Planning horizon, planning quality
and planning depth:
an analysis in a middle-sized public company

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1. Introduction

Planning is an important process in any organization. Companies operate in challenging environments and face changes rather frequently. Plans thus clarify future intentions of the organization and help to reduce the uncertainty of everyday business. This is why the outlay of the management systems behind the plans need to be considered carefully. The design and implementation can influence the quality of management decisions to a high degree.

A planning system has various variables that affect the outcome. Two important design elements that need to be considered carefully before the introduction are the planning horizon and the planning depth. Both are cornerstones influencing the accuracy of the imported information. The planning horizon determines how far one can look into the future while still making accurate forecasts. The planning depth describes how fine grained one can plan without losing oneself in too much detail. The assessment of the planning quality, the search for “why” and “hows” in respect to both variances and solutions for them forms the main part of this thesis.

1.1. Problem statement and relevance

In every planning process there is the conflict between an accurate forecast or at least a pragmatic judgement of what is possible in the future and the forward-looking, creative aspirations. To induce realism in the – at most times – overly optimistic plans, one tries to directly link the long-range planning with the short-term. This can be a very challenging task as the fundamental assumptions of the two plans vary to a great extent. This task must be fulfilled in order to ensure a good planning quality (Shank, Niblock and Sandalls Jr 1973). The time horizons though between the two plans vary. One is heavily focused on the short-term, while the other focuses on the long-term. When making assumptions of the future the access to accurate information is limited. This implies that the farther one tries to look into the future the more inaccurate the forecasts become (Merchant and Van der Stede 2012). Thus the planning horizon is one important design characteristic that has strongly been neglected in the professional literature so far. Most studies that discuss
the lack of planning quality highly focus on the budget variances. In this context researchers investigate the creation and effect of budgetary slack (see Fisher et al. (2002); Van der Stede (2000)) or the degree of participation (Shields & Shields (1998); Nouri and Parker (1998)). Hardly anyone though questions the planning framework. This reflects a failure of acknowledging the importance of the variable “time” in the planning process. Most organizations consider the planning horizon as a fixed constant, something mechanistic (Das 1991). This is interesting as organizations and studies stretch their need for a more dynamic planning approach (Neely, Sutcliff and Heyns 2001). Especially as the selection of the time span has a direct influence on the organizational effectiveness and form.

The planning depth is directly linked to the flexibility of a firm. How fast can an organization react in its dynamic environment? How fast can it change its plans, assumptions and even frameworks to ensure an accurate forecast of the future? The level of detail is another variable that is considered as fixed in most companies (Zyder 2007). Many companies plan in a very detailed manner which consumes many resources. A detailed plan requires an extensive amount of information and time dedicated to its creation (Horngren 2011). Both requirements have an influence on the planning quality. Due to the detailed planning, the process needs to start early (Banham 2011). The accuracy of information is often very low. The farther away the planned year is the less predictable it becomes, which is due to external and internal unpredictable changes in the environment (Banham 2011).

Participation in the planning process is one of the core research topics in the literature. The degree of participation in planning has a strong link to the information accuracy and planning quality but also the performance of the employees (Merchant and Van der Stede 2012). Participative planning is said to deliver more accurate information as it combines different areas of expertise (Shields and Shields 1998).

This study is relevant to the literature because it provides insight to expert opinions on matters such as the planning quality in general, the planning horizon and the planning depth. It relates the theoretical knowledge of prior research to the practice. It questions whether the trend moving from a five year planning horizon to a three year planning horizon is seen as a better way to deal with the turbulences the changing environments
inflict on organizations. In terms of planning depth it sheds light on the topic of how much planning detail is necessary to operate efficiently but not spend too much time on creating the budget numbers.

1.2. Research goal

The motivation of this thesis is to investigate the planning process in respect to the planning quality and the impact of two major design characteristics on the quality. The length of the planning horizon and the planning depth receive special interest. The investigation focuses on how managers who are involved in the planning process perceive this process. Furthermore, it analyses alteration possibilities to address occurring problems with the current planning framework.

The thesis examines the quality of planning in the case firm. Here, the question is whether plans are established in a realistic way and how much planned and actual values differ. Accordingly, the analysis should answer the following questions:

- Are there any deviations between the actual and the planning data?
- Are these deviations due to systematic biases?

In a second step, the thesis analyses the planning horizon. The focus is put on the length of the planning horizon. To this end, the thesis will address the following questions:

- How “informed” are the plans, i.e. how much knowledge/information goes into the 5-year plan and how much is planned/extrapolated without much information?
- How do plans change over time as more information becomes available?
- To which extent is the five-year plan used for orientation and decision-making (by top management and by business areas)?

The third focus is on the level of detail in the plans. The planning depth is sometimes fixed within a company, but can also vary to a great extent among business units. To understand the dynamic behind the level of detail – why such differences occur and whether the given level of detail is appropriate – the thesis addresses the following questions:
- How do the plans of the different business areas differ when it comes to their depth (level of detail)?
- How do business area managers justify these differences?
- To which extent is the current level of detail deemed useful for decision-making?

In a last step, taking all the results into consideration, the thesis will discuss design alternatives. Would a different planning horizon make sense? Should the level of detail in planning be changed? And what could be done to improve the quality of planning?

1.3. Structure

The first chapter attempts to give an overview of the motivation and objective of this thesis. The second chapter summarizes the current state of literature. The first part clarifies the definitions and creates an understanding of what constitutes planning. The nature of plans, their purposes and challenges complement the current state of research in corporate planning. The sub-chapter explains design elements that have a direct influence on the planning quality.

Following the literature review, Chapter 3 presents the empirical research. The first part introduces the case company. The second part explains the methodology used. This includes a brief introduction of *Grounded Theory* and its principles. In a third step insights into the data sources and their collection are given. In addition, this section highlights the important information about the documents and interviews analysed in this study. Fourth, the data analysis and reflections on the empirical research form the end of this chapter.

Chapter 4 presents the research findings. The results of the document analyses and the interviews are combined to put the numbers in context. Furthermore, the findings include interview quotes to illustrate the interpretations.

Chapter 5 discusses the findings of the empirical research. It combines the theoretical knowledge from previous researchers with the results of the study.

A final conclusion and important aspects of the thesis are stated in Chapter 6. It incorporates the limitations of the study as well as suggestions for further research and discussion.
2. Current state of research

The research literature regarding planning and especially budgeting is extensive. Planning is an omnipresent topic as it happens everywhere – consciously and unconsciously. It has different levels of importance depending on the context in which planning is done. In the organizational context the topic planning often leads to heated debates among managers as there are many definitions and approaches to the topic. This chapter explains planning in a corporate context. It defines the different types of plans that can be found in an organization and describes how these plans interact with each other. As this thesis is primarily concerned with budgeting, the literature review further covers the topic budgets in a very detailed manner. It shows approaches to budgeting, alternatives and crucial design elements that have an effect on management decisions. In the last section of this chapter a conclusion summarizes the key points.

2.1. Corporate planning

To some corporate planning is the act of looking ahead, ie. mapping out the future (Bolan and Godschalk 1974). Others say that planning is not only about thinking of the future but about controlling it (Ackoff 1970). Writers also see planning in the light of the process perspective. They say that planning, especially in designated planning systems enables integrated decision making (Schwendiman 1973).

Mintzberg (1994) tries to summarize the various planning definitions. He states that planning is a “formalized procedure to produce an articulated result, in the form of an integrated system of decisions” (Mintzberg 1994, p.12). He highlights the operational context of planning. The importance of formalizing decisions and making strategies obviously cannot be stretched enough, as organizations operate under a high level of uncertainty in a complex environment. According to him, plans mediate the challenges that organizational complexity and the risk of an unknown future development impose on organizations.

Planning defines the company’s objectives, targets and strategies. The definition and meaning of these three words often differ according to the context. The business
language is not universal and is subject to interpretations. For example, objectives and targets are often used as substitutes although they differ in their management purpose, time horizon, focus and specificity (Merchant and Van der Stede 2012). The following paragraph distinguishes the three terms as follows.

**Objectives.**

Objectives are aspirations of the future that are timeless in nature. Their statement is broad and formulated in general terms, like achieving a certain degree of recognition in a business field. Objectives generally focus on the external environment in an organization (Lorange and Vancil 1977).

**Target.**

A target is a specific end result or measure to be achieved within a certain time frame. Target is the synonym of goal. Once a goal is reached it will be replaced by a subsequent one. They are stated in numeric terms focusing on a particular result that needs to be accomplished. Goals concentrate on internal matters and set implications about resource allocations (Lorange and Vancil 1977).

**Strategies.**

Strategies translate the goals and objectives into a framework. It defines the current policies, constraints and plans under which the expectations of the top management need to be met. Strategies are dynamic in nature adapting to the complex and changing internal as well as external environment (Lorange and Vancil 1977).

One can say that planning clarifies the future intentions of the organization, provides guidance and defines the scope and balance of organizational activities (Merchant and Van der Stede 2012). However, plans alone are of little value if their implementation into practice fails. Especially in complex organizations a well-designed, formal planning system is crucial to a successful business (Mintzberg 1994).

In order to understand the structure of such a planning system one must know about its elements. Such a system consists of different types of plans, the following part tries to define what constitutes the strategic plan, the capital budget and the budget.
2.1.1. The different types of plans

Companies typically use multiple types of plans depending on the particular function that each plan fulfils. The following section explains the three major plans that are part of the traditional planning approach according to Merchant and Van der Stede (2012). There exists no distinct separation between the differing plans mainly because they are interrelated and influencing each other (Andersen 1965).

2.1.1.1. Strategic planning

Strategic planning primarily deals with the definition of the long-term prospects of a company. A company’s vision, mission and its objectives summarize those prospects. The areas of decision making connect planning activities throughout the whole organization. This process affects every department from human resources to finance and includes different functions from profit management to defining diversification strategies (Andersen 1965).

This process involves analysing the company’s environment including its past, present and the future. Particularly important is the analysis of the status quo, defining the main strengths and weaknesses. In a further step one must highlight the pursued core activities (Merchant and Van der Stede 2012).

The main purpose of strategic planning is to set a framework that gives an overview of the overarching vision. It sets the direction in which the organization is heading. Part of this forms the selection of strategies. The strategies direct the efforts of the organization towards reaching the proposed future. These must be coherent with the defined values, expectations and needs of the various stakeholders (Suarez, Calvo-Mora and Roldán 2016).

Due to the long-term orientation, the planning horizon of strategic plans is somewhere between ten and twenty years in most companies (Andersen 1965). The majority of companies operates under constantly changing conditions. The changes can be caused by the external environment or situations that occur internally. It is crucial to monitor and
review the strategies systematically and on a regular basis. This allows a quick reaction to anticipated and unanticipated future changes (Suarez et al. 2016).

The top management is responsible for translating the corporate objectives into long-term plans and strategies. Within this process they consider both the organization’s responsibility to the shareholders as well as the interests of various stakeholders in the immediate environment (Lorange and Vancil 1977). Decisions during the strategic planning process are complex and diverse. A wide range of managerial skills are needed to see the process through. Furthermore, a certain degree of technological knowledge is of essence. The company has to act in an environment with a vast amount of competitors, therefore remaining unique is essential. Increased competitiveness is the result of technological advances. This set of requirements calls for alignment to ensure a smooth functioning of the organization in the long-run (Andersen 1965).

According to Andersen (1965) and many others (see Mintzberg (1994), Merchant & Van der Stede (2012)) the strategic plan has strong interrelations with the operational plan (middle to short-term plan). The strong links can cause unclear and contradicting indications about the future. This is why it is crucial to align the strategic with the operational planning. The inherited differences between the strategic and operational plans make this a challenging task. Due to the differing time horizons the strategic plans tend to evolve at a slower pace than the operational plans. To avoid the short-termism one incorporates strategic components into the operational plans. The influences of the plans are not one-directional. The long-term orientation helps to focus on the big picture. The short-term plan highlights general practical restrictions, especially capacity limitations. The knowledge about these interrelations and interactions helps to create a system that takes both planning components into consideration (Andersen 1965).

Once the top management defines the strategic plans, other plans form under its influence and guidance. Generally, one can differentiate between strategic planning and functional (also referred to as operational) planning (Merchant and Van der Stede 2012). The next section gives an overview of functional planning and its subcategories.
2.1.1.2. **Functional planning**

The functional plans are in respect to the strategic plans middle to short-term in nature. It reflects the operationalisation of the expectations that top managers impose on the lower levels in form of strategies and objectives. In the traditional planning approach, the strategic plan cascades down the hierarchy, giving direction to the lower levels. The focus of the plan is on internal processes. It defines how the organization has to act in order to achieve its objectives. It clarifies the processes needed to implement the strategies. Functional planning defines the daily business operations. One important measure in this context is the economic efficiency. The main dimensions to define and analyse in this respect are cost, performance, income and expense variables (Specht 2001).

Within the functional planning division one must distinct the middle-term planning from the short-term planning. The next section offers first an explanation of capital budgeting (middle-term), followed by budgeting in the traditional sense (short-term).

2.1.1.2.1. **Capital budgeting – middle-term planning**

Capital budgeting (also known as action programming) is the link between the strategic plan and the budget. A discussion about which comes first, the strategy or the capital budgeting, would go beyond this thesis. It is unclear in literature whether the strategies are directly influenced by the capital budgeting or whether the capital budgeting influences the strategy making or if the capital budgeting develops without any interrelations to the strategic plan (Mintzberg 1994).

Thus the thesis follows Merchant’s and Van der Stede’s (2012) approach by defining that the strategic plan influences the capital budgeting process. They argue, however, that the capital budgeting process generates information which in turn influences the strategic decisions. According to Specht (2001) the middle-term plan states the capital limitations under which the organization has to act. He argues that this information has important implications for the development of the strategic plan.

In this context capital budgeting is the process of operationalising the vague aspirations of the future. This includes a capital plan about the required investments as well as the
identification of feasible action programs. Action programs are either projects of the future or current investments that consume resources in the next few years. The programs generate benefits for more than one year (Drake and Fabozzi 2010).

In most cases programs within the capital budgeting are “ad hoc clusters of activities” (Mintzberg 1994). They occur irregularly and must be acknowledged in the annual budgeting process (Mintzberg 1994).

The capital budgeting is the first transition from the corporate plan to a more detailed action plan (Drake and Fabozzi 2010). The time horizon ranges from five to seven years – therefore focusing on the middle-term. The corporate level on which it is developed is the executive management. Which is, in a divisionalised organization, the general manager and the department head in functional organizations (Camillus and Grant 1980).

Capital budgeting focuses on what internal capabilities and resources are needed to carry out the corporate plan and reach the strategic objectives. One purpose of capital budgeting is resource allocation. The dedication of resources to projects according to its needs and its value for the company form an essential part of action planning. This practice relies heavily on bidirectional communication. On the one hand top management signals their priorities to the lower level management. On the other hand the executive managers communicate their local expertise upwards as they know what resources are needed to fulfil the expectations of the top managers. This involves an assessment of risks, opportunities and costs as well as the profit to ensure sound decision making (Merchant and Van der Stede 2012).

Another key purpose of capital budgeting is the role it plays in the decision making process. In the middle-term plans the decisions evolve around investments. Information is essential. The challenge hereby is primarily the general identification of investment opportunities. In a second step one has to ask, what investments enact the current strategies? Third, how the organization can exploit these opportunities in its favour? Thus sound decision making and consequently efficient resource allocation require an interaction of capital budgeting and strategic planning (Maccarrone 1996). To achieve this, one needs to quantify strategic issues (Szpiro and Dimnik 1996).
In the traditional planning process, the objectives cascade down. The strategic components of the corporate plan influence the capital budgeting and capital budgeting in turn influences the budgeting (Merchant and Van der Stede 2012). Following the first two steps in corporate planning is budgeting. For this thesis budgeting is of great interest as the empirical part focuses heavily on the analysis of budgeting in practice. The next section briefly describes what budgeting in the traditional sense is.

2.1.1.2.2. Traditional budgeting – short-term planning

A budget in the traditional sense is an operating plan focusing on the internal processes. Again one can argue whether the budgets form the strategy or stem from the strategies (Mintzberg 1994). Basically, budgets express various future expectations in financial and operational terms (Burns et al. 2010). In other words, budgeting transforms the action plans of the middle-range planning into financial statements, that make the aspirations more tangible to the lower management (Specht 2001). Burns et al. (2010) point out, that this also facilitates the creation of an alignment between the individual work and the organization’s objectives. Libby and Lindsay (2010) revealed that the budgeting process is utilized to ensure strategically focused behaviour amongst employees. Therefore, they argue that firms try to establish a strong linkage between the strategic and operational plans.

Once again there is a bidirectional information flow between the strategy and the budget. The budget is a statement of the concrete actions required to realize the strategy successfully. At the same time, it highlights the limitations of the organization. Therefore, budgets influence the strategy formulation process as they determine which strategies are feasible under the current operational restrictions. Between capital budgeting and budgeting there is a tight connection. Budgets reflect the revenue and the expense side of the action programs, thus determining which middle-term programs to initiate, increase, leave or renew (Mintzberg 1994).

The budget plan is short-term in nature. Normally the planning horizon is one year. Monthly or quarterly reviews are not uncommon as they help to keep track of the target achievements. These reviews are a detection mechanism. It is essential that one identifies deviations or external influences that change the outcome early enough to either
exploit arising opportunities or to actively counteract negative developments (Merchant and Van der Stede 2012).

As budgets are the operational translation of the strategies, they need to be precise and tangible. This is why they are very detailed, especially regarding the allocation of resources like material or manpower (Mintzberg 1994). The level of detail can differ from one organization to another and even within organizational systems. Some departments may set targets focusing on high-level indicators, while others plan in a very detailed manner (Burns et al. 2010).

The operating management – the heads of the functional departments or cost centres – are responsible for the budgeting (Camillus and Grant 1980). Covaleski et al. (2003) summarize that budgets facilitate decision-making as well as the optimal planning and control of resources. Furthermore, they highlight that they act as management control tool to direct the behaviour of the employees towards the achievement of the corporates objectives. They argue that by establishing target values – in financial terms and others – budgets coordinate action and motivate employees.

2.1.2. Planning cycles

The three proposed plans are evidently influencing each other. The planning structure, also called planning cycle, has a great impact on this. The length of a cycle varies according to its nature (Merchant and Van der Stede 2012). This section briefly explains the different planning cycles.

For a long period of time a traditional three cycle approach has been followed by the majority of organizations. The three plans mentioned above hereby form a chain. On top the strategic planning creates the cornerstones of the capital budgeting which manifests in the detailed budget. The functions of the three plans will be discussed thoroughly in the next section. The cycles can vary according to their formality and distinguishability. In small companies some cycles can be informal, while larger companies tend to establish a formal three cycle process (Merchant and Van der Stede 2012).
Camillus and Grant (1980) argue that companies find it difficult to operationalize both the capital budgeting and the annual budget. They state that one of the main causes is that a clear separation between programming and budgeting is hard to define. They point out that programming can happen in great detail and in an operational manner, thus making the translation of the plan into a budget useless. If this is the case Camillus and Grant (1980) state that the creation of a two cycle process, in which the functional plans merge, is the best. In such cases they propose that the functional plan should consist of the definition of quantitative goals in terms of financial statements, physical targets and deadlines. The generation of action plans with which to achieve the goals as well as the development of contingent plans of action are other determinants in this cycle. According to them, the operational cycle then should have a time horizon between one and three years, based on the operational cycle of the business.

The next section states the functions of planning and particularly budgeting. The first part explains the general purposes of planning. The second highlights the purposes of budgeting.

2.1.3. Purposes of planning and budgeting

Planning and budgeting are processes that fulfil the need of an organization to reduce ambiguity and risk. In theory planning and budgeting foster an organizational culture in which people have a future-oriented mindset and in which communication among the members stimulates the discussion of ideas. Planning and budgeting influences the behaviour of the employees, especially their commitment in respect to objectives. This section lays out the various purposes of planning and budgeting systems. The first two functions, namely planning and coordination, are valid for all types of plans (Merchant and Van der Stede 2012). This thesis focuses in particular on budgeting, the quality and the design of the budget system. Therefore, the following section explains further functions that particularly concern budgets.
2.1.3.1. Functions of plans

Planning

Planning is regarded as “decision making in advance” (Merchant and Van der Stede 2012, p. 306). Such systems force the employees to think ahead. The planning and budgeting process helps to understand the environment as well as the internal affairs of the organization. The forward thinking mindset sensitizes the managers for upcoming opportunities and risks as well as for the possible effects their decisions could have. This allows the organization to proactively control the future and not just react to changes (Merchant and Van der Stede 2012).

Coordination

Planning and budgeting forces all the levels in an organization to communicate in a systematic way. The plans propose a direction. According to the formalized plan, the members of the organization direct their actions into this direction. The informational flow hereby must be excellent (Mintzberg 1994). The planning system is a platform where all organizational entities bundle their abilities to work toward the predefined common objectives. This system proves to be a mechanism which leads to better informed decision making since it is taking into account various perspectives. These differing perspectives call for alignment as this is essential for coherent actions throughout the organization (Merchant and Van der Stede 2012).

2.1.3.2. Functions of budgets

When explaining the functions of budgets one does not distinguish between capital budgeting and budgeting in the traditional sense, as both focus on the feasibility of the strategic plans in operational terms. The operational plans serve as planning and coordination instrument on an operational level. Budgets are an important tool of every management control system (Merchant and Van der Stede 2012). The additional purposes of the budgeting system discussed here, are budgeting as resource allocation mechanism, budgeting for target setting, as well as the motivational aspect and budgeting for performance evaluation purposes.
Resource allocation

Organizations have limited resources. The expectations of the top management clash with the limitations the operation management faces. Planning and budgeting systems identify and fulfil the resource requirements in the different parts of the organization. They match the resource demand with the resource capacity (Merchant and Van der Stede 2012).

Target setting

Targets are as mentioned above, an end result of the financial or non-financial translation of the budget. They manifest in clear performance expectations. The employees therefore know what is expected from them. Furthermore, this translation from the strategic objectives to the operational targets, shows the employees in which way they contribute to the company’s success. The level of target difficulty has a strong impact on the outcome of the managerial work (Merchant and Van der Stede 2012). Merchant (1990) highlights that the achievability of the target has a direct influence on the managers commitment, confidence and flexibility. He argues achievable targets that are linked to additional incentives or favourable consequences enhance the commitment.

Motivation

Targets directly influence the motivation of the managers, as these goals are highly specific and tangible. The manager knows what actions he must take in order to achieve the targets, which augments his motivation. Target achievement boosts the confidence and strengthens the target commitment. Additionally, targets are in most companies directly linked to incentive packages, which in turn increase the motivation for reaching the goals (Merchant and Van der Stede 2012).

Performance evaluation

As mentioned above the targets reflect the expected performance of the managers. This is why it is easy to measure the managers work against the budget numbers. Most companies directly link the performance evaluation and incentive contracts. The incentive packages then depend on the target achievement and the manner in which the performance evaluation is conducted (Merchant and Van der Stede 2012). However, one
must pay attention to the so-called annual performance trap. Hope and Fraser (2003) point out that a linkage between performance evaluation and incentive packages can lead to a manipulation of the budget numbers as managers try to achieve the short-term targets at any cost. They further argue that this phenomenon is especially counterproductive if the short-term actions destroy value in the long run.

Budgeting systems often fulfill different purposes simultaneously. A common problem is that these functions often stand in conflict to each other. For example, planning requires a forecast that is as accurate as possible. As a motivational tool, however, budgets often use overly-optimistic forecasts to challenge the managers. This holds a potential for conflict. Literature suggests using different levels of budgets for the different purposes as a possible solution. Arnold and Artz (2016) analyze the use of separate budgets in the context of planning and performance evaluation. They find that the use of a single budget is prominent at the beginning of the year. However, as the year evolves, organizations separate the planning and the performance evaluation from one another. They hypothesize that the budget for operational planning is under constant revision and thus evolves, while the performance evaluation budget is often rigid and close to the one proposed in the beginning. Further, they argue that the convergence from one budget into split-up budgets that serve their respective purpose resolves the conflict.

Budgets are a highly discussed topic not only in their use but also because of the limitations and problems they cause. The following section explains the challenges of budgets and their implementation.

2.1.4. Challenges with budgeting in practice

Budgetary control is one crucial tool used by managers to maintain and gain control in an organization (Merchant and Van der Stede 2012). However, a report by Neely, Sutcliffe and Heyns (2001) present the weaknesses traditional budgeting faces in practice. According to them budgets consume a horrendous amount of time as they often require long periods of planning. They argue that the time intensiveness is due to an extensive informational input and a very detailed design framework. They insist that because of the high informational density it only adds little value, as the information in the system is often outdated. Second, they argue that budgets are rigid, which results in a slow response
time when faced with change. As a third point they point out that the focus of budgets is operational, thus often leading to contradictory goals as they neglect the long-term focused objectives. Additionally, they argue that the updates of budgets and their developments are in most companies only periodical (once a year), which is why they encourage short-term-thinking. Fourth, they state that budgets put emphasis on reducing costs not on creating value. Fifth, they mention that budgets encourage unethical behaviour that may range from gaming behaviour to even fraud. As a sixth weakness they propose that traditionally budget numbers are based on assumptions of past figures. Seventh, Neely et al (2001) point out that there is an emphasis on a strict departmental separation due to the assignment of responsibilities. Merchant and Van der Stede (2012) say that where managers are held responsible by their budget numbers, the informational flow decreases as it discourages information sharing among managers and encourages an “excuse culture”.

These seven challenges create dissatisfaction with the tool. Libby and Lindsay (2010) conduct an investigation which analyses firms with a traditional budgeting process in place. The findings imply that the weaknesses mentioned above are not naturally inherited flaws, but occur due to a false implementation and use of the tool. Furthermore, the results are contradictory to the assumptions in the article by Neely et al. (2001). For example, firms do spend less time with budget preparations than suggested. Additionally, most firms operate in an environment that is to a certain extent predictable. Therefore, the concern about the use of rapidly outdated data is not necessarily true for every organization. In respect to the critique about the lack of long-term orientation, Libby and Lindsay (2010) find that the majority of the questioned firms use their budgets to implement their strategies. They argue that this implies an inclusion of the long-term focus in operational matters. This study highlights that although an improvement of traditional budgeting is necessary for the tool’s further existence, the majority of firms investigated do not wish to abandon budgets.

One has to keep in mind, that the notion of the overall one-best-way in respect to budgets is non-existent. In practice, budgeting approaches adapt to the specific organizational needs. Whether a traditional budgeting process is a good management control tool or not depends on the environment the organization faces and the organizational structure (Neely, Bourne and Adams 2003). Samuelson (1999) argues that traditional budgets are
useful in stable environments, however, their usefulness diminishes when faced with turbulent ones because the data can be quickly outdated.

The following section explains two approaches that try to solve many of the limitations. One approach deals with developing the traditional budgeting idea, the other abandons budgets altogether.

2.1.5. Alternative budgeting approaches

The traditional budgeting receives criticism and therefore new research developments arise. This section presents two main literary positions. On the one hand there is the Better Budgeting approach which deals with improving the traditional budgeting approach and on the other hand there is the Beyond Budgeting approach that abandons the budget altogether (Merchant and Van der Stede 2012).

2.1.5.1. Better Budgeting

Better Budgeting is an improvement of the traditional budgeting. Thereby it keeps the essence of the traditional approach but adjusts the framework according to the current needs of the organization. This approach tries to minimize the weaknesses mentioned above. For instance, one major challenge with the traditional budgeting approach is, that it should simultaneously fulfil more than one purpose, which leads to conflicting interests (Merchant and Van der Stede 2012). Libby and Lindsay (2010) illustrate this problem in respect to performance evaluation and forecasts. They argue that, if these two are linked to the same budgets, conflicts arise. As they point out, organizations rely on accurate forecasts for planning purposes. However, they also highlight that managers try to manipulate budgets and results if their performance measures and incentive packages are linked to the budgets. They point out that in order to fulfil the budget targets managers will manipulate the data which leads to distorted information for forecasting purposes although accurate information is of importance.

The increasing economic volatility puts a strain on traditional budgets and calls for more flexibility when planning. In practice many companies couple the different purposes to different budgets. The success of this approach depends on the organizational structure
and its needs. Target setting and a connected performance measurement system are one cornerstone of the traditional budgeting approach. They are associated with motivation and serve as a direction-giving tool. As discussed above conflicts arise if the same budget is used for planning purposes and performance measurement purposes. Better Budgeting introduces a new tool namely Rolling Forecasts (Neely et al. 2003).

Rolling Forecasts are operational in nature and therefore an essential part in the Better Budgeting approach as it is more flexible. The plans are updated regularly, ensuring a constant flow of information. A higher degree of flexibility as well as a dynamic and self-regulating resource allocation form are advantages of Rolling Forecasts.

The budget can still be in place for target-setting and performance evaluation purposes. The decoupling of the two purposes and the use of two distinct tools leads to better management decisions as the managers are better informed and have no incentives to manipulate the budget (Banham 2011).

The traditional budgeting further focuses on a rigid performance evaluation that does normally not take into account external influences on the performance. Benchmarking is one way of overcoming this challenge. It serves as a good performance indicator for the employees, as the comparison is not against strict, fixed numbers imposed by the top management but against each other. This way it has high motivational effects as there is a constant challenge to exceed each other (Merchant and Van der Stede 2012).

Another big part of the Better Budgeting approach is a new way to budget called Activity Based Budgeting. Activity Based Budgeting detects the costs and resources each activity consumes. It focuses heavily on value-adding processes and tries to increase customer satisfaction and external needs through optimizing activities and processes (Neely et al. 2003). Activity Based Budgeting is more flexible and highlights critical parts in the planning process that require special attention such as imbalances or inefficiencies. The organizational priorities are communicated via the resource allocation process and are mostly held in operational terms. This leads to a better general understanding of the data. For the lower level employees, it shows the impact of their work which in turn leads to an increase of motivation. One huge limitation to this approach is the great cost of
information regarding the different activities. Furthermore, the availability of the information is often limited (Hansen, Otley and Van der Stede 2003).

*Zero Base Budgeting* is an additional approach to *Activity Based Budgeting*. Here the resource estimations are not based on past figures but need renewed justification in each new budget cycle. This manner of budgeting strongly requires a certain degree of stability in respect to the operational organizational environment. The third approach is called *Value Based Budgeting*. The emphasis is on the creation of shareholder value over time. All plans and expenditures are measured in terms of the creation of shareholder value. Therefore, the strategy to increase shareholder value has a strong influence on budgeting (Neely et al. 2003).

### 2.1.5.2. Beyond Budgeting

Merchant and Van der Stede (2012) define *Beyond Budgeting* not as a new budgeting approach but as a management style. They explain that the goal is to establish a system with flat hierarchies, simple organizational structures as well as a network that allows a constant informational flow. According to them, this should increase the adaptability of the organization and increase its flexibility. In pioneer companies such as Svenska Handelsbanken, *Beyond Budgeting* is based on a highly decentralized organizational structure.

The *Beyond Budgeting* approach heavily relies on integrated databases that view the organization as a single homogeneous system. The level of detail is very light (Neely et al. 2003). The supply of information changes dramatically. The aggregated information from the traditional budget needs to be split up, separating the resource allocation, forecasting and target setting (Bourmistrov and Kaarbøe 2013).

For planning purposes *Rolling Forecasts* are essential. The regular updates of the numbers act as an alter system that ensures that the organization can proactively engage when changes occur. The resource allocation is also a flexible, continuous and dynamic process that is self-regulatory. The allocation of resources is event-driven as opposed to budget-driven. The dedication of resources at a relatively late stage in the planning process assures that the managers have a better informational basis for the decision
making (Bourmistrov and Kaarbøe 2013). An explicit analysis of resource requirements during the year takes place. Therefore, resources can be made available to those that are in greatest current need for them, guaranteeing effective resource employment (Hansen et al. 2003).

Managers only review a few key financial measures and the general performance measurement is competition focused (Neely et al. 2003). In the Beyond Budgeting style this signifies the establishment of external benchmarking as a means of relative performance measurement. Therefore, it is highly action-oriented and extremely flexible. This requires constant improvements and a competitive mind-set that is geared towards surpassing the competition (Bourmistrov and Kaarbøe 2013).

The focus is primarily on the long-term which is why strategy-related scorecards are in use (Neely et al. 2003). Interweaving strategic objectives in the relative performance measures eliminates the short-term orientation, as does the abandonment of the annual budget deadline. Thus, Beyond Budgeting aligns the operational decisions with the strategic objectives. For the implementation of Beyond Budgeting it is important to shift from a system based on results control to a system in which parameters such as mission, vision and organizational culture play a key role (Hansen et al. 2003).

To summarize, Beyond Budgeting satisfies the need of a link between the strategic actions and the operational goals. Furthermore, it nurtures competitive success and therefore augments the performance of the employees. The resource allocation is effective and in response to the needs of the organizational departments. Last, it assures that the organization can make better informed decisions due to more accurate forecasts and good communication due to a constant informational flow (Bourmistrov and Kaarbøe 2013).

2.1.5.3. Budgeting in the future

The satisfaction with budgets and budgetary processes is relatively low in the majority of companies that use budgets as a management control tool. Libby and Lindsay (2010) conducted a study asking North-American companies about their satisfaction with the budgeting process. Most firms in the study agree that the dissatisfaction is mainly due to
an inappropriate use of the tool. However, budgets in their opinion add value to the management decisions. Therefore, the companies in the study want to improve the budgeting system rather than abandon it.

In practice there are relatively few organizations following the Beyond Budgeting approach (Hansen et al. 2003), for example, Svenska Handelsbanken, Nokia, Whole Foods Markets or Borealis (Neely et al. 2003). The environments of the companies stated above differ to a great extent, which is why one cannot say, that Beyond Budgeting works better in a certain environment or business field than in others. However, the effectiveness of Beyond Budgeting does depend on the full commitment to the new approach which reorganizes not only the budgeting process but requires the management philosophy to change radically (Pfläging 2003).

Libby and Lindsay (2010) state that certain improvements, as suggested by the Better Budgeting approach, must be made to overcome traditional criticism. Better Budgeting often adopts various tools from Beyond Budgeting. The companies must be cautious because the prerequisites of the two approaches differ greatly. It cannot be expected from Beyond Budgeting tools to fix traditional budgeting issues without changing the fundamental conditions on which the outcome of the tools are based upon (Merchant and Van der Stede 2012).

Libby and Lindsay (2010) found out that many companies are not ready to abandon budgets completely. Their need for improvement in terms of design and implementation is evident. As mentioned above, budgeting whether it is traditional or a newer version often fails at the beginning by choosing a suitable design. The budget design is crucial to successful budgeting, as it is the cornerstone of the system. There are many variables that need to be taken into account, such as the length of the planning horizon or the level of detail of the plans (Merchant and Van der Stede 2012). The next section summarizes crucial elements of budget design.
2.2. Design elements of planning

Planning fosters rational decision making. The supply of the accurate information is hereby crucial (Merchant and Van der Stede 2012). High-quality information form the basis for optimal decision making. The problem is, that most organizations face an extremely high level of informational input. High-quality data that is based on accounting and financial variables focuses heavily on the data’s accuracy and thus is fairly easy to assess. Strategic data is a more complex matter, as the information is multifaceted. This is why the degree of information quality is hard to measure since it is highly complex (Ballou, Madnick and Wang 2003). Plans and budgets try to reduce the complexity of the informational input by selection. This selection of data is a difficult process because there is no one-best-way model to follow. Organizations differ in respect to their internal culture, structure and of course their external environment (Merchant and Van der Stede 2012). Planning needs to be tailored according to the various needs of each organization. As mentioned above, the design of the planning and budgeting process is as important as its flawless use in order to ensure that the system runs smoothly. Important design elements are the planning horizon, the level of detail, the link of budget/plans and performance measurement, the intensity of the planning/budgeting process and the degree of participation (Zyder 2007).

This thesis focuses on three design characteristics. Each influences the planning quality. The planning horizon has an impact on the quality in terms of forecasting. The time horizon selected is strongly linked to the perception of time. The level of detail is another element that determines the quality of the plans. The degree of participation is the third design characteristic that this thesis concentrates on in the following sections.

2.2.1. Planning horizon

Planning horizon is defined as “the period of time for which the plan is developed” (Das 1991, 52). Dambrowski (1986) introduces the term of Time Differentiation. According to him Time Differentiation means a certain time span during which the plan is seen as valid and people commit to it. He points out that this time span can vary to a great extent. Monthly, quarterly, yearly plans or plans extending over several years are possible.
The design and fixation of a time span largely depends on the perception of time of the individual or organization. The temporal orientations of the executives play an important role. Managers who focus on the distant future set longer time horizons, while short-term oriented managers set shorter ones. Another important thing to consider is the time that a plan needs in order to prosper. The planning horizon needs a certain length to permit the expected developments to evolve. At the same time, it must be short enough to allow accurate planning. Many variables are taken into consideration, such as forecasting validity and lead-time between the planning and the operationalization of the plans (Das 1991).

In terms of forecasting validity an important element is the trade-off between a realistic plan and detailed, clear reach. A long planning horizon enables the organization to consider various strategies to achieve the long-term objectives, however, this is at the expense of certainty. Uncertainty rises when internal and external parameters develop and change along the way. There is a point where the increase in uncertainty overcomes the benefits of incorporating strategic goals. In a case like this the planning accuracy suffers (Shank et al. 1973).

The time span between the submission of the plan and the start of the planned year calls for special attention. A traditional operational plan requires a lead-time of up to four months before the actual planned year starts. Planning requires accurate information about the future and relies on very detailed forecasts. The information is often not available this far in advance especially as organizations face a fair amount of volatility due to its volatile environment (Das 1991). The longer the time period between the finalization of the plan and the start of the planned year, the easier it is to justify variances as forecast conditions change (Shank et al. 1973).

One major distinction between the operational and strategic plan is the time perception and orientation of the two plans. The strategic plan (see 2.1.1.1) is mostly considered to be longer than five years, while the middle-term plan (see 2.1.1.2.1) covers the year two to five. The short-term plan (see 2.1.1.2.2) has a time horizon of one year in most cases (Camillus and Grant 1980). The planning horizon selected in each plan influences their level of interaction. A relatively short long-range planning time horizon ensures a tight
relationship to the budget, the longer the time horizon of the planning process the more prominent the distinction between budgeting and planning (Shank et al. 1973).

As the empirical part of this thesis focuses especially on short- and middle-term budget design, the next paragraphs explain in detail their design options. Dambrowski (1986) highlights that budgets nowadays still have a time horizon of one year. He argues that managers should adapt the planning horizon according to the needs. A shorter time horizon leaves room for adaption as the year evolves. According to him this assures higher flexibility and better information quality.

Hope and Fraser (2003) propose Rolling Forecasts as an alternative instrument to annual budgets. Essentially Rolling Forecasts or Rolling Budgets are continuous updates of the operational plan. They consist of various planning periods that cover in total one year. As the planning periods are realized, the management gains extensive knowledge about the future. While completing the current period a new period is added at the end that includes the new information (Merchant and Van der Stede 2012). The time span in respect to Rolling Budgets or Rolling Forecasts is four to eight quarters. Their continuous development eliminates the narrow focus of the traditional, annual budget (Paniccia 2008).

Zyder (2007) conducted a study about budget design in German companies. The results clearly state that 45.2 % use Rolling Budgets. Hansen and Van der Stede (2004) found that companies increase the performance of the operational plans with Rolling Budgets in place. In Zyder’s study (2007) the remaining companies use either fixed budgets with the possibility of adaption, completely fixed budgets or budgets that automatically adapt according to pre-determined variables. The majority of the companies selected a budget design that allows flexible budgeting.

A huge criticism in respect to budgeting is the facilitation of short-sightedness as it focuses on one year. Often the performance evaluation is linked to the budget year. Managers evaluate their employees against key performance indicators that originate from the budget. In cases where budgeting is only loosely linked to strategic planning, companies fail to integrate strategic performance indicators, which in turn favour short-term orientation. A carefully selected linkage between the long-range planning and the
short-term operational planning mediates this effect. The length of the planning horizon therefore has an influence on whether the management decisions and activities within the firm are short-term orientated or include long-term effects and consequences in their planning considerations (Merchant and Van der Stede 2012).

2.2.2. Level of detail

The level of detail as a design element describes how extensive and fine-grained the budgets are. Budgets consist of unified information. Various parts of the organization both supply and demand information for decision making purposes. Thus information plays a vital part in the budgeting process. The organization needs to implement a system that provides the individuals with the information they need. The connection between the level of detail and the planning method is strong (Becker et al. 2016).

The method used to obtain budget numbers proves to have an effect on the level of detail. Merchant and Van der Stede (2012) clarify that model-based numbers (based on models that predict the future performance, therefore they are future-oriented) tend to be less detailed as information about the future is limited. They further argue that budgets based on historical data often results in very detailed plans. This is due to the vast amount of knowledge as the dataset is known.

The method used for performance evaluation plays another key role in influencing the planning depth. Fixed performance evaluation systems tend to be directly linked to the budgets which are often fine grained as the employees are evaluated on the basis of financial indicators. Relative performance evaluation on the other hand works with flexible budgets that adapt during the year. Due to the constant changes flexible budgets cannot be very detailed. This is mainly because detailed budgets tend to be time-intensive in their preparations. Flexible budgets however need quick adaption (Merchant and Van der Stede 2012). Rolling Forecasts create a flexibility that such an environment requires for a sustainable existence of the organization. In their nature as they are constantly subject to reviews, they are less detailed and allow more room for change (Banham 2011).

The intensity of budgeting plays a key role in determining the level of detail. The optimal budgeting intensity asks whether adding additional resources regarding the budgeting
process will lead to an increase or decrease of its marginal utility. Up to a certain point the effectiveness of budgeting advances until the marginal utility drops at a certain point. From which on the level of detail should be reduced (Becker et al. 2016).

Neely et al. (2001) state that a major weakness of budgets is that they are costly in terms of time. Horngren (2011) regards time as the most valuable resource in the formularization of budgeting. He draws attention to the linkage between time dedicated to the budgeting process and the level of detail. He argues that the more detailed the budget the more time is spent on budget preparations. Banham (2011) states that the higher the degree of detail the more time consuming the process the earlier the budget process has to start, the higher the risk that the data is outdated once the planned year evolves. Due to the volatility of the environments that organizations face.

Furthermore, too much detail can cause information overload, resulting in slowing down the process of decision-making. Additionally, one has to stretch that great detail does not automatically result in accuracy. A general recommendation in the literature is to plan in a detailed manner for the short-term planning horizon while making less detailed plans for the distant future. This recommendation is based on the assumption that the forecast accuracy declines the longer the planning period is. The planning quality is higher where accurate information about the future is easily accessible, which is often the case for the near future. This is the main theory behind the above stated recommendation (Merchant and Van der Stede 2012).

The level of detail does however not only depend on the planning method used or the access to information but also on the nature of the plan. The strategic plan states only vague implications of the future, which are held general. The short-term oriented plans as a translation of the strategic plans in operational means are more detailed. Lower level managers often use the operational plans as a direct measure of the work load. Often they put a great emphasis on details in order to define the different specific actions. Thus they create a very detailed action plan stating every cost and time consumed by the activity ahead (Merchant and Van der Stede 2012).
2.2.3. Degree of participation

The degree of participation describes the involvement of the individuals during planning and budgeting. Managers and employees within an organization have expertise in specific areas. As one goal of planning is the creation of an accurate representation of the future, information is crucial for this process (Merchant and Van der Stede 2012). The origins of expertise are diverse. High level managers have important information regarding the strategies and objectives of the organization. Low-level managers inherit the local expertise like knowledge about the resource limitations or the market. This leads to an information asymmetry on both sides (Covaleski et al. 2003). In order to overcome the knowledge gap, information sharing is important. Participative budgeting is a method to encourage this interaction between managers (Shields and Shields 1998).

Gul et al. (1995) highlight the importance of participative budgeting in decentralized organizations, as the information asymmetry can be big. Furthermore, Ezzamel (1990) shows that organizations operating in very volatile business environments require a high level of participation. He argues that a broad knowledge about the conditions under which they operate helps the organizations manage uncertainty. Shields and Shields (1998) support this by stating that faced with uncertainty organizations use participative budgeting in their planning process and during the process of setting goals.

The informational flow aids in communication. As discussed above efficient planning needs accurate, detailed information. This information calls however for alignment to avoid contradicting outcomes. Therefore, participation combines the local expertise of the low-level managers with the expertise of the high-level managers. Thus the flow is ideally bidirectional (Covaleski et al. 2003). Clarifying expectations and limitations on both sides encourages managers to apply an attitude that enhances their performance (Merchant and Van der Stede 2012).

As mentioned above Neely et al. (2001) criticise budgets for encouraging unethical behaviour such as gaming behaviour or manipulation. This occurs in light of low levels of involvement. Budgets may be set higher than realistically achievable due to a lack of knowledge. This encourages manipulation. If managers are thereby involved in the target setting process this can be avoided, a more realistic forecast can be made, which then in
turn supplies an accurate information flow on which basis decisions can be made (Merchant and Van der Stede 2012). Noteworthy in this context is, that participative budgeting can also increase the quality of the budgets. Leach-López et al. (2009) show that the participation in the budgeting is linked to the budgetary outcome. They prove that managers that are included in the budget process have an improved their competence in budgeting.

Participative budgeting reduces stress and increases motivation. As commonly known, high levels of stress reduce the performance of managers. Participative budgeting gives the managers the notion that their opinions are important in the decision making process. This notion is especially important in relation to performance evaluation and participation. If the managers are involved in the target-setting process it enhances their perception of an adequate budget. Budget adequacy leads to a stronger organizational commitment, which in turn leads to a higher performance (Shields, Deng and Kato 2000). Another important factor next to budget adequacy is that the budget numbers need to be controllable and legitimately accepted by the members of the organization (Merchant and Van der Stede 2012).

Hofstede (1967) argues that performance regarding the budget target achievement also depends on the target difficulty. In a situation where the target values are neither difficult nor very easily achieved maximal employee motivation occurs. In organizations in which the targets are not imposed by the top management but actively formed with the influence of the employees the motivation to achieve the targets is high (Hofstede 1967).

The study of Nouri and Parker (1998) suggests that participation can lead to budgetary slack. Managers create budgetary slack by stating their resource requirements too high in order to achieve the budget targets (Merchant and Van der Stede 2012). Consequently, the budget is biased which can result in high costs for the company due to planning errors (Fisher et al. 2002). However, without the managers' involvement, inefficient resource allocation can take place as the managers might not be equipped with the resources needed to perform well. This implies a trade-off of budgetary slack and accuracy. Fisher et al. (2002) indicate that in cases where a single budget is used for both performance evaluation and resource allocation the managers reveal the private information more truthfully, thus the budgetary slack is smaller.
The three design characteristics mentioned above are considered important for this thesis. The empirical part of this study focuses heavily on the planning quality. The quality is influenced by the design and implementation of the planning and budgeting system (Merchant and Van der Stede 2012). Therefore, the concept of the planning horizon, the level of detail and the participation were explained thoroughly in this chapter. The next chapter explains the framework of the empirical research.
3. Empirical research

The previous chapter illustrates the theoretical framework of this thesis, presenting the current state of research around planning and budgeting. This chapter explains the empirical research of the thesis. This includes an introduction of the case company, the methodology used as well as the empirical setting under which the research was conducted.

The first part introduces the case company. The second explains the methodology behind qualitative research and Grounded Theory. The third part describes the research procedure, data sources as well as the methods behind the analyses of the data. The fourth part reflects on the research procedure and highlights restrictions and limitations of the empirical research.

3.1. Introduction of the case company

The case company, hereafter called Phoenix\(^1\), operates in the energy and infrastructure sector in Austria. After the initial establishment of the firm as a monopoly-oriented municipal service provider various internal and external forces encouraged the development to a broadly diversified, municipal infrastructure-service provider. The annual sales exceed 150 million. Total employee numbers are over 650. The company consists of the board of directors, nine business units and five areas in which it is acting as service provider both for internal as well as external parties. The business units have various profit centres. The profit centres are not linked to the business units in any hierarchical manner. For budgeting purposes the business unit managers work together with the profit centre managers.

Phoenix is highly diversified, thus, the external environment the business units face differ to a great extent. Even within business units the conditions under which the profit centres operate vary. Noteworthy is, that there are still three business units operate in a monopoly

\(^1\) Due to confidentiality reasons the name of the company was anonymized.
market. The others face a competitive market. As the company operates in the energy and infrastructure sector, some business units face government regulations.

The major business unit in the energy sector currently faces change. The market changed drastically from a monopoly to a fierce, competitive market. This change called for an adaption of the strategic objectives of the company. In this respect Phoenix adopted a dual strategy to respond to the environmental change. On the one side, it focuses on the creation of leaner and more efficient internal process around the core businesses. On the other side, it pursues the development of growth strategies in emerging business units. The company is acting under the principle of economic viability. Furthermore, it clearly states that the company must operate in the best interest of the shareholders.

The case company plans in a three cycle approach. The board of directors is responsible for the strategizing and the strategic planning. The business unit managers together with the controlling create the operative plan and operationalize the strategy within it. This operative plan in turn influences the creation of the budget. The constitution of the case company demands that every year a budget for the immediate year ahead must be made. This budget has a very intensive level of detail. It reflects the projects and actions planned for the year ahead. Furthermore, the business unit managers create a middle-term plan, called capital budgeting. This covers the time horizon of four years after the budget year. The consecutive four years vary in the level of detail. The numbers in the years two to five are based on aggregated information. The combination of the very detailed budget that covers one year and four additional years is hereinafter called operational plan (OPL). The plan comprises estimated changes of the data, the external and internal conditions, forecasts and results on which it is based.

Regarding the planning method Phoenix follows a combination of bottom-up and top-down approach. The board of directors translates its expectations into strategic targets that are imposed on the business unit managers. These values offer strategic guidance. The business unit managers plan bottom-up. This involves the input of the respective profit centre managers as they have local expertise, thus they incorporate the limitations the units face. Under ideal circumstance the bottom-up value of the EBIT equals the strategic guidance value of the EBIT. This is a scarce occurrence. In order to incorporate both informational flows, a phase kicks in, during which both sides adapt their estimations.
The planning process ends when both sides are satisfied with the outcome. Now moving on, the next section explains the methodology used.

3.2. Methodology

The main objective of this thesis is to closely examine the planning and budgeting characteristics within the setting of a middle sized, public company. This objective investigates two established design choices namely the planning horizon as well as the planning depth. To determine whether the two selected principles, evolving around these design choices, are value-adding to the planning process, the planning quality is the key measure in the empirical setting. As gaining a deeper understanding of how the planning and budgeting processes effect the decisions made within the company is crucial, a qualitative research design was selected.

Characteristic for a qualitative research is the underlying notion that the theory is generated out of the research and thus refers to an inductive view. Rather than relying on numbers qualitative research focuses on the interactions between individuals and their interpretations of reality. Several research methods exist within qualitative research (Bryman and Bell 2015).

This case study combines two main qualitative research methods. First, it focuses on the collection and qualitative analyses of the operational and the strategic plans. Second, qualitative interviews were conducted to gain deeper understanding about the outcome of the data analyses. In this context it is important to be open to emerging theories from the data, in order to gain new insights into the planning process. This is why Grounded Theory was selected as a framework for analysing the qualitative data.

3.2.1. Grounded Theory: a brief introduction

The framework of Grounded Theory was first introduced in the book “The Discovery of Grounded Theory: Strategies for Qualitative Research” by Glaser and Strauss in (1967). Since the concept has been published for the first time the definition of Grounded Theory however evolved and went separate ways (Bryman and Bell 2015). This thesis follows the most recent Grounded Theory approach by Corbin and Strauss (2015). In the
beginning of qualitative analysis, the researcher explores the data in a very detailed manner. Later on one forms categories and concepts to group the data together. The establishment of relations among categories helps to generalize the analysis. These categories are then grouped around a core concept. Out of this core concept the theory emerges. This process grounds the theory in the data. The strategic, qualitative analysis of data is a heuristic device that encourages interaction between the researcher and the data. A main characteristic in *Grounded Theory* is that there is a close relationship between the collection of data, its analysis and the resulting theory (Corbin and Strauss 2015). The interaction between theory and data ensures flexibility and openness towards unexpected outcomes during the research process. As the theory emerges from the data it creates a strong link between the two (Neuman 2014). The approach is iterative, which means that a constant process of going back and forth between data collection and analysis takes place (Bryman and Bell 2015).

### 3.2.2. Grounded Theory: principles and tools applied in this thesis

*Grounded Theory* provides the researcher with a set of principles and tools that aid in generating a valid theory. This thesis adapts the four main tools of the *Grounded Theory* approach according to Bryman and Bell (2015)

**Theoretical Sampling**

As mentioned above *Grounded Theory* is a recursive approach, this implies that one starts the data collection for research with a single source of information followed by the analysis of the same. On the basis of the outcome of the first analysis information from other fitting sources are drawn and again analysed in a second step. This process repeats itself until the researcher gains a satisfying data set. Therefore the researcher ensures that the data covers every spectrum until one achieves theoretical saturation (Glaser and Strauss 1967). This approach of data collection is intensive. In reality such an approach to data collection can often not be applied to the full extent. Corbin and Strauss (2015) developed this principle further and state that a research is conducted in lines with
Grounded Theory if the analysis of the gathered data takes on a recursive form, allowing ideas to emerge from the data.

Coding

Coding plays a crucial role in Grounded Theory. There are three different approaches to coding. Strauss (1987) suggests to code the data in the three different manners at three different points of time.

- **Open Coding**
  During open coding one locates themes and labels the data with the first codes. This creates categories that are drawn from the initial research question, ideas generated by the analysis of the data or concepts from the social setting or literature. The focus here lies on the actual data (Corbin and Strauss 2015).

- **Axial Coding**
  Axial coding in a second step tries to make connections among initial themes. Hereby, the focus is on reviewing codes and concepts to identify major themes. Reviewing and organizing the original codes establishes linkages between codes and themes (Corbin and Strauss 2015).

- **Selective Coding**
  As a last step, the selective coding can take place when general concepts are developed. This helps to integrate the theory into the established categories. At this stage the researcher conducts a selective search for data that illustrates the specific themes (Corbin and Strauss 2015).

Theoretical Saturation

The theoretical saturation draws the connecting line between data gathering and data analysis. It implies the point where one does not gain further insights by collecting additional data or developing more concepts in the process of analysing the data (Bryman and Bell 2015).
**Constant Comparison**

It is crucial in *Grounded Theory* to have a close, firm connection between the data and the conceptualization to ensure a close connection between the data and its indicators (Bryman and Bell 2015). According to Glaser and Strauss (1967) the established categories need to be constantly compared to the encompassed data.

With these principles of *Grounded Theory* as framework, this thesis is able to capture and process the complex issues of the central research questions. As the thesis will describe the research process, these principles will be referred to again. The last part of this chapter provides a reflection of my role as a collector and interpreter of the data as well as biases and limitations in this regard.

### 3.3. Data sources and data collection

Data collection is a vital process affecting the quality as well as the outcome of the research (Bryman and Bell 2015). This thesis is based on a single case study in a public, middle-sized company. Consequently, data resources are restricted for this study. Following the principle of *theoretical sampling* (explained in 3.1.2) the research process started with the analysis of documents on operational planning. Aspects emerging from this data sources entailed further investigation of additional planning data. The variance analyses conducted raised interesting questions that called for in-depth-interviews. The semi-structured interviews have been altered slightly after every conduct as new interesting points arouse from the previously held interviews.

*Theoretical saturation* (explained in section 3.1.2) is another principle this thesis follows. The public middle-sized company provided the documents on the budgeting process. The research study includes operational as well as strategic sources throughout the time period of five years and nine different business divisions. These documents were accompanied by interviews. During this process recurring analyses were made until no further insights were gained.

The following subsections explain the different data sources, the collection of the data and the process of editing data due to confidentiality reasons.
3.3.1. Operational and strategic planning documents

Organizational documents allow the research to gain insights in the organizational processes and procedures. One distinguishes between organizational documents accessible to the public and those which cannot be found in the public domain. In case study research organizational documents offer information about past managerial decisions, actions and background information about the company. Organizational documents are not free from biases, errors or distortion. Therefore, the documents are not an objective data source as the people creating these documents often have a point of view that they want to pass on (Bryman and Bell 2015).

The core of the field research forms around the operational and strategic planning documents. The company undergoes a yearly budgeting process in which the head of the business units together with the controlling and the company board create the Operational Plan.

3.3.1.1. Main documents

Initially the empirical research investigated the year 2016 closely. First, it is the most recent year that supplies both planned values as well as actual values. Second as the year was recently planned the memory and knowledge of the business unit heads had to be profound. This implies that the database includes all OPLs that plan the year 2016. The first occurrence of the year 2016 was in the OPL 2012-2016 (OPL_12-16), the second in the OPL 2013-2017 (OPL_13-17) and so forth. The last OPL taken into consideration was OPL 2017-2021 (OPL_17-21). Due to company internal technical issues with the management accounting system, there was no possibility to access the OPL_12-16. After the first analysis the monthly report of December 2016 was added, as it supplies the final actual values of the year 2016. Considering that the time horizon is five years, the analysis of the data, however, evolves around four years, the study is subject to data limitation.

In a second step, the variance analyses of the years 2013-2016 were conducted. These analyses contributed to a broader knowledge about the length of the planning horizon and its impact on the planning quality. In a first consideration five performance indicators were chosen: EBIT, sales, investments, maintenances and employee costs. After the first
analysis the employee costs were neglected, as additional investigation in this matter would go beyond the scope of this thesis. The second step analysed the investments and maintenances. Both indicators are influenced by large-scale as well as on-going projects. The large-scale projects are often only partially under the business unit heads full control. External effects caused by the government or the contracting party can prompt a change in the operational and capital budgeting. Only the part of investments and maintenance over which the business unit heads have full control during the year were included. The third step incorporated the strategic EBIT objectives in the study. These values represent the need for strategic focus during short to middle-term budgeting (see section 2.1.1.1).

3.3.1.2. **Document analysis**

During the course of the study four variance analyses were made. With the first two analyses I tried to answer the main research questions concerning the planning quality and the planning horizon. Adhering to the research question about planning depth, an additional investigation was made. The analysis of the strategic EBIT guideline prompted the need for another variance analysis. The following sections explain how the conduction of the four variance analyses proceeded.

3.3.1.2.1. **Variance analyses**

A *variance analysis* explores differences between actual results and predetermined expectations or budgets. The systematic analysis helps to explain the how and why of these differences. Variances can be favourable and unfavourable for the organization (Merchant and Van der Stede 2012). There are however variances that are more noteworthy than others. Every management control system has its own standards by which variances are deemed significant or not. These standards define upper and lower control limits. As the results of a variance analysis are merely numbers, they must be put in the respective context to give them meaning. This type of analysis is crucial for identifying improvement possibilities or directing attention to “problem” areas (Burns et al. 2010).

In order to address the research questions concerning the planning horizon as well as the planning quality I conducted three variance analyses. Another one studied the impact
that the EBIT target guidelines imposed from the executive board on the business unit heads have in the planning process of the business unit budgets. In the interpretation of those variances one has to acknowledge that the size of contribution to the overall result varies among the business units. The significance of the business unit results has to be related to their size.

Table 1: Overview of the variance analyses

| Variance analysis 1 (VA1) | VA1 investigated the planning quality of the year 2016. It shows the development of the four key performance indicators (see 3.2.1.1) over the time period of 4 years, from 2013 to 2017. Variance analysis 1 was calculated as absolute value of actual minus planned values over actual, that is:

\[
\text{variance (\%)} = \frac{|(\text{actual}_t - \text{planned}_t)|}{|\text{actual}_t|}
\]

The theory behind this variance analysis is, that the closer the year 2016 is, to becoming the operational, detailed plan, the more precise the planning is, until it ideally should have a variance approximating zero. |

| Variance analysis 2 (VA2) | The second variance analysis forms around the theory that the planning quality correlates with the planning horizon. The longer the planning horizon is, the lower the planning quality is due to a lack of information in the distant planning years. For this purpose, I calculated the weighted average for each planning horizon: year 1 to year 4.

\[
\text{weighted average variance analysis (\%)}: \frac{\sum (|\text{actual}_t - \text{planned}_t|)}{\sum |\text{actual}_t|}
\] |
| Variance analysis 3 (VA3) | I selected the weighted average to ensure that the higher the actual value is the more weight the variance was given. In order to answer the question how the planning quality develops over time the third variance analysis was conducted. The time horizon was held constant, reflecting the quality of planning in the different years. For this purpose, I applied the same calculation as in VA1. The difference is that I only studied the values of the detailed, operational plan. This reflects how good the planning performance of the budgeting in the various years was. One could argue that the more experience the planning team has, the more accurate the plans become. According to this theory variances should be smaller in the year 2016 than in 2013. |
| Variance analysis 4 (VA4) | The fourth variance analysis concerns the strategic EBIT values. I asked the question, how the EBIT guideline is accepted and incorporated in the planning considerations of the business divisions. This is interesting as the EBIT target guideline is a performance indicator that is imposed on the business units by the executive board. The EBIT target guideline should be met during the planning considerations. The EBIT target guideline should under ideal circumstances equal the planned EBIT value which should equal the actual EBIT. In this case I calculated the absolute variance (actual minus planned) of both the EBIT target guideline and the planned EBIT as well as the planned EBIT and the |
41

actual EBIT. In a second step the percentage variances were calculated as well, following again the formula:

\[
\text{variance (\%)} = \frac{|(\text{actual}_t - \text{planned}_t)|}{|\text{actual}_t|}
\]

3.3.1.3. Analysis of the planning depth

Another part of the empirical research is the level of detail in the budgeting. The question to be answered is: Do the business unit managers necessarily need a great level of detail in the budgeting and what prompts the level of detail? The business unit managers plan in a hierarchy at the moment. On the top, they plan generally for their business units, those business units are divided into profit centres. The profit centre managers then plan on a tranche level. Tranches are projects that have various assets underneath them which are related. The assets form the most finely-grained level. This especially concerns the key performance indicators investment and maintenance. The level of detail varies between the business units. The controlling department supplies the business units with a scheme that can be used to plan these two indicators. The level of detail influences the range of decision making and the flexibility of the business unit heads during the year. The planning depth has five levels. The executive board assigns the budgets at the tranche level. The more detailed the business unit plan is, the less flexible the business unit managers can react to changes in the plan. On the one hand, managers need a certain degree of detail to be able to assign costs to projects. On the other hand, one seeks an aggregated plan to ensure as much flexibility as possible.

The performance indicators of the year 2016 were studied, to show the level of detail for each of the business units. Each level has various items which were summed up to show how granulated the plans for investments and maintenance are.

3.3.2. Interviews

A main feature in qualitative research is the use of soft data, heavily focusing on texts and words (Neuman 2014). The qualitative interview is one of main sources of data in the qualitative research field as gaining insight into the interviewee's point of view is the main
focus. Furthermore the qualitative interview, as it is partly unstructured, allows for open responses, encourages to “ramble” and offers rich and detailed data (Bryman and Bell 2015).

For the purpose of this study I conducted semi-structured interviews with open questions. The document analyses prompted questions about the planning procedures as well as the results of the investigations. On this basis open interview questions were developed (see Appendix page 84). This guide was semi-structured. Questions were developed that focus on topics that arose from the previously conducted analyses as well as relevant issues in respect to the planning process. Open questions gave room for sharing experiences, interpretations and further suggestions. This allowed for deeper understanding of the interviewee’s point of view. As the structure of the interview guide was low, the questions were adapted according to the dynamic of the on-going interviews. This is in line with the theoretical sampling (see 3.1.2) approach in Grounded Theory.

After the analyses and a meeting with the head controlling officer I decided to interview the heads of all nine business units. In the end seven were conducted. One manager was at that time unavailable. The second manager started working as business unit head only shortly before the interviews were conducted. I assumed that the manager could not add insights on the planning process of the previous years due to lack of experience and knowledge in this position. As vital information about these two business units is missing, I hereinafter neglect to mention them in the further analysis as this would compromise the quality of the study, by analysing an incomplete data set.

Every interview was conducted face-to-face in the interviewee’s office at the company’s facility. All interviews were taped with the smart phone and additional notes were taken. Most of the interviews were carried out individually. Only two were group interviews with the total amount of three people. One consisted of two interviewers and one interviewee. In the other case the interviewee brought along a colleague with expert knowledge who added new insights to the study. All interviewees were longer than one year in the same management position, therefore guaranteeing experience and deep understand of the budgeting process as well as a familiarity with the figures.
The time period from the first interview to the last interview was six months. Each interview session lasted between 25 and 55 minutes depending on the length of the answer, additional questions asked and their time schedule. The interview partners are native German speakers, which is why every interview was conducted in German, transcribed and translated afterwards.

3.4. Data editing

This thesis follows the principle of ethical research. According to Neuman (2014) it is crucial for an ethical study to adhere to anonymity and confidentiality. This thesis ensures anonymity by addressing and protecting the interviewee’s privacy, therefore, the people remain anonymous by addressing them via predefined codes (see Table 2 below). Due to confidentiality reasons the business units’ names as well as the case company’s name were edited as well. The case company hereinafter Phoenix, has nine business units, seven are included in the analysis of the data (explanation in section 3.2.2.). To give an idea about the relevance of the business unit I present the key indicator sales of the business units in percentage of the overall sample sales. The first column refers to the business unit, the second column presents the size of the business unit in relation to the others and the third column indicates the abbreviation of the business unit managers interviewed.
Table 2: Overview of business units

<table>
<thead>
<tr>
<th>Business unit (abbreviation)</th>
<th>sales business units to overall company sales (%)</th>
<th>Business unit manager (abbreviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>9,37</td>
<td>I.1</td>
</tr>
<tr>
<td>B2</td>
<td>27,15</td>
<td>I.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I.2.2</td>
</tr>
<tr>
<td>B3</td>
<td>1,55</td>
<td>I.3</td>
</tr>
<tr>
<td>B4</td>
<td>12,72</td>
<td>I.4</td>
</tr>
<tr>
<td>B5</td>
<td>0,43</td>
<td>I.5</td>
</tr>
<tr>
<td>B6</td>
<td>14,49</td>
<td>I.6</td>
</tr>
<tr>
<td>B7</td>
<td>5,97</td>
<td>I.7</td>
</tr>
</tbody>
</table>

The business units operate in different markets. They are either facing a monopoly status or are market driven. The business units B1, B4, B6 have a monopoly, while B2, B3, B5 and B7 are market driven. This is an important distinction I will further refer to during the presentation of the results.

During the presentation of the findings of this study, I will quote parts of the interviews. The interviews were conducted in German, the working language of this thesis is however English. The quotes were translated into English. To ensure authenticity of the quotes I maintained the interviewee’s manner of speaking and did not correct grammatical errors. I retain the right to only partially include quotes into the thesis to guarantee reading flow and leave out unnecessary information.
3.4.1. Data analysis

The research questions elaborated in this thesis try to understand the planning process, assess the quality of budgeting and evaluate whether the planning horizon is appropriate. A qualitative research design was selected. A popular method to evaluate and analyse data in qualitative research is the *Grounded Theory* (explanation see 3.1.1. and 3.1.2.). The start of the research formed the analysis of the main operational and strategic plans. The variance analysis was conducted according to the predefined calculations (see 3.2.1.2.1.). The results were put in context of each business unit, considering the size and nature of the market the business unit is facing. Furthermore, I interpreted the data, wrote memos with theories and questions emerging from the data.

Once I had the feeling that no further insights were gained from the document analysis itself I conducted interviews. The development of categories was the starting point for the analysis of the interviews. Thereby I followed Corbin and Strauss (2015) approach and used *open coding* in a first step. I labelled the interviews with codes emerging from the data. To allow room for further investigation I applied wide codes that integrated a still ample amount of data, in the hope that further ideas and concepts emerge. The first labels stem directly from the interviews or the major research topics such as planning depth, planning quality or planning process. In highlighting phrases, words or whole paragraphs that I considered important I got a first overview of the data. During the process I reviewed the categories constantly, went back and forth between the selected categories and the phrases in the interviews.

In a second step, I applied *axial coding*. I linked together the first clusters of related topics to gain an overview of predominant topics. This helped to establish first connections and detect major themes. During this phase I realized that some codes did not add any further insights and some predefined categories were unnecessary. I eliminated those, merged some categories together to tie up the loose codes. After this process I once again designated relationships between the codes and the themes to make the connections more evident. From initially 38 codes I narrowed it down 27 codes that resulted into 19 categories.
In a third step, I felt the need to restructure and reorganize my data. The reduction of the number of codes as well as establishing the categories help to reduce the complexity of the data. Even though connections and trends within the data were evident it was still rather chaotic overview. I chose to evaluate the codes and categories in the light of selective coding. I aggregated the data, reformed core categories and searched for specific themes that allow a reduction in the categories as well as the codes. At this stage I reduced the number of categories to eleven, merged categories and established a few new relationships.

Constant comparison took place of the results from the document analysis and the interviews in order to make sense of the numbers and put them into context. Once no further important themes and additional information were found in the data the analysis stopped.

3.4.2. Reflections on the empirical research

In this section, I will briefly address limitations and biases in respect to the empirical data and the analyses. Selecting *Grounded Theory* in qualitative research implies that the researcher has great influence on the research quality and the results (Neuman 2014). Due to unavailability of data sources such as the OPL 2012-2016, the spectrum of the study is limited. I analysed the variances, formed theories and interpreted the data according to my knowledge gained during my studies, however, I do not have practical experience in this field. The lack of experience in analysing budgeting data and interpreting it, biases the results. I asked my supervisor and the head controller of the company for advice in regard to the variance analyses. I was the only one directly interacting with the data, which poses possible biases and methodological errors while handling the data.

With regard to the data collection I must stretch that I again had a major influence on the outcome. My experience in conducting field research, especially qualitative interviews is limited. Even though I prepared myself thoroughly before each interview, studying the results of the variance analyses as well as rereading my interpretations and remarks I struggled with presenting the results during the interviews. Especially during the first three
interviews I had problems explaining the results, the methodology behind it as well formulating the related questions clearly. During the transcription of the interviews I realized that this led to confusion on the interviewee’s side. I noticed that I let the interviewees “ramble”. An occasion in which that happens regularly was the one group interview. A certain dynamic developed in which the interviewees would discuss issues of no great relevance for the study and I failed to direct the interviewees back to the actual questions. This might partly have happened because I lost focus due to the amount of information both supplied and because I did not know at times how to break into their conversations without being impolite. I failed to ask follow-up questions in particular when answers were general and unspecific. I would have had the opportunity to contact the interviewees again, but without the dynamic and trust established in the original interview I thought that the responses would have been different. Furthermore, I decided during the interview process to neglect two business units which might have added additional information. I came to this decision after discussing it with the head controller. Neglecting those two business divisions also poses limitations to the study.

Some interview questions could have been stated clearer. As I transcribed the interviews after each session took place I had the opportunity to adapt the interview guide. This only happened to a limited extent. Even during the interviews new questions were asked. This process makes it hard to duplicate the research design and setting.

*Grounded Theory* helped me in organizing, structuring my database. I discovered that some themes and topics that I found interesting during the interviews where unimportant and unnecessary for the data analysis. As I was the only one involved in the data analysis the interpretations formed during this step, are entirely influenced by my own experience and bias.

This study faces limitations as it is based on a single case. This limits the generalizability of the results. As it is only representing the perspective of the business unit managers, it does neglect the opinions and views of other important individuals in the planning process. These people include the board of directors, the supervisory board and the controlling department. A further questioning to include these views goes beyond the scope of this thesis. However, one must be aware that the recommendations based on the results of the variance analyses and the interviews only reflect on the interpretations
of the business unit managers. Thus, the results are subjective interpretations of the results. It is unclear if the premises to conduct a comparable study are replicable.

As a final remark, I have to say, that the combination of the document analysis and the interviews supplied ample perspectives about the context and way of interpreting the variance analyses. In the next chapter I present the findings of this study.
4. Findings

The thesis evolves around the core topic of planning quality. The planning horizon and the planning depth heavily influence the outcome of the planning process. The strategic guidelines and their incorporation in the budgeting process have an impact on the quality as well. For the presentation of the results the thesis breaks down these design elements. The first section explains results of the analyses of the quality of the operative plan (OPL). In order to structure it clearly a separation between the four different key performance indicators was made. The analysis of the planning quality has implications on the design elements regarding the planning horizon and the planning depth, which are discussed in the subsequent section. The last section discusses the results of the analysis of the linkage between strategic and operational plan as well as the degree of participation in the planning process. Background knowledge as well as important statements form part of the results presentation. The interviewees put the numbers into context, adding interpretation and meaning to them.

4.1. Planning quality

The planning quality refers to the need of the company for accurate plans. The four key performance indicators sales, investment, maintenance and EBIT reflect the quality of the plans. The variance analysis state how the planned values differ from the actual values.

The first round of variance analyses conducted explains the quality of the operative plans in terms of the weighted average. The results imply that the planning quality is directly related to the length of the planning horizon and the information available to the business unit managers during the time of the planning process. This is in line with the theory that the planning quality declines the longer the planning horizon is.

The second variance analysis conducted keeps the time horizon of one year as a constant. It shows how accurate the forecast of the budget (one-year plan) was in the different operative plans. The theory in this regard is that with planning experience the plans should become more accurate. The results are mixed therefore the theory cannot be supported.
The third section in this chapter questions the relationship between planning quality and variances. Variances are an indicator of the planning quality, as they measure the difference between the actual data and the planned values (Merchant and Van der Stede 2012). The interview results show possible reasons for the occurrence of variances according to the business unit managers. It is not only important to ask the question why such variances occur, but to understand what the attitude towards the variances amongst the managers is. The results suggest that business unit managers are not worried by variances as they are thoroughly discussed with their superiors. The main three reasons for the occurrences of variances are a lack of information during the planning process, unforeseen developments and the desire to smooth the company’s end results.

4.1.1. Planning quality and the operative plan

The selected indicators in the analysis of the operative plan are sales, investments, maintenance and EBIT. To keep a clear structure, the thesis explains every indicator in detail. Summed up one can say, that the overall planning quality depends on the length of the planning horizon and the information available to the business unit managers. Attention must be paid that the nature of the business environments varies among the business units. Also noteworthy for the interpretation of the following results is, that the weight of each business unit’s influence is measured according to their contribution to the samples’ overall results. This should reflect the importance of the variance of one business unit in relation to the sample. For example, business unit X, adds 4% to the total sales. The overall variance in the key indicator “sales” is 300%. Although the variance in itself is enormous, the influence this variance has on the overall sample result is minor as its contribution to the sales is minimal in comparison to others.

Furthermore, when evaluating variances, one needs a frame of reference. In the case of Phoenix such a reference point is hard to set, the acceptable values for variances depend on the context under which it occurs.

4.1.1.1. Sales

First and foremost, the distinction between business units operating in a monopoly market versus operating in a competitive market is crucial for the interpretation of the sales
forecast. The method of planning differs according to the market environment. The monopoly driven business units base their plans on historic numbers, on experiences but also partly on trends of the future.

“In the past ten years we planned a decline in the consumed quantities (by the inhabitants of the city), because we could see that each year the sold quantities receded. This had mainly to do with technological advances. Then three years ago the sales evened out. Now we know that the area is going to grow (in terms of inhabitants). […] In the planning process we have to combine it (the assumptions about the future and the knowledge about the past developments). Taking into account the growth and adjust the quantities accordingly. […] Only parts of our sales are standing orders and are really easy to plan. The others are based on the experiences and the trends.” (I.1)

“The sales plan is mainly driven by the volume of visitors. It is relatively easy to predict based on the last years and on certain trends of the future.” (I.3)

“90% of the sales stem from operating in a monopoly market. These have a certain level of continuity. We observe the development of the used quantities, the number of inhabitants and so on. But this is always a continuous update. We know the planning premises, it is easy to estimate. We are having a monopoly that nobody can take away.” (I.4)

The market driven business units rely on a business plan. The introduction of the business plans occurred a few years back with the help of a consultant. The business unit managers struggled with the forecast and the complexity of the planning system. With the introduction of the business plans, this complexity was reduced, as it proposes values that are formed by previous experiences. These values continuously adapt to new trend and changes. However, some business units still struggle with the volatility of the market conditions.

“The other profit centre that we have plans the sales according to a business plan, this (the business plan) makes it easier.” (I.2.2)
“The sales plan is easy. The business plan gives us the information we need. […] The business plan changed the planning process for good. […] In the past the process was different. It (forecast) was hard to estimate.” (I.7)

“It (the planning) is more complicated in the competitive market (in comparison to the monopoly market). We have sales people on the way and we try to estimate the quantities, but it is hard. Everyone plans with caution.” (I.4)

“We plan bottom-up with the business plan as basis. We produce part of our products ourselves and buy the other quantities at the stock market price. This is risk minimized. Internally we used transfer prices. Therefore, one can say that we use a market-to-market approach with stock prices. […] Once we have the prices, we match them with the quantity numbers the sales people predict. […] The sales are very volatile though. Even if we freeze the planned numbers the actual never acts according to the plan. […] We have variances up to 20%. Those increase the further we plan into the future.” (I.5)

The business unit managers in the monopoly markets think that planning the sales is an easy task. According to them the relatively fixed sales numbers are a great advantage in the planning process.

“Planning the sales is extremely easy, because we only have to consider the sold quantities. That is definitely an advantage. We have a fixed level of sales that is easy to predict, as we can estimate the sold quantities easily.” (I.1)

“In one profit centre, the sales are easy. We operate in a monopoly market there. We can plan that (the sales) very accurately. […] If one does everything right with the sales, then they are very easy to plan” (I.2.1)

Summing up, the interview results suggest that the sales forecast are fairly easy to plan in a monopoly market, while it is difficult in a competitive market. The planning approach varies due to the nature of the market. This is in line with Zyder’s (2007) suggestion that each organization needs to tailor the planning approach according to their needs.

*Figure 1* shows the weighted average of the sales, in the one-year to four-year operative plans. The overall indication is that the planning quality is highest in the one-year plan.
The fourth-year plans have great variances. The fact that the accuracy increases the closer the planned year is, is favourable.

*Figure 1: Sales variance*

![Sales variance between planned and actual sales of different time horizons (weighted averages of OPL)](image)

The sales forecast in B5 and B7 reflects that the business units’ sales are volatile and hard to plan in comparison to others, which is in line with the interview statement of I.5, that the competitive market makes it hard to estimate sales. The business units operating in a monopoly market such as B1, B2, B4 and B6 have lower variances.

Important to mention in this regard is, that only B7 accounts for a negative sales variance. All other business units have a positive sales variance. This means that the actual sales are higher than the planned ones. This is favourable for the company’s end result. In terms of planning quality, variances – positive or negative – are unfavourable.
4.1.1.2. Maintenance

The planning quality of maintenance varies to a great extent among the business units. Projects can be separated into big project and current projects. The big projects are often subject to changes in the operative plan as they can depend on other influential individuals and regulations. This analysis only covers the current projects as the business unit managers have a direct influence in their development.

*Figure 2: Maintenance variance*

*Figure 2* shows that the quality of the maintenance plan varies to a great extent among the business units. There are relatively high variances in the front year in B7, B4 and B2. B7 and B4 together only make roughly 5% of the volume of maintenance in the sample.
B2 accounts for 11.4%. That said, the highest occurring variances only have a minor impact on the overall maintenance outcome. The fact that variances in the four-year plan are very high, displays that most business unit managers do not have access to information that is vital for the planning. The tendency to improve the accuracy matches the theory that the planning quality increases the shorter the planning horizon is.

The lack of information is discussed in the interviews as well. The further away the future is, the less accurate the informational input becomes. Even considering only current maintenances, the values for the four-year plan and five-year plan are difficult to estimate. However, the business unit managers tend to believe, that the current maintenance are easy to forecast, although the variance analysis displayed in Figure 2 comes to a different result in some business units. Only one business unit manager says that “the maintenances are volatile. I can only estimate them as soon as I go through with it.” (I.5) The others think the following:

“[…] Then there is a part of maintenance that is reoccurring. Those are easy to estimate. […] We try to make them as cost-efficient as possible.” (I.1)

“We plan bottom-up. […] Our bottleneck is the budget we get for the maintenance and investments. We know want we want to do, what we have to do […] That (the planning) is fairly easy.” (I2.1)

“The reoccurring things (maintenances) are fairly simple to plan. […] We do update it every year.” (I.3)

“We know the maintenances. It is easy.” (I.6)

“[…] In respect to the business plan we generate the maintenance numbers, that we use for planning. That is rather quick and easy.” (I.7)

The results of the interviews show that the business unit managers perceive the maintenance as easy to plan. Especially I.7 surprised by highlighting that it is quick, even though the variance analysis suggests that he has troubles planning as the variances for the maintenance vary between 80% and roughly 58%. This suggests that the planning quality is relatively low compared to 10% in B6.
When asked about the variances in respect to the maintenance the majority of business unit managers stated that often the board of directors puts emphasis on reaching a certain overall EBIT. Therefore, the board demands to cut down or postpone maintenances. Such a request in turn influences the plans, as it creates variances.

“This is easy to explain. We got the request from the executive board to save the money and not go through with it (planned maintenance). This is mainly to level out the EBIT of the company. Every business unit has to cope with this. Especially important are the maintenance projects, as they directly influence the EBIT 1:1.” (I.1)

On that note, one must say, that the variances among maintenance are mainly positive as well. Maintenance is an expenditure. A positive variance exists when the actual value is lower than the planned one. In Phoenix, two business units, namely B3 and B6 account for negative variances. It is interesting that those two find the maintenance plan easy to construct, but fail to meet the planned values.

In this regard I.3 mentions along the lines with I.1 that: “[…] Variances need to be explained. […] If you have the right reasons, additional costs are accepted. […] Of course I need the approval from the board of directors to exceed the budgeted maintenances. […] But that isn’t a problem.” This statement shows that as long, as the business unit managers have the support of the board of directors, variances are not deemed as problematic.

4.1.1.3. Investment

Phoenix is very investment-intensive. The overall asset investment exceeds 57 million euros. Therefore, even small variances can have a huge impact on the company’s outcome. A business unit that has high volumes in terms of sales etc may have a low percentage variance, however, the absolute variance may be high and therefore impact the results of the company severely. Whereas smaller business units may have high percentage variances but their absolute variance measured by what they add to the company’s results have a minor impact on the overall figures.
During the analysis of the investments, the separation between big and current projects was made, for the same reasons as stated under 4.1.1.2. It is noteworthy, that in the case of two business units, the variances show not the desired developments. In B3 and B6 the forecast accuracy was highest in the four-year plan. In general, one can say, that the planning quality varies to a great extent, especially in the one-year plan, which should be the most accurate.

Figure 3: Investment variance

![Investment variance graph](image)

B4 struggles the most with a very high variance in the one-year plan, however in respect to the total investment volume, B4 does not have a big impact on the sample’s result as the investments account for only 0.9 % of total investments in the sample. B7, a business unit that also a low planning quality in the one-year plan even more so in the four-year plan, adds 3.3 % to the investments. Therefore, the two business units with the highest variances do not have a big influence on the investment outcome in comparison to others.

The business unit managers again contradict the variance analysis for investments and state that the investments are fairly easy to plan.
“We know what we want to do. The planning (of investments) is easy.” (I.2.1)

“The main decisions, where to invest are a matter of routine. The reoccurring costs and the investments are easy to plan.” (I.3)

“In essence we have to ask ourselves where the big investments are going to be. But that is relatively good to assess.” (I.4)

“We have lots of building projects. […] One starts with the investments, the maintenances, the planning of the capacities. Those build the main framework. The planning is bottom-up, estimations are good.” (I.6)

In the same line as the maintenances, the bottom-up planning approach suggests that the managers have to think about what they want to do during the next years. However, in investments unique events occur more frequently. Those events cause the main variances. Moreover, such unique events not only have an effect on the budget but the whole OPL as big investment projects are going to be postponed that have influence on the planning process spanning over several years. Additionally, the board of directors again asks the managers to reduce or postpone investments if the company’s result needs to be levelled out.

“The reasons for postponing investments have mostly to do with project inherent things, like regulations or grants that we did not get.” […] That (the variance) is easy to explain. We got the request to save.” (I.1)

“We made a huge shift from maintenance to investments, because we got a new contract with the city.” (I.2.1)

“During a revision of an asset – we wanted to make a rather huge maintenance work, we decided to reinvest, it was smarter. We could not have known that in advance though.” (I.4)

“It was an investment that was initially planned for another year. We had to do it earlier.” (I.3)

Two variances, again in B3 and B6, are negative, same as with the maintenance indicator. Every other business unit accounts for positive variances.
4.1.1.4. **EBIT**

The EBIT is strongly influenced by the investments, maintenances and sales. Current maintenances and investments but also the big projects have an impact on this key performance indicator. Therefore, when interpreting the analysis of Figure 4, one has to keep in mind, that the above discussed features influence the EBIT.

The overall EBIT of Phoenix in the one-year plan with a variance slightly above 20% reflects that the planning quality of the company became better. All of the business units seem to have a lower level of planning quality in the four-year plan than in the one-year plan, except of B2. Noteworthy is, that B7 again, accounts for big variances in the EBIT with 140% in the one-year plan. B4 and B5 also have high variances around 50%. In the big picture three business units have a negative EBIT. These are B7, B3 and B5. The business unit manager of B7 explains: “[...] We are doing project business, which is very hard to estimate, things change all the time.”

Interviewee 5 managing business unit 5 agrees: “[...] The market is volatile. There are lots of changes happening. Assets break down, investments change, some contracts fail. It (EBIT) is difficult to forecast." B4 has high variances as well throughout every plan. However, the trend towards a higher planning quality is given and in total they add only 9,6% to the overall sample EBIT.
Five out of the seven business units have a positive variance. The actual values for EBIT are higher than the planned EBIT. This has positive consequences for the company and thus is favourable. Again, considering the planning accuracy, variances – both positive and negative – are unfavourable.

*Figure 4: EBIT variance*
In the interviews some business units say, that internal as well as external incidents have an influence on the EBIT. The most acknowledged internal reason is the request on the part of the board of directors to cut down expenditures to level out the EBIT. External reasons are mostly big projects that have to be postponed due to unforeseen changes in regulations, grants and so forth.

“The EBIT reflects [...] the difference that, the shift of this one big project made.” (I.5)

“Month after month, it (EBIT) is good. Then shortly before we are preparing the annual account statement, business units start to allocate costs to other units. One never sees those blocks of costs. That distorts the result. Being in that situation is always bad.” (I.4)

This reflects again, that the EBIT is subject to many influences that the business unit managers often cannot control. Some have the feeling that their motivation suffers in light of this. Interviewee 6: “A few effects reflect in the EBIT, like the allocation of overhead costs or one-time-events. I often lose motivation. It is highly complex and often not visible straight away.”

4.1.2. Planning quality and the budget

One goal of this thesis is to determine the planning quality of the different plans. The last section explained in detail the variances of the key performance indicators, used to determine the planning quality of the operative plan. This section highlights the planning quality of the one-year plan (budget). For this purpose, the four one-year plans of each OPL relevant for this thesis, were analysed closely.

The theory behind this analysis is that with experience the accuracy of the one-year plan should increase over the years. However, Figure 5 suggests differently. The planning quality of the key performance indicators sales, EBIT and maintenance declines. Investments seem to be very volatile in the one-year plan. The one-year plan should be the most accurate one. Each year is planned four times before it acts as the budget year. Business unit managers import new information and update it. Therefore, the budget year should be the most accurate as it should inherit as much information as possible.
Only the key performance indicator “sales” indicates a good planning quality as the variances are lower than 10%. The reasons for the high volatility in investments and maintenance can again be related to statements of the business unit managers that have been highlighted above. Unique events or requests from the external environment or stakeholders within the organization are a possible explanation for the variances. The volatility of the EBIT can again be caused by the variances in investments and maintenance.

4.1.3. Planning quality and variances

Variance analyses are key to understanding what is happening in the organization (Merchant and Van der Stede 2012). The last sections reflected on the planning quality of Phoenix’s planning process. Budgeting has one component that is often forgotten. This is the human influence that the individuals have on the planning outcome. (Argyris 1953) Therefore, this thesis aims to understand what the possible reasons for the occurrence of variances are. The most common explanations for variances in the interviews were the lack of information during the planning process, unforeseen developments and the desire to smooth the company’s end result.

“We already had invested in a great manner that year, that was why the board of directors approached us and asked us to revise the asset instead of
reinvesting. I told him, yes, we would do it. But I would have done it differently.” (I.2.1)

“[…] we have huge differences between planned and actual data, often those occur due to unforeseen singular effects. I can’t possibly plan for that sort of things.” (I.4)

“We simply do not have the information. It is too volatile.” (I.5)

Only Interviewee 3 suggest that the variances could be due to faulty planning: “I think that the biggest problem with the variances is, that many plan their expenditures very optimistically in order to have big budgets, but in the end they don’t have the capacities to go through with all of it. […] Many plan too careful, which creates the buffers and distorts the results.”

Regarding the variances many business unit managers think that positive variances are favourable. They aim to exceed the planned values by at least 10%. The main motivation behind that is praise from the board of directors. One sees the exceeding results as something normal, something that they need to achieve.

“Exceeding it (the planned value) by 10%, is the ideal result. […] You get praised for doing a good job, that (overshooting target by 10%) is something we all should be able to achieve. Therefore, it is possible that you plan in order to say, okay if everything runs smoothly, I will overshoot it. […] But you cannot question the accuracy of the plan, everything has to run smooth to achieve it.” (I.1)

“Within Phoenix, we always are exceeding our actual results in comparison to the plan. That is pleasant.” (I.2.1)

After assessing the interviews, I have to highlight one point especially that came to my attention. In respect to the variances and the planning quality I could not find any noteworthy consequences when positive or negative variances occur. It seems to me, that as there are no consequences in place, managers are inclined not to care too much about variances. Furthermore, the variances that happen are thoroughly discussed with the board of directors and approved by them. Therefore, they do not worry the managers.
4.2. Planning horizon

Most of the business unit managers welcome a change in the length of the planning horizon. The length influences the accuracy of the plan, as it determines what information and how much information is imported into the plan during the process. The length of the planning horizon correlates with the accuracy. The longer it is, the more inaccurate the plans tend to be. This has to do with the lack of accurate forecasts for distant years in the future. The variance analyses in part 4.1. describing the quality of the plans reflect this in most cases. The three-year and four-year plan are more inaccurate than the one-year plan. The results suggest that shortening the planning horizon could be one way to make the planning process more efficient.

During the interviews the interviewees were asked to comment on the quality of the plans in respect to the length of the planning horizon. The primary goal was to determine their satisfaction with the current length. A few business unit managers see the planning horizon as something given and unquestionable.

“*We have always planned for five years. It simply is like that. You don’t question it.*” (I.4)

“*After all, we always had the five-year horizon that is just the way it is.*” (I.5)

“*The five-year-horizon is given history. We have always done it like that. I don’t know if the supervisory board or the board of directors insist on it.*” (I.1)

There are two trends evident in respect to changing the length. For one, the business unit managers want to stick to the given planning horizon. In general, one can say, that business units operating in monopoly markets, that are characterised by a more stable environment, tend to prefer the five-year plan.

“I think that it *(five-year-horizon)* is good. Our assets have a long life-span. If you plan too short-term you risk to brighten up the results in the short-term. For us the five-year horizon makes it clear, that we can postpone some projects for a few years but eventually we have to do them. […] In the years farthest away we do not know exactly what to plan. However, if you keep
postponing the projects just to increase the profits, it will backfire. [...] We need to look further into the future.” (I.6)

One business unit manager operating under a monopoly takes pride in having no problem with generating the five-year plan: “The planning horizon of five years is not a problem for us. We plan very long-term oriented as our assets have a long lifespan. We need to plan farther.” (I.2.1) However in the same context he admits that the last years are just an update or act as placeholders due to insufficient information: “We more or less know what we are going to need for the investments and such, we just write something - whatever - in the four-year and five-year plan.” (I.2.1) The statement indicates that he does not think about improving planning accuracy. A probable answer could be that he thinks that the planning quality is good enough. B2 tends to have relative low variances (except of maintenances). Furthermore, variances are not seen as a problem as they are discussed with the board of directors.

Some business units operating under the monopoly market however clearly state that even operating in stable environment they would prefer a three-year plan.

“I think shortening it makes sense. It catches up with you. [...] for example the year 2022 is so far away, we just take the values from the previous years to fill them. Except of course there is one big project worth a few millions. I would add that. But essentially those positions in the last years are placeholders. [...] The problem is when those year (four-year and five-year plan) get closer I have to explain the variances, my reasons for planning it like that. Therefore, the fifth year is just too far away, [...] you will always have to make corrections. I definitely would not be opposed to having a three-year planning horizon instead of five years.” (I.4)

“As a business unit we are not opposed to a shorter time horizon. [...] Either way you never know what will happen in those years farthest in the future.” (I.3)

Business units that face a competitive market environment tend to want a shorter planning horizon. This is probably due to the high volatility of the market.
“I will speak frankly to you. […] The years three to five are just an update, as they are very hard to forecast in a business that is project based. […] It depends on too many things. How good the sales people are? What are the parameters for subventions? […] It is all very volatile, harder to plan than the monopoly units.” (I.7)

“The most concrete is the budget year. […] We hardly have information about the subsequent years. We do have long projects, so adding that information into the five-year plan fits. But on the other hand we don’t have all the information. Yes, considering it, a shorter time horizon would be good.” (I.5)

Summing up, most business unit managers tend to admit that a shorter time horizon would make the planning process and its consequences easier to handle. The managers see the planning process as time intensive. Therefore, a shorter time horizon is one possible solution to improve the planning quality and reduce the time spent on planning. However, attention must be paid to eventual short-term oriented behaviour of the managers.

4.3. Planning depth

The research shows that within Phoenix the planning depth varies to a great extent. For this analysis the thesis investigated all investment and maintenance positions within the OPL of 2016 to the level of different cost centres and assets. A high level of detail in the OPL indicates that the plan is used as an action plan by the business unit managers. A low level of detail implies that the detailed planning process is done in another system that delivers the aggregated numbers for budgeting purposes. During the analysis I could not find any evidence that the different manners of planning (whether the budgets and plans are generated within differing systems) affect the process differently. As discussed in Section 2.2.2. the level of detail has an influence on the planning quality and the flexibility of the business managers’ decision making process during the year. Table 3 and Table 4 suggest that there is no obvious correlation between the level of detail and the investment or maintenance volume of the business units.
As displayed in table three the planning depth of investments and maintenance is rather high in B2, B3, B5 and B7. B2 has a high share of the investment volume and a moderate share of maintenance volume. They plan the investments and maintenances rather detailed with 221 and 167 assets. This is regarded as very rigid system to allocate a budget and could decrease the flexibility during the year if changes occur. Interviewee 2.1 says “[…] for us it is the same, whether we plan within the OPL or another system. We have to do it either way. […] Those are however aggregated values. We have more detailed plans as action plans. […] but it is all very detailed, even though we would not need it for budgeting, but we get those lists from the Controlling.” The statement reflects that again, the manager does not question the necessity of a very detailed plan, but takes it as given and fills up the lists, even though it is extra work and probably not needed in that extent by either, the Controlling nor the business unit.
B3 level of detail is fairly general in comparison to the other extremes. Interviewee 3 values his flexibility and suggests that there are more detailed plans behind the investment and maintenance plan submitted in the OPL. He states: “Yes we plan the maintenances very detailed in another plan. But we do aggregate the budgets to not bloat them up unnecessarily. […] One is flexible that way, with a general budget.”

Business unit 5, has a moderate level of detail in respect to investments but a high one in maintenances. He uses the OPL as action plan.

“That is the action plan. We plan bottom-up, very detailed, we have to know what we are going to do the following year. We plan this mainly for ourselves. Of course I can plan in a flat manner, but I need information. I need to know what projects I can realize in each year.” (I.5)

An especially detailed level has business unit 7 with 420 maintenance assets that are planned. A reorganization of the planning process is happening. During that the level of detail is about to change. A reduction of the cost centres is bound to happen to ensure greater flexibility. This flexibility is needed as the volatile environment often changes the planned maintenance and investment projects. Furthermore, Interviewee 7 says that the investment and maintenance plan is very time intensive: “It is very complex. We did spend so much time with it. The output is not worth the resources spent on generating the input. […] It is easier to form pools and be able to change the allocations.”

Generally, one can say that the business unit managers try to maintain a lower level of detail to ensure flexibility. One could argue that the managers wish for a better plan to reduce the time spent on planning. However, the business unit managers do need a certain level of detail to make decisions.

4.4. Integration of strategic objectives in the planning process

The strategic plan should play an important role in the middle- and short-term planning as it connects the operative actions with the strategic aspirations (Merchant and Van der Stede 2012). Phoenix uses the strategic EBIT target to integrate the strategic values into
functional planning. The results in this study suggests that without any consequences in place, the strategic EBIT guideline values are considered as a vague orientation point, but not as a fixed value that should be reached while planning.

The business unit managers do not have any influence on the strategic EBIT target values set. This is done by the board of directors. It is a value that is mathematically based on historic numbers and generates an average. Interviewee 1 highlights: “The only thing I have to say to that is that the strategic EBIT guideline is hardly transparent, for me it is more a reference, not the target.”

The fact that the business unit managers cannot influence the value seems to be correlated to their lack willingness to take it into account while planning. This is in line with the findings of Shields et al. (2000) that participation in setting targets increases the commitment. After the business unit managers plan bottom-up the generated EBIT value should match the strategic EBIT guideline. This, however, is hardly ever the case. There are no consequences if those two do not match. Interviewee 2.1 put it like that “[…] Consequences? I don’t say anything in respect to that. The consequences are like this: we plan however we want and that is resulting into something. That is it. Our strategic guideline is to guarantee the supply of utilities\(^2\). That is all.”

Interviewee 4 commented: “[…] It is difficult with the imposed guidelines. But essentially guidelines should be available. But those are only first recommendations, if our plans match them, it is good, if not, there is always another option.”

In the subsequent planning step that follows the first round of generating the OPL, target values are fixed. Together with the board of directors the business units adapt the strategic EBIT guideline and form a specific target.

The process of forming a specific target closes the knowledge gap that is present between the board of directors and the business unit managers. The board of directors supplies the strategic aspirations in form of the strategic EBIT guideline, while the business unit

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\(^2\) The interviewee stretched the importance of the company’s believe that the utmost important goal is to maintain an infrastructure that allows to distribute utilities like electricity etc. to it’s users and not to cut costs.
managers translate the operational capacity limitations into the planned EBIT value. This target is used as performance measure. The business unit managers have direct influence on the EBIT target, as it stems from the bottom-up plan and is the result of a discussion between business unit managers and the board of directors. The business unit managers see the jointly discussed EBIT target as the target to be reached. At the end of the year the actual EBIT has to match the planned EBIT not the EBIT guideline. Thus the EBIT guideline loses importance.

The business unit managers see, that the difference between the guideline and their planned EBIT stems from the fact, that the managers do not know what EBIT their plan produces up until the whole planning process ends. Interviewee 1 states: “We plan blind at the moment. We do not know the end result (the preliminary EBIT).”

The time between the end of the first planning step and the discussion with the board of director is fairly short. The managers have the feeling that they do not have the opportunity to revise the planned EBIT values before discussing the gap with the board of directors.

“I only know the concrete numbers maybe two weeks before I have to discuss it with the board of directors. Of course I cannot change anything at that point.” (I.1)

“We discuss the gap with the board of directors. However, we get the numbers fairly late that limits our possible actions.” (I.4)

The business unit managers feel that there is a need for strategic guidelines, however, the way they are momentarily incorporated in the operative plan is not sufficient. The guideline has hardly any effect on the way the business units’ plan.
5. Discussion

The empirical part of this thesis allows connections to previous research. The findings show that the framework of the planning process has an influence on the planning result, namely on the quality of the plans produced. Momentarily the current planning approach follows the traditional budgeting and planning. After the empirical research, the findings of this thesis suggest that the planning process needs some adjustments. Beyond Budgeting seems to be too extreme an approach for a company as diversified as Phoenix. Furthermore, recommendations for an introduction of a Beyond Budgeting system require a broader empirical research scope, which includes interviews with the board of directors and so on. This, however, would go beyond the scope of this thesis. This chapter discusses the findings and sets them in relation to theories.

5.1. Planning quality and planning horizon

The findings support the existing literature and show a strong connection between the degree of planning quality and the length of the planning horizon. The planning accuracy suffers the longer the planning horizon is (Shank et al. 1973). The results in the case suggest that this has to do with the lack of accurate information about the future. The access to vital information is limited as the environment of the organization changes quickly. Depending on the nature of the market, this implies that in certain cases the information is rapidly out-dated. This is along the lines of the criticism of traditional planning approaches (Neely et al. 2001). The fact, that business unit managers see the planning horizon as something unchangeable, simply “it has always been like that” (I.1) indicates that it is not considered as an important design element. Das (1991) stated this fact as well. Hardly any literature thus far was concerned with the implications of the length of the planning horizon for the planning quality.

During the interviews some of the interviewees suggested that a reduction of the length of the planning horizon from five to three years could possibly lead to an improvement of the planning quality. This is supported by Hansen and Van der Stede (2004) which highlighted that short-term plans like Rolling Budgets increase the performance of operational plans. This indicates that short planning horizons increase the quality. The
access to information is essential in terms of the planning quality. The results suggest that many business unit managers do not have accurate forecasts for the future. In the interviews they stressed that there is a feeling of planning blind. Furthermore they tend to update plans on basis of previous experiences. Another interesting result was that high variances that occurred in the far future do not particularly interest them, as the future is highly unpredictable this far in advance. This indicates that one should consider the implementation of a shorter time horizon. Especially, as this would save the business unit managers from the need to find explanations for huge variances or changes in the OPL.

However, one must consider that a shorter time-horizon harbours the risk of short-term orientation. Especially if key indicators that are subject to budgetary control are used for performance measurement (Merchant and Van der Stede 2012). A shorter time horizon favours the postponement of projects in order to brighten up the results. Furthermore, in a company in which the general life-span of assets is long, short-term effects like the depreciation have to be taken into consideration. Shortening the time horizon could have negative effects and pose huge depreciation volumes on the company if every business unit plans short-term, invest in a great manner and do not consider the long-term consequences of their actions.

Another influential aspect of the planning horizon is the length of the planning cycles in place. There are differences in the planning horizons of the cycles and therefore of the plans. While strategic planning has a wider timespan, capital budgeting and budgeting have shorter ones (Camillus and Grant 1980). At the moment Phoenix has a three cycle process. With heavy emphasis on the separation of the strategic planning, done by the board of directors, the capital budgeting – years two to five in the OPL – and budgeting – year one in the OPL. The business unit managers create the last two plans. When considering a shorter planning horizon, the distinction between capital budgeting and budgeting needs to be questioned as well. One could merge the two together. The implications for the budget would be that it would not be as detailed as before while the capital budget would have a slightly more depth. This might create action plans that are not just focused on one year, thus avoiding the risk of short-termism, but incorporate the middle-term targets and deadlines thus providing a broader picture.
The results suggest that the business unit managers are in favour of a shorter horizon. A change of the length of the planning horizon has fundamental consequences for the company. Especially in context of a public company one has to consider more than one point of view. The board of directors and the supervisory board need to be questioned before any final recommendations in this regard can be made. Their needs in respect to outlooks of the future have to be taken into account. Furthermore, the constitution has to be analysed. Phoenix clearly states in their annual reviews that the annual budgets are obligatory for the organization. Details about the necessity of the operative plans and the length of their horizon are not mentioned. This calls for a thorough investigation of the constitution.

5.2. Planning quality and planning depth

The results show that there is a connection between the planning depth and the planning quality. Fine-grained information on assets and cost centres supplies the data for decision-making. The line between an overload and not enough information is thin. When it comes to budgeting planning in a detailed manner might have its challenges. Especially in those business units that have a very volatile environment (Merchant and Van der Stede 2012). The results show that a business unit operating in a competitive market, that has a very high level of detail, tends to have higher variances. This can be due to a lack of flexibility caused by very detailed planning. Phoenix does not normally allow changes in planned values during the year. According to the head controller changes of the planned profit and loss statement can be made under exceptional circumstances. Additionally, the head controller stated, that investment and maintenance plans are updated on a regular basis. The interviewees general perception, however, was that the plans are very rigid and can not be adapted easily.

Volatile business environments change, which leads in turn to out-dated data in the plans. A lower level of detail allows the business unit manager to shift the budget allocations in between the cost centre blocks as it is not bound to an asset. This ensures a greater

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3 Statement during e-mail correspondance with head controller
range of possibilities to adapt to changes within a certain degree without consulting the board of directors.

Another factor to consider here is that the level of detail correlates with the time spent on planning. A very detailed manner is very resource-intensive in terms of time. The lead time between the end of the planning process and the start of the budget year is often longer in such cases, as one requires more time to construct the fine-grained budget. In turn, a long lead-time can cause more variances, as the environment can change in the meantime. The variances are then an indicator of low planning quality.

It is unquestionable that the business unit managers need a certain degree of detail to assure good decision-making. They need to be careful, the risk of a slow response to changes and distorted plans caused by bloated budgets are present. The results show, that Phoenix relies on action plans. The business unit managers that form action plans in a different system than in which they budget, and aggregate those plans to budgets, tend to plan more accurate. For design recommendation purposes, the thesis proposes, that the business unit managers should try to reduce the planning depth to a necessary minimum that assures higher planning quality and more flexibility.

5.3. Planning quality and participation

This section discusses the planning quality and its relation to the strategic EBIT guidelines. The strategic EBIT guidelines are seen as a point of reference, but not as an obligatory value that needs to be met. Following the lead of Shields and Shields (1998) who say that participation on both sides, superiors and employees, creates a more accurate plan, as it is better informed. In case of Phoenix, the board of directors and the business unit managers work together to create targets that are valid and accepted by both. Assuring that the managers have the feeling that they are measured against numbers which they can influence. Another side effect is that the managers are more likely to accept the targets as they participated in creating them. The case shows that if this participation is not given, the target value is not accepted. The EBIT-guideline, a target imposed on the managers, is completely ignored in the planning process. Ignoring the strategic guidelines can lead to budgetary slack. Especially as the business unit managers are driven to exceed their targets by a certain degree. The risk of setting the
planned values too low in order to ensure that they can easily achieve it is given. The guideline imposed by the board of directors is a tool to avoid this. However, if the business unit managers do not pay attention to the guideline, the usefulness of it needs to be questioned.

In order to guarantee that the target is fair, participation in the planning process is essential. Though, the superiors need to assure that the business unit managers do not understate their budget numbers. The results highlight that more emphasis on the strategic guidelines is needed. This can be achieved by including them as indicators in the performance measurement system.
6. Conclusion

The last chapter reflects the main findings of the study and discusses the results. Furthermore, it sets implications for further research and points out the limitations of this thesis.

The main findings of this thesis suggest that the planning horizon has an impact on the planning quality. It proves that the longer the planning horizon is, the more the planning quality decreases. In respect to the second topic investigated, the results highlight that the planning depth influences the planning quality as. The deeper the level of detail is the more inaccurate the planned values. The third topic regarding the integration of strategic guidelines in the budgeting process, finds the strategic guidelines do not influence the planning behaviour of the business unit managers, if they are not properly integrated.

A suggested design option in respect to the planning horizon is, to reduce the five-year planning horizon to a three-year one. However, legal obligations as well as the consensus of the board of directors and the supervisory board need to be considered before doing so. The reduction of the planning depth is the next proposal of this thesis, as it assures more flexibility in the decision making process and can lead to higher degree of accuracy in planning. Third, the thesis recommends that the strategic guidelines need to be more integrated in the planning process. This can either be done by a higher degree of participation in setting the guideline or by integrating it, into the performance measurement system. The next section highlights the limitations of this thesis.

6.1. Limitations

This thesis is subject to a couple of limitations. First and foremost, the limitations regarding the empirical research are explained in Chapter 3.2.2. The fact that qualitative research is always to a high degree influenced by the researcher needs to be acknowledged. Even though analytical research tools were used to analyse the data to ensure its validity, one has to consider that a different researcher might draw other conclusion.
The fact that the case company is very broad and divers in the nature of the business areas it covers, might limit the replication of the study. Furthermore, the environments of the business units as well as their drivers are very different within the company. This leads to a broad set of underlying assumptions in respect to the planning process which vary to a great degree amongst the units.

Additionally, one has to consider, that the study covers just one case company, which limits the generalizability of the results. There is no possibility to compare the results for reflections on the potential of failure. Only one point of view is reflected, as only business unit managers were interviewed, this is why there is a risk of simplification. A greater number of interviewees that hold different positions within the organization might add a different interpretation to the variance analyses conducted. This thesis tries to deepen the knowledge of the planning process of the case company. The boundaries set, by focusing on the point of view of the business managers, however, led to valid findings considering the scope of this thesis.

6.2. Further research implications

One direction for implications for further research stems from the study’s limitations. An investigation of various organizations to gain generalizability is necessary. Furthermore, incorporating more points of views within the case company helps to gain new insights and broaden the knowledge. Especially the opinions of the board of directors and the supervisory board are an interesting subject for further research. Taking into account the legal obligations and its influence on the design possibilities of the planning process is another implication for future studies.

Investigating the planning horizon during the literature review made it obvious that hardly any research studies thus far have been focusing on this topic. The influences the planning horizon has on the planning quality call for attention. Furthermore, an investigation of the consequences of changing a planning horizon which is already set in a company can be interesting for further research. In respect to the planning depth, the current state of literature is limited as well. In this context further research could focus on the relation between planning depth and the performance of budgets.
References


Banham, R. 2011. Let it roll: Why more companies are abandoning budgets in favor of rolling forecasts.


Appendix

Interview guideline

1. Vorstellung
   - Diplomarbeit im Bereich Controlling. Ziel ist die Analyse des Planungsprozesses bei der IKB.
   - Ich habe mir hierfür im Konkreten die Umsatzplanung, Investitionsplanung sowie die Instandhaltungsplanung und den daraus resultierenden Betriebserfolg angesehen
   - Interesse des Interviews: Nähere Informationen über den Planungsablauf im Geschäftsbereich erhalten
   - Aufzeichnung des Interviews, wenn OK für Sie.

2. In wie weit sind Sie an der Planung in Ihrem Geschäftsbereich beteiligt?
   - Wer ist sonst noch beteiligt? Inwiefern?

3. Können Sie mir bitte die Vorgehensweise bei der Planung, vor allem für die drei Bereiche – Umsatz, Investitionen und Instandhaltung – in Ihrem GB beschreiben?
   - Womit beginnen Sie?
   - Wie planen Sie? (auf Basis welcher Informationen (vergangenheitsorientiert oder zukunftsorientiert; werden zukünftige Maßnahmen eigenständig bewertet?)
   - [getrennt für Umsatz, Inv., Instandh];
   - Wie viel Zeit geht in die Planung? (zu viel Ihrer Meinung nach?)
   - Wie zufrieden sind Sie mit der Planungstiefe?
   - Wie detailliert planen Sie?
   - Ist die bottom-up Planung – inkl. der Auflistung jeder einzelnen Kostenstelle für Sie von Vorteil, oder würden Sie ein globales Budget oder Geschäftsbereichsbudget vorziehen?
   - Welche Rolle spielen Vorgaben der Geschäftsführung? (i.e. strateg. Ziele)
Was ist der Unterschied zwischen dem Detailplan und der darauffolgenden 2-5 Jahresplanung? Planen Sie hier unterschiedlich?

4. Welche Relevanz hat die Planung für Sie bzw. Ihren GB?
   - Inwiefern verwenden Sie die Planzahlen?
   - Worin sehen Sie den wesentlichen Zweck der Planung?
   - Inwiefern ist der Plan wichtig für Entscheidungen in Ihrem GB?
   - Ist der Plan für Sie ein festes Ziel oder eher eine grobe Orientierungsgröße? (Warum?)
   - Welche Relevanz hat das strategisch vorgegebene EBIT in Ihrer Planung?
   - In der Analyse ist mir aufgefallen, dass die Zielvorgaben stark von den Planzahlen (EBIT) abweichen. Wie kommt Ihrer Meinung nach diese Diskrepanz zu Stande?

5. Wie schwer planbar ist Ihr Geschäftsbereich?
   - Was macht Ihren Geschäftsbereich schwer planbar? Liegt es an der Erlösseite (Kunden, Wettbewerb) oder an den Kosten?
   - Ist der Planungshorizont von 5 Jahren für Ihren Geschäftsbereich zufriedenstellend?
   - Können Sie 5 Jahre in die Zukunft schauen?
   - Welche Entscheidungsrelevanz hat der 5-Jahres-Horizont?
   - Würde eine dreijährige Planung ihrer Ansicht nach zu einem besseren Ergebnis führen?

   - Inwiefern werden im Unternehmen die Differenzen zwischen Plan und Ist Zahlen thematisiert bzw. diskutiert?
   - Mir ist aufgefallen, dass es gewisse Pufferzonen zwischen den Plan und den Ist Daten gibt.
   - Hat man diese Planreserven bewusst eingebaut?
   - Warum hat man diese Planreserven eingebaut?

Welche Informationen, Entscheidungen oder Werkzeuge benötigen Sie um diesbezüglich besser planen zu können? Um eben jene Annäherung zu bewerkstelligen?
Eidesstattliche Erklärung

Ich erkläre hiermit an Eides statt durch meine eigenhändige Unterschrift, dass ich die vorliegende Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe. Alle Stellen, die wörtlich oder inhaltlich den angegebenen Quellen entnommen wurden, sind als solche kenntlich gemacht.

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