [1] across cases and frequently promotes theoretical reflections on the findings” (Bryman & Bell, 2011, p.63).

4.9 Research Ethics

This study has strictly followed research ethics guidelines, which demand “that researchers should do no physical or psychological harm and that when people are involved the participants should give their fully informed consent before taking part” (Wisker, 2001, p.125). As research interviews were conducted, all interviewees were provided with comprehensive advanced information about the reasons behind the study.

As part of this, the researcher provided research participants with background information about his university affiliation and the purpose of the study before making a request for an appointment, which was required for the conduct of the interview. Afterwards, the researcher informed research participants of his intension of recording their responses upon which their explicit consent has been obtained. The researcher also informed these individuals that at any time throughout the interview, if they felt uncomfortable, they had the right to withdraw from the interview process. It was also explained to the research participants that all identifying information will be removed from the collected qualitative data, to ensure the confidentiality of their involvement in this study and the anonymity of their organization.

After issues regarding confidentiality and privacy had been discussed with research participants, all 33 research subjects have agreed to take part in the semi-structured interviews. No concerns were expressed about collecting and recording the data during the interviews; even though these individuals clarified that their strategic planning practices represent proprietary information. Since strategic planning methods and techniques are regarded as sources of competitive advantage, the identity of the firms participating in this study was kept confidential, to prevent the disclosure of sensitive, industry-related information related to particular companies. Similarly, the identities of firm owners and managers giving the interviews were kept anonymous throughout the presentation and analysis of the study findings. Based on these preconditions, the interviewees agreed that the study findings may be presented to the public.

5. Findings

5.1 Introduction

This chapter presents the qualitative findings of this study in relation to various dimensions of strategic planning practices, such as their contexts to regulation, labour, resources, tools and methods, and planning outcome. This part addresses the first research objective (RO1) of this study, since it presents qualitative findings concerning different aspects of strategic planning activities and organizational processes within SMEs in the Southern German construction industry. This chapter also presents findings on the second research objective (RO2), as it explores the extent to which the nature of particular planning tools and forecasting method selection and applications are related within SMEs in the Southern German construction industry. To some extent, this chapter also addresses the third research objective (RO3), as it investigate the goals and motivations of organisational decision makers as well as planning outcomes within SMEs. Since this chapter presents qualitative findings of this study, it presents the particular perspective of strategic decision makers within SMEs in the Southern German construction industry. This chapter analyses strategic planning practices and explores the different organizational contexts in which they are applied.

5.2 Strategic Planning Practices

According to a micro business owner whose firm “was founded by his father 40 years ago [and] [...] is now in its second generation of private ownership and management, [...] up to the point when [he] took over, there was no planning in the company. Most of it seems like it was done ad hoc.” Another owner from the group of one to ten person enterprises has described a contrasting situation: “My husband learned the business from his stepfather. The traditions were passed on and have stayed the same over time.” Contrary to these responses, other interviews indicate the direct transfer of strategic knowledge and practices taking place between different generations, as traditions of strategic planning practices are passed down.

For another micro enterprise owner, the situation appears to be different: “After 30 years of being active in the construction industry and having worked in different size firms, I’ve made myself independent. My construction service and consulting company has been on the market since July 2012. As you can see I am the boss and the service provider, so to speak, an all in one organization”. Micro firms appear to exhibit historical continuity in their strategic planning practices: “The planning methods were developed and maintained by me, since the company is only ten years old. There have been no changes since then.” The responses of other owners and managers of construction firms that have been in this industry for less than 20 years follow a similar pattern, as the practices of strategic planning have been developed and are maintained by the original company owners and managers. In

this sample, no knowledge of planning practices seems to have been transferred to other organization members. However, as the companies begin to mature, they seem to make attempts to find new strategic directions.

In small enterprises, the situation seems to be different, since regarding historical practices of strategic planning the same owners and managers continued by stating, one of research participants in this group of companies stated that “up to the point in time when I took over the business there really wasn’t any official planning. I had to introduce the planning [...] from scratch.” Another manager added that “there really wasn’t a joint effort in the planning in the past. All the predecessors did their own thing. Our generation had to bring it all together, since business has become more complex and involved over the years.” The examples above represent a cross-section of planning challenges that occur in early-stage enterprises. An owner of a relatively new company has indicated that “in the past [in my firm] there really wasn’t any planning. I’ve developed my own methods over the years. I did this through personal experience.” Another company manager has described a similar picture: “Since I founded the company and to this date I’ve created the planning by myself. Learning by doing, so to speak.” It seems that this group of subjects develops and maintains their own individual planning styles. They also maintain close contact with their primary sources of information, which they consider reliable and value adding. There are exceptions in this group, however. For example, one manager does planning on holidays, another owner engages in planning in the car while driving, while still another manager prefers being assisted by an accountant or a consultant. It appears that in some cases, research participants need to be free from work-related distractions or office routines that interfere with their strategic planning activities.

In medium construction firms with 25 or more employees that have been in the construction business for a significant period of time, such as over 70 years, their configurations of strategic practices may be more formal than in other company types: “To do business planning we differentiate. We do the operational planning here in the office. The strategic planning always takes place outside the office.” This proactive measure ensures that the manager has fewer interruptions and distractions than an in-house meeting would involve. At the same time, at one of the largest companies in the sample, strategic planning seems to have become set into fixed activity patterns: “There hasn’t been any significant change to the planning [in the recent past].” This could be related to lacking a division of planning labour, since this research participant is currently the only strategic planner and decision-maker in this firm.

5.2.1 Regulations and Processes

In a micro construction firms, the only time that planning rules become more structured is when their owners and managers participate in annual meetings with their accountants. In micro enterprises, informal rules are created by the owners and managers and serve to regulate their employees’ actions,

while the formal rules are communicated and enforced by outsiders, such as the accountants and consultants. In large construction firms, hierarchical rules are enforced by meeting the expectations of superiors, such as members of the board or externally hired controllers.

At micro enterprises, “the main focus [of planning] is strategic [...] [while] the second focus is the finances, [...] [since] operations run automatically in the background.” In terms of preferences regarding planning, small companies have been found to “prefer brainstorming [...] [since it allows their managers] to be creative and open with [...] planning.” A common response to the interview question concerning the types of tools being used in this group of companies has been: “No major tools here! Mostly Office, such as Excel and Word. We do have LEXWARE for small enterprises.” At small construction enterprises, strategic planning is either daily or ranges from infrequent to ad hoc, as an owner of a small company has stated: “I guess we do planning on a daily basis. The planning is depended on the work and the contract load. In terms of real planning, we do it once a year, during autumn with our accountant.”

With regard to the formalization of strategic planning, a manager of a micro company provided a response representative of other firms in this group: “There are informal rules most of the time. However, every quarter I give my tax advisor a forecast. I tell him how I expect operations are going to develop. This involves cash flow and receivable forecasts in this case.” This attitude is echoed by answers from other managers in this group of enterprises: “There are no rules here. My planning is flexible, open and free of any methods.” When firm owners and managers meet with their accountants, adherence to the accounting rules and regulation are brought into the forefront of the discussions taking place between these parties. Thus, a manager of an eight-person enterprise has stated that “the rules are informal, in how the planning takes place and the format it uses. I think that the only time the planning has to be formal is when I submit something to my accountant.”

A small-enterprise manager has similarly indicated that “there are informal rules, generally speaking. The only time it gets formal is when we do forecasts for the bank or the accountants.” However, at another medium company, an entirely different perspective was found: “The forecasting is a formal process, since it involves our external consultant and accountant. The strategic planning is informal. It is open and creative.” Similar statements are provided by the other owners and managers in this particular group of enterprises. By contrast, an owner of a firm with 40 employees gave a different response: “There are formal rules that I adhere to. If things are done correctly, then there is clear information to work with in this company.” A manager of a smaller company also stated: “The entire process is formal, since I like structure in my business. I apply these rules so that everyone understands where we are going.” There is, thus, heterogeneity in planning rules, since at one company the planning is “both, informal in my office with written notes and formal with my accountant who expects adherence to rules,” whereas at another company “there are no formal rules

involved.” In this group of enterprises, the planning rules and regulations are communicated clearly to all of the employees. The owners and managers choose to work with both formal and informal rules, as these choices provide both organizational transparency and a sense of purpose to their activities.

At medium construction firms, hierarchical rules are created by managers’ superiors, whereas individually formulated rules are applied by firm management. These rules are either created to regulate managerial actions or are applied to monitor employee behaviour. Thus, an owner of a large enterprise stated, “We have to adhere to rules here. This is especially the case when we do the forecasting. The plans are presented to our superiors, the members of the board. Our division answers to headquarters. X, one of the divisions, answers to Y, our headquarters.” Likewise, he added, “We also use SAP. This program requires very formal protocol and parameters during the planning process. First, it stays on one level, our division. It is however passed on to the corporate division later.” A manager of a larger company explained, “The plans are presented from me, the manager to the owner, Mr. X. I suppose that it goes from the unit level [division] to the corporate level [holding].” While it may seem that at large firms planning activities rules follow a strictly hierarchical chain of command, a manager of a 150-employee firm provided a different perspective: “No, it is not hierarchical. SAP or other software does not dictate the process. The plans are for me.” Furthermore, this research participant also added, “I look at the employees and learn how they do things. I call it learning by doing.”

5.2.3 Community and Resources

With minor exceptions, among micro and small firms, owners and managers primarily conduct strategic planning. By contrast, medium construction firms consider regional, national, and international members or groups as sources of information for their strategic planning activities.

A micro enterprise manager has indicated that his “planning involves a local industry [...] I generally obtain my information from trade organizations (Bau Innung). I also do look at publications from DESTATIS and the German Department of Statistics. Most of the information comes from business journals.” The other community members that are being considered in the planning process here are “developers, clients, architects, and suppliers,” as indicated by another company owner. Owners and managers of micro firms seem to reflect similar perspectives on the construction industry’s impact on planning activities. An owner of a micro company said that: “We are involved in a local industry.” Another small company owner added: “My source for the information is through personal contacts that I have established over the years.” Thus, for strategic planning, small-company owners and managers maintain close personal contracts with their clients and suppliers who they feel contribute directly to their firm’s success.

Similarly, a small-enterprise owner indicated, “there are several sources to contribute. They are district meetings, politicians, and trade organizations. The architects bring us 95% of our revenue, the rest are private consumers. Therefore, the architects are very important to our information exchange.” A manager of another mid-range company added: “There is the internet. There are trade journals. We get pricing and product information for comparisons from them. We also obtain information from trade organizations, architects, and general contractors.” In all other cases, interviewees were found to primarily rely on outside sources and services for their planning activities. Particular focus is placed on the types of resources that assist with planning exercises, while helping to generate new revenues. Thus, an owner of a company with 13 employees explained: “The sources, believe it or not, are all the after-school social clubs that my children belong to. I go to all the events and get the information I need. To some extent my architect that I work with brings valuable information to me as well.” A manager of a larger company stated that approximately “50% of the information comes from the private hands and 50% comes from public hands. Our accountant's office does deliver valuable information when we consider some sort of planning.” It seems that accountants serve as a resource of information, provide industry benchmarks, and offer performance ratings.

This contrasts with the situation at medium construction firms, wherein the owners and managers “are working in a regional market [...] [while] working with a national and even an international community.” A research participant from a 70-person firm explained that his “company is regionally active. However, with our corporate group we’ve become national, if not international. We obtain planning information from official market publications and other literature sources. This includes information published by real estate developers. Also we obtain additional information through the internet, the public domains listings of new projects and permits.” An owner of a larger company indicated a slightly different perspective by stating that his organization is “first and foremost [part] of a regional community. Since we are also active in East (Germany) we’ve become national. I do follow other industries as well. This also includes the ship-building industry. I rely on books, magazines, universities, and our consultant.” However, a manager of another large company with 150 workers stated: “We are only part of a local industry. There are architects and developers who supply me the needed information for planning. I do follow journals and publications that focus on permits that are being issued.”

5.2.3 Planning Labour and Skills

In micro-to-small sized enterprises the strategic planning process involves not only immediate family members such as spouses, in-laws, and children, but also nonfamily members such as accountants, bankers and consultants. Among medium construction firms, the division of labour takes place either through following hierarchical orders issued by the superiors or through a process of democratic and self-directed initiatives. Owners and managers primarily assign roles and responsibilities. In these

firms, members of the board, consulting and accounting firms, and external controllers participate in strategic planning activities as firm stakeholders and shareholders.

This study shows that micro enterprise owners or managers either do planning activities themselves or involve other family members in these activities. An owner of a firm with six employees stated that he does “all the planning, this depending on when I really need it. This requires flexibility on my part.” By contrast, an owner of another small firm indicated a different picture: “My husband and I do the planning [...] my husband is mostly in charge of the technical ideas when it comes to planning. I am mainly involved with the administrative side of the business. I guess that influences the planning.”

An owner of a medium firm follows a similar pattern of the division of labour during planning: “I take care of the technical daily aspects of the business, while my life partner does the administrative side. We do the long term planning together.” This statement also indicates that a division of responsibilities between the administrative and technical sides of planning can exist. However, at other companies, a different division of planning labour situation is the case. One interviewee shared: “It is just me. There is no division of labour here.” It seems that the responses suggest that the division of planning labour is an activity that is either conducted by the owners and managers themselves or involves other family members within the organization. It appears that this division becomes especially apparent as the administrative and technical sides of operational planning are divided and delegated.

Similarly, at small enterprises, some division of planning labour seems to take place, as an owner of a 30-employee firm explained: “For the planning it involves pretty much our entire family. The lead is taken by my brother and me. The skills we use are our combined experience and our ability to look at the big picture. We split the skills, 40% is structured and 60% is intuitive.” However, this division of labour is not necessarily restricted to family members or practiced, as a manager of a similarly sized firm has indicated: “Mostly, I am involved in the planning and sometimes the accountant and the bankers step in.” Thus, the division of labour appears first and foremost to occur between members of the immediate family. In situations where family members lack sufficient knowledge, external agents such as bankers and consultants are hired to assist in the process of planning. This suggests that internal limitations of experience and knowledge exist.

However, there is no clear pattern of the division of planning labour at small companies, as an owner of a firm with 15 workers stated, “No, there is not. I am the only one involved in the process.” By contrast a smaller firm owner had described a different situation in regard to who performs planning: “Mostly myself. I do include my wife when I get stuck. This includes questions that deal with human qualities or my employees.” The degree of family members’ involvement in planning activities can thus significantly vary between firms, as an owner of a 20-person company indicated: “My son and I split the planning information. My son does the external analysis and I do the internal. When we do

the planning process we bring the two perspectives together.” Thus, among medium firms, there exists either no division of labour, or when it occurs it involves only immediate family members, such as spouses and children, when their opinions and perspectives are required.

Owing to their size, medium construction firms are mostly defined by the division of planning labour, as a manager of a 70-employee company indicated: “It is us, the three managers watching over this division. We exchange information based on our experience. There is some political tact and skill behind the process. The members of the board have the ultimate powers.” A manager of a similarly sized firm provided supporting evidence: “It is just the two of us, Mr. X and me. I do the technical side, and, Mr. X does the administrative side of planning. The members of the board review and sign-off the plans.” At the same time, executive managers are likely to have a decisive influence on the planning process, as a large company manager explained: “As the manager of the firm I take the lead in the planning. The skills are good listening and learning here. I like to take a democratic approach to it all, that includes everyone, and usually the majority will decide on the plan.” The manager of the largest company in the sample similarly explained: “I take the lead in planning. I have my two vice presidents, external consultant and accountant that are involved here. The skill I use here is pragmatism. I am the owner, so the plans and the decisions stay with me.”

It appears that operational planning is separated into administrative and technical tasks. As far as strategic planning is concerned, owners and managers are required to collaborate and exchange their ideas before they are presented to board members. This is indicative of a clear division of labour and a chain of command in these types of organizations. At large companies, it seems that managers monitor all aspects of the division of labour, initiate the planning process, assign tasks and projects, and finally approve or reject strategic plans.

5.3 Strategic Planning Tools and Methods

In micro companies, owners and managers primarily use brainstorming, even though many of them make use of basic software packages such as Office, Lexware and computers to make strategic plans. In small enterprises, the planning activity not only includes physical tools, such as software and computers, but also includes reporting and software packages such as MS Office, Lexware, and BRZ. The initial preferred method applied to strategic planning is an unstructured, brainstorming technique, relying on intuition. In medium construction firms, strategic planning includes the applications of advanced methods and techniques such as brainstorming, SWOT, forecasting and scenarios, combined with strategic analysis, such as the reconciliation of accounts as well as target- and actual performance reviews.

In micro enterprises, it seems that intuitive strategic planning predominates, as a manager of a six-employee firm has indicated: “In strategic planning, I look at what the market, the clients and the

competitors are doing. In finance, I watch the cash-flow, the money coming in from my clients and going out to my suppliers. Operations are a daily activity.” Other small firm owners and managers have exhibited similar responses. Owners and managers prefer to engage in planning using techniques such as brainstorming, which is a flexible and unstructured approach that is a common practice carried out at sporadic time intervals with minimal or no formal output. This particular method is an alternative approach to structured planning involving formal documents prepared at regularly scheduled intervals. However, in some cases, structured meetings do occur between firm owners or managers and their accountants once a year. During these annual events, planning ideas are first verbally communicated to their accountants and then transferred onto written documents. Noticeable here are the graduated steps from nondeliberate planning activities to deliberate actions stemming from planning practices. For example, during these activities, planning-related information is entered and evaluated in basic software programs, such as Microsoft Office on personal computers.

Similarly, in small enterprises, it appears that the majority of owners and managers largely conduct their preliminary operative planning unaided or intuitively. The manager of a company with 40 workers describes this in the following manner: “The main areas for the planning are both financial as well as strategic. I have to say that the numbers however have the priority here. The operative planning does run in the background. Operational planning is done in my head and is a daily activity. The rest of financial and strategic planning is done on paper and concerns longer-term planning issues.” Another owner of a 30-employee firm also stated that “the focus tends to be financial and strategic. First comes the financial short term planning, where we look at our cash flow and try to figure out where the money is going to go. I do this planning. The strategic planning addresses issues such as the market, products and services. We try to figure out if we should stay in or get out of different market segments such as finishing, turnkey, or even construction services in the agriculture and farming industry.” Research participants have indicated that as they carry out financial and strategic planning, their actions are mediated by computer software, such as BRZ and DATEV. These software packages provide enterprises with additional resources for improving medium-term financial forecasting and long-term strategic planning. Moreover, the BRZ program allows these users to create multiple-outcome planning scenarios.

A manager of a small firm stated: “We focus on all of the elements when we do the planning. The financial planning has priority though. It stands in the middle of operational and strategic planning.” An owner of a smaller firm has similarly claimed that “all three are important. However, they are different in that the operative and financial reports play a role in that they help create a strategic plan for the company. So the numbers come first, then the strategy formation comes second.” It seems that owners and managers of medium enterprises prioritize financial analysis and planning. As a result, company owners and managers apply financial plans to enhance their strategic planning.

A similar situation has been found at medium construction firms: an owner of a company with 70 workers indicated that his organization “focus[es] on financial planning first, since it is very different to strategic planning. In financial planning, we work with the numbers. In strategic planning we analyse the markets, products and competitors. On the corporate level, we use brainstorming and the SWOT technique. We use computers and software such as Office’s Power Point, Rip Eye 2, Ariba, and SAP.” It appears that in medium companies in this industry, planning is conducted at regularly scheduled intervals. Moreover, in this group of construction companies, software applications allow managers to integrate budgets, forecasts, and scenarios simultaneously into their strategic planning.

Thus, the owner of one of the largest medium firms in the present research sample indicated “the main areas of discussion and focus in our planning are of financial and strategic nature. The operational is part of our day-to-day activities. We like to take a structured approach. We neither use SWOT nor do brainstorming. We bring ideas down on paper. We also use computers. Our programs that we also like to use are BRZ, DATEV and Office. The planning is performed every month. Once a year we sit down with our accountant and external consultant.” It seems that in this firm with 150 workers, planning tools and techniques assist with choosing strategic options and monitoring organizational processes according to standardized protocols and procedures.

5.3.1 Different Forecasting Methods

Interview responses principally suggest that forecasts are an effective method for the minimization of financial risks, while the scenario method could be valuable for finding strategic directions and positions. At micro enterprises, “the advantage of the existing method [of forecasting] has been to minimize risks and create security for our business. We’ve been making money so that is the advantage here and this over many decades”. An owner of a micro company has added that “[scenario planning] might be advantageous if I were to go into a different business sector and decide to grow again.” As another micro firm owner claimed that “the current method of traditional forecasting adds needed transparency.” Thus, “the advantage is to stay on the current course and maintain a sense of predictability and stability through using the current the method [forecasting].” A manager of a micro construction enterprise has also stated that “the advantage [forecasting] is that it minimizes risks.” Interviews indicate that forecasting methods reduce risk and create transparency in business, since they prove to be effective for short-term and single-issue analysis in the course of strategic planning activities.

Similarly, for small enterprises, “[f]orecasting advantages are that they can be done quickly. For scenario planning, the advantages can be the development of long term horizons and multiple-risk assessment.” Interviews indicate that the primary advantage of forecasting is the reduction of time allocated for creating short-term, single-issued plans, while the scenario method is expected to provide support for formulating long-range, multi-issued plans: “The advantage is that forecasting and

scenario planning have proven to be effective methods when it comes down to planning.” At the same time, small-company owners or managers cannot be necessarily expected to switch from one method to another: “Since, I use the forecasting method I am content with this method. I can’t think of any advantages or disadvantages.” This is reinforced by the advantages of forecasting: “The advantage to forecasting is that the short time span is realistic and we can get a grasp on our goals.” As another interview indicates that “the advantage is that my method [forecasting] helps optimize my processes through benchmarking. This is the result of my intuition and experience.” Furthermore, it appears that “the advantage is that the forecasting and strategic planning seem to be working just fine in conjunction with each other, so there are no disadvantages.”

Likewise, at medium construction firms the advantages of forecasting are clearly recognized: “Since we only use forecasting I can tell you the following. The advantages are the method has proven to be successful, it is useful to recognize patterns, and it is effective for our one-year planning.” The major argument in favour of forecasting is its accuracy: “The advantage of traditional forecasting is that it is a relatively accurate planning method.” However, at firms that use both forecasting and scenario planning, there is an equal appreciation of these methods: “There really isn’t a better or worse method. We like to use both.” Even though forecasting is perceived as “exact, transparent and secure,” the scenario method may have potential advantages for large construction companies: “I think that the scenario method might widen the planning perspective. It may explore additional possibilities or alternatives. It may help us to disengage from all the technical and mechanical thinking [that tends to be] quantitative and structured.”

In this connection, for micro construction firms, “[a] disadvantage [of forecasting] is that it is rather short sighted in its scope,” despite its effectiveness for short-term planning. Furthermore, “the disadvantage is the narrow perspective in the planning [forecasting] that I am doing. I have little if no room to move around problems.” The owner of a three-person company added, “the disadvantage is the fact that we do too little planning as it is. The biggest problem seems to be the short sightedness of the current method [of forecasting], which comes out of our gut right now.” This indicates that forecasting can be a hindrance to strategic planning, since it is oriented at analysing individual business problems. At micro enterprise, the possible introduction of scenario planning would also necessitate a significant change in their business strategy: “Yes, if we suddenly switch to a growth strategy. By that I mean going from six to 30 employees again.” An owner of a seven-person firm has expressed a similar opinion: “When we would be dealing with several issues all at once, and they have a longer planning horizon of let’s say 2–3 years then it might become interesting.”

Similarly, at small enterprises, the main “disadvantage [of forecasts] is that they might be inaccurate,” while “disadvantage [of scenario planning] could be not being able to make a decision from all the choices that are generated with this method.” In this respect, company owners and managers are

keenly aware of the disadvantages of forecasting: “It does not help identify weakness and alternatives of my firm.” Moreover, as a manager of a 30-person enterprise claimed that “the disadvantage [of forecasting] is that if the business is not going well, you can’t really change things around fast enough. The numbers don’t really tell or give you a strategic direction or a set of alternatives.” However, these disadvantages, such as its lack of support for long-term planning, do not detract from the usefulness of forecasting: “The only disadvantage I can think of is that my current method [forecasting] takes too much of my time and lacks sometimes perspective.”

Similarly, at medium firms, there is a clear recognition of the limitations of forecasting: “The disadvantage is that the current method [forecasting] creates a certain type of tunnel vision. It sees only things from the inside to the outside. It has only one perspective.” At large companies, forecasting is associated with the “pressure to deliver the numbers on time.” Thus, as an owner of a 75-employee firm indicated, “the disadvantage of our forecasting method is that the influences are different and take place on many levels. These can sometimes not be considered or evaluated with the current system. There is also the extra time that is required, especially when the information has not been complete.” Furthermore, for the largest companies in the research sample, “the [important] disadvantage of forecasting is that there are too many computers and software programs involved.”

Thus, scenario planning may have advantages both in general and for micro firms in particular, due to its “flexibility and openness to planning” or its expected positive impact on an organization’s ability “to solve conflicts.” Similarly, at small enterprises, “the implications [of adopting scenario planning] are to generate more transparency and get a better direction to where we want to go, both with our enterprise in the long run and with our personal futures.” A manager of a 28-person company likewise stated that “[i]t could provide some additional reassurance during times of uncertainty or when risks have to be evaluated.” An owner of a small firm added that “[i]t might help play out different outcomes to varying situations, such as what would I do if it does happen, if it does not happen, or if it might happen.” Thus, the scenario method can assist with identifying environmental changes and evaluating uncertainties in the framework of long-range strategic planning: “The only idea that I can come-up with is that with this method I might move into an entirely different strategic direction, away from just plain forecasting.”

From the perspective of managers of medium companies, “the scenario method might widen the planning perspective. It may explore additional possibilities or alternatives. It may help us to disengage from all the technical and mechanical thinking, quantitative and structured that is.” Medium construction firms may be especially likely to derive advantages from the scenario method, since as a manager of a 75-employee company stated that “the method might be helpful when we have to consider more than just one issue, in particular when a longer planning horizon is required. This is especially the case when the planning goes really far into the future.” Large firms might benefit from

this method, if they seek “to be able to work better as a team than [...] [they] currently are. It could improve the planning process by being even faster once we truly understand the complete process.” As well, the scenario method “might help the creative thinking process.”

However, there are significant obstacles to the implementation of scenario planning, since as an owner of a micro firm claimed that “the scenario method as it is for the current business’ size is a too complex of a planning method.” Thus, small firms have not been found to use this method, as this interview excerpt demonstrates: “because [...] our firm is too small, and I am too old to learn something new.” An owner of a three-person company stated that “the biggest problem in introducing this method is the time and money. The flexibility in thinking is another issue here.” Similarly, at small enterprises, there are reservations concerning the scenario method, since even though, as one interviewee stated, “one could entertain different ways of look at things, changing perspectives, and playing out variations of events or situations,” another research participant indicated that “there wouldn’t be any advantages. I am happy [with] the way things are going right now.”

Furthermore, as an owner of a small firm has explained, “the main difficulty is that everything we do is so short term based. This includes planning and focusing on things such as changes that are constantly taking place in the market place.” Since the introduction of scenario planning involves both organizational and individual-level change, this is likely to lead to resistance to the adoption of this planning method, despite its possible theoretical advantages, such as “the minimization of business risks” or making “the decision process easier.” This is why, in this group of companies, owners and managers perceive the scenario planning method as “problematic. I don’t know enough about the method to make the change.” Therefore, possible positive implications of organizational change that the implementation of this method may have, such as “the creation of additional perspectives [and] [...] a longer and wider view of how things may, may not, or may perhaps turn-out” and “better, faster and more flexible decision-making capabilities for our business,” have not been found to outweigh concerns and reservations about this method.

A similar situation is found at small companies where there are significant obstacles to the introduction of the scenario planning: “There are four difficulties that come to my mind – extra time, money, work, and stress need to go into the complete scenario planning process.” An owner of a 40-person firm similarly stated that “the main difficulty in introducing this method is that the planning horizons are very long. So much can happen during this time. We are also working in a regionally defined market. This method is not useful when you have to cross regional borders or manage many divisions.” Likewise, this method raises significant concerns at other small companies, as the “main difficulties could be that it triggers endless discussions.” Obstacles to the implementation of the scenario planning method range from lacking “understanding how the method really works,” to being “too set in [...] [one’s] ways already.” Thus, “the main difficulty with the method is actually

introducing it and then working with it. This would also include trying to make others employees understand how it works.”

At medium companies, obstacles to the adoption of the scenario planning method involve organizational culture: “The difficulties are the following. Our culture is rather traditional and conservative. There might be a cultural problem with introducing a change to a new method here. There is also the extra time and personnel that is required to work with this method.” Additional obstacles are related to organizational leadership: “The main difficulties may be that the method requires additional leadership skills and an introduction of a new way of thinking.” Large firms also must consider the receptiveness of their employees to the method: “The main difficulty is that the method is too complex for some of my employees to understand.” Additionally, the method can be technically difficult to apply: “It would be difficult to carry out the entire scenario process.” In other words, the implementation of the scenario method will demand significant organizational change: “The difficulty would be the introduction of the method itself. It would be something new, something that we are not used to.” This is why there is ambivalence in relation to scenario planning: “The strategic implications of a change may be twofold. One, it may lead us to the recognition of new larger discoveries of ideas that are painful. Two, the change may have an impact on all of our divisions, not just this one here.” Thus, the scenario method is likely to encounter organizational barriers to its use: “This would be a difficult, if impossible, task to bring about this change because of the culture and politics here.” Even though at some large construction firms the scenario method has been found to be applied and “understood by all the employees,” at other large companies the introduction of scenario planning is unlikely, since it would require a significant change in their decision-making processes.

Therefore, these barriers to the implementation of the scenario method are more significant to firm owners and managers than its advantages, such as “challenging the notion of the existence of more than just one world [...] [and] open[ing] up one’s imagination of these other possible worlds.” Even though “the scenario method should make life easier[,] especially [...] when [...] dealing with multiple issues that might take place in future,” this method is likely to significantly increase the complexity of company management, since it “could be involving more than just one person to come up with different perspectives and business possibilities.” An owner of a firm with 2 employees said: “it has potential [...] [However,] if our business were to grow, then I am pretty sure that the planning would increase in its complexity. It might tap into the part of thinking that has to do with fantasy. It could help with thinking outside the box, which means getting out of the operational day to day routine.” In other words, for these interviewees, the advantages of the scenario method remain theoretical: “It might help me in long range planning, such as ten years or more. One really doesn’t prepare for worst-case when things are going well. That could pose potential dangers.” It seems that its long-term orientation represents an obstacle to its implementation: “I think that the method might

help when having to make long-term decisions involving capital allocation. This might include aspects such as considering investments, generational change, or product portfolio mix.” Additionally, this method appears to be overly abstract, since it is seen as mostly able to potentially make company managers and owners expand their “old way of thinking.”

5.4 Strategic Planning Objectives

Interviews with micro enterprise managers indicate that the strategic planning practices of these companies have instrumental objectives such as maximizing profits, improving processes, and predicting outcomes. Other aspects of strategic planning practices include experiencing feelings of personal satisfaction and creating a sense of economic security. In small enterprises, the strategic goals and motivations of their owners and managers are reinforcing planning activities, creating transparencies, experiencing satisfaction, creating well-being, and providing economic security. In medium construction firms, the goals behind planning activities include choosing the strategic direction such as growth, stabilization, or retrenchment, and making strategic adjustments in changing business environments characterized by risks and uncertainties.

As an owner of a micro enterprise indicated, “the main point of the planning is to generate profit. I want to create and ensure satisfied clients. The motivation behind the planning has to do with the having security and stability for my firm all year around.” An owner of a firm with seven employees similarly stated, “The purpose of the planning is to obtain a sense of security and a direction for my company. I try to have fun at it, maximize the returns, and be successful all at the same time.” However, at micro construction firms, the planning process is not always mainly profit-oriented, as a company owner indicated: “I plan to see if I can make any improvements. This includes finding ways to make my process more efficient and profitable. Of course, I plan to ensure client satisfaction.” Even at smallest micro company the objectives of strategic planning have been found to be complex: “The purpose of the planning is to find out if the activities add-up to the time that is invested in them. Of course, the motivation behind it is to maximize the returns of the time that has been invested in the planning.”

This also holds for small enterprises, as an interviewee managing a firm with 40 workers described, “The main purpose is to be financially independent from anyone. I do not want to be dependent on the banks, especially. I plan to save taxes anywhere I can and try to increase my company’s net worth. There is a motivation - to maximize profits and earnings and monitor costs. I also have a social responsibility to my employees; they depend on receiving their pay checks on time.” In other words, there is a range of objectives that planning activities are expected to achieve: “We conduct strategic planning to be successful, to maximize our profits and invest our earnings wisely. We also do the planning to optimize our processes. After all, earning money should be fun.” On the basis of interviews with medium-company owners and managers, it is possible to conclude that they seek to

achieve a wider range of planning goals, such as analysing past performances and considering future outcomes, than their counterparts from small firms: “Strategic planning serves as a process to confirm that everything turns- out the way it was supposed to. It can also help trace problem areas, deviations from the original plans and such. The motivation is that when it does work it generates a feeling of satisfaction.”

As an owner of a small firm explained, “Strategic planning [is engaged in] for three reasons. One, I try to optimize my business processes. Two, I attempt to review my organizational structure to see if it still is effective. Three, I try to be successful as an entrepreneur.” In other words, at medium companies, planning activities are organization-oriented: “The purpose of planning is to ensure continuity. The motivation for the planning – I want to provide for my family’s well-being. Also planning is part of the self-actualization process.” Additionally, interviews indicate that periodic reviews of company structures and systems are integrated into the process of organizational analysis. To the owners and managers of construction enterprises their effort ensures that their organizations maintain a competitive position over others in the industry. Moreover, it seems that through a combination of reflective strategic analysis and a corrective review of planning activities, the goals for strategic planning are identified and managed more effectively.

At medium construction firms, strategic planning is aimed at achieving similar objectives: “The purpose of strategic planning is the correct positioning of the division in the market place. We try to achieve maximum returns and efficient allocation of our resources. The motivations behind the planning are threefold. One, we are required to do so. Two, we think it is necessary to keep an overview. Three, it is a challenge, such as constantly discovering something new.” It seems that at this group of companies, improving their market positioning is one of the most important goals of planning: “The purpose of strategic planning is to position the firm. It assists with market analysis, helps discover market niches, and reviews products and services that are being provided, or needing adjustments to be made to the business’s portfolio.” However, regardless of firm size, it seems that planning is also aimed at ensuring the economic viability of construction firms: “Strategic planning takes place to ensure the long term existence of this firm. Its purpose is to position the company in the marketplace correctly. It also helps the firm adapt to changes in the environment. The planning includes both forecasts and scenarios. The forecasts are short term, up to one year. The scenario planning is longer, ranging up to five years.”

At the same time, as an interview with a manager of a 118-employee firm has clarified, medium companies seems to have the widest range of strategic goals that planning activities are expected to assist them to reach: “The purpose of the strategic planning is for following reasons. It is about taking responsibility of making sure that all the processes work well. It is about increasing the net worth of the company. It is about maximizing the returns of all the activities that we do here. It is about

securing the company's long-term survival. We work with two methods. One, we use forecasting for short-term projections that involve our regional operations. Two, we use scenario planning that runs a much longer time span, 5–10 years, usually. This is about creating our vision, a direction of where we want to go as a company and as a team.” Thus, at medium construction companies, strategic planning may serve the purposes of increasing the rate of returns, adapting to changes in the marketplace, and meeting the expectations of internal and external stakeholders. In this group of enterprises, forecasting methods are primarily used for short-term planning, whereas the scenario method is likely to be used for long-term strategic planning.

5.5 Interim Conclusions and Discussions

Regarding the first research objective (RO1), strategic planning has been a collective process for the majority of micro, small, and medium construction firms sampled. Research findings have shown that at almost all companies strategic planning plays a role and takes place predominantly at the office, whereas strategy represents a significant part of planning activities. Although MS Office applications are used in the context of planning at almost all companies, planning habitually involves forecasts. Whereas planning effectiveness is assessed in an ad hoc manner in most micro and small companies, planning rules are formalized and structured in the majority of medium enterprises. For only medium companies, financial and strategic planning is differentiated, perhaps because strategic plans are presented mostly to superiors or supervisors, planning is a hierarchical process, and the companies have predominantly regional-scale operations. These findings indicate that analysing different aspects and their relationships between planning practices and other organizational processes can be applied to research.

Regarding the second research objective (RO2), in the micro and small SME construction companies that took part in this study, an intuitive and ad hoc approach to planning predominates, such as brainstorming or simply writing ideas down. For short-term planning, operational issues were the main focus. For medium-term planning, as a rule a yearly meeting with accounting firms providing their services in the Southern German region takes place. During these meetings with accountants, the planning is formal and structured, because specific financial methods and planning tools are applied. Traditional forecasting methods, such as cash flow projections and investment schedules, are engaged with to create the financial plans for these types of firms. This financial planning only has a one-year horizon. It was found that at the researched firms, longer term strategic planning is not practiced on a regular basis. The reason for this could be that the tools and methods specifically available for strategic planning had not been evaluated adequately for their effectiveness. Instead, the firms are practicing contingency planning, as the method applied to dealing with individual issues.

Traditional forecasting methods are in use in micro, small, and medium enterprises, owing to their contribution to the minimization of short-term business costs and risks. For these enterprises, these

forecasting methods have the advantages of promoting long-term organizational growth and exploring new strategic directions in different sectors of the industry. The disadvantages of these forecasting methods have been found to be their relatively short-term horizon and difficulties in handling multiple issues relevant for planning. Though the scenario method could be beneficial for planning changes in the long-term strategic direction and firm positioning, such as considering acquisitions of or mergers with other enterprises, this planning method has not been found to be in use at most companies, except for some of the more medium size enterprises. However, in micro and smaller enterprises, the scenario planning method is perceived by the interviewees as overly complex and requiring excessive amounts of time and resources. Lastly, scenario methods have been considered as involving overly long planning horizons, which were seen as unsuitable, due to rapid changes and volatility occurring in the construction industry.

The qualitative findings of this study indicate that in micro and small enterprises, for the most part, only planning and forecasting methods that require relatively little time for their completion directly assist with meeting financial goals within short-term time horizons and optimize financial reporting by applying industry-wide and report-based benchmarks. However, this short-term approach to planning and forecasting might fail to identify firm-level weaknesses and alternatives, make rapid organizational changes, and find a new strategic long-term direction. By contrast, scenario planning may generate too many options, which is likely to make the process of choosing the right option a difficult one. Further obstacles to the implementation of scenario planning seem to involve the belief that time horizons for this planning method are overly long, that it is only applicable in regional, rather than international markets, and that it may trigger endless discussions, result in stressful situations, and fail to be understood by others. Nevertheless, research participants of medium size enterprises have stated that the scenario method may increase the transparency of organizational processes, help reconsider the strategic direction of the firm in the long run, provide owners, managers, and employees with points of reference in risk-laden periods of uncertainty, offer an overview of hypothetical outcomes of specific situations, and promote change. By contrast, in all three types of enterprises, traditional forecasting is perceived as being exact, transparent, secure, and effective, especially with respect to short- and medium-term organizational planning tasks, even though these forecasting methods may enable seeing situations from a single perspective only. Furthermore, quantitative data used for traditional forecasting may be incomplete and require software and equipment specifically designed for planning activities. Among the more medium sized firms that have been found to use the scenario method in their strategic planning, no disadvantages of this planning method were indicated.

Regarding the third research objective (RO3), in the overwhelming majority of the micro and smaller size enterprises, the resultant plans take the form of simple written documents, rather than complex contingency plans. This could be explained by the findings that in most of the medium sized firm,

only formal rules or prescribed methods and tools are applied for planning purposes. For the most of the micro and smaller sampled companies, however, planning takes place informally, which can serve as an explanation for the finding that at almost all these companies, information systems or software packages do not guide the planning process. In other words, at micro and small construction firms, unstructured planning techniques, such as brainstorming, are mostly in use, which corresponds to the low applications with which formal plans represent potential or actual outputs of the planning process.

In almost all micro, small and medium enterprises, contingency plans, forecasts, scenarios, and predicted states of affairs represent the range of outputs to which the planning process leads, since no other types of techniques and methods have largely been found to be used in planning. In the absolute majority of all these types of enterprises, forecasting is the preferred planning technique, while forecasts are a frequent result of planning activities. This corresponds to the extremely low application with which planning effectiveness as an objective is assessed using other techniques than ad hoc, performance, or reflective review processes. This is also reflected in the relatively low share of micro and small companies, at which scenarios are used as an outcome in strategic planning. Similarly, for only medium enterprises their planning activities include predicted states of affairs, performance charts, contingency plans, benchmarks or other planning result forms to complete their objectives in strategic planning.

6. Conclusions

Based on the first research question (RQ1), this study has examined strategic planning aspects and their relationships between different practices and organizational characteristics of micro, small, and medium construction enterprises in Southern Germany.

This study has investigated qualitatively the presence of distinct patterns between different aspects of planning practices and organizational contexts of researched companies. Moreover, the significant variation in the manner in which planning practices become related to other organizational processes, points out that artefacts and tools of owners and managers influence strategic outcomes. This also indicates a high level of the potential applicability Jarzabkowski and Kaplan's (2015) perspective to understanding that the selection and application of particular methods and techniques do affect strategic planning practices, as further demonstrated in this chapter's subsections. Therefore, this study has followed Jarzabkowski and Kaplan's (2015) perspective that approaches research as strategic planning consisting of complex patterns of activities between individuals and their tools, methods and techniques in organizations.

Furthermore, this study has also made a contribution to the understanding of relationships between other organizational aspects and their utilization contexts, which corresponds to Engeström's (2003) activity theory perspective that strategic planning can be described as processes taking place both inside the organization as well as outside the industry. Therefore, internal and external aspects, such as the division of labour, community resources and rules and regulations, affecting the enterprises differently were considered and investigated. Thus, this research indicates that these particular aspects as planning factors help shape strategic objectives, in correspondence to Engeström (2003). This indicates that the first research objective (RO1) has been achieved.

This research has also sought to explore from the perspective of strategic decision makers the manner in which the nature of planning tools and methods influence their selection, use and outcomes within SMEs in the Southern German construction industry (RQ2). Given that the qualitative analyses of data have been based on original interview responses, the present findings represent the perspective of construction company owners or managers, rather than independent observations of corresponding planning practices and contexts. Thus, this study provides insights into the relationships between forecasting tools and methods and their selection, applications and results from the perspective of organizational decision makers and other organizational processes. This addresses the second research objective (RO2).

Correspondingly, this study has found that significantly different patterns between different aspects of forecasting and planning activities clearly indicate that the nature of specific tools and methods are highly likely to affect their selection, utilization and outcomes, as this chapter's subsections on

strategic planning activities and methods and tools being used demonstrate. At the same time, given that this study has been conducted among micro, small and medium enterprises in the Southern German construction industry, it is also likely that the discovered patterns between different planning activities and forecasting tools and methods are specific to this industry sector. This notwithstanding, the dissimilar choices between tool selection, use and outcomes indicate a significant extent to which the possibilities and constraints of particular planning tools shape strategic planning practices within SMEs in the Southern German construction industry.

Moreover, as Giullian, Odom, and Totaro (2011, p.51) suggest, this study demonstrates that planning practices and their associated choices of particular forecasting tools and methods are complexly related with other organizational activities. This research also supports Harrison's (2008, p.481) position that other organizational processes constitute strategic planning practices. To some extent, this study also corroborates Murphy's (2013, p.151) proposition that different characteristics of qualitative or quantitative forecasting tools and methods are likely to be related with their business environments. In accord with Spee and Jarzabkowski (2009, p.223), the findings of this research have demonstrated that strategic planning practices and the selection and application of tools and methods are also complexly interrelated phenomena between individuals, organizations and industries.

Furthermore, this research has sought to provide an inquiry into the manner in which objectives, such as goals and motivations, of strategic planning practices become related with planning outcomes within SMEs in Southern Germany, which corresponds to the third research question (RQ3) of this study. RO3 is addressed in the subsections on the planning processes of company owners and managers and corresponding outcomes. RO3 was achieved because, as the following presentation indicates that qualitative and quantitative planning tools and methods, their utilization circumstances and planning practice outcomes are related differently with each other. These relationships reflect planning practices, contexts, preferences and outcomes of the planning practices that strategic decision makers at construction firms in Southern Germany undertake, even though other qualitative data on construction firms in other regions or countries may lead to different conclusions.

Based on the findings of the present study and Engeström's (2003) and Jarzabkowski and Kaplan's (2015) theoretical expectations, both the utilization of planning tools and methods and their results are likely to be context-dependent across different industries. Furthermore, the findings of the present study not only explore different types of relationships between tool selection, use and outcomes as variables that are involved in strategic planning processes, but also demonstrate the characteristics of the agency of strategic decision makers that shapes planning practices within SMEs in the Southern German construction industry. In this respect, the qualitative findings of this study complement each other, since the former approach investigates strategic planning processes from the point of view of executive decision makers and other organizational activities, while other parts of the analysis have

concentrated on the nature of planning tools and methods, their utilization circumstances and planning outcomes as aspects between these which characterize the sampled companies as a specific field of research.

In correspondence to Engeström (2003) and Jarzabkowski, Kaplan, Seidl, & Whittington (2015, p.1), this research has, therefore, shown the importance of organizational contexts for strategic practices as factors that shape variation in the forms they take in organizations. The qualitative findings of this study also reinforce the conclusion of Werle and Seidl (2015, p.S67) that different aspects of strategic activities and tool and method utilization are significantly related with particular characteristics of strategic planning processes. Thus, similar to Vaara and Whittington (2012, pp.285–286), this study suggests that the agency of company owners and managers engaged in strategic planning is complexly related with other various aspects of organizational practices.

Therefore, given the relative scarcity of recent research on the relationship between planning and forecasting as strategic practices, organizational characteristics and social processes, the present study makes a contribution to the understanding of the place that these practices and their associated tools and methods, occupy in organizations (Giullian, Odom, & Totaro, 2011, p.51).

6.1 Strategic Planning Practices

The findings of this study indicate that the collective nature of the strategic planning processes is related to the informality of planning rules in micro and small enterprises. Likewise, this study has found that the strategic role of business planning is connected to the domestic or office location of planning activities and the use of MS office software applications, and the ad hoc review of planning effectiveness. According to this study, in all three types of firms the strategic role of business planning is also related to forecasts as results of planning activities.

As well, this study has indicated that the separation of financial and strategic planning activities is related to the six-month periodicity of planning activities, connected to the presentation of planning results to superiors, planning being a hierarchical process, and the regional or national scale of planning activities, and connected to the utilization of formal planning rules in the more medium enterprises. These analytic results broadly correspond to the qualitative findings of this study presented in Chapter 5 that have shown that strategic planning plays a significant role across different company sizes, is more likely to be applied at medium enterprises with formalized planning rules, a regional or national scale of activities and hierarchical management structures.

Furthermore, the findings reinforce the conclusions of Grant (2003) that short and medium-term strategic planning is significantly connected to the utilization of quantitative information and financial analyses. Thus, this study fills an gap in scholarly literature by showing that construction company managers can be expected to use particular strategic planning tools and methods in specific

organizational contexts, which corresponds to the first research objective (RO1) (Jarzabkowski & Kaplan, 2015). In accord with Engeström (2003) this study also demonstrates that specific planning activities emerge between other organizational activities, organizational structures and business contexts. Included here is an awareness of other organizational processes such as the division of labour, community resources, and rules affecting the planning process.

6.1.1 Strategic Planning Regulation, Resources and Labour

Specifically, it is the awareness of the division of planning labour that becomes related to the application of informal planning rules and not linked to the hierarchical nature of the planning process and the presentation of plans to superiors in micro and small enterprises. Similarly, in these enterprises the division of labour in the planning process has been found to be related to the application of informal planning rules and not a factor to the hierarchical nature of the planning process and the presentation of plans to superiors. These analytic results correspond to qualitative findings showing that at micro and small, nonhierarchical companies the division of labour is present in planning activities, while at medium firms planning results are habitually presented to superiors, and planning activities take place in the framework of hierarchical chains of command. This focus on micro and small construction enterprises allows this study to make a contribution to scholarly literature, since extant studies tend to concentrate on medium or larger companies and industries (Soetanto, Goodier, Austin, Dainty, & Price, 2011)

The regional or national scale of planning activities was also linked to the application of formal planning rules, information systems dictating the planning process and the monthly frequency of planning activities, the presentation of plans to superiors, and the hierarchical nature of the planning process in more medium enterprises. These aspects correspond to qualitative results according to which only at more medium, hierarchically organized companies use regional, national and international information sources, while the more micro and smaller- sized companies operate primarily locally. These findings support the expectation of Spee & Jarzabkowski (2009) that the utilization of strategic planning practices can be expected to be related with organizational aspects and planning properties, such as resources from the community and rules and regulations. In particular, this study also confirms Whittington & Cailluet's (2008) conclusions that the selection and application of other strategic planning factors in medium enterprises are likely to be related to the presence of organizational hierarchy and regulation.

This research also indicates that the application of formal planning rules and regulation in medium enterprises is related to the inclusion of other types of methods into planning, information systems dictating the planning process, the presentation of plans to superiors, and the hierarchical nature of the planning process. The presentation of plans to superiors has been found to be related to information systems dictating the planning process, while also being related to the hierarchical nature of the

planning process. Likewise, the hierarchical nature of the planning process is related to information systems dictating the planning process in more medium sized enterprises. These analytical patterns correspond to qualitative findings that demonstrate that only at medium companies with hierarchical managerial structures formal rules become relevant for strategic planning practices. This also corresponds to Beer & Eisenstats' (2000) position that strategic aspects and organizational factors become more integrated to different extents in planning practices. This study thus reinforces prior findings suggesting that hierarchical organizational relations are likely to be significantly related with the utilization of other types of planning methods, such as scenario planning (Hodgkinson & Wright, 2002; Jarzabkowski & Kaplan, 2015), in medium and larger types of enterprises.

6.2 Strategic Planning Tools and Methods

Specifically, the present study has found that in micro and smaller firms a relationship between operations as the main focus of planning discussions and the use of brainstorming as a planning technique exists. This research has found in these enterprises that a link between finances as a focal area of planning activities and the quarterly or half-yearly periodicity of planning and the consideration of potential states of affairs in planning is present. In these firms, this study has also found that strategy as a focal area of planning activities is related to the division of planning labour, to the inclusion of forecasts into planning activities, and the consideration of other potential outputs in planning. Furthermore, in these firms the use of unstructured planning techniques and methods, such as brainstorming, has been found to be significantly related to the use of MS Office applications as planning tools and other tools being used in planning, while not being related to the inclusion of specific project plans into planning.

In contrast, this study has found that the utilization of structured planning techniques, such as SWOT, is a part to the inclusion of contingency plans into planning activities, the application of formal planning rules, the application of alternative tools to planning tasks, the presentation of plans to superiors, information systems dictating the planning process, and a regional or national scale of planning activities in medium sized enterprises. Furthermore, in these enterprises the use of other techniques and methods in planning has been found to be significantly linked to other forms of the planning effectiveness review, to the inclusion of contingency plans and the scenario method into planning, to the office location of planning activities, to the yearly periodicity of planning activities, and the inclusion of forecasts into strategic planning.

According to this research, in micro as well as smaller enterprises the use of written reports as planning tools is related to documents as potential outputs of strategic planning and the reflective nature of the planning review. This study has likewise shown that the utilization of MS Office applications as planning tools is significantly related to documents as outcomes of planning, the ad hoc nature of the planning effectiveness review, and other forms of the planning effectiveness review,

forecasts as outcomes of planning, the inclusion of forecasts into planning; and the continuous nature of planning activities do exist.

In contrast, this research indicates that in more medium enterprises the use of alternative tools in planning is associated to the hierarchical nature of the planning process and to the application of formal planning rules. According to this study, while the quarterly periodicity of planning activities is part to the inclusion of predicted states of affairs into planning, the continuous nature of planning activities is not related to the planning effectiveness review being a reflective process.

These analytic statements correspond to the qualitative interview findings of this study that suggest that micro-to-smaller companies are more likely to be oriented toward operations in their planning activities and using brainstorming as their major planning technique. Qualitative findings also suggest that medium and large companies can be expected to use a broad range of planning tools. However, as analytical findings suggest, for construction companies whether the strategic planning methods and techniques are structured or unstructured has more important implications than whether they apply formal or informal planning rules.

This research, thus, corroborates the findings of Grant (2003) that long-term strategic planning is significantly related to the application of qualitative information and scenario-based planning. By demonstrating these different patterns between particular micro-level individual activities and organizational planning practices, this study fills a gap in extant scholarly literature (Harrison, 2008). Also, this study supports the position of Murphy (2013) that strategic planning practices are a multidimensional and context-dependent phenomenon. The results of this study are congruent with prior findings indicating that the selection and applications of documents as means for strategic planning is significantly associated with strategic planning practices and outcomes (Vaara, Sorsa, & Pälli, 2010). This study, thus, supports the conclusion of Vaara and Whittington (2012) that formal planning procedures and requirements may influence organizational practices related to strategic planning, as mutually constitutive phenomena. The present findings are also in according with recent studies' conclusions that the utilization of particular strategic planning tools and techniques is related to the form they take (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015; Kaplan & Orlikowski, 2013). Likewise, this research concurs with Jarratt & Stiles (2010) whose study indicates that strategic planning methods and tools are likely to be related with the application of particular planning procedures. This study also corroborates the research of Whittle & Mueller (2010) suggesting that technological tools and systems may significantly affect and steer strategic planning practices.

6.3 Strategic Planning Objectives and Outcomes

In this research, benchmarks as planning results have been found to be related to the inclusion of contingency plans into planning activities and the hierarchical nature of the planning process is mostly

found in medium enterprises. While the inclusion of other processes into the planning effectiveness review has been found to be linked to resultant plans taking other than usual forms and the inclusion of contingency plans into planning activities, this study indicates that the inclusion of forecasts into planning activities is associated to the office location of planning activities and the planning effectiveness review including other than usual processes. Whereas the inclusion of the scenario method into planning has been found to be related to planning including other output forms and being a hierarchical process, the consideration or inclusion of scenarios in planning has been found to be significantly related to the scenario method being included into planning.

Furthermore, while in micro or small enterprises the application of informal planning rules has been found to be linked to the planning effectiveness review including a reflective process, the planning effectiveness review including other forms was found to be a part of the domestic location of planning activities. This study has also found that in these enterprises documents as results are related to the consideration of informal rules and the division of labour in planning. Even in micro and small firms forecasts as planning results have been found to be significantly linked to the inclusion of other types of plans of forecasts into planning processes planning being performed continuously. Planning outcomes have been found to be significantly related to the inclusion of local community resources and the application of mostly informal planning rules.

This study, thus, builds upon the research of Engeström (2003) and Jarzabkowski, Kaplan, Seidl, & Whittington (2015), according to which the consideration of aspects, such as location, rules, resources, labour in planning influence planning objectives. These findings also corroborate the prior study of Whittington (1996) showing that the choice of qualitative or quantitative forecasting methods as a strategic tools is likely to affect planning outcome.

6.4 Contribution to Theory

The primary contribution of this study to theory is the validation of Engeström's (2003) activity-based research on strategic practices consisting of complex social processes, such as the division of labour, the selection of resources, and the consideration of rules and regulations. At the same time, this research also qualifies Jarzabkowski and Kaplan's (2015) analytical investigation, since it theorizes that diverse organizational processes are likely to be recursively related with tool selection, application and outcomes. More specifically, this study can serve as a basis for theoretical generalizations that relate to particular planning practices and their reciprocal relations with forecasting methods, tools and techniques. In other words, this thesis makes a contribution to the theorization of business strategy, since it demonstrates that qualitative and quantitative planning methods, tools and techniques and their selection, application and outcomes exhibit particular patterns with other organizational processes.

Thus, this study indicates that strategic planning processes are complexly associated with other organizational processes and their application contexts, which has been found to steer the selection of particular planning tools, such as quantitative or qualitative forecasts used in strategic planning. For instance, this study has found that the more salient the role of long-term strategic planning is, the more likely planning activities are comprised of qualitative forecasts. The more prominent short and medium-term strategic planning is, the more likely planning activities consist of quantitative forecasts. Additionally, another theoretically relevant insight of this study is that the more financial and strategic planning activities are separated, the more likely it is that planning activities take place in hierarchical organizational contexts. Likewise, this study has demonstrated that organizational contexts, such as company size, can be expected to predispose construction companies to either deemphasize strategic planning, such as in micro or small companies, or to set up explicit, formal procedures and protocol for its regular implementation, as has been found in medium enterprises.

Likewise, this study suggests that companies engaging in financial planning are not likely to take recourse to the scenario method and vice versa. In other words, this study indicates that in the context of small and medium Southern German construction companies, the more important strategic planning is, the more likely this to predispose these firm to the deployment of alternative forecasting tools. Since this has been found to be especially the case in regard to medium companies, it could be theorized that the economic scale of their activities both financially enables the application of software-based planning techniques and requires the application of formalized planning activities. This conforms to Jarzabkowski and Kaplan's (2015) analytical perspective that suggests mutually reinforcing relationships between strategic planning tool selection and outcomes with other organizational processes.

Likewise, this study indicates that the scenario method can be expected to be utilized at medium, rather than at micro and smaller firms, since its application hinges on the continuous performance reviews of planning activities. Conversely, this study has found that quantitative planning techniques represent the mainstay of strategic planning at micro and smaller construction firms, while contingency and scenario-based planning remain relatively marginal to planning activities that are more likely than not to have a yearly periodicity. Therefore, according to this study, the utilization of strategic planning software may facilitate the application of quantitative techniques, such as quantitative forecasting, without demanding the formalization of planning activities. In other words, this thesis supports a theoretical proposition that the selection of quantitative or qualitative planning methods, tools and techniques are significantly related with the planning objectives more generally.

This thesis also draws attention to the role that company structure. As a component of the organizational context, it is likely to affect planning practices, as seen in micro and smaller construction firms. Their owners or managers can be expected to primarily apply un-structured

strategic planning techniques, such as brainstorming, whereas hierarchically organized, as in medium or larger, companies may experience a necessity to formalize their planning practice, such as through the application of information technology systems. These findings confirm Jarzabkowski and Kaplan's (2015) perspective on strategy tools as embedded in planning practices and significantly related with their outcomes. Additionally, according to this study the application of qualitative planning methods, such as the scenario planning, has been found to be significantly related to the continuous and longer-range, rather than periodic, nature of planning practices.

This indicates that quantitative or qualitative planning tools, methods and techniques have significantly dissimilar meanings and purpose in strategic planning. This is likely to have theoretical implications, since the relationships between strategy tool selection, application and outcomes can be expected to be different for quantitative as opposed to qualitative planning tools, when formal planning rules and regulations are applied, as this thesis has found. Furthermore, this theoretical conclusion is supported by the finding that informal planning practices can be expected to be related with the reflexivity of planning practices.

6.5 Contribution to Practice

The contribution to planning practice this study makes primarily lies in demonstrating that strategic planning practices are inseparably related with other organizational activities (Giullian, Odom, & Totaro, 2011). Thus, companies seeking to optimize their strategic planning practices need to take into account their relationships with other strategy-relevant organizational processes (Harrison, 2008), such as considering community resources, division of labour and rules and regulation in strategic planning (Engeström 2003). However, despite the complexity of strategic planning practices (Spee & Jarzabkowski, 2009), they can be expected to be shaped by their wider business environments over and above the selection of specific planning tools (Kaplan, & Jarzabkowski, 2006).

Thus, the selection and applications of strategic planning methods and tools needs to be in accord with other organizational contexts, should desirable results be achieved (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015). Additionally, as this study demonstrates, the correspondence of strategic planning tools to strategic planning processes cannot be assumed to exist uniformly, but can be expected to exist with respect to activities in response to company characteristics, industry environment challenges and the aims of firm management (Werle & Seidl, 2015). Based on this study, strategic planning practices cannot be expected to deploy similar forecasting tools or methods, and lead to comparable outcomes, due to their method-specific relationships with other diverse organizational activities (Giullian, Odom, & Totaro, 2011).

This study also suggests that quantitative planning tools and methods, such as financial analyses or cash flow projections, are best suited for single-issue, short and medium-term, strategic planning

projects. By contrast, this research suggests that qualitative planning methods, such as scenario or contingency-based planning, can be expected to be well-suited for multiple-issue and long-term strategic planning projects (Grant, 2003). Furthermore, as this study suggests, despite the significant impact that the organizational context can be expected to have on strategic planning practices (Murphy, 2013), the formalization of strategic planning rules and regulations or lack thereof can be expected to have a significant influence on strategic planning practices (Vaara & Whittington, 2012). In other words, company managers need to be aware not only to formative protocols and procedures of particular strategic planning tools and methods, but also of the role that other organizational contexts can play in the successful application of these due to the presence of other relationships between various planning aspects (Jarzabkowski, Kaplan, Seidl, & Whittington, 2015).

Furthermore, the selection and application of different technological systems and software programs may also facilitate or constrain strategic planning practices in organizations. It can be expected to lead not only to particular outcomes but also to a particular configuration of planning-related organizational practices and dynamics as a consequence (Spee & Jarzabkowski, 2009; Whittle & Mueller, 2010). In other words, as the present research indicates, companies with hierarchical structures may be more successful in their implementation of qualitative planning methods, such as contingency or scenario-based planning, due to their previous experience with a wider range of technological resources, than at companies with nonhierarchical organizational processes (Whittington & Cailluet, 2008). In other words, the utilization of particular planning tools and methods can be expected to be related to the presence of specific configurations of planning practices and organizational contexts (Beer & Eisenstat, 2000). This can be expected to affect the outcome of strategic planning, as the relationships between the utilization of scenario planning and hierarchical organizations suggests (Hodgkinson & Wright, 2002; Jarzabkowski & Kaplan, 2015). Therefore, this study suggests that the choices of strategic planning tools in contexts to specific software programs and technological systems are also likely to affect strategic planning outcomes (Whittington, 1996).

6.6 Managerial Implications

Since this research has focused on the investigation of strategic planning as a complexly interrelated activity, through analysing relationships between various characteristics of strategic planning practices and their organizational contexts, this study hopes to provide organizations with an opportunity to consider alternative approaches to and methods of strategic planning. The primary managerial value of this research lies, therefore, in its effort to serve as a bridge between the academic and professional worlds.

The findings of this study suggest that in the construction industry, strategic planning and forecasting methods are likely to directly assist with meeting financial goals within short-term time horizons and optimizing financial reporting through the application of industry-wide and report-based benchmarks.

Based on this study, it can be proposed that both older and younger generation of owners and managers examine and share their experiences with all forms of planning including operational, financial, and strategic. As present findings suggest, this planning-related exchange of experiences ought to involve a review of the owners' and managers' strengths and weaknesses relating to their experiences with planning methods in organizations. This study also suggests that the advantages and disadvantages of planning tools need to be identified, new tools and methods assessed, and the implications of making changes in planning tools and methods used for planning properly evaluated.

The owners and managers should define, list, and evaluate planning tasks. The owners and managers should address measures for adding professional reflective assessments with an individual's development in mind. Through self-critical professional reflective development, the owners and managers and their employees could improve their deficiencies in personal characteristics, thereby enhancing their planning skills and knowledge. The owners and managers should also assess and list their current resources from the community. This can be expected to supply them with information, including their tools and methods applied to planning. The owners and managers should investigate the effectiveness of current resources, such as through a qualitative assessment of resources that contribute to further the exploration, support, or change to the activity of planning itself.

On the basis of present research, the rules and regulations in planning are evaluated through periodic assessment of the rules and regulations by members who are not a direct part of the organization. This assessment could include the input of industry consultants or regulators. Owners and managers should consider including experts who work outside the enterprise and are knowledgeable of current planning techniques.

6.7 Research Limitations

Owners and managers shared their concern of being unable to define, evaluate, and relate various types of tools and methods used in planning with their employees. This planning practice-related challenge has surfaced not only during discussions of why owners and managers choose what they think is the appropriate hardware and software made available to their enterprises. Specific problems were also located in relation to the attempts by construction enterprise owners and managers to communicate their preferred planning method to subordinate employees in their organizations. Here, contradictions and tensions take place as different styles of communication collide between subordinates and managers. This appears to be the case where disconnected conversation takes place.

Another shortcoming of this study concerns the owners and managers of Southern German construction companies as its primary focus. These owners and managers have served as the source providing insight into the choices made and practices applied to strategic planning. The limitation of this approach is that the focus merely rests on the actual 33 owners and managers, thereby creating a

limited representation of how and why they think, act, learn, and develop the way they do in these types of organizations. While additional members in these organizations do influence the strategic planning activities, their voices with their ideas have not been evaluated in this study.

The introduction of the study to the subjects was stated only as being an investigation analysing strategic planning activities in diverse construction firms located in Southern Germany. The subjects were told that the interviews would last a maximum of two hours. To the owners and managers, the depth and extent of the research was not fully explained to them until the beginning of the actual interviews. This former approach resulted in a need to make additional clarifications and explanations. The interviews were conducted and presented with a structured approach. For the study, there were 37 questions. While this approach produced large amounts of rich data, fully adequate to the purpose of the research, this approach and format posed problems for some of the subjects. The difficulties in this particular approach evidently left no more than three to five minutes to answer each question.

6.8 Research Recommendations

The present research setup could be expanded into other regions outside of Southern Germany. Strategic planning practices could also be researched in other industries. During the interviews, owners and managers have specifically suggested to the researcher the possibility of replicating the research into other industries. Future studies on strategic planning may therefore shift research focus into other industries located outside the construction sector or in other developed countries. For future research, additional exploration of strategic planning may be required to help identify and understand potential problems in strategic planning activities, such as in relation to the individual characteristics of decision makers. Future studies may be recommended to investigate interrelations between various organizational aspects that underpin different types of planning practices, tools, and contexts, while comparing between different industries within the same country, different regions within the same industry and different levels of strategic decision-making within the same organization.

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Appendix I

The Structured Research Questionnaire.

Introductory Questions:

What are some historical facts or milestones about this company?

Where do the business planning activities take place?

Is the planning process a collective one, who does the group consist of? Does it have a specialist or a planning staff?

Does strategic planning play a role in the business?

Does financial planning play a role in the business?

Are strategic planning and financial planning different?

Artifacts (Tools, Methods, and Practices):

What is the main area of discussion in the planning methodology, e.g., operations such as daily reports, or finances such as cash flow and return on investment statements, or strategy such as new markets, new product development and competitor actions? Is it about all three or other?

What specific methods are used in the planning? Are techniques such as SWOT or “brainstorming” being used?

What planning tools, such as computers, software, and paper being used or is the process in the head? Are specifically PowerPoint slides, flip-charts or just written reports or a combination of these or some other tools being used?

How often is the planning performed, once per year, every six months, every quarter, every month or at some other frequency?

Object (Goals and Motivation):

Why is there strategic planning in the firm? What purpose does it serve and what does it seek to achieve? What is the motivation behind strategic planning?

What form does the resultant plan take: a document, a project plan, forecasts, implementation schedules, performance charts, designation plans, or other?

Does it already include or consider any potential contingency, forecasts, scenarios, predicted states of affairs or other forms?

Outcome (Result):

What usually happens as a result of the strategic planning process?

How is the plan implemented? Is it reviewed?

Is it monitored and tested during the period it covers? Are the actions and timeframe reviewed?

At the end of the period covered by the plan is there a review to see how effective it was?

Is this process reflective, ad hoc, performance related, other, or none?

Rules and Regulations:

Are there formal or informal rules about how planning takes place or the format of the plans or the methods used? Is there formal or informal adherence to them?

Who are the plans presented to? Are they presented to superiors or do they stay with the planner or self?

Is it a hierarchical process or not, e.g. unit level, division level, or corporate level or other?

Do information systems or does software such as SAP dictate the process?

Community:

When doing the planning is the activity primarily part of the local industry, the local district, regional or the national community (or some other community)?

If it is the industry, how can one describe the industry (i.e. construction, raw-materials or manufacturing)? Is there a particular agent or other source that contributes information to your planning process?

Division of Labour:

Who is involved and who takes the lead in planning? What skills do these individuals apply?

Who does the planning and who signs it off?

Who has the ultimate power to veto or accept the plans?

Is there a division of labour in the process, e.g. do departmental managers submit estimates to unit managers, who submit to the board?

Are there family members involved in the planning process? Is there a division of labour within the family?

Cultural and Historical Aspects:

How was strategic planning done in the past and how did the current practices come about?

What direction might strategic planning in the firm go in the future?

Relative advantages or disadvantages of traditional forecasting versus modern scenario planning

methods:

What are the advantages or disadvantages of the existing methods for strategic planning in the firm?

Introduction of Scenario Planning's Method (Possible Difficulties/Obstacles and Helpfulness

/Affordances):

Does strategic planning include the modern scenario method's approach? Could the modern scenario method become part of the strategic planning?

Are there additional benefits that might accrue from adopting a scenario planning method?

What would be the main difficulties or obstacles in introducing scenario planning as a method to the business?

What would help or be an affordance in introducing scenario planning as a method to the business?

Implications of a Change to Scenario Planning.

What are the likely strategic implications of a change to scenario planning in the business?

Appendix II

Interview Coding Scheme.

Name of the Firm:

The Number of the Interview:

Number of Employees:

Date of Interview:

Questions based on elements of the activity theory model.

I. Introductory Questions:

A) Researcher: Where do the business planning activities take place? (A.V)

At home: Yes 1; No 0.

In the office: Yes 1; No 0.

B) Researcher: Is the planning process a collective one, who does the group consist of? Does it have specialist or a planning staff? (A.VIII)

The planning process a collective one: Yes 1; No 0.

Does it have specialist or a planning staff? Yes 1; No 0.

C) Researcher: Does strategic planning play a role in the business? (A.I)

Yes 1; No 0.

D) Researcher: Does financial planning play a role in the business? (A.II)

Yes 1; No 0.

E) Researcher: Are strategic planning and financial planning different? (A.III)

Yes 1; No 0.

II. Tools and Practices:

A) Researcher: What is the main area of discussion in the planning methodology, e.g. operations such as daily reports, or finances such as cash flow and return on investment statements, or strategy such as new markets, new product development and competitor actions? Is it about all three? (A.IX)

Operations is the main area of discussion in the planning: Yes 1; No 0.

Finances is the main area of discussion in the planning: Yes 1; No 0.

Strategy is the main area of discussion in the planning: Yes 1; No 0.

B) Researcher: What specific methods are used in the planning? Are techniques such as SWOT or "brainstorming" being used? (A.X)

SWOT is used in the planning: Yes 1; No 0.

Brainstorming is used in the planning: Yes 1; No 0.

Another technique is used in the planning: Yes 1; No 0.

C) Researcher: What planning tools, such as computers, software, and paper being used or is the process in the head? Are specifically PowerPoint slides, flip-charts or just written reports or a combination of these or some other tools being used? (A.XI & A.XII)

Unaided planning is being used: Yes 1; No 0.

Written reports are being used: Yes 1; No 0.

MS Office applications are being used: Yes 1; No 0.

BRZ is being used: Yes 1; No 0.

DATEV is being used: Yes 1; No 0.

Other tools are being used: Yes 1; No 0.

D) Researcher: How often is the planning performed, once per year, every six months, every quarter, every month or at some other frequency? (A.IV)

once a year: Yes 1; No 0.

every six months, Yes 1; No 0.

every quarter, Yes 1; No 0.

every month: Yes 1; No 0.

Continuously: Yes 1; No 0.

III. Object (Goals and Motivation):

A) Researcher: Why is there strategic planning in the firm? What purpose does it serve and what does it seek to achieve? What is the motivation behind strategic planning? (B.I)

[Text input]: Yes 1; No 0.

B) Researcher: What form does the resultant plan take: a document, a project plan, forecasts, implementation schedules, performance charts, designation plans, or other? (B.II)

the resultant plan takes the form of a document: Yes 1; No 0.

the resultant plan takes the form of a project plan: Yes 1; No 0.

the resultant plan takes the form of forecasts: Yes 1; No 0.

the resultant plan takes the form of implementation schedules: Yes 1; No 0.

the resultant plan takes the form of performance charts: Yes 1; No 0.

the resultant plan takes the form of benchmark indicators: Yes 1; No 0.

the resultant plan takes the form of other output: Yes 1; No 0.

C) Researcher: Does it already include or consider any potential contingency, forecasts, scenarios, predicted states of affairs or other forms? (B.III)

The planning output contains contingency plans: Yes 1; No 0.

The planning output contains forecasts: Yes 1; No 0.

The planning output contains scenarios: Yes 1; No 0.

The planning output contains predicted states of affairs: Yes 1; No 0.

The planning output takes other forms: Yes 1; No 0.

IV. Outcome:

A) Researcher: What usually happens as a result of the strategic planning process? (C.I) How is the plan implemented? Is it reviewed? (C.II)

[Text input]: Yes 1; No 0.

B) Researcher: Is it monitored and tested during the period it covers? Are the actions and timeframe reviewed? (C.III)

Are the actions and timeframe reviewed? Yes 1; No 0.

C) Researcher: At the end of the period covered by the plan is there a review to see how effective it was? Is this process reflective, ad hoc, performance related, other, or none? (C.IV)

The review of planning effectiveness is reflective: Yes 1; No 0.

The review of planning effectiveness is ad hoc: Yes 1; No 0.

The review of planning effectiveness is performance related: Yes 1; No 0.

The review of planning effectiveness takes other form: Yes 1; No 0.

The review of planning effectiveness is not done: Yes 1; No 0.

V. Rules:

A) Researcher: Are there formal or informal rules about how planning takes place or the format of the plans or the methods used? Is there formal or informal adherence to them? (D.I)

there are formal rules about how planning takes place: Yes 1; No 0.

there are informal rules about how planning takes place: Yes 1; No 0.

B) Researcher: Who are the plans presented to? Are they presented to superiors or do they stay with the planner or self? (D.II)

the plans are presented to superiors: Yes 1; No 0.

the plans stay with the planner: Yes 1; No 0.

C) Researcher: Is it a hierarchical process or not, e.g. unit level, division level, or corporate level or other? (A.VI)

The planning process is hierarchical: Yes 1; No 0.

D) Researcher: Do information systems or does software such as SAP dictate the process? (D.III)

information systems such as SAP dictate the process: Yes 1; No 0.

VI. Community:

A) Researcher: When doing the planning is the activity primarily part of the local industry, the local district, regional or the national community (or some other community)? (E.I)

the activity is part of the local industry: Yes 1; No 0.

the activity is regional or national: Yes 1; No 0.

B) Researcher: If it is the industry, how can one describe the industry (i.e. construction, raw-materials or manufacturing)? Is there a particular agent or other source that contributes information to your planning process? (E.II)

[Text input] : Yes 1; No 0.

VII. Division of Labour:

A) Researcher: Who is involved and who takes the lead in planning? What skills do these individuals apply? (A.VII)

[Text input] : Yes 1; No 0.

B) Researcher: Who does the planning and who signs it off? (F.I)

[Text input] : Yes 1; No 0.

C) Researcher: Who has the ultimate power to veto or accept the plans? (F.II)

[Text input] : Yes 1; No 0.

D) Researcher: Is there a division of labour in the process, e.g. do departmental managers submit estimates to unit managers, who submit to the board? (F.III)

The planning runs on one level: Yes 1; No 0.

E) Researcher: Are there family members involved in the planning process? Is there a division of labour within the family? (F.IV.)

family members involved in the planning process: Yes 1; No 0.

a division of labour within the family: Yes 1; No 0.

VIII. Cultural and Historical Aspects:

A) Researcher: How was strategic planning done in the past and how did the current practices come about? (G.I)

[Text input] : Yes 1; No 0.

B) Researcher: What direction might strategic planning in the firm go in the future? (G.II)

[Text input] : Yes 1; No 0.

IX. Relative merits or disadvantages of traditional forecasting versus modern scenario planning methods:

A) Researcher: What are the merits or disadvantages of the existing methods for strategic planning in the firm? (H.I)

[Text input] : Yes 1; No 0.

X. Introduction of Scenario Planning's Method (Possible Difficulties/Obstacles and Helpfulness/Affordances):

A) Researcher: Does strategic planning include the modern scenario method's approach? Could the modern scenario method become part of the strategic planning? (G.III)

Does strategic planning include the scenario method? Yes 1; No 0.

B) Researcher: What are the merits of the introducing the scenario method for strategic planning? (H.II)

[Text input] : Yes 1; No 0.

C) Researcher: Are there additional benefits that might accrue from adopting a scenario planning method? (H.III)

[Text input] : Yes 1; No 0.

D) Researcher: What would be the main difficulties or obstacles in introducing scenario planning as a method to the business? (I.I)

[Text input] : Yes 1; No 0.

E) Researcher: What would help or be an affordance in introducing scenario planning as a method to the business? (I.II)

[Text input] : Yes 1; No 0.

XI. Implications of a Change to Scenario Planning:

A) Researcher: What are the likely strategic implications of a change to scenario planning in the business? (J.I)

[Text input] : Yes 1; No 0.

