Are traditional annual static budgets functional during crises?

A case study into the Swiss retail world during the COVID-19 pandemic and the war in Ukraine

Marc-André Kranz

Doctor of Business Administration

Aston University

March 2025

Abstract

Aston University

Marc-André Kranz

Doctor of Business Administration

2025

Compiling a traditional budget is an annual process in the international business world. Many studies have identified that companies using budgets have higher profitability, so this wide dispersion is unsurprising. However, there are also significant concerns surrounding its practice, particularly regarding the substantial resources required to compile a budget and the inflexibility of traditional budgets.

The COVID-19 pandemic and the war in Ukraine have confronted businesses worldwide with rapidly changing circumstances. This turmoil can be seen as “the new normal” in the VUCA world concept. During these challenging times, the question of whether traditional budgets can deliver on their core functions and support managers in directing and operating businesses has become more pronounced.

The existing concerns about traditional budgeting, particularly its inflexibility, together with the VUCA circumstances that are currently prevalent, lead to the research question of this thesis:

Are traditional annual static budgets functional during crisis?

The research objectives are to understand the underlying decision drivers for the specific reaction, to determine the expectations associated with the operational function of budgets and to what extent individual professional knowledge of budgeting approaches has influenced the decision.

A qualitative case study approach was applied with semi-structured interviews to collect data. The thesis demonstrates that during crises, the strategy formation function is crucial, the performance evaluation role of budgeting is questionable, decoupling is evident in the case study company, and key budgeting functions become obsolete under severe crisis conditions. The study proves that there is only one answer to the research question, no!

Although some managers experimented with alternative methodologies, the majority were hesitant, which can be attributed to a lack of knowledge and experience. Organisations believe in the VUCA world, and considering contingency theory, they should try using the existing budgeting alternatives and find the best individual solution. This alternative has to deliver on the planning and control and the resource allocation function, be flexible to incorporate changes and include the north star element for longer-term strategy formation. They should also upskill their people to lose respect for other options and become more agile in VUCA times.

Traditional budgeting, planning, crisis, COVID-19, management control, VUCA

Acknowledgements

Besides being employed full-time as the CEO of a bakery chain in Germany, writing a DBA requires diligent support from many. First and foremost, I want to thank my family for giving me the support and time, especially over the weekends, required to shift my focus to the fascinating topic of budgeting. Secondly, I want to thank Janet Mack and Christina Neokleous, my supervisors, for their ongoing support over the last two years of research and thesis compilation.

I learned tremendously from this endeavour and am thankful for taking on this challenge.

Table of Contents

List of Abbreviations

VUCA	volatile, uncertain, complex and ambiguous
COVID-19	Corona Virus Disease of 2019
VALORA	Valora Holding AG
USA / U.S.	United States of America
CIMA	Chartered Institute of Management Accountants
ICWA	Institute of Cost and Works Accountants
CEO	Chief Executive Officer
CFO	Chief Financial Officer
EBIT	Earnings before interest and tax
P&L	Profit and Loss statement
CapEx	Capital Expenditure
U.K.	United Kingdom
USD	Unites States Dollar
PwC	Price Waterhouse and Cooper
ZBB	Zero-Based-Budgeting
BBRT	Beyond Budgeting Round Table
BS	Balance Sheet
OKR	Objectives and Key results
MBO	Management by Objectives
WHO	World Health Organization
GDP	Gross domestic product
PCR	Polymerase chain reaction
EU	European Union
B2C	Business to consumer
CSDDD	Corporate Sustainability Due Diligence Directive
MCS	Management Control Systems

HORECA	Hotellerie-Restaurant-Café
IT	Information Technology
POS	Point of Sale
DBA	Doctor of Business Administration
AACSB	Association to Advance Collegiate Schools of Business
AMBA	Association of MBA´s
EQUIS	EFMD Quality Improvement System
GDPR	General Data Protection Regulation
FEMSA	Fomento Económico Mexicano
CCM	Cost and CapEx Management

List of Figures

1.0 Introduction

While budgeting is widely recognised as an important element of business management, there are also significant concerns around its practice, particularly with respect to the significant resources required to compile a budget and the inflexibility of traditional budgets. The concerns have been amplified since COVID-19 and the war in Ukraine. This thesis will investigate the utility of traditional budgets during crises. The budget process, with its long history, serves many functions. It was first introduced in governments about 120 years ago (Drucker, 1929). From there, it found its way into the business world with its first application in the 19th century (Berland & Boyns, 2002). The various budgeting functions have been further developed, taught at business schools, and executed by business practitioners over the years since its adoption (Marotta & Au, 2022). The functions of traditional budgets, their concerns, the VUCA (volatile, uncertain, complex and ambiguous) concept, and alternate forms of budgeting will be introduced. Following this, the research objectives of the thesis, along with its structure, will be discussed.

1.1 Functions of Budgeting

Most companies, regardless of their size, industry, and location, have one thing in common each year: *they create a plan to predict the future*. A traditional budget focuses on the company's next planning cycle, commonly a financial year comprising 12 months. Budgets have been a cornerstone of management control systems for many years (Marotta and Au, 2022; Otley, 1999). Academic and professional budgeting practice is well-understood and well-researched (Bartocci, Grossi, Mauro, & Ebdon, 2023). Budget functions can be divided into operational and strategic functions. The operational functions of budgeting are planning and control, resource allocation, and performance evaluation (Arnold and Artz, 2019). Planning and control involve planning a certain achievement level and then monitoring its achievement. For example, if a company sets a target to reach a certain level of sales, it will then monitor each month whether the business is on track to achieve the target. If it is not on track, then plans can be initiated to enable the target to be met (Joshi, Al-Mudhaki, & Bremser, 2003). Within resource allocation, the naturally scarce labour and capital resources must be allocated according to company priorities, which are defined when the company sets its strategic direction (Arnold & Artz, 2019). The performance evaluation function serves both as a way to evaluate employee or divisional performance but also can

have a motivational purpose when variable parts of compensation are connected to the company's plan or individual performance evaluation elements (Andelic, Allan, Bender, Powell, & Theodossiou, 2024).

The strategic functions of budgeting are strategy formation, organisational learning, and symbolic value (Hansen, Otley, & Stede, 2003a; West & Snyder, 1997). Strategy formation can be considered the most important within the strategic functions as it handles the process of working on and ultimately deriving the company's strategy. This importance is further justified since the strategy that has been determined then becomes the focus of company initiatives and actions (Collins, Holzmann, & Mendoza, 1997; Jensen, 2001; Spraakman, Maharaj, & Nguyen, 2023). Collins et al. (1997) investigated the relationship between business strategy and budgetary usage in Latin America. The empirical study, which used a specific strategy typology, concluded that strategy should be followed by budgeting. Spraakmann (2023) investigated the company Sander Foods in a case study. This food importer hired a new Chief Financial Officer to build a bottom-up plan to implement the five-year strategy and improve profits. Hence, the connection between strategy and budgeting is demonstrated and confirmed (Collins et al., 1997; Jensen, 2001; Spraakman et al., 2023).

Another strategic function of budgeting, organisational learning covers the budgeting process itself and its learning opportunities for all people involved, as the budget process informs the structures and priorities of the business, which positively ensures people learn about it during the budgeting cycle (J. P. Forrester & Adams, 1997). The central aspect of the organisational learning function is the repetition of the budgeting framework every year, where people involved become more experienced and confident through time. As every budget approach looks at the most important areas that drive the business, this is understood to educate and enable all finance executives and general managers to develop the business further (Kloot, 1997; Murray, 2003).

The symbolic value function describes the agreement between the parties involved once a budget is finally agreed upon (Ardini & Dewi, 2016). Symbolic interactionism is an essential element within the strategic function of budgeting. It is a process that looks at the principal-agent conflict involved in the budgeting process (Ardini and Dewi, 2023). While the senior management within a company is the sponsor or principal who commissions the budget, the finance and management teams are responsible for compiling this budget and becoming the agents of the process (J. Forrester, 2002). When a budget cycle is successfully finished and the budget for the next planning cycle is agreed upon, the symbolic value shows some form of unity between the principal and the agent (Ardini & Dewi, 2023). Over the last forty

years, a vast body of research (Bedford, Speklé, & Widener, 2022; Metcalf & Gupta, 2021) has examined whether traditional budgeting is the best solution to effectively provide operational and strategic support to organisations. Some studies (Frause et al., 2009; Hope & Fraser, 2003) have identified several shortcomings with conventional budgeting processes.

1.2 Concerns of Budgeting

Over the last few years, researchers have increasingly examined the usefulness of the traditional budgeting approach, particularly in times of turmoil and quickly changing circumstances (Bedford et al., 2022; Bhimani, Sivabalan, Soonawalla, & Wakefield, 2024; Marotta & Au, 2022; Metcalf & Gupta, 2021). The findings can be clustered into four main categories.

The first critical element to mention is the time consumed by the budgeting process, as found in many studies (Hope & Fraser, 2003; Horváth, 2003). In a benchmark study from 2000 (Neely & Bourne, 2000), it was found that 25.000 person-days went into creating traditional budgets per one billion USD sales. The amount of time finance and line professionals invest during the budgeting process to analyse potential economic impacts on their industry, which may influence the business, has been questioned, as the process takes several months, and impacts can change in the meantime (Frause et al., 2009). However, industry developments, strategic competitor moves, and company-specific changes must be analysed and planned to estimate for the near future, so budgeting itself is necessary (Bufan, 2013). Therefore, the time needed to compile a budget is questioned as well as the flexibility to react to changes that occur (Player, Leavitt, & Collins, 2019).

Secondly, limited flexibility has become a major concern as turbulent times have challenged the world and business (Zeller & Metzger, 2013). The financial crisis of 2007, the COVID-19 pandemic, and the war in Europe have caused significant challenges that companies must react to (Becker, Mahlendorf, Schäffer, & Thaten, 2016; Chetty, Friedman, & Stepner, 2024; Obłój & Voronovska, 2024). However, with a traditional annual budget set for 12 months, flexibility to respond is limited (Anessi-Pessina et al., 2020). Zeller and Metzger (2013, p.299) pointed out that “the business environment is not stable […] change is continuous for large and small businesses alike […] a business must act and react to generate shareholder value”.

Thirdly budgets typically result in quantitative financial data; however, some scholars (Allen, 1988; Bedford et al., 2022; Levitt Jr, 1998) challenge the emphasis on numbers and question if social factors and relationships between employers and employees should not be given more attention and focus. The traditional framework focuses on numbers and financial metrics like profit and loss statements or balance sheets but does not incorporate relationship aspects or motivational elements (Marginson & Ogden, 2005). In an extensive literature review (from 1952 to the 1980s) the author compiled a comprehensive overview of the development of behavioural implications on budgeting (Argyris, 2013). Argyris (1984) found that some budgeting techniques are mechanical and do not consider human beings enough.

Finally, the centralised command structure is another concern with traditional budgeting. The central command structure refers to the way decisions on elements of the planning process are typically made centrally within the C-suite offices (Rubel, 2023). Compared to decentralised command structures, this centralised command structure has been researched to consider, among other elements, employee satisfaction and performance (Rubel, 2023). The primary rationale is that with more decentralised command structures, employees feel empowered, and hence, decisions are made quicker and better informed compared to long-lasting centralised decision processes (Tavares, Vale, & Costa, 2024). Using a case study approach and interviews, Tavares et al. (2024) examined a large industrial company and revealed a high degree of influence by managers to adapt strategies for the specific needs of their area of responsibility.

All those concerns discussed in the literature are relevant to this research because they show the profound body of concern around the area, which the researcher of this thesis also experienced during his career in different finance functions and companies. Even in more stable times, the finance community discussed the concerns around traditional budgeting and questioned if alternative methodologies should be developed. The discussion gains momentum in times of crisis as every crisis, on the one hand, requires clear focus for action and, on the other hand, increases the likelihood of changes or new ways of doing things.

1.3 Budgeting and crisis

Several studies (Arnold & Artz, 2019; Becker et al., 2016; Hansen, 2011) have examined specific budgeting functions and their implications in a variety of contexts to better understand the complexity of the systems. One of those functions, the planning function, was investigated with a focus on whether traditional budgets with annual planning horizons gain importance during times of crisis or whether they become less critical. Becker et al. (2016) found in a mixed method study considering the financial crisis that the planning function and the resource allocation function had gained in importance in times of the financial crisis. Recent research (Bedford et al., 2022; Metcalf & Gupta, 2021; Porter & Yeh, 2021) focused on examining the COVID-19 pandemic and its effects on budgeting. Bedford et al., (2022) provided evidence, using survey data from managers in the Netherlands, that budget controls tightened due to the impact of the crisis. Brinduse and Bunget (2021, p.351) stated that "as everyone understood the world is not facing just a temporary situation, executive leaders must also reconsider their budgeting process, considering the uncertainties of the future". In their paper, Brinduse and Bunget (2021) studied various reports by well-known consultancy firms. They concluded that due to the COVID-19 pandemic, the traditional way of budgeting could no longer be applied as the changes in the environment impacting the business were too frequent and they contributed especially the practical and business view of companies to the discussion adding to the pure theoretical literature (Bunget, 2021).

This thesis will extend the existing research by investigating the impact of both COVID-19 and the war in Ukraine on the usefulness of the budget for Valora, a Swiss retail company. Semi-structured interviews will be conducted to gain new insights around traditional budgeting during COVID-19 and the Ukraine conflict. This will contribute to the discussion for both academia and the business world, as it will derive new important insights from practitioners in times of turmoil. It was found that the company had invested significant amounts of time in creating budgets for 2020, 2021 and 2022. The company was then confronted with a crisis that made the entire work obsolete. All of the managers who were interviewed stated that the traditional budgets for the three years were not useful. This further shows how relevant the question of this thesis is, especially because the world has become more volatile overall.

1.4 The VUCA world

The concept of VUCA originated from military strategy during the US war in Afghanistan, where responsible leaders were faced with ever-changing circumstances and situations when fighting the tribal Taliban forces in various conditions (Bolten & Berhault, 2018). After the Cold War, a more multilateral global environment confronted the American Forces with scenarios of different small and fast-acting troops and loosely structured armies (Mack, Khare, Krämer, & Burgartz, 2015). A more or less state of instability at the edge of chaos was given the acronym VUCA and understood as the “new normal” for the modern environment (Bouée, 2014). The concept has been applied to the business world quickly. It has become a cornerstone of how practitioners prepare their finance departments and senior management teams to find ways to manage uncertainty and other events that may surround them and impact their businesses (Moura, Carneiro, & Dias, 2023; Nuhn & Schaffitzel, 2020; Worley & Jules, 2020).

In times of a quickly changing business world due to globalisation, digitalisation and, over the last couple of years, a pandemic and a war in Europe with significant effects around the world, flexibility, resources, up-to-date planning tools and a more non-quantitative management approach will become more critical. In **v**olatile, **u**ncertain, **c**omplex and **a**mbiguous times, the so-called VUCA world, the pandemic has already shown that companies have to become adaptable to changing circumstances (Worley & Jules, 2020).

1.5 Alternative forms of budgeting

Despite its widespread adoption, there are alternatives to the traditional budgeting system, for example, Flexible Budgeting, Activity Based Budgeting (Cooper & Kaplan, 1998), Zero-Based Budgeting (ZBB) (Al-Jumaili & Awad), Value-Based Budgeting (Neely, Bourne, & Adams, 2003), Continuous Budgeting (Frow, 2010), Beyond Budgeting (Hope & Fraser, 2003) or rolling forecasts. However, most are not being widely used in organisations. Libby and Lindsay (2010) argue that academia does not yet understand why alternative methods have not been applied widely, and further research is needed for more insights into the traditional budgeting process's elements or functions and their specific purpose(s). It is, however, surprising that despite the well-known concerns with conventional budgeting techniques and the availability of a wide range of alternatives, the traditional method is still being employed (Libby & Lindsay, 2010). Consequently, there is a need to better

understand why companies are reluctant to adopt more flexible budgeting approaches, the accompanying challenges in doing so, and how they can be managed or resolved.

The managerial benefit of all flexible budgeting approaches is that they consider recent changes to externalities which challenge the company (FMVA & Hessel Brouwer CMA, 2021; Metcalf & Gupta, 2021; Porter & Yeh, 2021). Some approaches are more technical, like the Zero-Based Budgeting approach, where the process is similar to that of traditional budgeting. With Zero-Based budgeting, the starting point is from zero instead of looking at past spending of resources as a starting point. Some alternative approaches are more thoughtful and include organisational and cultural elements. Beyond Budgeting is an example. Some scholars (Matějka, Merchant, & O'Grady, 2021; O'Neil, 2019; O'Grady, Akroyd, & Scott, 2017) examined examples of Beyond Budgeting in companies and also into the question of why the idea has not been adopted to a broader extent. Matějka et al. (2021) concluded that the shift towards the Beyond Budgeting practice, as well as the decision to go back to traditional budgeting, was always correlated to the people in charge. In this context of a framework widely being applied in the entire global business world, rapidly changing times towards less stability and hence upcoming criticism of annual static budgeting, there is a clear need to find out more about the actual expectations towards budgeting and possible solutions.

1.6 Research objectives and potential contributions

Traditional budgeting is a practice with a long history; however, there have been growing concerns about its usefulness. The increasing turbulence in the world from COVID-19 and the war in Ukraine has amplified these concerns. While alternative approaches other than the traditional annual static budgets exist, their application in the practical business world is limited. With the COVID-19 pandemic and the war in Ukraine, two significant crises occurred between 2020 and 2023. They form a perfect background for a deeper investigation of the utility of traditional static budgets. The research objectives will be to understand how companies reacted during the crisis regarding their budgeting process. Further, the underlying decision drivers for the specific reaction and the expectations associated with the operational function of budgets will be examined, along with the extent to which individual professional knowledge of budgeting approaches impacted the decision. The thesis will also consider what managers have learned from the crisis and how it will affect future budgeting practices.

Following on from the above, this thesis will investigate the following research question:

Are traditional annual static budgets functional during crises?

This thesis will add to existing academic literature and the business world by responding to the research question using an engaged scholarship model. The research methodology employs an exploratory approach, involving qualitative research and semi-structured interviews with the top nine executives of the case study company. The over 130 pages of transcribed interviews were analysed using the thematic analysis approach, ensuring the findings' generalizability.

The key findings of this thesis reveal that the case-study company prepared three comprehensive traditional annual budgets for the period from 2020 to 2022. All of the senior management agreed that none of them were useful, which illustrates the critical necessity to think about the process and improve it. Hence**, the research question can be answered negatively as annual static budgets are not functional in times of crisis.** Furthermore, the interviewees agreed that the resources invested during the process did not justify the outcome, as the traditional budget was not flexible enough to react to changing circumstances. Two senior executives introduced new alternative methodologies (rolling forecasts and OKRs), thereby initiating proactive ways of steering their business units. However, they explicitly held back in communicating those alternative approaches towards the corporate functions, which confirms the decoupling effect. Perez and Robson (1999) found that middle managers in a division participated in the official corporate budget to confirm the political necessity, but they showed a low level of “buy-in” and involvement. In later research, it was concluded that decoupling should be understood as a contingent outcome of local power struggles over work organisations as they respond to changing institutional fields. This thesis builds upon earlier research (J. A. Harrison, Lopez, & Martin, 2015; Perez & Robson, 1999) by presenting a detailed case study within a Swiss retail corporation..

Another finding was that two of the operational functions of budgeting (planning and control, and resource allocation), which are key to the managers' steering of their business, were not delivered by the traditional budgeting process in times of crisis. The performance evaluation function was also seen as not useful. However, while the operational functions of the budget did not prove useful, this was not the case with the strategic function. This function was found to be the only helpful element of the budget processes conducted for the years under investigation. It was further found that, post-COVID-19, the understanding of business unit value drivers had increased. The interviewees viewed this as an essential

aspect for the future. However, it was also articulated that to facilitate this, finance professionals would need a different skill-set to be equipped with what is needed to not only compile the numbers in the budget but also to fully understand the business dynamics. This led to another finding of this thesis that none of the interviewees had relevant knowledge of alternative forms of budgeting. All the above findings were especially important as managers agreed that the VUCA concept would persist and that the business world would remain volatile, uncertain, complex and ambiguous into the future.

The empirical contribution of this thesis confirms earlier concerns (Hope & Fraser, 2003; Libby & Lindsay, 2010) about the resource intensity of traditional budgets and their benefits, especially as three years of producing traditional budgets were not useful for the top management of the case-study company. Another finding showed that all three operational budgeting functions were of no use, which contradicts the research by Becker et al. (2016), which looked at budgeting during the financial crisis and concluded that planning, control, and resource allocation functions had gained importance. This might be due to the difference in impact on the business between the financial and COVID-19 crises. At the same time, this thesis confirms that the performance evaluation function decreased in importance during the economic crisis, which was also an outcome by Becker et al. (2016). Additionally, it was found, in accordance with earlier research (R. Lawson & CSCA, 2020), that the skill-set of finance professionals will have to develop to meet the changing needs of the profession.

Knowledge is added to the existing literature and extends it by examining expectations towards budgeting functions and determining the importance of the strategic formation function. This not only contributes to the studies by Spraakman (2023) and Langfield-Smith (1997) but incrementally adds to it by visualising how important the function is in times of crisis.

The thesis confirms and also incrementally adds to the concern around the managerial reward system as outlined in the literature (Osterloh & Frey, 2002) and agrees with Bykova (2023), as all interviewees stated that the current variable payment scheme practice of Valora should be abolished.

The practical contributions were supported by the high degree of interest and participation of the interviewees, who followed up after the interviews, hoping the thesis could propose improvements to the current process. Besides the confirmation of the limited benefits of the traditional budgets for the years 2020-2022 in light of the significant resources put into the compilation, it was also found that the lack of flexibility of traditional budgets is seen as a

considerable disadvantage and something that managers stated as a need in times of VUCA. This confirmed earlier research in the field (Hansen, 2011; Nuhn & Schaffitzel, 2020; Zeller & Metzger, 2013). It was also found that alternative models were introduced in two business units: a rolling forecast and an objectives and key results (OKR) system. Both alternatives are also seen as possible solutions for companies in the literature, and the findings of this thesis add to this (Bochert, Wiltinger, Born, & Brügmann, 2022; Hill, 2016; Huhtakangas, 2020). Furthermore, this thesis contributes to the existing research (Collins et al., 1997; Spraakman et al., 2023) on the strategic functions of budgeting, especially the strategy formation function. The “North-Star”, as it is called within the case-study company, was found to be of paramount importance for most of the interviewees and an essential part of every possible alternative. In accordance with the above-outlined skill-set dimension for finance professionals in the future, this can also be seen as a practical contribution to this thesis, as companies should consider internal development programs to build those skills.

1.7 Structure of the thesis

The remainder of this thesis is organised as follows: Chapter two reviews the literature on the relevant areas of the research topic. The critical voices towards the traditional and modern budgeting forms start with the budgeting framework and its existence in general. It will also examine the COVID-19 pandemic and the war in Ukraine, and the context of the research will explore the research question. After reviewing prior studies, Chapter 3 discusses the theoretical framework to embed the field in the existing economic and market theory with specific sections on management control, contingency theory and the VUCA model. Chapter 4 will present the research philosophy, methodology, and methods adopted for this thesis, as well as the data analysis approach that was used to analyse the data. It will also introduce Valora Holding AG (Valora) as the company where the research was conducted and will outline the ethical considerations for this research. Chapter 5 analyses and discusses the findings of this thesis. Lastly, Chapter 6 will summarise the findings and provide conclusions, recommendations and future research avenues.

2.0 Literature Review

This chapter will review the existing literature on budgeting, COVID-19, the Ukraine crisis, and the context in which this thesis is embedded in the existing literature. It also outlines the gap in the literature and the research question for this project, giving a foundation for the thesis.

The literature review followed a systematic, structured, and rigorous process to increase the quality of the existing literature analysed and ensure that a high percentage of relevant literature was analysed. Ensuring this started with developing a review protocol defining the database to be searched, the search strings, and regular searches over the entire time of this thesis. (Bell, Bryman, & Harley, 2018; Easterby-Smith, Jaspersen, Thorpe, & Valizade, 2021). The identified literature was coded and critically appraised for the research questions and the objectives and later synthesised to create a table with the most relevant findings sorted by author and year. All literature deemed relevant was recorded using the software EndNote and later cited in the thesis where relevant. First, budgeting is looked at in further detail from a historical and developmental point of view and the various application areas in which budgeting is used. The budgeting process is outlined to create an understanding of the process and, further, how it is used in today's business world. The field of critical voices towards budgeting is analysed, and the modern forms of budgeting that can be found in the literature will be investigated (FMVA & Hessel Brouwer CMA, 2021; Matějka et al., 2021; Porter & Yeh, 2021). The benefits of budgeting are summarised to better understand why alternative forms have not yet been widely applied in companies. As this thesis looks at budgeting in times of crisis, the circumstances of the global COVID-19 pandemic and the Ukraine war will be described. Both events resulted in a crisis for the business world, causing great turmoil and unstable macroeconomic impacts. The final part of this chapter will describe the effects of COVID-19 and the war in Ukraine and outline the research question.

2.1 Historical development of budgeting

The current literature around budgeting is extensive, and many researchers have investigated the field from various perspectives. Those perspectives distinguish between the budget in government, where the practice originated, and the budget in the business world (Drucker, 1929; Hope & Fraser, 2003; Robert S Kaplan, 1994; Neely et al., 2003;

Theiss, 1937; Wallandar, 1999; A. B. Wildavsky, 1986). “Budget” is a term derived from the French word “bougette,” which stands for bag or sack (Dictionary, 2024). The reference was made to the sack or case of the political leader at the time, reading the financial report of income and expenditures in parliament. Later, the term was applied to the budget statement itself (Drucker, 1929). Over the years, budgeting has developed into a practice which is an integral part of both government and business practice to manage and control the organisation from a financial viewpoint (Lohan, 2013).

The first applications were in governments, as they had the resources and the requirements to report on income and expenditures. Theiss (1937) identified that the first budget was used to control government expenditures in England as early as 1760. Every fiscal year, the Chancellor of the Exchequer presented the budget to the parliament. It included a report of the past fiscal year's expenditures and an estimate of the coming year's costs. Furthermore, a recommendation was given for levying taxes to create more funds to cover the spending (Theiss, 1937). In 1800, the responsibility for the enforcement of the budget was given to the Cabinet, and its effectiveness was strengthened. In 1837, the Reform Act made the budget fully effective, and it ensured the enforcement of the budget by a representative Parliament (Theiss, 1937). In the United States of America (USA), the idea of budgeting was introduced by English immigrants, and it became applied in towns and cities by 1895 (Flesher & Flesher, 1979). By 1920, all cities and towns had adopted the budgeting approach (Theiss, 1937).

At the beginning of the 20th Century, the budgeting framework entered the business world (Drucker, 1929) and developed further in the next several years (Theiss, 1937). Since the Industrial Revolution, owners and managers of businesses have tried to plan and monitor their operations more closely as production increased and companies became bigger in size (Coonley, 1925). Consequently, the focus of budgeting as part of its developments was to assist managers in planning and monitoring their operations.

The Royal Ordnance Factories, established in or around 1895, is one of the earliest organisations known for using budgeting approaches (Robert S. Kaplan, 1984). The factories produced ammunition in the United Kingdom in three different sections: engineering, filling and explosives (Black, 2000). Around the same time, in 1919, the predecessor organisation of today's Chartered Institute of Management Accountants (CIMA), the Institute of Cost and Works Accountants (ICWA), was founded, seeing the importance of monitoring sales and costs and forecasting for the future to enable businesses to plan for their future direction (Berland & Boyns, 2002). With its foundation,

the first community was formed to look at the budgeting framework and develop it further. Berland and Boyns (2002) conducted a literature- and archival-based research into the development of budgets in both France and Britain. They especially investigated the diffusion and dissemination of budgetary control in both countries and concluded that regarding the development between the 1920s and the 1960s, “there is still much to be learnt” (Berland & Boyns, 2002; p. 349).

In the early 1920s, budgeting entered American industries with companies such as General Motors (GM) and DuPont de Nemours (Chandler Jr, 1969). Budgetary control became a crucial exercise in these companies, and for GM, it was identified that a fully built budget existed in 1923 (H. Thomas Johnson & Kaplan, 1990). In this context, Donaldson Brown can be called the pioneer of budgeting in business as he worked for DuPont but became famous as Chief Financial Officer (CFO) at GM (Dale, Greenwood, & Greenwood, 1980). Brown started as CFO at GM after the DuPont family had invested in GM, and Brown implemented a budgeting system by 1923 (Flesher & Previts, 2013).

Scholars (Lewis, 1952; Marple, 1946; A. Wildavsky, 1961) started discussing a budget theory in the context of public budgeting in the 1950s and derived a normative theory of budgeting being the basis for allocating funds among competing activities. An important function of budgeting, as can be seen in the title of a paper which addresses the primary purpose of its work, “On what basis shall it be decided to allocate x dollars to activity A instead of activity B?”, was the resource allocation function in governments (Shafritz & Hyde, 1978, p.20). However, research has also considered the political context of budgets beyond the more normative descriptions and research that predominates. Wildavsky (1961) considered the critical role that governments play in society and the impact of that on the budgeting process. The thesis identified that the resource/cost allocation process was concerned with more than just the financial implications but also with ensuring that goals of government, power, and equity within society were considered. Although public administration and the business world cannot be directly compared due to the different goal settings of each, the budgeting process is useful in both contexts. The necessity to decide on limited resources for the management of the entity a person is in charge of is comparable between business organisations and governments.

A recent bibliometric analysis showed how vital budgeting has been due to the quickly changing circumstances in the business place caused by the financial crisis that started in 2008 and, more recently, the COVID-19 pandemic (Güngör Göksu, 2023). The impact on organisations required people in charge to create new plans and analyses. The higher

frequency of crisis and turmoil and the increase in academic discussion in recent times can hence be understood (Güngör Göksu, 2023). Güngör Göksu (2023) showed that the topics of COVID-19, financial resilience, financial vulnerability and management control systems became some of the key topics in the years 2020 and 2021. This illustrates the increase in importance in the field after the COVID-19 pandemic.

The broad term budgeting needs clarification and definition to contextualise it in general and for this thesis. The next section will discuss about what traditional budgeting means for the purpose of this thesis, focusing on the business application of budgeting and examining the process in further details.

2.2 Budgeting in general

Budgeting has for many years been defined as a planning and control system (Shim, Siegel, & Shim, 2011) and a cornerstone of organisations (Felício, Samagaio, & Rodrigues, 2021). Over time budgets have also expanded their role to include implementing strategy in organisations (Ilyas, 2021). This is mainly achieved by ensuring that the goals of sub-units or departments are aligned with the overall corporate goals while also managing communication and coordination (Horngren, 2004). Budgeting is embedded in management control theory, which entails setting organisational goals and achieving them using financial and management accounting tools (Nani & Safitri, 2021).

Budgets can also be understood as detailed and quantitative plans for a defined period in the future showing information about anticipated activities (Bartocci et al., 2023). The process is either bottom-up, where line managers plan sales and costs and communicate them to management or top-down, where top management imposes and communicates overall ambition levels to line managers (Zor, Linder, & Endenich, 2019). The time horizon can be long-term, short-term or a combination of both, depending on the company's information needs.

In the context of this thesis, traditional budgets are defined as annually created financial plans broken down into organisational units or departments within organisations. After the budget is finalised, it is no longer changed but holds static to measure against for the entire planning horizon (Lohr, 2012). The studies of Becker et al. (2016) and Lohr (2012) defined specific operative budgeting functions: planning and control, resource allocation, and performance evaluation.

Planning and control is the initial set-up of a financial plan for a business unit, a division or an entire company and then later the control of the actual data against the plan (Spraakman et al., 2023). Managers or finance professionals try to understand how the business delivers compared to the plan by deriving variances (Hendieh, 2023). Corrections can be initiated, and cost-cutting procedures can be undertaken to stay on plan and realise the intended results (Arnold & Artz, 2019). Business managers can decide if capital expenditures or investments are initiated or held back depending on how the business is delivering on the plan.

With resource allocation, the company analyses the available resources, money, people, machine capacity, and other factors for the planning horizon. Usually, resources are scarce and not unlimited, so decisions have to be made on which initiatives should be pursued for the planning horizon (Bruns Jr & Waterhouse, 1975). Therefore, the resource allocation function of budgeting balances the various options available for the company and facilitates the decision-making process in this light. The finance functions in the organisation usually moderate this process, and the ultimate final call is made by senior management (Hansen et al., 2003a). Once the planning and resource allocation functions are delivered, the third function, performance evaluation, comes into play.

Performance evaluation in many companies' budgeting processes connects the budgeting result in terms of final numbers or financial metrics, like earnings before tax and interest (EBIT) or others, to the variable compensation elements of individual employees and managers (Abdelzaher, Diao, Hellerstein, Lu, & Zhu, 2008). This is also called the variable part of a salary package, which consists of a fixed part, the monthly salary, and the variable part that the employee only qualifies for when there is successful goal attainment. The concept of variable compensation has been looked at critically for various motivational reasons (Osterloh & Frey, 2002; Stroh, Brett, Baumann, & Reilly, 1996). The thesis generally supports a critical position towards variable income systems. Osterloh and Frey (2002) base their research on empirical studies, behavioural economic research and a literature review conducted from 1989 to the year 2000.

Prior studies on budgeting in general and its advantages (Bonn & Christodoulou, 1996; Hendieh, 2023; Joshi et al., 2003; Peel & Bridge, 1998) have examined budgeting in different company sizes, industries, and countries. For companies based in the United Kingdom, Peel (1998) found that when budgeting is applied, companies generate higher profits. It was argued that this was the case because of the possibility of reacting to deviations when comparing budget figures with the actual figures of a period and

consequently being able to take corrective action where needed. In Australia, Bonn and Christodoulou (1996) identified in a longitudinal study that 72% of the largest manufacturing companies successfully applied traditional budgeting systems. Further, it was argued that they were more capable of controlling the business by doing so (Bonn & Christodoulou, 1996). Joshi et al. (2003) surveyed 54 medium- and large-sized companies in Bahrain to determine the use of budgets by companies in emerging economies. The study's main finding was that the companies use budgeting and control practices in their organisations. The study also identified that this was more likely for listed companies than non-listed ones. Hendieh (2023) investigated 133 small and medium-sized enterprises and their reaction to the budgeting approaches during the COVID-19 pandemic. The study (Hendieh, 2023) found that most enterprises were satisfied with the process in times of low turmoil in the sector but abandoned their prior techniques during the crisis. After a more general look into the field of budgeting, this thesis will continue by investigating the budgeting process in today’s companies.

2.3 The budgeting process in companies

When looking at existing budgeting practices within companies, it can be seen that there is no one way to apply them. Instead, elements are specific to the industry or the business (Neely et al., 2003). However, most companies' basic logic of the traditional budgeting process is similar (Nunden, Abbana, Marimuthu, & Sentoo, 2022). It starts with the profit and loss statement (P&L), which shows how much sales or turnover a company generates in a certain period. All costs are deducted, and the profit or loss results from the business operations (Robert S. Kaplan, 1984). This basic P&L structure is also followed when a budget is created.

Usually, the sales team must plan sales for specific business areas, depending on the company's size. Small startups only plan the overall P&L sales, while big corporations plan individual business units and aggregate those on a higher level. The sales can be planned daily, weekly, monthly, or annually. After the turnover is budgeted, all relevant costs for the period are calculated. For production companies, all necessary raw materials are thought through. This means that all ingredients that are needed to produce the product, usually summarised on a bill of materials, are planned concerning their price and volume. Furthermore, the time needed to produce the product, traditionally summarised on the routing, which shows how many people hours and the cost per hour are required, is also

calculated and planned for (Robert S. Kaplan, 1984). Moreover, personnel cost, energy, administration expenses, depreciation and others are put together so that at the end of the day, a full P&L can be compiled to determine a budgeted profit or loss for the planning cycle (Kliman, 1990).

Further, most companies also plan capital expenditure (CapEx) (Edemeka, 2024). Capex is defined as “Capital expenditures (CapEx) are funds used by a company to acquire, upgrade, and maintain physical assets such as property, plants, buildings, technology, or equipment. A company often uses CapEx to undertake new projects or investments. Capital expenditures on fixed assets can include repairing a roof if its useful life is extended, purchasing equipment, or building a new factory” (Fernando, 2024; p.1). A CapEx plan is also the prerequisite for forecasting the depreciation budget in the P&L, as all CapEx items are depreciated over their useful life. How long this useful life is may be influenced by the applicable accounting standard of the country in which the organisation operates (Khorshid, Kamyabi, & Khalilpour, 2024). CapEx can be subdivided into fixed and variable assets, which are recorded on an organisation's balance sheet (BS). These assets, which represent what the company owns, are balanced against the liabilities and equity, which show how the company has financed the acquisition of the assets. With P&L, BS, and CapEx being budgeted, the company is also able to predict cash flows, enabling a company to manage the receipt of cash and the expenditure of cash over the planning cycle to ensure that they can meet their commitments.

In most companies, the planning cycle oversees the next fiscal year, usually a calendar year from the 1st of January to the 31st of December. Still, sometimes, variants of it may depend on the jurisdiction in which a company is a resident. The variants are then not covering a fiscal year from January to December but, for example, a financial year from October to September of the following year. The process, however, is similar in most companies, with some variations in the general logic. The variations are in the approach, whether top-down or bottom-up or on what level the budget is created within the organisation. Further variations consist of how detailed the individual units are planned and if always the full set of P&L, balance sheet and cash flow are budgeted (Sonjaya, 2024). This decision is down to the individual preferences of the senior executives and the company culture (Kramer & Hartmann, 2014). Wildavasky (1986) conducted a comprehensive review of the budgeting process in Great Britain, France, Japan and the United States, resulting in a comparative theory of the budgeting process. It is described as, in a traditional sense, the top-down process where budgets are allocated down to business sub-sections where a defined set of forms must be filled in. Once those local

budgets are compiled, they are returned to corporate finance and consolidated (A. B. Wildavsky, 1986). During this step, the business section can alter the data, resulting in a bottom-up deviation. Iterations between the two “positions” can occur and are sometimes intentionally incorporated into the process (Kennerley & Neely, 2001). In the German literature, this process is called “Gegenstromverfahren”, meaning counter-current process (Butschke, 2001). It is further found that the starting point can also be the bottom-up plan, which is consolidated on the top-level, and iterations can occur (Kramer & Hartmann, 2014). As Briggmann (2014) has described, a corporate finance department in larger corporations orchestrates this process, sets the standards, and issues rules to which all units must adhere. The local finance teams, together with the senior management of the business unit, are responsible for creating the initial set of numbers (Briggman, 2014). This split in responsibilities can lead to different viewpoints, and communication and alignment are vital elements the corporate finance department has to maintain (Schmitz, Hey, & Winn, 2013).

When looking at the functions of budgeting, planning and control, resource allocation, and performance evaluation (Arnold and Artz, 2019), many scholars (Bower, 1972; Bufan, 2013; Foster, 2017; Okeke, Bakare, & Achumie, 2024) confirmed those functions within their research. Foster (2017) conducted a correlational study with 77 small businesses in the United States of America and found that budget planning and control significantly predicted the financial performance of the companies. Bufan (2013) conducted a literature review and a case study in a Romanian company and demonstrated that planning and control are a necessity for companies. Bower (1972), in his study, researched the allocation of resources with respect to cognitive, organisational and interpersonal aspects. The study is a field investigation over two years in a large American corporation, and the author proposes a model of an investment process for companies (Bower, 1972). Okeke et al. (2024) researched small and medium-sized enterprises in a multidisciplinary study in the United States of America, Australia and Nigeria. The researchers looked at various budgeting approaches and concluded that resource allocation could be positively impacted by technological tools as well as modern forms of budgeting (Okeke et al., 2024).

As outlined above, many companies use the budget results to determine variable compensation elements. Libby and Lindsay (2007) argue that the budget serves as a commitment or contract between the employer and the employee, implying that the budgeted figure's realisation is a satisfying performance, and a negative deviation is not. From a psychological stance, it was argued that monetary compensation destroys intrinsic motivation. By intrinsic motivation, the experts understand the given motivation an individual has. Once a bonus is handed out, this extrinsic element destroys and undermines the

intrinsic one (Osterloh & Frey, 2002). This understanding has since found many supporters. As forms of budgeting are found in most companies worldwide, they must have certain benefits.

2.4 Benefits of budgeting methodologies in general

The traditional budget currently serves various functions and purposes, which first must be fully understood. Rather than looking at the overall traditional budgeting concept, academia and practitioners critically vocalise that budgeting, as already mentioned in the introduction, can be separated into serving operational (Otley, 1999) and/or strategic purposes (Arwidi & Samuelson, 1993). From a strategic perspective, strategy formation (Marginson & Ogden, 2005), organisational learning (Barrett & Fraser Iii, 1977) and symbolic value are considered (Hansen, 2011). The strategy formation function is important as every company should have a strategy to build the path for the future, which then should be followed. An empirical study (Collins et al., 1997), which investigated the relationship between business strategy and budgetary usage in Latin America, used a specific strategy typology. The study concluded that strategy should be followed by budgeting. The symbolic value function describes the agreement between the parties involved once a budget is finally agreed upon (Ardini & Dewi, 2016). Symbolic interactionism is an essential element within the strategic function of budgeting. It is a process that looks at the principal-agent conflict involved in the budgeting process (Ardini and Dewi, 2023). Symbolic interactionism is a sociological theory that looks at the interaction between people. It is founded on the basic idea, that the meaning of social objects, situations or relationships is rooted in the symbolically mitigated process that occurs during communication or interaction between people (Aksan, Kısac, Aydın, & Demirbuken, 2009) As previously identified, the operational functions are planning, resource allocation, and performance evaluation (Hansen et al., 2003), including variable payment (Arnold and Artz, 2019).

The core benefits of traditional budgeting can be summarised as planning for the business by coordinating activities and managing scarce resources to meet the company's strategic goals (Kliman, 1990). This process can lead to increased motivation levels of participants as the approach creates alignment and understanding of how responsibilities are allocated (Searfoss & Monczka, 1973). The framework also ensures that parts of businesses and, to a certain extent, individuals can be evaluated by comparison of actuals to the budget (Liu & Yu, 2024).

Another benefit of budgeting is the relationship between budgets and success in terms of financial performance in the business world. There is indeed evidence to suggest a correlation between having a budget and a company´s success. Several studies and surveys have highlighted this relationship (Abongo, 2018; Mutinda, 2013; Peel & Bridge, 1998; Suver & Hadley, 1978). Suver & Hadley (1978) found that budgeting is an absolute key to survive in the segments of small businesses. His work emphasised the necessity for small business managers to use the budgeting approach to gain a financial understanding of the business, which is key to survival (Suver & Hadley, 1978). Similar firm evidence was found within the TOP 100 small and medium firms in Kenya in 2018, where Abongo (2018) found a positive correlation between the existence of a budget and financial performance. Pimpong (2016) looked at a non-bank financial institution in Ghana and applied quantitative research, finding a significant positive correlation between budgeting and financial performance. Looking at the 47 companies listed on the stock exchange in Ghana, it was also found that there is a significant positive correlation between capital budgeting and financial performance (Mutinda, 2013). In the United Kingdom (UK) Peel and Bridge (1998) found via a survey of UK manufacturing companies that planning is positively associated with profitability. The study's main result suggests that companies should incorporate objectives into their planning process, especially the perceived profitability (Peel & Bridge, 1998). In the United States of America, it was also found that budgets are positively associated with profitability (Shim et al., 2011). In their book, the experienced researchers outline various benefits and disadvantages of budgeting with the conclusion that the process increases the likeliness of increased profitability when conducted professionally. Their book is based on their academic and professional experience and includes various case studies (Shim et al., 2011).

A comprehensive study in Brazil, in which the budgeting approaches of listed and unlisted companies were compared, examined the specific requirements listed companies have (Mendes-Da-Silva and Saito, 2014). The study's outcome is that listed companies require strong and professional budgeting capabilities to ensure guidance and feedback to the capital market and the investor community.

As outlined above, with all its functions, budgeting leads to higher financial profit and enables managers to steer businesses more efficiently. Although the traditional way of budgeting has a long history and wide acceptance in the global business world, the next section will examine a substantial body of concern that has formed around it.

2.5 Concern about traditional budgeting

As the basic logic of a relatively fixed plan dates back to the end of the 19th century (Robert S. Kaplan, 1984), concerns by academics both from a more human view (Hofstede, 1967; Schiff & Lewin, 1970), a more systematic view (Libby & Lindsay, 2010) and practitioners (Barrett & Fraser Iii, 1977) have argued, that a static system is outdated and no longer appropriate to guide companies through uncertain and quickly changing circumstances. Schiff and Lewin (1970) examined the impact of people on budgets or, as they called it, "the relationship between the controller and the controlled" by their explanatory study (Schiff & Lewin, 1970 p. 259). They found that the budget process itself produces too much slack with managers, which manifests the inflexibility of budgets. Hofstede (1967) conducted a research study with the analysis of company records and over 140 interviews that covered the budget system in six manufacturing plants in the Netherlands. The research concluded that, besides many motivational effects a budget can or cannot have, budgets have to be communicated well to motivate people and that frequent changes in the direction or communication of annual budgets cause chaos and less identification with the budget (Hofstede, 1967). Libby and Lindsay (2010) conducted research in analysing the literature on North American budgeting practices as well as two surveys of North American organisations and found that many companies still use traditional budgeting but, due to the existing problems, are trying to adapt its use to address the problems. Barrett and Fraser (1977) looked at the competing roles budgets have and resulted in the conclusion that planning can undermine motivation as well as employee evaluation. The concern can be subdivided into five main areas:

- A substantial amount of time and resources are needed for the compilation of the budget (Hope & Fraser, 2003; Jarman, 2009; Jensen, 2001; Libby & Lindsay, 2007)
- Static input factors which do not reflect significant changes during the year (Becker et al., 2016; Jarman, 2009; Libby & Lindsay, 2010)
- An emphasis on numbers in managing a company (Hopwood, 2009; H. Thomas Johnson & Kaplan, 1990; Otley, 1999)
- A centralised command structure (Drucker, 1929; Neely et al., 2003)
- The potential for the variable payment function (performance contract) to lead to dysfunctional behaviour (Libby & Lindsay, 2010; Osterloh & Frey, 2002; Prendergast, 1997)
-

2.5.1 Time-consuming process

Researchers (Hope & Fraser, 2003; Libby & Lindsay, 2007) have argued that budgets are a burden on limited resources since the production of a high-quality budget consumes significant employee and management time in companies (Libby & Lindsay, 2007). Survey research from 212 U.S. management accountants who were members of the Institute of Management Accountants showed, on the one hand, that while the interviewees see budgets as indispensable, they also identified that budgets are time-consuming. It was asserted that the complete budgeting cycle within the U.S. organisations surveyed took 10.3 weeks on average (Libby & Lindsay, 2007). Hope and Fraser (2003) analysed the hours used to create a budget and found in a 1998 benchmark study of U.S. companies that per one billion USD of sales, 25.000 person days were consumed. Their study resulted in 10-15 weeks for the entire budgeting cycle when they conducted an intensive international study into the business world (Hope & Fraser, 2003).

In academic research, two processes of creating a budget are identified. The first is the top-down approach, where goals are given by top management and structured downward to the lowest level (Hansen et al., 2003a). The alternative approach is bottom-up, where the lowest level unit estimates and all elements are aggregated towards the complete picture (Ilyas, 2021). Within most organisations today, there is a mix of both approaches, with one dominating. Top-down is favoured in smaller companies or where management is experienced and has a deep knowledge of the market (Barrett & Fraser Iii, 1977). Bottom-up is more of an approach for larger organisations with different divisions and sub-units (Bruns Jr & Waterhouse, 1975). When the bottom-up approach dominates, the counter-current process mentioned earlier usually adds some cycles into the process where management returns the first result to the lower-level divisions or business units and asks them to rework the budget (Nagl & Nagl, 2015). It can be anticipated that those recurring budgeting cycles, inherent in participatory budgeting, consume significant amounts of resources until the final budget is approved.

This counter-current process is mentioned in the literature regarding the consumption of substantial amounts of time and resources caused by the iterations (Nagl & Nagl, 2015). Nagl and Nagl (2015) outline the logic of the central goal being issued and its decentralised reactions, which might deviate from the top-down goal. When goals are formulated by the owner of a company, the board, or the CEO, those are usually not broken down into specific unit goals but more broadly pushed down into the organisation. When the units start to compile their budgets, and the different units are later consolidated back at the central level,

it is quite common that the consolidation is not equal to the initial top-down goal (Nagl & Nagl, 2015). Hence, the counter-current process starts and can have multiple cycles until an agreement is reached, and the time-consuming element embedded is obvious. Additionally, one element of the counter-current process can be that corporations do not agree with the bottom-up results and require so much more in performance that the local management at one point no longer buys into the agreed results and accepts the budgets as the corporate ambition (Paul & Paul, 2014). From a motivational point of view, this could lead to low performance of the respective management and the teams (Ewert & Wagenhofer, 2008). Furthermore, decisions can be delayed until the final approval of the process, which is another disadvantage of the lengthy process. Schwartz et al. (2009) looked at behavioural implications and delays in budget approval decisions and found that decisions are dealt with until final budget approval is given.

A 2009 PricewaterhouseCoopers (PwC) study found that the median time to complete a budget is 100 days, with some taking significantly longer. During the survey study into the global business world, they also found that the median process cost is 0,05% for budgeting and forecasting and 0.06% for strategy and planning as a percentage of revenue. Moreover, on average, companies devote five full-time staff to strategy and planning activities and eight full-time staff to budgeting and forecasting for every 1 billion pounds sterling of company revenue (Jarman, 2009). In 2011, PwC conducted another study using surveys with 220 large companies with annual revenues greater than 2 billion USD, confirming the earlier findings (PwC, 2011).

The primary concern with respect to the amount of time consumed in the budget process revolves around whether the resources committed to the process justify the utility of the outcome. While many companies have historically found the process to be beneficial, recent studies have increasingly questioned its validity, particularly in periods of heightened uncertainty (Becker et al., 2016; Hendieh, 2023; Bedford et al., 2022). Becker et al. (2016) specifically examined the role of budgeting during times of crisis, with a focus on the financial crisis that began in 2008. Using both archival and survey data, they found that the planning and control and the resource allocation function became more important during this time, whereas the performance evaluation function became less critical (Becker et al., 2016). Hendieh (2023) conducted exploratory and qualitative research by sending questionnaires to 133 small and medium-sized enterprises in Lebanon. The study found that most companies abandoned their prior budgeting techniques during the COVID-19 crisis and that the education of the managers in charge influenced the different reactions concerning alternative techniques used (Hendieh, 2023). Using survey data, Bedford (2022)

looked at budgeting and financial techniques used by small and medium-sized companies in the Netherlands during the COVID-19 crisis from a more behavioural aspect. It was found that as budgeting results in a deeper understanding of the manager's area of responsibility, they can better respond during adverse shocks. Still, the resources needed for budgeting during a crisis are not always necessary (Bedford et al., 2022). The following section focuses on how static budgets are formed and prepared.

2.5.2 Inflexibility of budgets

That Budgets are very static and not flexible enough to react to changes in the macro or micro environment in which businesses operate has been criticised (Hansen et al., 2003a). Indeed, it has been argued that they are outdated before completion because of the time it takes to produce the budget and the changes that happen during the creation and shortly after its completion and cannot be factored in (Prendergast, 1997). Typically, a company's budget preparation cycle lasts 2-4 months. In that timeframe, all kinds of circumstances and external factors can change. For example, a significant customer goes bankrupt, a new technology occurs, a new geographical market appears, a global pandemic hits, or a geographical conflict in a country where business relationships exist. All of those and many other unexpected circumstances can greatly impact the company’s outlook and should be reflected in the budget. The traditional budget approach is based on assumptions that are relatively static to the starting point of the process and are not changed during its compilation (Hill, 2016). Although it has been identified that management accountants agree that a plan is indispensable, studies show that they think the traditional budget is too slow to detect problems (Libby & Lindsay, 2007). Other literature (Zeller & Metzger, 2013) argued that traditional budgets are too static in dynamic times and that rolling forecasts can improve the process.

The inflexibility of traditional budgeting was also associated with the logic of using past performance as the baseline for next year's budget (Bunget, 2021). In many companies, the prior year's numbers are used as the starting point for the new budget, which builds some congruence of past performance and developments into the new budget. Bunget (2021) argues that the Zero-Based Budgeting approach could offer an alternative where no past figures are used, and the company builds the latest budget by starting without using past performance data. Wallander (1999) used his practical experience, which resulted in empirical observation, when arguing that fixed annual budgets are inflexible and hinder

responsiveness and innovation. In his article, Horváth (2021) summarised various international academic articles which critically looked at budgeting and concluded that budgeting has an essential strategic coordination function and that the operational functions must be improved. Another literature research (Gurton, 1999), in combination with practical observation in the United Kingdom, argued that traditional budgets have lost relevance in times of dynamic surrounding conditions.

Further research has looked at the disadvantages of conventional budgets regarding performance and the inflexibility of adjusting the plan in the employer-employee relationship (Jensen, 2001). Jensen (2001) built on his research experience in business management and as a Harvard Business School Professor. He found that the performance-based variable payment component in traditional budgets can impose huge costs on the organisation due to a counterproductive motivation cycle. This negative motivation cycle effect was based on the finding that employees tried to adjust the budget to increase the likeliness of earning a variable bonus. The researcher argued that due to the inflexibility of the budget, managers lowball their ambition to factor some headroom into the budget and hence create some indirect flexibility when circumstances impact the business negatively (Jensen, 2001). Jarman (2009) commented that because of a PwC survey study on international companies, last year's agreed budgets are irrelevant and proposed a rolling forecast logic to bypass the problematic inflexibility of traditional budgets. This dimension becomes even more relevant in times of crisis and uncertain developments in the industry or marketplace where the company is active. Another critical stance towards traditional budgeting takes a more psychological angle as it argues that the method focuses to a high degree on numbers and neglects the human element (Otley, 1999).

2.5.3 Emphasis on numbers

An emphasis on numbers and a more centralised command structure to manage was criticised almost one hundred years ago, and the critique has persisted over time (Allen, 1988; Bedford et al., 2022; Drucker, 1929; O'Grady et al., 2017; Otley, 1999). O´Grady et al. (2017) commented that the central aspect is not congruent with more modern management forms, and developing more people-driven approaches is essential. The existing structure, as confirmed by a survey study on 40 companies in the United Kingdom of budgets, aims to compile purely factual data, the P&L, the balance sheet, and cash flow, all elements of a set of numbers with different viewpoints and possible interpretations

(Dugdale & Lyne, 2006). The budget goal is ultimately set, and there is the implication that when the responsible person delivers the result or overachieves it, s/he is successful and vice versa, as was found in a survey study on managers in the Netherlands (Bedford et al., 2022). However, a quantitative study which issued 108 questionnaires to owners and managers in the U.S. (Nunden et al., 2022) concluded that this can pressure people and even incentivise malicious behaviour, as experienced managers typically understand how to impact the numbers regardless of company welfare. Another research paper from the chair of the Securities and Exchange Commission in New York emphasises that focusing on numbers for a specific target audience can lead to unreliable numbers and that only through vigilance and trust can those numbers be relied upon (Levitt Jr, 1998). Argyris (1984) found that some budgeting techniques are mechanical and do not sufficiently consider human beings. In his extensive literature review (from 1952 to the 1980s), the author compiled a comprehensive overview of the development of behavioural implications on budgeting (Argyris, 2013).

Otley (1999) proposed a framework to analyse the management control system, divided it into five central issues (objectives, strategies and plans for their attainment, target-setting, incentive and reward structures and information feedback loops), and tested those against organisational control systems: budgeting, economic value added and the balanced scorecard. The case-based longitudinal study showed that the pure emphasis on numbers is insufficient and neglects business development areas (Otley, 1999). Furthermore, the study concluded that alternative solutions that deviate away from the numbers focus and incorporate more intangible elements of organisational control must be found. Johnson and Kaplan (1990) commented that short-sighted managerial behaviour via a twelve-month budget encourages short-sighted management behaviour, especially concerning delivering on the numbers, regardless of the long-term strategic aspects of the business. The authors commented, "…however, managers commonly relied on the financial numbers alone" (H Thomas Johnson & Kaplan, 1987; p. 125). They proposed alternative command and control methods in the process control area where non-numerical elements should be incorporated. Moreover, other research (Hopwood, 2009) conducted a literature review and highlighted the number focus of the existing framework. Considering the 2008 financial crisis, the study showed the principal issues and themes of the accounting practice in research. One element found was summarised as the requirement for management to take organisational affairs more into account and not only rely on numbers (Hopwood, 2009).

The concern around the emphasis on numbers is closely related to the viewpoint that traditional budgeting has a centralised command structure, which will be investigated in the following section.

2.5.4 Centralised command structure

Historically, management in organisations had a centralised command and control structure, which is deeply embedded in the management control theory (Drucker, 1929; Skoog, 2020). This management theory has prevailed over the years without any other alternative approaches as it was introduced with the Industrial Revolution cycle and the development of bigger organisations with more industrial production lines and workers (Roman, 1997). The first industrial revolution was the invention of the steam engine in 1769, which corresponds to coal exploitation and went hand in hand with the transformation from agriculture and artisan workshops to industrial factories (McDonough & Braungart, 2017). The first revolution created a new social class, the blue-collar worker, derived from factory workers as those who often wore blue work coats (Coonley, 1925). The second industrial revolution happened at the end of the 19th century and the beginning of the 20th century and was accompanied by oil and electricity. It resulted in Taylorism, which describes assembly line work and mass production (Vahrenkamp, 2023). Frederick Taylor was the first to divide specific tasks in the production process to increase efficiency for each task (Littler, 1978). The third industrial revolution from the middle of the 20th century was based on information technology and telecommunication. It came hand in hand with automation, and practices like lean management significantly impacted its development. The fourth industrial revolution, Industry 4.0, appeared in 2011 and integrated technological and digital objects into factories (Ahiya, Tomar, & Singh, 2021). Robotics and artificial intelligence are more recent developments in this latest development of technical developments (Abulibdeh, Zaidan, & Abulibdeh, 2024).

The first two revolutionary phases went very closely with a centralised command structure because the implied management logic was to push command and control from the top to the bottom of the organisation. The last element in the chain of command, the blue-collar worker, had to execute what he or she was told (L. R. Jones & McCaffery, 2005). The more recent revolutions question this and emphasise that the decision authority must be pushed down to where the task is executed (Neely et al., 2003). This is widely understood under the term empowerment and has gained a vast body of acceptance (Adnan, Praptiningsih,

& Kalbuana, 2024; Covey & Merrill, 2006; Schermuly, 2024). Whereas in companies, especially, the organisational structure has developed ways of working towards more flexible and decentralised decision-making, the budgeting process has not improved as such and is still lacking necessary improvements. It can be summarised that the concern of a centralised command structure went hand in hand with the developments in the industrial field towards empowerment. Hence, it can be concluded that traditional budgeting in this light has not yet found an answer to the changes in the business world.

Another element that has changed in the literature over the years is the traditional budget's variable payment function, which will be examined in the next section.

2.5.5 Variable payment function

A performance evaluation and reward system is designed to increase the motivation of an individual or a group of employees. Most of the time, it is linked to company goals, which have been derived from traditional budgeting. In listed companies, it can also relate to the share price or more long-term goals to ensure long-term developments incentivise the top management and to not optimise the short-term financials (Andelic et al., 2024). Previous literature (Gupta, Mittal, Ilavarasan, & Budhwar, 2024; Kurdelbusch, 2002; Osterloh & Frey, 2002) highlights a particular set of advantages and disadvantages associated with variable payment schemes.

A financial add-on that can potentially increase performance was stated as an advantage (Gupta et al., 2024). Gupta et al. (2024) found that with monetary benefits, performance can, under certain circumstances, be increased as the additional money motivates employees extrinsically. Employers can use this to improve performance in areas of importance. The study based on 226 employee and employer interviews in a technology company in India supports the positive relationship between pay-for-performance and job performance (Gupta et al., 2024). Kurdelbusch (2002) examined the extent and ways that flexible payment systems are implemented in German companies. Using a combination of interviews and a survey, it was found that variable pay offerings effectively increased employee satisfaction, and employer attractiveness increased when variable pay options were offered. Another academic study into the existing literature confirmed this advantage and framed it slightly differently as an appreciation of employee performance (Miceli and Heneman, 2000). Employee motivation is directly influenced by financial incentives, leading

to more immediate and noticeable improvements in performance compared to delayed oral feedback given during annual performance reviews. Their research explores this topic and presents a preliminary framework for analysing the key factors that shape variable pay plan design (Miceli & Heneman, 2000).

The disadvantages of variable payment schemes are manyfold. A bonus is an extrinsic motivation that can abolish natural intrinsic motivation; hence, once a company starts with a bonus scheme, it has to stick to it and increase the bonus values to increase motivation (Osterloh & Frey, 2002). Furthermore, bonus systems can corrupt work ethic, leading to overtime, 24/7 availability, and less focus on employees' well-being (Stroh et al., 1996). Another element is that variable compensation systems can lead to the mercenary effect; employees emphasise the bonus over the workplace itself and can hence be “headhunted” away from other companies with higher bonuses (Kang, Liu, Chen, Shen, & Sun, 2024). A disadvantage that directly goes hand in hand with the number of concerns outlined above is that the goal setting for the bonus can lead to somewhat subjective decisions from employees and unfair practices (Wadongo & Abdel-Kader, 2014). Furthermore, tasks that are not included in the bonus framework can decrease in attention by the employees, even when those are important for the company (Miceli & Heneman, 2000). It can be stated that the variable payment function of budgets has become more and more critically looked at in companies, and some have even abolished them entirely (Bykova, Lobza, Gavrysh, Soroka, & Karpenko, 2023).

In recent years, the topic has been researched in various settings, and it was confirmed that extrinsic motivational effects can increase productivity in a cohort of low-level workers in Africa (Ndudi, Kifordu, & Egede, 2023). The study did not examine the impact on intrinsic behaviour after offering the external benefit. Abosch (1998) conducted a broad survey of many companies in the US and found inevitable confusion and mixed results from the sources. Some said that the variable pay helped to meet the targets, but others completely disagreed (Abosch, 1998). So, it can be concluded that extrinsic motivation has positive performance effects with unclear outcomes towards the company goals and the potential risk that, once in place, it must be maintained as the effect on the initial intrinsic motivation is unclear in case of cancellation.

Some research focused on top executive variable compensation schemes, which concluded that long-term goals ensure more strategic thinking in favour of the company than a short-term financial focus (Greene, 1997; R. Krause, 2009). The long-term goals for non-executive employees have not been well-researched in academia. However, another critical

element mentioned by the interviewees, the impact of individuals on global company goals, is a vast body of research literature. In Sri Lanka, it was found that the more specific the goal setting in a blue-collar environment is, the higher the performance increase (Wickramasinghe & Wickramasinghe, 2016). It was also found that there seems to be a connection between the percentage of variable pay and the increase in performance when the goals are specifically tailored to the individual (Bucklin & Dickinson, 2001). It was also investigated in age-diverse workforces that the performance impact differs between different age cohorts (Kollmann, Stöckmann, Kensbock, & Peschl, 2020). Campbell (2007) found that global company goals have no significant positive effect on individual performance (Campbell III, 2007). It can be concluded that the variable payment function was questioned significantly over the last years.

2.5.6 Decoupling

As part of the concern around the strategic functions of budgeting, the symbolic function has been reviewed and critically evaluated. Samuelson (1986) demonstrated in a study of budgeting in Sweden that the linguistic and expressive components of budgeting in organisations are essential. It showed that one element of the concern towards budgeting from budgeteers originates from the different roles senior management has and that there is a discrepancy between planning and the real world (Samuelson, 1986). Only three years earlier, Covaleski and Dirsmith (1983) examined nursing services and budgeting in hospitals. They concluded that budgets should be used as a negotiation tool between middle-level managers and senior management (Covaleski & Dirsmith, 1983).

This phenomenon was also be found in the more recent literature and is known as decoupling (Perez & Robson, 1999). Perez and Robson (1999) studied a European subsidiary of a North American car manufacturer. They found that middle managers in the division participated in the official corporate budget to confirm the political necessity, but they showed a low level of “buy-in” and involvement. In 2015, Harrison et al. investigated organisational decoupling among US steelworkers and defined it as the possible divergence between formal procedures and everyday practices. They concluded that decoupling should be understood as a contingent outcome of local power struggles over work organisations as they respond to changing institutional fields (J. A. Harrison et al., 2015). Another study confirmed the logic of corporate groups and shadow business practices (Anker-Sørensen, 2022).

2.5.7 Summary of concern

It was argued in prior literature that managers are dissatisfied with the entire budgeting process (Jensen, 2001). Jensen (2001) commented that budgeting is a joke and claims that all managers involved in the traditional budgeting process know this. More direct statements are used as headings for journal papers like “The budget – an unnecessary evil” (Wallandar, 1999). In his paper, Wallander (1999) outlined the transformation of the Handelsbanken in Sweden, where the former economist and associate professor took on a position as executive director. After analysing the bank's situation, he abolished the budgeting process as it had never delivered a valid result (Wallandar, 1999). Other authors later commented on the case as Handelsbanken being one of the first known companies without budgeting (Libby & Lindsay, 2007).

Gurton (1999) labelled her paper “Bye Bye Budget” and commented on the replacement of budgets that had taken place in Great Britain (Gurton, 1999). However, it was not a complete abolition of the process; alternative approaches like rolling forecasts or re-budgeting were mentioned. Hope and Fraser (2003) developed the beyond budgeting approach based on their key conviction that traditional budgets are figures of hate and that, as such, a new approach is paramount. The evidence of some companies that function without traditional budgets (Hope & Fraser, 2003) strengthened this line of thought.“Is there a future for budgeting?” (Horváth, 2003) was the question the most well-known German researcher asked in the paper on the topic. Horváth (2003) referenced both Wallander (1999) and Hope and Fraser (2003) but concluded that the question has to be researched on a more detailed level due to the different functions of budgeting (Horváth, 2003). Good Bye Traditional Budgeting, Hello Rolling Forecast: Has the time come? (Zeller & Metzger, 2013) found in a literature review that many companies executed the rolling forecast method. They proposed that rolling forecasting should be introduced to the curricula of business schools (Zeller & Metzger, 2013).

Porter (2021) highlighted, after analysing the increased numbers of bankruptcies in the US and the existing literature, that relying on past performance and numbers is no longer relevant in times of turmoil. He furthermore strengthened the look into the Zero-based Budgeting (ZBB) direction, where companies start planning without looking at past numbers (Porter & Yeh, 2021). Bunget (2021) analysed organisations and company reports which were published for the financial year of 2020 and pointed to the ZBB direction by labelling

it the best alternative. However, it must be mentioned that the research is focused on consultancy and audit companies (Bunget, 2021), which might have different requirements when it comes to budgeting compared to businesses in the producing or retailing industry.

2.5.8 Developments during COVID-19 pandemic era

With the COVID-19 pandemic and its significant global effects, the question of budgeting in light of turmoil increased in relevance and thus was part of many research papers (Bedford et al., 2022; Bunget, 2021; Espolov et al., 2023; Güngör Göksu, 2023; Hendieh, 2023; Porter & Yeh, 2021).

Bedford (2022) examined the behavioural consequences that influence responses during crises. Based on survey data collected from business unit managers in the Netherlands, the study found that companies tend to tighten budget control in response to the negative impacts of the COVID-19 pandemic (Bedford et al., 2022). Additionally, Beford (2022) suggest that organisations can support managers in developing a deeper understanding of their tasks and responsibilities, which may contribute to reducing employee stress. Espolov (2023) conducted a comparative analysis of the Commonwealth of Independent States members' budget limits and focused on the fiscal responses to the COVID-19 pandemic. Although this research (Espolov et al., 2023) does not focus on the business world, the key finding is a renewed approach to budgeting, which uses actual data and allows for changes to the budget, which is identical to what is asked for in companies. In Lebanon, Hendieh (2023) conducted an exploratory and qualitative study of Lebanese small and medium-sized companies with a focus on understanding the budgeting and financial techniques during the COVID-19 crisis. The results show that most companies abandoned their prior budgeting techniques and shifted towards a more short-term liquidity focus (Hendieh, 2023). The research also showed that younger and more educated managers used more alternative ways compared to others. A retrospective overview of a prestigious budgeting and accounting journal used a bibliometric performance analysis of the years 2011 to 2021 to understand the major topics in the field (Güngör Göksu, 2023). Güngör Göksu (2023) showed that the topics of COVID-19, financial resilience, financial vulnerability and management control systems became some of the key topics in the years 2020 and 2021. This illustrates the increase in importance in the field after the COVID-19 pandemic. A rather new area which developed in the early days of the pandemic looked at possible upskilling requirements for finance people (R. Lawson & CSCA, 2020). In the global survey study of

over 1400 accounting and finance professionals, it was found that the business focus after COVID-19 shifts towards cash forecasting and management and risk management, which will require different skills by finance professionals.

When so much concern is part of the research and the business world, possible alternative approaches to budgeting must be examined as the next step. This thesis investigates modern forms of budgeting that have been discussed in the literature.

2.6 Modern forms of budgeting

All critical viewpoints outlined above lead to the question of alternative approaches, as processes in the business world that are not deemed efficient or even useful are usually abolished. When consulting the available literature (Allen, 1988; Hansen, 2011; Hansen, Otley, & Stede, 2003b; H. Thomas Johnson & Kaplan, 1990; Libby & Lindsay, 2010), various alternative approaches to the traditional budgeting practice can be found and have been developed by academia and practitioners since the 1990s. Some have very holistic approaches that look at the broader picture of what was introduced above, and others have more limited changes to the budgeting process, which will be outlined below (Libby & Lindsay, 2007).

2.6.1 Flexible budgeting

Flexible budgeting primarily builds on the management accounting distinction between fixed and variable costs (H. Thomas Johnson & Kaplan, 1990). The literature defines variable costs as changes in costs that occur in proportion to the output factor (Kenton, 2022). In a retail setting, for example, rent, a percentage of turnover, is purely variable, whereas an agreed minimum rent, which is not related to sales, can be seen as fixed. The flexible budgeting framework can be seen as an addition to traditional budgeting because the focus is shifted away from a complete picture of the company’s financials. It is shifted towards a more management accounting-related viewpoint focusing on just variable cost developments, which go hand in hand with changes in the company's turnover (Robert S Kaplan, 1994).

Johnson and Kaplan (1990) related planning assumptions to actual output and incorporated the variable cost logic but did not abolish all the critical elements of traditional budgeting as outlined above. The emphasis on numbers and the centralised command structure are not solved at all. The concern of inflexibility is addressed to the extent that every change to the company's top line has been looked at and analysed and hence should be understood, which is an advantage (Robert S Kaplan, 1994). The time needed to create a flexible budgeting system is less than the traditional budget, but only because the outcome is reduced (H. Thomas Johnson & Kaplan, 1990).

Looking at budgeting functions, it can be said that the planning and control function is delivered but with a clear focus on variable costs (Robert S Kaplan, 1994). For resource allocation, the framework does not fully cover what the traditional budget covers as the focus is too narrow. This can also be said when looking at performance evaluation, although a company could decide to base the variable income of its employees purely on variable cost targets. Overall, flexible budgeting does not resolve all critical elements mentioned when criticising traditional budgets and does not deliver on all budgeting functions. This might justify limited research on the framework, which has not been discussed significantly over the last twenty years.

2.6.2 Activity-based budgeting

Activity-based budgeting, developed from the activity-based costing logic, relates cost to the value-adding processes. In organisational structures, the predominant form is departmental, where the company is broken down into departments like purchasing, production, sales, finance, and so on (Nwankwo, Kanyangale, & Eze, 2022). In traditional budgeting, those units are planned individually, and the overall process behind business activities is not considered. However, a process does not stop where a department´s responsibilities end. When buying raw materials, for example, the process starts in the production department, where it is indicated that something is needed. The purchasing department buys what is required, and the internal logistics department receives the goods in the warehouse when delivered. The finance department pays the supplier's invoice. This basic example illustrates that company processes or activities do not end at the department level. In activity-based budgeting, one looks at the process as such and not at departmental budgets. In an activity-based budgeting process, the first step is to plan the quantitative output for the planning cycle. It then looks at all areas of the business, all activities, and all

steps and resources required to fulfil this planned quantity (Bleeker, 2001). In the next step, the necessary processes are identified and connected with the value structure identified in step one.

However, activity-based budgeting is very complex due to the knowledge and time required to analyse all business processes (Cooper & Kaplan, 1998). Furthermore, it will most likely need more resources than the traditional budget (Neely et al., 2003). The emphasis on numbers and the centralised command concern are not any different compared to the conventional framework. Overall, the activity-based budgeting approach is very time-consuming and complex and bears the risk of even more needed resources than the traditional budget (Brimson, Antos, & Mendlowitz, 2012).

This approach improves the accuracy and transparency of resource allocation and fulfils the needs of this budgeting function to a very high extent (Hansen, 2011). It also increases the planning and control functions requirements as it clearly shows what action leads to what cost (Cidav et al., 2020). Looking at the performance evaluation function, it can also be said that the framework can deliver on it, as the target can be said to be the outcome of the activity-based budgeting logic.

2.6.3 Zero and Value-based Budgeting

Zero-based budgeting (ZBB) follows the logic of not planning based on actual figures or an old plan but looking at the business as if it would start from zero. This can also be called the “greenfield approach”, an analogy from the information technology (IT) world (Hopkins & Jenkins, 2008). With the traditional budgeting approach, where last or current-year expenses are mostly accepted and only new initiatives which lead to cost have to be justified, there is a tendency to increase cost budgets year over year (Tolzmann, Vincent, & Lewis, 2024). The ZBB approach challenges every cost position on an annual basis, which can lead to lower cost budgets. Hence, ZBB addresses issues of cost not being challenged but just planned and questions every single cost for the next planning cycle (Kazar, Mutlu, & Tokdemir, 2023). Another way to describe it is that with the approach, the company asks itself for every planning cycle what is actually needed to run the business, and only those costs are accepted and accounted for in the budget (Al-Jumaili & Awad).

As this approach is also most likely requiring even more effort, it has not been able to resolve the overall budgeting issue of time consumption. Still, it is used in significant cost-

reduction situations and in times of crisis, it can be said that more companies use the ZBB approach as the increased time needed is justified by the challenging situation (Neely et al., 2003; Sonjaya, 2024). The budget concern of staticity and inflexibility, as well as the emphasis on numbers and the centralised command structure, are not addressed within the ZBB approach.

Looking at the budgeting functions and ZBB, it can be said that planning and control are fully realised, as is resource allocation, maybe even to a greater extent compared to traditional budgeting, as ZBB puts more emphasis on the entire cost structure (Tolzmann et al., 2024). Performance evaluation can also be stated as fulfilled as the target setting can be realised without any difference compared to traditional budgeting.

A recent study into the impact of the COVID-19 pandemic emphasised that Zero-based budgeting could serve as the “new normal” in the budgeting arena (Bunget, 2021). Value-based budgeting, as a side approach of ZBB, focuses on the value of activities and, here, mainly, the shareholder value. Porter (2021) highlighted after analysing the increased numbers of bankruptcies in the US that relying on past performance and numbers is no longer relevant in times of turmoil. He furthermore strengthened the look into the Zero-based Budgeting (ZBB) direction, where companies start planning without looking at past numbers (Porter & Yeh, 2021).

2.6.4 Continuous budgeting

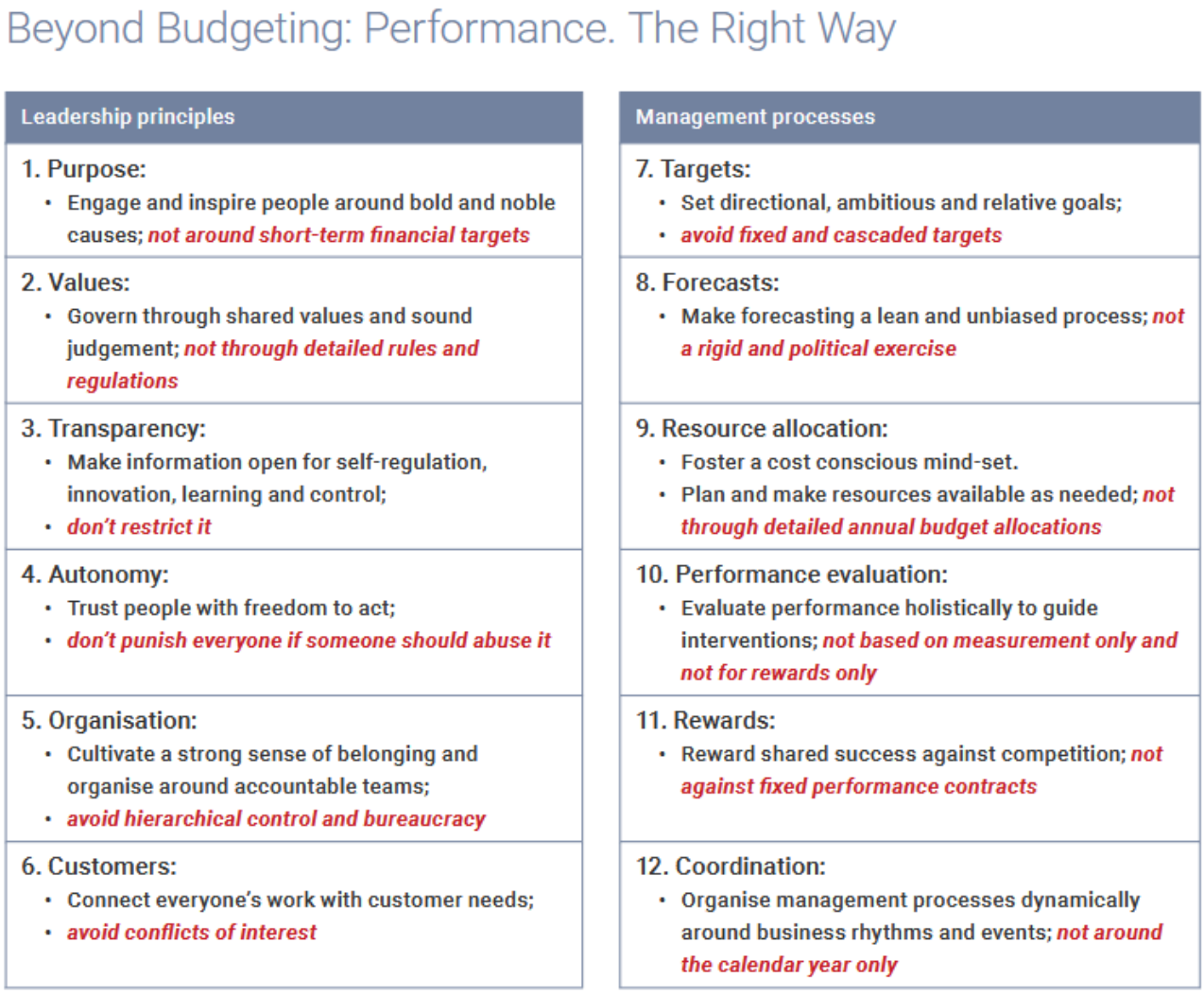
Continuous budgeting is an approach to solving the ‘too-static’ issue with traditional budgets in conditions of uncertainty (Frow, 2010). It builds upon the logic to create a new plan when a significant change occurs and regularly builds one more month at the end of a planning cycle. Here, the attention towards budgeting is forced to be every month and not only during the traditional budgeting cycle (Frow, 2010). This approach has also been called a rolling budget, as the goal is always to plan the next twelve months; some approaches also add the next quarter instead of the following month (Drtina, Hoeger, & Schaub, 1996). It enables managers to prioritise initiatives and change plans when necessary to meet the broader strategy goals of the company. Furthermore, it especially allows them to react to external contingencies (Frow, 2010). The U.S. office furniture manufacturer The Hon Company introduced a continuous budgeting process in the 1990s and always planned a three-month period (Drtina et al., 1996). The HON Company has multiple production plants located throughout the United States. It runs those as profit centres, but it became challenging to

budget traditionally due to the cyclic demand and market uncertainties (Drtina et al., 1996). To overcome this and handle rapid change more efficiently, the company introduced the quarterly continuous budget with the requirement to thoroughly plan the next four quarters and hence build flexibility into the process (Drtina et al., 1996). Alesani (2012) argues that continuous budgeting, which he calls re-budgeting, can be a powerful tool to handle the quickly changing circumstances in organisations. He also contends that with continuous cycles in the budgeting process, the resource allocation function can be executed more efficiently (Alesani, 2012). Although this approach might show a way out of one problem as it addresses inflexibility, it requires more resources and is more time-consuming and more expensive than traditional budgets (L. Jones & McCaffery, 2020). Management attention especially has to be very high regarding the forecast quality for the additional periods, and the approach might lead to confusion due to quickly changing inputs into the budget (Réka, Ştefan, & Daniel, 2014). Furthermore, the emphasis on numbers and the centralised command structure issues are not solved. All budgeting functions are addressed within the continuous budgeting framework.

2.6.5 Beyond budgeting

In 1997, the concept of beyond budgeting was first presented. It was further developed and built into a more profound way of creating an alternative to traditional budgets (Hope & Fraser, 2003). Being produced out of case study and theoretical research, Fraser and Hope´s work (2003) resulted in the Beyond Budgeting Round Table (BBRT), a network of member organisations to develop superior management models. Over 150 member companies, from small businesses to global corporations like Unilever, UBS and Japanese Tobacco, form the community, mainly from the United States and Europe (Bogsnes, 2023). The framework follows twelve principles, divided into leadership and performance management, which can be seen below (Østergren & Stensaker, 2011).

Figure 2-1 - Beyond budgeting principles (Adapted from Hope & Fraser, 2003, 69 & 143)



Looking at the budgeting concern, one can see that the inflexibility is addressed due to the forecasting logic. Furthermore, due to principles such as value, transparency, and autonomy, the pure emphasis on numbers and the centralised command structure are part of the framework's alternative approach (Heupel & Schmitz, 2015). The concern towards traditional budgeting requiring significant time consumption is not resolved, as the holistic beyond budgeting framework requires far more time to compile (Rickards, 2006).

In 2003, the BBRT presented its five-year case-based research, showing that companies can move beyond traditional budgets by utilising tools such as rolling forecasts and organisational changes towards decentralisation (Hope & Fraser, 2003). In general, the study suggested a more radical way of changing traditional budgeting and management control as it looked at the operational level of budgeting and incorporated some strategic

elements (Hope & Fraser, 2003). It can be summarised that this holistic approach fully matches all budgeting functions, as planning and control, resource allocation, and performance management are individual principles besides nine other dimensions.

Although it can be said that all budgeting functions are met and many of the concerns of traditional budgeting are addressed, the concept was not transferred into the practical business world as anticipated (Libby & Lindsay, 2007). The question of why this is the case has been the basis for research during the following years and until today (Nguyen, Weigel, & Hiebl, 2018; Sonjaya, 2024). Nguyen et al. (2018) conducted a systematic literature review and examined 32 papers. They concluded that beyond budgeting is not equally suitable for every company and situation, as the introduction of the process is expansive and requires the necessary skills and experiences (Nguyen et al., 2018). Furthermore, the fear of change was found to be a reason for traditional budget still being used in most companies. Sonjaya (2024) also conducted a comprehensive literature review and found that beyond budgeting was not the new budgeting process for many companies, as the integration complexities and the resistance to change prohibit it (Sonjaya, 2024).

Evidence showed that companies returned to traditional budgeting after initially abolishing them and introducing the Beyond Budgeting Principles (Hudson, 2012). Becker (2014) found that this is mainly because of the deinstitutionalisation of budgets in a micro-level analysis. With four in-depth views on organisations, the conclusion was that, in the first place, the decision was driven by key people in the organisations. In addition to that, political and social drivers dominated rather than operational advantages (Becker, 2014). One element of the beyond budgeting concept was the rolling forecast practice, which was part of many research efforts after its first mention. Some scholars (Matějka et al., 2021; O'Neil, 2019; O'Grady et al., 2017) examined examples of Beyond Budgeting in companies and also into the question of why the idea has not been adopted to a broader extent. Matějka et al. (2021) concluded that the shift towards the Beyond Budgeting practice, as well as the decision to go back to traditional budgeting, was always correlated to the people in charge. Zeller and Metzger (2013), in their article "Goodbye Traditional Budgeting, Hello Rolling Forecast: Has the time come?" investigated whether rolling forecasts would indeed replace traditional budgets. They concluded that the concept was being adopted more broadly but predominantly combined with traditional budgets rather than as a total replacement. They emphasised that rolling forecasts should be mentioned in university textbooks more often to give this approach more focus and, hence, wider acceptance. They also note that traditional budgets and rolling forecasts are very different management styles. Traditional budgets are found to be followed very strictly, and evaluation is irrespective of long-term

consequences, only budget goals. On the other hand, they argued that with rolling forecasts, management looks ahead regularly (Zeller & Metzger, 2013). More recent research (Bukh et al., 2024) concluded that many companies today apply a traditional budget and additional rolling forecasts, but the implications are very different. The budget is the budget and is kept as such, whereas the forecast sheds some light on the next couple of months or the next quarter (Bhandari, 2024). Reflecting on the above, one could conclude that various concerns of traditional budgeting have been vocalised and picked up upon by research and practice. Still, a profound solution that has led to the one new way of budgeting could not be derived.

On the other hand, advocates within the research community state that budgets are essential (Dugdale and Lyne, 2006) or indispensable (Khan, 2024; Libby & Lindsay, 2007) and that traditional budgets deliver a valid budget that most companies are used to. Some studies (Becker, 2014; Bukh, Ringgaard, & Sandalgaard, 2024) even found that some companies returned to traditional budgeting after abandoning them in the first place. The justification was that senior executives who had initiated the alternative budgeting approach left the company, and the new executives in charge reintroduced traditional budgeting.

The following table summarises the different budgeting approaches.

Figure 2-2 - Modern Budgeting Alternatives (Created by the author of this Thesis; 2024)

	Horizon	Focus	Scope	Complexity
Traditional budgeting	annual (next financial year)	cost allocation	Full company	high
Flexible budgeting	flexible	difference between fixed and variable cost	company segments	medium
Activity-Based-Budgetir	annual (next financial year)	cost allocation to the value adding process	company segments	very high
Zero-based-budgeting	annual (next financial year)	actual figures are neglected	Full company	high
Value-based budgeting	annual (next financial year)	shareholder value	Full company	very high
Continues budgeting	flexible	change plan every time something "significant" happens	Full company	high
Beyond budgeting	flexible	a whole cultural change plus rolling forecasts	Full company	very high
Rolling forecast	flexible	12-x rolling months, regardless of ficsal year	Full company	high

2.6.6 Objectives and Key results

Objectives and key results (OKR) are a new development in the budgeting context. OKRs are an agile method of setting objectives and aspired results, specially created for the challenges of dynamic and complex times (Doerr, 2018). OKR helps operationalise a company's strategic goals and align those with team goals, leading to more focus, alignment, and transparency (B. C. L. Fernandes & Gomes, 2023).

Although OKR systems became famous for being used by technology companies in Silicon Valley, like Google, between 1999 and 2013 (Johanning, 2023), the history originates back to the 1970s when Andrew Grove invented OKR within the Intel corporation. His logic was based on Peter Drucker´s management by objectives (MBO) from the 1950s (Rieger & Luge, 2024). In the early years of OKRs, the tool was adopted by fast-growing tech companies. Still, after its success, Google reported using the OKR system, and afterwards, more large corporations adopted it, and the extension of OKR started (Vellore, 2022).

In the literature, it is not seen as an alternative to the traditional budget but as an additional tool to break goals down into individual units of the organisation and measure the results (Bochert et al., 2022). Based on two explorative and qualitative studies with nine and thirteen semi-structured interviews, the study looked at how the OKR system was used in the companies, their advantages and disadvantages and the implementation process (Bochert et al., 2022). It was found that with OKR in place, the adaptability towards changing circumstances is increased and that all involved employees have a more positive view of changes as such. It was also found that the traditional budget is not obsolete when OKR systems are introduced as the long-term strategic element is not part of OKR systems (Bochert et al., 2022). However, the OKR system has mitigated many of the budgeting issues raised due to its quick adaptability in various circumstances. This thesis does not currently consider OKR as a budgeting alternative, as it focuses on aligning strategic goals and operationalising them to the team level. However, the framework has the potential to answer all critical points currently associated with traditional budgeting while delivering on all budgeting functions, and it hence should be further examined looking forward (Bochert et al., 2022; B. C. L. Fernandes & Gomes, 2023; Johanning, 2023).

After this overview of alternative budgeting approaches, the following section discusses crisis in general and the two impactful events defined as crises that significantly changed the world (Frankema & Tworek, 2020).

2.7 Crisis

Over the last decades, various crises have occurred worldwide with different causes and implications. The Asian financial crisis, the tsunami in the Pacific region, the global financial crisis in 2008, the Eurozone debt crisis, the COVID-19 pandemic and the war in Ukraine can all be labelled crises with different impacts and magnitudes. In general, a crisis can be defined as:

"a serious threat to the basic structures or the fundamental values and norms of a system, which under time pressure and highly uncertain circumstances necessitates making critical decisions" Rosenthal, Boin, and Comfort (2001; p. 10, p. 10)

Looking at the business world, a crisis can be defined as:

"An organizational crisis is a low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly" (Pearson & Clair, 1998; p. 60)

It can be said that crises are very impactful events with unknown magnitude and outcome, the necessity to react and a chance to change how things are done (Wu, Shao, Newman, & Schwarz, 2021). Considering this thesis, the timeframe of two significant crisis (COVID-19 and the war in Ukraine) will be utilized to embed the research in times of crisis as this should serve as a kind of "magnifying glass" towards the functionality of budgets and the willingness to change processes.

2.7.1 COVID-19 crisis

On December 31, 2019, pneumonia of unknown cause was confirmed in Wuhan (Ciotti et al., 2020). Due to the rapid diffusion, the World Health Organization (WHO) called for an international public health emergency on the 30th of January 2020. On March 11th, the global pandemic was officially announced due to the novel Coronavirus SARS-CoV-2 (Ciotti et al., 2020). The following political interventions varied significantly between countries. Lockdown periods in most countries slowed public life to the extent that people were not allowed to leave their homes at night (Chetty et al., 2024; Schilling et al., 2021). Personal security items like face masks prohibited infections of others, and polymerase chain reaction (PCR) diagnostic tests became standard equipment in many households (Müller, Neuhann, & Razum, 2020). In 2021, with new variants of the virus, the COVID-19 pandemic evolved into a race for vaccines to reach a level of immunity which reduces the risk of high mortality (Metzger et al., 2021; Tzenios, Chahine, & Tazanios, 2023). Overall, the political interventions mainly aimed at protecting vulnerable groups within society, such as elderly people and those with pre-existing health conditions (Ciotti et al., 2020). When the pandemic was called off in May 2023, over 20 million people had died of COVID-19 worldwide (Borino, Carlson, Rollo, & Solleder, 2024).

The very different but primarily drastic limitations to public life, human interaction, education, and business ultimately led to the economic crisis from 2020-2022 (Lamorgese, Patnaik, Linarello, & Schivardi, 2024; Marcel et al., 2020; Sforza & Steininger, 2020). The impact on the world economy was immense but differed significantly between countries (Borino et al., 2024). This was mainly due to the extent to which countries connect with globalisation and global production networks (Sforza & Steininger, 2020). Around 12% of the international added value is generated using global supply chains (Flach & Steininger, 2020). The pandemic tested the robustness of those supply chains. This test occurred in times of uncertainty and tension, as well as natural disasters and increasing tensions towards trade policies and political friction (Flach & Steininger, 2020). In the political debate, more and more often, demands are vocalised to reduce global supply chain dependencies and to in-shore production and supply chain processes to increase robustness (Blum, Mosler, Potrafke, & Ruthardt, 2020).

The economic consequences of the pandemic are very complex to analyse compared to other crises. This is due to many simultaneous shocks on both the demand and the supply side, which could never have been expected prior (Flach & Steininger, 2020). Sforza and Steininger (2020) showed that the COVID-19 pandemic decreased real income globally. The five European countries with the most significant impact were Austria, Poland, Switzerland, Slovenia and Spain, with a real income decline of 18%. Italy, Croatia, Portugal, Romania, and the Czech Republic were followed by a decrease of 17% (Sforza & Steininger, 2020). The study also examined the impact on different sectors, showing that food and retail lost about 9% of added value. On-the-go consumption, meaning the consumer eats the offering right away was especially impacted due to locations offering on-the-go products are typically located at high frequent locations (Jebarajakirthy et al., 2021).

Governments had to create support programs for the population and the industrial sectors. This stabilisation differed from country to country (Kurniawan, Maulana, & Iskandar, 2023). In Germany people got support in reduced fuel prices, additional direct financial help, and short-time work support programs (Hijzen & Salvatori, 2022) and energy costs were reduced as well (Ragnitz, 2023). In Switzerland, short-term help and private loans were offered. Those government support measures were aimed at calming down the population and stabilising the economy (Rühli & Thier, 2021). The economies also received state-funded support measures in different ways per country. In the United States of America, various relief programs were initiated, including short-time work options, tax credits, and direct support (Honda, Hosono, Miyakawa, Ono, & Uesugi, 2023). In China, banks offered the deferral of interest payments on loans, taxes and fees were reduced and direct financial

support was granted when necessary (Wang, Cai, & Liu, 2023). In Germany, companies also benefitted from the short-time work programs where hurdles were reduced significantly. Furthermore, direct support, grants with low interest rates and securities were offered (Ragnitz, 2023). In Switzerland, short-time work was offered, and specific support programs per industry sector were implemented (Rühli & Thier, 2021).

Another impact for companies was that during the pandemic, many companies were either forced to politically or decided intrinsically that the workforce was sent home and to work from there (Alipour, Falck, & Schüller, 2020). This trend helped to reduce the loss in value added to the economies overall, and the trend also persisted after the end of the pandemic with different magnitudes (S. Krause, Trumpp, Dichtl, Kiese, & Rutsch, 2024). It can be concluded that the COVID-19 pandemic was one of the most impactful occurrences globally, and it changed the world in many ways (Cavallaro & Nocera, 2024; Loxley & Nanwani, 2024).

2.7.2 War in Ukraine

In February 2022, another significant crisis was initiated by Russia. On February 24th 2022, Russian troops invaded Ukraine from various directions to collapse the Ukrainian government (Hansen, Husieva, & Frankenthal, 2023; Tong, 2024). This invasion and the beginning of a war within Europe were surprising even to many experts (Frigo, 2024). Since then, this war of aggression has continued with intensifying rigour and destruction (Hansen et al., 2023). The accurate number of casualties is unknown. Following official numbers, around 6.5 million refugees were registered from Ukraine, and about 3.7 million fled (Lee, Khaw, Lindman, & Juszczyk, 2023). It is, hence, one of the largest banishments in the world. More than 10.000 civilian casualties in the Ukraine have died to date (Tong, 2024). The war led to severe sanctions for Russia imposed by most Western countries, which intensified the foundation of two global political blocks. On the one hand, Western governments are led by the United States of America; on the other hand, Russia could intensify relations with China, India, South Africa, and others (M. Harrison, 2022). A division of alternative world orders occurred. The Western democracies with market economies and the rules of law and, on the other hand, national autonomies, economies led by state and non-intervention (Miliband, 2023).

In many European countries, a significant percentage of the energy supply was provided via Russian gas before the invasion (McWilliams, Sgaravatti, Tagliapietra, & Zachmann, 2023). When the sanctions were imposed, Russia started questioning those deliveries, which had enormous implications for the countries impacted. The energy systems had to be reorganised in the short term, which led to immense price increases and impact on supply security (Aitken & Ersoy, 2023). As mentioned above, those price increases and problematic global supply chains led to a rapid and significant growth in worldwide inflation rates (Cekerevac & Bogavac, 2023; Maurya, Bansal, & Mishra, 2023). As a reaction, companies increased sales prices in ways unthought of and had to handle this overall intense economic situation somehow (Sohag, Islam, Tomas Žiković, & Mansour, 2023). The government had to intervene again to stabilise the situation in the population, which was mainly caused by inflation. The necessity for intervention was different based on the dependency on the Russian energy supply. In Germany for example, almost 22% of the energy mix was Russian gas, so the impact was significant (Bosch, Schlenker, Bohn, Kupies, & Schmidt, 2023; Stoelzel Chadwick & Long, 2023). The state had to intervene, and the government subsidised the energy prices for both inhabitants and companies (Hechtner & Katzlmayr, 2024). This “Strompreisbremse” (energy-price break) was a highly complex procedure and added a lot of complexity for the energy supply sector and both companies and inhabitants (Krebs, 2023). In Switzerland, for example, there was no direct delivery of Russian gas into the country (Patrick, 2023). Hence, the direct impact on the energy system was not that immediate; it only developed over time due to increased inflation (Sturm et al., 2023).

Since the war is still continuing, the consequences and possible peace negotiations are not yet clear. The situation can result in new dynamics on short notice. Company owners and managers must constantly monitor this precarious political situation and base their decisions on assumptions with many variables (Obłój & Voronovska, 2024).

Overall, it can be said that a rapidly changing environment forces companies to find new ways to manage, steer, control, and guide their businesses. With a global pandemic and a European war, this became even clearer over the last few years (Visvizi, Troisi, & Corvello, 2024). Embedded in this environment, the discussion on traditional budgeting methods and the vocalised concern becomes even more relevant. Academic research has the chance here to impact practitioners, but to do so, this paper will focus on a specific area in the business world.

2.8 Impact of COVID-19 and the war in the Ukraine

With any crisis, companies face significant impacts on their business and the financial performance recorded on the profit and loss statement (P&L). Looking at the combination of the COVID-19 impacts and the recent Ukraine war, the impact can be briefly summarised as follows (N. Fernandes, 2020; Ivanov, 2020; Mbah & Wasum, 2022).

Figure 2-3 - Impact of COVID-19 and the war in Ukraine on international businesses (created by the author)

P&L line	Pre-Crisis	Crisis	Post-Crisis
Sales	Stable, Projectable	Fluctuation, not projectable, breaking down	unsure, only assumptions valid
Cost of goods	Prices predictable, depending on inlfation	strong fluctuations and price pressure	unsure, only assumptions valid
Personnel cost	Predictable based on inflation and efficiency	strong pressure, political intervention (minimum wage), inflation	likely to keep on increasing
Energy cost	slight upside in price due to shift to modern energy	strong pressure, and highly unpredictable	will become more expansive copared to pre-crisis
Packaging	Due to shift to paper from plastic, upside in prices	strong pressure on price and availability	likey to stay volatile
Other	Normal developments	strong pressure in basically most catagories	unsure, only assumptions valid

Sales or turnover is the beginning of every P&L. Pre-crisis stable and projectable planning logic could be applied, and growth ranges between 1-3% were realistic and acceptable. During the crisis, those levels plummeted in certain areas due to lockdowns and significant shifts in consumer behaviour. The hit was especially in food retail, with drops of 100% in lockdown situations (Steves, Cho, Metin, Kong, & Boland, 2021). How predictable the sales projection will be after the crisis will only be seen in the future, but it is expected to stay very volatile (Sayyida, Hartini, Gunawan, & Husin, 2021).

For all raw materials needed, it can be concluded that supply chains have broken down during the beginning of the crisis (Saâdaoui, Jabeur, & Goodell, 2022). The war in Ukraine only intensified in challenging situations depending on the specific material or product. Especially in the food sector, due to Ukraine's dominant role in wheat and yeast in Europe, all producers of bakery products became especially under pressure as found in a multiresolution analysis conducted by Saâdaoui et al. (2022). The evidence found a one-way causal relationship between geopolitical factors and their influence on food prices, taking COVID-19 and the war in Ukraine into consideration, among others. Another study (Mbah & Wasum, 2022) concluded that due to the global financial sanctions imposed on Russia, more turmoil is to be expected in the global markets.

When it comes to personnel costs, many countries in the world have started introducing minimum wages to strengthen low-income employees (Caliendo & Wittbrodt, 2022; Neumark & Shirley, 2022; Powell, 2022) This pressure on labour costs also influences all income levels above the minimum wage, leading to increased personnel costs overall. This trend is expected to continue due to historically low unemployment rates and lack of skilled

labour (Çorakçı, Omay, & Hasanov, 2022; Parker & Hutti, 2022). The energy sector has reached an unbelievable situation, with possibilities of gas limitations in countries like Germany and others. Due to very high dependencies on Russian gas and the war in Ukraine with political interventions by Russia on gas flow to Europe to answer imposed sanctions, one can speak of an energy war the world is experiencing (M. Harrison, 2022; Zakeri et al., 2022). Prices increased manifold into business-critical levels (Maneejuk, Kaewtathip, & Yamaka, 2024). Political interventions to support the industry are underway to support local economies and prohibit severe catastrophes (Reed, 2022).

Companies producing packaging are highly dependent on energy and, therefore, experience significant P&L pressure, which is pushed towards the customer (Kan & Miller, 2022). This situation will most likely continue. The above outlines the major cost groups very briefly, but many other smaller parts are also impacted by the same context, both for the impact of the crisis and the outlook.

Summarising the dimensions of impact on all relevant levels of the P&L, one can say that the recent developments have challenged companies of basically all industries with significant consequences for retail, especially food retail (Stanca, Dabija, & Câmpian, 2023).

One of the market segments that was impacted by the pandemic in multiple dimensions was the retail world, defined as a location where consumers can purchase goods virtually or in person (Steves et al., 2021). The overall economic impact of the pandemic is hard to tell before it is finally overcome. Still, early research anticipates substantial adverse effects, and Bai (2020) argues that these will be even more devastating for emerging countries. The Gross domestic product (GDP) growth is assumed to decline by three to five per cent in 2020 and 2.5 per cent more with every additional lockdown month (N. Fernandes, 2020). Retailers of every kind in this situation try to do their best but the magnitude of uncertainty is more complex than usual (Brüggemann & Olbrich, 2023; Tarki, Levy, & Weiss, 2020). Extreme consumer demand, like panic purchases of toilet paper, caused supply chain issues, whereas full lockdowns bear risk on shelf life for products (Ivanov, 2020). Sayyida et al. (2021) found that retail consumer behaviour was impacted during the pandemic and will show changed behaviour in the future.

Many elements of consumer behaviour have changed during the pandemic and the war. Changed drivers on proximity led consumers to leave their former favourite stores because they had other options closer to their homes. Furthermore, longer queues are accepted, hygiene expectations have risen, and price sensitivity has decreased (Pantano, Pizzi, Scarpi, & Dennis, 2020). The uncertain question is whether parts of those changed

behavioural aspects will prevail. Quick reaction times to evolving circumstances will become more important, so new dynamic capabilities must be developed (Schriber & Löwstedt, 2020). Pantano et al. (2020, p.211) state, “In other words, retailers need to move away from their traditional plans to capture organisational changes made necessary by the pandemic.”

When looking at the European Parliament´s definition of industries within the EU, one can find a classification of industries to which this academic research will adhere. The industries are automotive, aerospace, chemical, construction, food & drinks, textiles & apparel, cultural and creative, digital and healthcare (De Vet et al., 2021).

Two of the above industries, textiles and apparel and food and drinks, have significant consumer contact. Both industries are part of the retail and business-to-consumer (B2C) environment, which was heavily impacted during the pandemic in manifold dimensions. For this study, the bigger and more relevant of the two industries is looked at in detail. Furthermore, food retail was highly impacted by the pandemic and the war (Ben Hassen & El Bilali, 2022; Mesaric et al., 2022).

In 2020, the food and drinks sector, along with the European Union, generated 266 billion in sales and employed 4.82 million people (Lazaro-Mojica & Fernandez, 2021). The industry can be further subdivided into consumption in-home and out-of-home. In-home is defined as the food or drink consumed at home, whereas out-of-home consumption is defined as the food or drink offered being consumed out of the house. Over the last few years, out-of-home consumption has increased compared to in-home consumption due to increased travel and vacation movements globally (Sinkko, Caldeira, Corrado, & Sala, 2019).

During the COVID-19 pandemic, the food and drink industry was impacted differently depending on whether the offering consumption was in-home or out-of-home. The in-home subsector experienced increased sales due to shifted consumer behaviour towards in-home as it was deemed safer than elsewhere (Meister, Winkler, Schmid, & Axhausen, 2023). All businesses focusing on out-of-home consumption in retail and the Hotellerie-Restaurant-Café (HORECA) subsector sales dropped dramatically (De Vet et al., 2021). Behavioural changes during the pandemic, especially regarding all out-of-home activities, could be experienced in many countries and even with multiple discrete-continuous models on mobility tracking from Switzerland (Mesaric et al., 2022). This study leads the way into one of the wealthiest economies in the world. Switzerland, with one of the highest incomes per capita in the world and Europe (Worldbank, 2020), is, in the context of this thesis, a fascinating example. When one of the wealthiest countries in the world experiences significant changes in out-of-home consumption during a crisis (Gondek et al., 2024), it

builds a profound data basis for gathering primary data for this study project. The anticipated research method, including analysis, methodology and data-gathering approach, is outlined in the following chapters.

When Becker et al. (2016) looked at budgeting in times of crisis, they concentrated on the operational functions. They researched whether those became important in times of economic crisis. Planning and control and the resource allocation function became more important, whereas performance evaluation became less critical, looking at the 2008 financial crisis. (Becker et al., 2016). The financial crisis they based their research upon impacted, from a macroeconomic level, many companies and in this regard, it can be compared to the current COVID-19 crisis. Not in terms of its overall impact but its spread over many industries and businesses.

Returning to the planning function of budgeting, the literature provides a foundation that makes the above finding intuitive. The primary purpose of budget planning is seen in the literature as the requirement to provide a realistic and accurate estimation of the company's future activities (Arnold & Artz, 2019). This becomes more important in crises to ensure managers can make the right decisions for the company. One of the most prominent concerns stated above is the rigid nature of traditional budgeting; there are different opinions on whether budgets must be flexible to adjust to changing circumstances (Ahrens & Chapman, 2004). In comparison to this viewpoint, especially in times of high uncertainty, traditional annual budgets gain importance (Johansson & Siverbo, 2014).

Becker et al. (2016) found that the financial crisis hit without any pre-warning and to an unthought-of extent. Many companies had to drop their traditional annual budgets and shift towards forecasts, and in many cases, frequently updated forecasts (rolling). Building upon the findings of Becker et al. (2016), where the importance of planning in times of crisis, defined as uncontrolled external factors with economic impact, was proven, this thesis will analyse how practitioners reacted when faced with the global pandemic and war in Europe. Van der Steede (2011) already asked as the headline for his article in the light of the financial crisis if companies "Have they resorted to more flexible budgeting approaches, such as continuous budgeting or scenario budgeting?" Other studies have provoked the end of traditional budgets after COVID-19 (Bunget, 2021; Porter & Yeh, 2021). Overall, the recent crisis with uncontrolled external factors can critically impact companies and their reaction concerning budgeting. Hence, the paper's findings can be generalised to a different situation where external factors impact negatively.

Hence, the real question for the business world is what purpose budget functions have. This is even more important to the business world, as it is very likely that COVID-19 will not be the last pandemic the globe will experience (Donthu & Gustafsson, 2020). Also, the VUCA world concept will be described in rapidly changing circumstances in the future in manifold dimensions (Worley & Jules, 2020). Although over the last few years, some research into the field was added (Bedford et al., 2022; Mesaric et al., 2022; Metcalf & Gupta, 2021), the field is still under-researched, especially with asking what expectations managers have towards budgets.

2.9 Gaps in the existing literature

The extensive body of research outlined above demonstrates that a wide range of studies have been conducted to better understand budgeting. However, there are specific gaps that should be addressed in the future.

Overall, the criticism of traditional budgeting is well-documented, but there is insufficient research on why organisations continue to rely on it. Many studies advocate for change but fail to explain resistance to modern approaches. There is a lack of understanding regarding budgeting as a political and cultural practice, and what role it plays, which is known as decoupling, the disintegration of systems or processes within the same organisation. There is also a lack of research on how traditional budgeting provides stability and predictability, even if it is not optimal. To date, most budgeting research during a crisis has been anecdotal and descriptive (Becker et al., 2016; Bedford et al., 2022; Hendieh, 2023; Lorain, García Domonte, & Sastre Peláez, 2015). Hence, there is a lack of comparative or longitudinal studies on how companies adapted their budgeting processes in different industries, geographies, or crisis types. Another underdeveloped area in the literature is whether the skill set finance students learn in universities and later experience during their career are the skills needed for the VUCA world about budgeting methodologies (Ardila & Hernández, 2024).

Strategic agility and resilience in turbulent times (VUCA) are very relevant topics, but budgeting is rarely studied as a tool to enable or hinder agility. Furthermore, budgeting during a crisis is often reactive; little is known about proactive budgeting systems designed for high volatility. When examining why alternative forms are rarely adopted on a full scale in practice, there is a lack of grounded, critical research on the barriers to adoption, such as complexity, resistance to change, or a lack of top-management knowledge and

experience (Bhandari, 2024). Another area of missing research is understanding hybrid budgeting systems or using multiple systems in the same organisation. This complex is under-theorised, and empirical examples are rare.

Most crisis budgeting treats crises as discrete events (Becker et al., 2016), but modern organisations face layered crises: COVID-19, war, inflation, supply chain instability and labour shortages. These crises' cumulative and interacting effects on budgeting are poorly understood.

Furthermore, many proposals for new budgeting systems are top-down and conceptual, often developed by consultants or academics (Bogsnes, 2023; Robert S Kaplan, 1994). The lived experiences of CFOs, controllers, department heads and others during crises are underrepresented in academic literature.

For this DBA thesis, the combination of theory and practice is a key element, and therefore, the identified gap of missing experiences from active senior managers will be addressed. Furthermore, the timeframe it will be looking at covers three budget years (2020-2022), and many crises and critical events (COVID-19, war, inflation, and supply chain turmoil) will be covered. The thesis will also add to the existing knowledge on the functionality of traditional budgeting during crisis, management's understanding of alternative methodologies, and whether today's finance professionals have all the skills needed.

2.10 Research question

Following the above literature review, it can be summarised that a vast body of research has been conducted in research (Becker et al., 2016; Bukh et al., 2024; Bunget, 2021; Hendieh, 2023). It is a practice with a long history, and due to increasing turbulence in the world, it is also facing a growing body of concern. Alternative approaches other than the traditional annual static budgets exist, but their application in the practical business world is limited. The COVID-19 pandemic and the war in Ukraine were two significant crises between 2020 and 2023. They built the perfect ground for a deeper look into a Swiss retail corporation, explicitly addressing many of the outline gaps in the existing literature.

This thesis will embark on the following question:

Are traditional annual static budgets functional during crises?

The research objectives will be to understand how companies reacted during the crisis regarding the budgeting process. Furthermore, the underlying decision drivers for the specific reaction will be investigated. A key research objective will be what expectations are associated with the operational function of budgets and to what extent the individual professional knowledge of budgeting approaches has impacted the decision. Another research objective will be to examine what managers have learned from the crisis and how it will affect future budgeting practices.

The above-mentioned terminology, traditional annual static budget, is explicitly used to clarify that this thesis defines traditional budgets as a plan which looks at 12 months, which cover the next financial year of the company (annual) and that the budget is not changed after its final compilation (static). The term traditional budgeting will be used solely for the ease of reading in the following parts of the thesis.

This thesis will discuss the theoretical perspective, which is embedded here. It will give a context for the research problem and build the cornerstone for the later analysis and discussion of the findings.

3.0 Theoretical Framework

3.1 Introduction

The theoretical framework outlines the theoretical foundations for considering the roles and functions of budgets and allows a thus structured appreciation of the field (Chigbu et al., 2023). The theoretical framework also builds the basis for the later discussion of the findings by contextualising them with earlier theories (Varpio, Paradis, Uijtdehaage, & Young, 2020). Generally, a theory is understood as a systemic exploration of phenomena, built on principles, concepts and logical reasoning. It serves as a framework to understand the findings of research (J. V. Singh & Lumsden, 1990). This thesis is embedded in business management, where managing, controlling, and driving businesses successfully in the market is the key challenge (Plant, 1932; Salamah, 2023). In a world with different theoretical approaches to markets, this thesis will describe the economic and market theories in the Western world to build the foundation, and it will also briefly consider alternatives. It will then further investigate management control theory, which is the fundamental theory of how the management of companies is organised and in which the approach of budgeting is embedded (Barros & Ferreira, 2023). In the business world, many variables impact the outcomes of actions, and there is no standard approach to analysing the chain of cause and effect. Consequently, contingency theory is also considered an essential aspect of this area (Deshwal & Ali, 2020). The VUCA model ((Volatile, Uncertain, Complex, and Ambiguous), which builds the theory for the highly insecure environment in which today's businesses must operate (Taskan, Junça-Silva, & Caetano, 2022), is also examined as a modern-day phenomenon that impacts the operation of activities.

3.2 Economic theory and market economy

In the business world, an important issue is how companies are organised, structured, and steered to enable them to survive in the marketplace (Berg & Madsen, 2020). In ancient times, people organised their needs in groups by hunting animals and collecting fruit and crops (Huxley, 2024). Later, with the movement of people or migration, different groups of people met others, and the exchange of goods against goods began (Wonkam & Adeyemo, 2023). In the 7th century BC in Asia Minor, the first coins were developed; thus, the concept

of money became important (Von Glahn, 2023). Money was used for easier exchange of goods, and it was also used to store value (Naismith, 2021).

Over the centuries, different systems were developed to organise business life. Until the 19th century, one-sided and partially exploiting systems favouring a few at the top and exploiting many people were the dominant systems (Hobsbawm, 1960). This began to change as the free market system evolved, offering more social elements to the Industrial Revolution's exploitation effects (Vahrenkamp, 2023). As an early advocate of the free market economy, Adam Smith created the theory of comparative cost advantages, stating that different economies have different productivity levels in certain areas (Ver Eecke & Eecke, 2013). For example, when country A is good at producing Product B and country B is good at making Product A, the countries should produce the product which they are good at and trade the products between them, which leads to higher welfare between the countries (Ver Eecke & Eecke, 2013). This economic order furthermore organises individual property and company production capacity into a judicial system and secured property (Sansom, 2024). How households spend their money, how companies spend earnings, how money in households is earned and how earnings in companies are generated are coordinated by the price mechanism (Möller, Nenonen, & Storbacka, 2020). The price mechanism functions by finding the correct price where supply and demand are met (Cachon & Terwiesch, 2008). Supply is the number of goods and services provided, whereas demand is the number of goods and services demanded by the consumer (Inoua & Smith, 2023). This coordination allocates individual goods via a market price and public goods through political decisions. Economic theory defines the market economy as self-regulating and self-optimizing (Raipovna, Akramovich, & Durdona, 2022).

In the first quarter of the twentieth century in the Western world, two economic schools added different perspectives to developing economic theory. Those schools of thought have fundamentally different approaches, which have prevailed over time, and followers include scientists, businesspeople, and politicians (Beard, 2017). The first of these, the classical and later neoclassical school of economics, was mainly formed by Say, Gossens, Ricardo, von Mises and von Hayek (Gossen, 1990; Ricardo, 2005; Say, 1836; Von Hayek, 1937; Von Mises, 1978), representing the Austrian ordoliberal school of economics (Palley, 2013). The classical school has as its central tenet the economic self-interest of individuals and how the consequence is for public welfare (Kurz & Salvadori, 1998). The goal was to increase the public welfare and, hence, the wealth of the nation, which would ultimately lead to the increased well-being of all individuals (Kurz & Salvadori, 1998). This school of thought deems the world as certain and, hence, plannable, and the most important domain of the

economy is production. In order to leverage the production capacity, investment or accumulation of capital is seen as the way that economies change and develop for the better. Later, the invisible hand was used to describe human selfishness as the driver of economic wealth, with the invisible hand as the coordinating market mechanism to resolve conflicts without state intervention being required (P. Harrison, 2011).

In the United Kingdom, John Maynard Keynes sought to reform a challenged English economic system from within. He formulated a new economic theory which challenged the classical theory in many aspects (Greenwald & Stiglitz, 1987). Keynes advocated that the invisible hand does not exist and that the economy has to be influenced by state intervention, setting the framework to redistribute wealth from the rich towards the poor and ensure employment for as many as possible (Mool, 2023). The two theories can be separated into a demand orientation (Keynes) and a supply orientation (von Hayek), as well as more (Keynes) or less (von Hayek) government intervention in the market system (Mool, 2023). Keynes favoured a more short-term approach to economic intervention, whereas von Hayek favoured a long-term orientation of policies (Greenwald & Stiglitz, 1987). Another differentiation factor between the two schools is the level of state intervention. Keynes promoted more regulation being issued and controlled by the central government, whereas the classical school supported the market mechanism to a very high extent (Bortis, 1997). The discussion in the financial and political arenas about which of the two theories is better continues today and varies with the political majority in the country (Bortis, 2024).

Both the classical school of thought as well as Keynesianism face the concern that workers generated the economic output by working eight-hour shifts or more and the owners of the production capacity, the capitalists, received an unfair share of the profit (Rigby, 2024). In its further development, supporters of Keynes added elements of social equal treatment by the introduction of social welfare systems, which transferred capital from the rich to the poor (Backhouse & Bateman, 2012). Some of those elements can also be found in another economic system which developed in the Eastern Hemisphere.

Marxism is an entirely different economic theory, founded in the 19th century by Karl Marx and Friedrich Engels. Their theory concluded that no individual property should exist, but everything should be owned collectively, and everyone should be treated equally (Cajas-Guijarro, 2024). Wladimir Iljitch Lenin, a Soviet leader during the first quarter of the nineteenth century, later added to Marxism, and it was known as Marxism-Leninism and mainly followed in the eastern hemisphere (Rigby, 2024). Marxism is, hence, a socialistic

economic theory, also called socialism, that aims to abolish every class system within society and treat the majority equally (Worsley, 2013).

Figure 3-1 - Comparison of economic theories (based on Chang A Pelican Introduction – Economics: The User's Guide, 2014; p.124)

	Classical/Neoclassical	Keynesian	Marxist
The economy is made up of..	Classes / individuals	Classes	Classes
Individuals are..	Selfish and rational	Not very rational (driven by habits and animal spirit)	Selfish and rational, except for workers fighting for socialism
The world is…	Certain	Uncertain	Certain
The most important domain of the economy is…	Production	Ambiguous , with a minority paying attention to production	Production
Economies change through	Capital accumulation (Investment)	Ambiguous, depends on the economist	Class struggle, capital accumulation and technological progress
Policy recommendations	Free market	Active fiscal policy, income redistribution towards the poor	Socialist revolution and central planning

Over the years, real market economies have evolved and diverged from the pure theoretical models (Muñoz, 2023). The classical and Keynesian theories incorporated some key critiques of Marxist ideology and developed responses to improve their models (Bresser-Pereira, 2019). As mentioned above, the market economy favoured only a few, usually the ones owning the production capacity. This has contributed to exploitative labour practices in various industries where the well-being of employees is not of prime concern (Ahiya et al., 2021). However, work councils, labour law, and a greater emphasis on ethical business practices have evolved and strengthened workers' rights (Rubery, 2024). These developments have contributed to further improving the market economy, the prevalent system in most Western economies.

In Germany, Ludwig Erhard, a German economic minister, introduced the social market economy in the 1940s (Bardt et al., 2024). Within this system, the market economy is entirely in place, but the social side is protected via the government's distribution of funds to those who need it. Retired, sick people without jobs are financially supported, as are children, and hence, social freedom is ensured, whereas, at the same time, achievement is rewarded (Schlecht, 2024). The United States of America has a mixed economy, a system that blends both the free-market economy as well as state-led social regulation (Kashyap, 2022). The typical characteristics of the U.S. mixed system are a unique balance between

government regulation (social safety nets and public infrastructure) and, on the other hand, private ownership and entrepreneurship in the free market system.

Both systems, the German as well as the US in times of the COVID-19 crisis, shifted towards a stronger stabilisation by the governments as the free market could not quickly cover (Kashyap, 2022; Kronenberg, 2024). This move towards a wider community of stakeholders, away from a focus on shareholders, could already be observed prior to COVID-19. Within the market economy, companies operate to generate and maximise profit for their shareholders (Abulibdeh et al., 2024). This shareholder value approach is justified because shareholders finance the companies and expect profitability, which they typically compare with other investment opportunities of the same risk profile (Cardoni, Kiseleva, Arduini, & Terzani, 2024). Over the last two decades, a different approach, stakeholder value, has become a significant challenge to the traditional shareholder maximisation model. It recognises shareholders and all groups impacted by a company's actions. These groups include employees, the environment, society, and competitors (Norris, 2024). The latest legislation from the European Union (EU), the Corporate Sustainability Due Diligence Directive (CSDDD) and the Act on Corporate Due Diligence Obligations in Supply Chains emphasises that ethical behaviour is key within the EU, and child labour and all other forms of human exploitation have no chance and shall be abolished and prohibited (Schilling-Vacaflor & Gustafsson, 2024).

Both outlined systems are fundamentally embedded in the management process, which is part of the management control theory. This fact highlights the connection between the capitalist market system and the way organisations and managers guide their businesses. Consequently, it can be concluded that in economies with classical or Keynesian market systems, enterprises are predominantly managed using management control systems. This conclusion can also be found in the earlier literature (Gao, 2012; Neimark & Tinker, 1986).

3.3 Management Control Theory

In management control, planning, organising, and controlling are elemental aspects of the management process (Berry, Broadbent, & Otley, 2019). In academic research (Ahrens & Chapman, 2004; Langfield-Smith, 1997; Wargitsch, 2010), management control can be traced back to the beginning of the 20th century. With the start of the 1980s, this theory focused on developing management control tools that ensure that corporate strategy is met by developing goals against which progress can be measured. A sound management

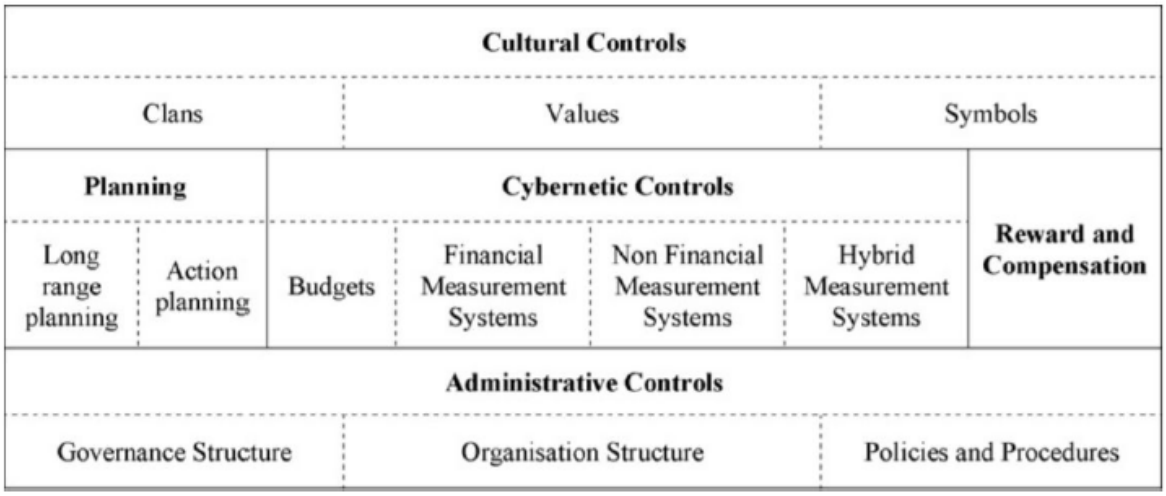
control system (MCS) is in place when management ensures that employees execute the necessary tasks according to management's expectations (Langfield-Smith, 1997). When goals are unmet, management can adjust its plans/strategy in various ways to ensure that the goal is met and that the company remains on its strategic path (Skoog, 2020). When no plan exists, the leadership team of the company can be “lost” as the actual performance cannot be measured against what was planned. As a plan usually incorporates ambition into the further development of the company and also reflects new developments, a plan is seen as an important element within the management control theory (Arnold & Artz, 2019).

The necessity of the MCS became important with the growth of companies and international operations and the increase in quantity and quality of information (Carenys, 2010). For new organisations, like start-ups, which have just been founded and have no experience in the market, usually financing institutions such as banks or investors ask for business plans to give some idea or guidance for the investment to demonstrate the management control intentions and capabilities of the organisation (Pavlatos & Kostakis, 2021).

The tools used during the beginning of MCSs were mainly accounting-based approaches, which led to a critique of the theory over the years as complex issues, especially from a sociocultural context, were not addressed (Hewege, 2012). Within MCSs, formal and informal control systems can be distinguished, whereas formal ones are the origin of MCSs (Wargitsch, 2010). Formal control was the beginning of the system, which consisted of purely accounting-based controls. Bookkeeping, budgeting, and other figure-based frameworks were developed to put the company activities into numbers, aiming to keep oversight of complexity (Wargitsch, 2010). With increasing globalisation, informal controls became increasingly relevant and self, social and cultural control systems were developed (Wargitsch, 2010).

Over the years, management control systems have become synonymous with controlling the business life cycle, from obtaining resources to ensuring that those resources are handled efficiently to meet the organisation´s strategic goals. Due to the concern of the accounting focus in earlier MCSs, more and more management elements, such as personnel and cultural controls, have been incorporated (Van der Stede, 2011). Malmi and Brown (2008) developed an MCS framework incorporating these elements (Figure 3-2).

Figure 3-2 - MCS structure (Adapted from Malmi and Brown, 2008, p. 291)



Malmi and Brown (2008) divided management control into cultural controls, planning, cybernetic controls, reward and compensation and administrative controls. Cultural control looks at clans, values, and symbols within organisations, which are typically associated with how people bond and speak a company's common language. Administrative controls such as governance or organisation structure, as well as policies and procedures, give a frame or structure for the organisation. Planning can be split into long-term and short-term or action planning. Rewards and compensation are also important elements in the management control process or framework as the authors support the logic of rewards leading to positive motivational effects, which can increase performance. Budgets are within the cybernetic control section and financial, non-financial, and hybrid measurement systems (Malmi & Brown, 2008). This framework builds a comprehensive overview of the management control theory and shows its interdependence between the different controls and the complexity in managing companies. Giglioni and Bedeian (2019) also investigated MCS and stated that MCS is not only a control mechanism that initiates penalties or grants bonuses but also a holistic approach to business management that has proven relevant over the decades.

Although this overview provides an insightful summary of management control systems, one must also remember that the element added by the contingency theory is key, as there is no one globally valid MCS but rather customised versions tailored to companies' specific needs (Neilsen, 1974). This also holds for budgeting approaches.

3.4 Contingency Theory

The way organisations structure their internal management system is one central element of modern organisational theory (Crowther & Green, 2004). Due to the uniqueness of every company, it can be concluded that there does not exist one dominant way of structure or form of management (Marshall, 1982; Simon, 1952). Weber and Weber (1994) identified that the structure of a company varies depending on the company's goal, the technology used and the complexity of the environment in which the business operates (Weber & Weber, 1994). Moreover, it is determined by the organisation's circumstances, such as its size, market and maturity level (Meznar & Johnson Jr, 2005; Pacheco-Cubillos, Boria-Reverter, & Gil-Lafuente, 2024). Furthermore, companies are influenced by both external and internal variables. External environmental factors, such as geographical conditions, impact the organisation from outside, while internal factors, including the owner's or management team's characteristics, impact its internal operations (Fisher, 1998). The interdependency between company-specific variables (external and internal) is not well researched, as the complexity is high, and specific variable impacts cannot easily be isolated. Empirical studies highlight this, showing that even when impacting variables are comparable, the same organisational structure leads to different results (Child, 1972; Diana, Sudarmiatin, & Hermawan, 2023).

Otley (2016) reviewed the literature on the contingency theory of management accounting and control from 1980-2014. The thesis analysed that various and, over time, differing management control packages have developed. However, due to the rapid pace of change, none of those can serve as a general solution because the context of the specific organisation must be considered (Otley, 2016). Contingency theory, furthermore, is fundamentally concerned with how organisations cope with uncertainty (Fisher, 1998). The core idea is that there is no single best way to structure or manage an organisation; instead, the optimal approach depends on the context, especially the degree of uncertainty in the organisation's environment (Vaszkun & Koczkás, 2024).

Budiningshi (2018) found that within a very dynamic business environment, companies require systems and employees capable of innovating and responding accordingly. A quantitative survey study was conducted with 100 employees in service field companies in Jakarta. The findings identified three primary factors influencing decision-making. The first factor is the values held by company owners or leaders, mainly whether they prioritise efficiency or other objectives. The second factor pertains to cognitive elements, specifically the knowledge and expertise of decision-makers regarding the issue at hand. In this context,

education plays a critical role, which will be further examined in this thesis's results and findings section (Budiningsih et al., 2018). The third factor is the distribution of decision-making power within the organisation, whether vested in an individual or a group (Widiasanti et al., 2021). While strategic decisions in organisations typically involve thorough deliberation, weighing advantages and disadvantages, the ultimate decision-maker must decide.

Overall, the research into contingency theory has concluded that organisations are living systems and should be analysed as such (Hendry, 1980; Kaushik, Chadhar, Firmin, & Tatnall, 2024; Mahmud, Soetanto, & Jack, 2021; Pacheco-Cubillos et al., 2024). The complexity of today's globalised and interconnected marketplaces increases the complexity in which businesses operate. Consequently, the contingency theory emphasises the necessity to analyse individual business requirements in a specific situation when applying a management theoretical approach (Kaushik et al., 2024). This also means that very complex interplays between internal and external factors must be considered when analysing questions in the business world (Romero-Silva, Santos, & Hurtado-Hernández, 2024). As contingency theory predominantly concludes that the level of uncertainty organisations operate in is different, and hence, to manage the business, it also has to be tailored to the circumstances. Uncertainty is seen as information are insufficient for making decisions (Otley, 2016).

The following section will present a model from the military world, which gives structure and conceptual understanding to a more rapidly changing world. It includes the factor of uncertainty, which bridges the contingency theories with the VUCA model. Here uncertainty is more understood as an uncertain outcome but known variables which impact. Hence the VUCA model is more applicable for practitioners.

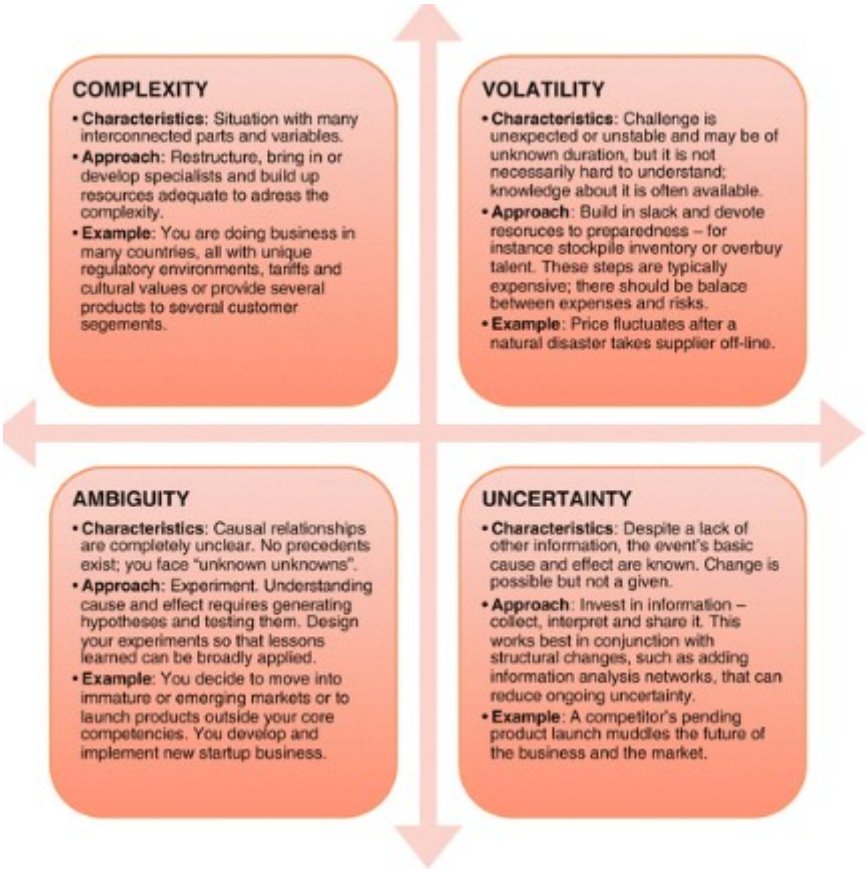
3.5 The VUCA world

After the Cold War, the military missions in Afghanistan, Iraq, and Somalia provided different and new situations for troops. VUCA became the standard description of this new situation within the US Army (Bouée, 2014). In the 1990s, the U.S. Army War College coined the term VUCA to describe the post-Cold War world and its changed circumstances. After the apparent logic of the enemy in the east had disappeared, more dynamic and chaotic developments needed new approaches (Kiluange, Rouco, & Silva, 2024). In the military, and especially during the U.S. intervention in Afghanistan, VUCA prepared the soldiers for

the quickly changing and uncertain situation by building resilience, vision, inspiration, and adaptability skills (Ardila & Hernández, 2024). In a world order where the threats are both diffuse and uncertain, conflict is inherent yet unpredictable, and the capability to defend and promote our national interests may be restricted by material and personnel resource constraints. In short, an environment marked by volatility, uncertainty, complexity and ambiguity (VUCA) (Yarger, 2006; p.17).

The following graphs visualise the four VUCA elements for further clarification.

Figure 3-3 - VUCA concept (Adapted from Bennett and Lemoine, 2014, p.313)



Complexity deals with correctly understanding cause-and-effect connections. Linear causality is usually strived for in academic papers, but with more and more elements influencing those relationships, it has limitations. Complexity is when the interconnectedness of elements and variables can be so high that equivalent external conditions result in different outcomes. All studies into organisations of networks within those have those attributes (Kail, 2010). With increasing turmoil in the business world after

the financial crisis, the concept was adopted by many business leaders and scholars and found its way into the business world (Worley & Jules, 2020).

Volatility is used in financial theory and statistics to describe uncertainty about the size of changes. Standard deviation and variance are common quantifications in statistics (Anderson, 2015). With the recent Ukraine war, significant volatility has been observed in raw material pricing and availability (Kail, 2010). In addition, stock markets are very volatile in times of crisis (Schwert, 2011).

Ambiguity in business decisions is common. Not one transparent and analytical process leads to a conclusion, but many different approaches can be meaningful. So, when causal relationships are unclear and the process definition is impossible, ambiguity is characterised. In a business environment where one can ask many people the same question, different viewpoints and approaches will be vocalised, which is an ambiguous situation (Bennett & Lemoine, 2014).

Uncertainty describes the predictability of the future. With increasing volatility, this becomes more difficult. As statistical repression models served the purpose in the past, it becomes significantly more challenging to extrapolate the future and link it to the probability distribution. An alternative approach to uncertainty is clarity in evaluating a situation, including identifying challenges and opportunities (Bobokulova, 2024).

The combination of all four elements is a concept that describes the current world with ever-changing interconnections, influence dynamics, and overall increased complexity. It is more than just an artificial word; it is a way to think about and approach this dynamic world (Mack & Khare, 2016).

In the business world, this means finding ways to understand and respond to changing circumstances effectively. Ambiguity arises in rapidly evolving markets with short product cycles—for example, the telecommunications industry, where landlines were completely replaced by mobile technology (Kolluru & Reddy, 2021). Further, advancements in chip technology, batteries, and charging solutions have significantly impacted the mobile market. Companies like Samsung experienced a nearly 60% drop in revenue within a single year due to these rapid changes because of significant declines in chip prices and demand for mobiles and personal computers (Sasikala, 2023).

Uncertainty describes strategic questions regarding the business model, including determining what kind of technology to investigate and what kind of employees one might need. A solid example is the automobile sector, which is experiencing an immense shift

from carbon fuels to electric vehicles. When Tesla, an American car manufacturer, entered the marketplace and built its business model entirely on electricity, the dominant companies did not react quickly enough to prevent losing substantial market share (Ajitha & Nagra, 2021).

Information technology (IT) infrastructure is an example of the complexity element. New technologies, new regulations, globalised markets, new competitors, and changing customer expectations are almost impossible to oversee (Moura et al., 2023). Most global organisations have old “legacy systems” which lack professional documentation and, without regular investment and upgrading, have caused survivor problems when rollouts of new technology are conducted, as can be seen via some examples:

- In 1990, a minor error in a new line of code caused a 9-hour breakdown of the entire AT&T telecommunication network with a financial impact of over 100 million USD (Travis, 1990)
- The Knight Capital Group almost went bankrupt in 2012 when a forgotten test code started buying overpriced bonds for over 440 million USD (Saltapidas & Maghsood, 2018)
- German candy producer HARIBO introduced a new warehouse software in 2019, causing over 10% of missed deliveries due to minor errors in the master data (Huppertz & Kracht, 2022)

Ambiguity describes multiple meanings of a situation or information which can be interpreted differently (Frankenhuis, Panchanathan, & Smaldino, 2023). This sometimes leads to managers making failed strategic decisions as they fear wrong choices. Looking at Kodak, the American traditional Foto camera producer was the first to develop a digital camera in 1975 but did not want to abandon the core business. After Sony in the early 1980s launched the first digital camera, Kodak launched a substantial study to understand the market and the possible outcome for the future, which led to a missed decision early on (Stanwick & Stanwick, 2020).

Over the last centuries, the Industrial Revolution and its drive for automation and efficiency have resulted in giant global corporations (Hines, 2021). With the invention of the internet and the drive for digitalisation, combined with climate change, changes have become increasingly frequent and unpredictable (Mack & Khare, 2016). Further, increased awareness of an interconnected and globalised world could be observed after the financial crisis. Rapidly changing circumstances with unpredictable effects and outcomes can be viewed via the “VUCA” environment (Volatile, Uncertain, Complex, and Ambiguous).

This thesis introduces the theoretical VUCA model to provide an understanding of the dominant drivers that will accompany mankind into the future. Furthermore, following a strong body of emphasis in the literature (Hiney, Efthymiou, & Morgenroth, 2025; S. Singh, Joshi, Gandhi, & Malik, 2024; Verma, 2024; Whig & Kautish, 2024), the VUCA world is anticipated to be the “new normal” for business leaders, which they have to adapt to . The next chapter discusses the research approach, including the research methods adopted for this thesis.

4.0 Research Methodology

The research problem that this thesis investigates must be addressed in a way that provides reliable and relevant scientific research findings and answers to the research question and objectives. As this research also combines academia and the business world, the overall analysis approach is important. Consequently, the purpose of this chapter is to elaborate on the philosophical assumption, the research strategy, and the empirical techniques that will be applied to meet the objectives of this study. The chapter further illustrates how the research philosophy, the research design, the research approach and the research strategy are used to address the research questions. Further the research method used, the methods of data collection, and the methods of data analysis employed in the study used to answer the research questions are explained.

In this chapter, an introduction is provided, followed by a description of the Engaged Scholarship model. The Research Philosophy and the Philosophical Research approach are outlined, followed by a description of the place of the researcher in this study. The sample frame and data collection techniques, including ethical considerations, are described, followed by the data analysis methods.

4.1 Importance of methodology

The methodology describes the approach used to gather data, analyse data and derive conclusions to answer the research question (Bell et al., 2018). Research can be classified as either a purely literature-based approach, which looks at existing literature, or an empirical research approach. Empirical research can be further classified as taking either a qualitative or a quantitative approach (Bell et al., 2018). Empirical research adds to the existing academic knowledge by gathering new data in a specific field. This data can be used to derive new conclusions or results and thus add to the existing knowledge base (Houy, Fettke, & Loos, 2010). Empirical research methodologies span a large spectrum within each of the two broad categories of qualitative and quantitative and adopt different data-gathering approaches. The researcher's philosophical perspective, along with the type of research question, will influence the choice of research method (Easterby-Smith et al., 2021). In research projects where both the business world and academia are relevant, the engaged scholarship approach ensures that both fields are reflected (Ven, 2007).

In general, it can be said that there are no boundaries in academic research; what can be researched will be researched (Harzing, 2020). However, the way the various disciplines approach a problem can be very different (Bell et al., 2018). The empirical sciences can be divided into social, natural, and technical sciences (Grossmann et al., 2020). The word empiricism is derived from the Greek word empeiría, meaning experience or based on experience (Heckman, Carver, Sherriff, & Al-Zubidy, 2021). The natural and technical sciences are largely quantitative in nature and follow a methodological approach to collect data (largely numerical) and then analyse that data using a variety of statistical methods. (Berent & Platt, 2021). Researchers in these sciences do not describe phenomena or theories but infer conclusions based on the data that they have collected and analysed (Easterby-Smith, Thorpe, & Jackson, 2012). This approach enables researchers, for example, to observe the side effects of medicine, the quantity of pulling a specific number in a lottery or the mating habits of animals and statistically depict it (Radder, 2021). In the social sciences, either a qualitative or a quantitative approach can be used. In those situations where behaviour, experience and attitudes are of interest, the likely data collection methods will include interviews, observation and case studies (Kojonsaari & Palm, 2023).

This thesis aims to add new knowledge to the existing literature in both academia and the business world. The approach used to reach this goal is the engaged scholarship concept.

4.2 Engaged scholarship

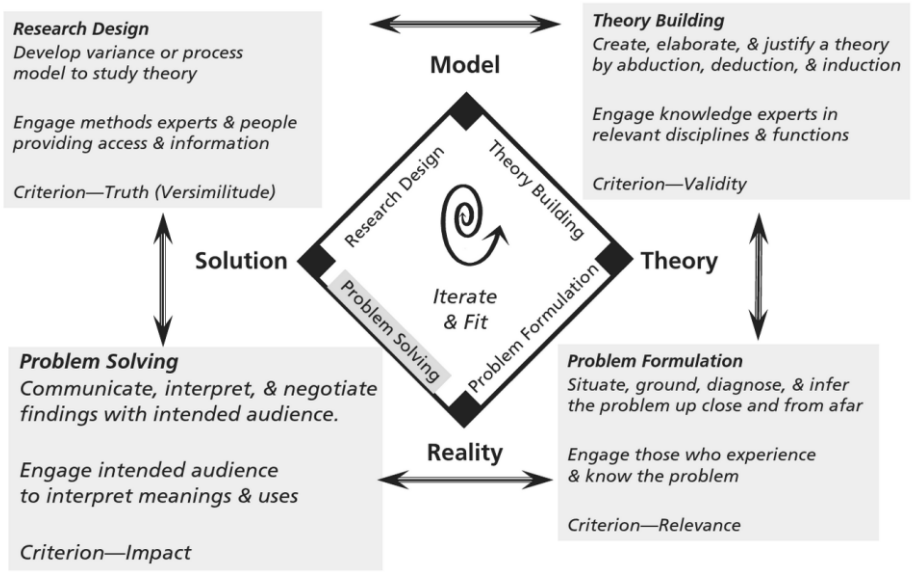
Andrew H. Van de Ven formulated the concept of engaged scholarship, trying to add insight to the open question of how practitioners can adopt research findings in fields such as management (Ven, 2007). The engaged scholarship model enables researchers to study complex real-world problems by including and examining many stakeholders. This type of research can develop new theoretical insights and contribute to practical problem-solving (Mathiassen, 2017). Ven (2007) derived his process model by looking at both areas' needs in order to address the theory-practice gap. As engagement with a topic stands on its own, the scholarship was described using Boyer's definition (Boyer, 1990; p16) :

“Surely, scholarship means engaging in original research. But the work of the scholar also means stepping back from one’s investigation, looking for connections,

building bridges between theory and practice, and communicating one's knowledge."

To guide how an engaged scholar might formulate a research study of a complex problem, combining theory and practice, Ven compiled the model of engaged scholarship or "diamond model" (Ven, 2007), as illustrated below.

Figure 4-1 - Problem-solving in engaged scholarship (Ven, 2007)



The research design is the setup for the process model, which will lead through the theory study phase, which will give the theoretical foundation. The theory-building phase is the research's analysis step, creating a theory using the chosen methodological process (Ven, 2007). Experts and practitioners in the field are consulted to derive data. Problem formulation is another point of the process, which involves initially diagnosing and formulating the problem. This step can inform and specify the research question and the objectives. Problem-solving analysis and interpretation of the findings can then be circulated back to the experts, and an iterative process can be initiated until the outcome is reached (Ven, 2007).

This thesis will apply the diamond model logic by formulating the research design as outlined above. The theoretical foundation will be developed by building the theory via a comprehensive literature review of the current and existing academic knowledge and the broader business context. This will be followed by the problem formulation and the data collection phase, which will be conducted using semi-structured interviews. After a reflective analysis, the study will result in a new understanding of the role of budgets and ideally will give some relevant addition to both academia and the business world. The iteration of the

process by communicating the results to the interviewees will not be part of this thesis, but it can be conducted later. However, considering all stakeholder perspectives during the interviews, the viewpoints of the experienced managers can be clustered and contrasted against existing findings.

The engaged scholarship model enables researchers to study complex real-world problems by including and examining many stakeholders. This research can develop new theoretical insights and contribute to practical problem-solving (Mathiassen, 2017).

4.3 Research philosophy

A suitable research framework and design are essential for conducting research that will provide valid and reliable evidence to answer the research questions. This requires the researcher to identify the study's assumptions, knowledge, and nature, as the research philosophy deals with the specific way to develop knowledge. It has to be addressed because researchers have different assumptions about the nature of the truth. Knowledge and philosophy help to understand the researcher's assumptions.

4.3.1 Ontology

Ontology studies the nature of reality and existence. In relation to research, ontology refers to the assumptions or beliefs that researchers make or hold about the nature of the world and what can be known about it. It asks definitive questions about what exists, the nature of reality and whether reality is objective (Creswell 2011). When exploring the possible scientific research approaches that a researcher can take, the ontological stance can be broadly divided into objectivism and constructionism (Bell et al., 2018). Constructionism assumes that reality is socially constructed and shaped by human interactions and interpretation. Constructionists view all phenomena as being created by social actors. Objectivism, however, assumes that reality exists independently of human perception and can be studied objectively, independently of social actors. (Creswell, 2011).

A more detailed examination of ontological schools distinguishes four ontologies – realism, internal realism, relativism, and nominalism. Realism deems the world to be real and able to be examined or observed with science (Niiniluoto, 1991). Internal realism describes the

world as accurate but almost impossible to investigate directly (Easterby-Smith et al., 2021). Internal realism holds that while facts are concrete, they cannot always be revealed. Relativism, as another ontological school, accepts the existence of truth but concludes that there are many individual truths created by particular people. Within this school, facts depend on the observer's viewpoint (Rosen, 2001). Nominalism is the last school of the four, in which understanding reality is entirely created by people, resulting in no truth. Therefore, facts are altogether human creations and must be researched as such (Easterby-Smith et al., 2021). These ontological perspectives are summarised in the figure below.

Figure 4-2 - Four different ontologies, Easterby, 2012, p.19

Ontology	*Truth*	*Facts*
Realism	Single truth	Facts exist and can be revealed
Internal realism	Truth exists but is obscure	Facts are concrete but cannot be accessed directly
Relativism	There are many 'truths'	Facts depend on the viewpoint of the observer
Nominalism	There is no truth	Facts are all human creations

4.3.2 Epistemology

While ontology is concerned with the nature of reality, Epistemology is concerned with how we acquire knowledge and how we justify our beliefs. Two primary epistemological approaches exist – Positivism (objectivism) and Interpretivism (constructionism). A researcher's ontological position will determine their epistemological position (Pritchard, 2016). A positive epistemology is likely to be adopted if it is believed that reality is objective and exists independently of the researcher. Positivism emphasises scientific, measurable, and objective knowledge. Research methods consistent with a positivist epistemology will focus on the collection of numerical data that is analysed statistically. On the other hand, if it is believed that the world and the human mind are independent of each other, an interpretivist epistemology will be adopted. While the Interpretivist (constructionism) worldview believes that the world and the human mind are independent of each other, it contends that knowledge is created through social interactions (Hanson, 2015). The above epistemological assumptions are linked to ontological assumptions and research methodology, as shown in figure 4-3 below figure (Easterby-Smith et al., 2021).

Figure 4-3 - Methodological implications of different epistemologies, Easterby, 2012, p. 25

Ontologies / Epistemology / Methodology	Realism	Internal Realism	Relativism	Nominalism
	Strong Positivism	Positivism	Constructionism	Strong Constructionism
Aims	Discovery	Exposure	Convergence	Invention
Starting points	Hypotheses	Propositions	Questions	Critique
Designs	Experiment	Large surveys; multi-cases	Cases and surveys	Engagement and reflexivity
Data types	Numbers and facts	Numbers and words	Words and numbers	Discourse and experiences
Analysis/ interpretation	Verification/ falsification	Correlation and regression	Triangulation and comparison	Sense-making; understanding
Outcomes	Confirmation of theories	Theory testing and generation	Theory generation	New insights and actions

4.3.3 Research methodology

The research methodology outlines the means taken to gather the necessary data/knowledge to answer the research question. The approach to the research methodology of a study will be dependent on the epistemological stance taken. The research process between positivist and interpretivist epistemological positions is quite different. From a methodological standpoint, research approaches are typically categorised into quantitative methods, which align with positivist paradigms, and qualitative methods, which are associated with interpretivist perspectives (Bell et al., 2018).

When a positivist stance is taken, data gathering is utilised to prove or disapprove a hypothesis (Bell et al., 2018). Consequently, objective methods are usually used based on existing research and theory. A hypothesis is formulated as part of the research question, and following the research design, data is gathered and analysed, and conclusions and findings about the hypothesis are formulated (Easterby-Smith et al., 2021).

If an interpretivist stance has been adopted, the research process starts with the research question and the selection of an appropriate research instrument. Then, data is collected and analysed, and findings and conclusions are formulated. Sometimes, at this stage, the

research question may be reformulated based on the emerging data/findings as part of an iterative process to further refine or define the research question and specify the findings (Saunders, 2019).

Within academia, there is an ongoing paradigm debate about which of the two approaches is more relevant. The fundamental distinction between the two approaches is evident. Within the quantitative field, the leading question is often, “How many?” and the results derived from statistical analysis can be standardised and, to a very high extent, applied to other fields (Sardana, Shekoohi, Cornett, & Kaye, 2023). Significant data can be statistically analysed, making this quantitative approach more applicable to a broader audience. The time and cost of this approach can be said to be relatively low (Sheard, 2018).

With the qualitative approach, the research wants to understand and interpret the behaviour. The leading questions are always “Why and How?” This makes the analysis more flexible, as the outcome does not verify or falsify a hypothesis. A low level of standardisation is the consequence, and the applicability to another field must be closely examined. The time and cost of this approach are relatively high (Creswell, 2011).

Another distinction between the two approaches can be made between inductive and deductive reasoning. Inductive reasoning aims to develop a theory or a hypothesis, while deductive reasoning seeks to test the theory (Levonian et al., 2020). Important to mention are the assumptions of interpretivism, which are the epistemological view within qualitative research. Here, humans interpret the world and construct meaning as they engage with it (Nickerson, 2022). Humans are shaped by their experiences and background and only make sense of the world in their context, meaning the essential generation of meaning is always social (Soden, Toombs, & Thomas, 2024).

In this research, the ontological stance of relativism has been taken (see Figure 4-4). This is mainly justified within social science and particularly business, where there are numerous interactions between many individuals. Contrary to the realist perspective, where it is believed that there is an objective, unchanging and generalisable truth, the relativist perspective assumes that subjective experiences emerge and build a context-dependent truth. This epistemological standpoint consequently supports interpretivism (constructionism). Interpretivism focuses on examining, identifying and analysing the patterns of behaviour, meaning, understanding and feelings of social participants. Following this ontological, epistemological and methodological assumption, the thesis explains the place of the researcher in this research in section 4.4.

Figure 4-4 - Researchers' research philosophy, based on Easterby, 2012, p. 25

Ontologies	Realism	Internal Realism	Relativism	Nominalism
Epistemology / Methodology	Strong Positivism	Positivism	Constructionism	Strong Constructionism
Aims	Discovery	Exposure	Convergence	Invention
Starting points	Hypotheses	Propositions	Questions	Critique
Designs	Experiment	Large surveys; multi-cases	Cases and surveys	Engagement and reflexivity
Data types	Numbers and facts	Numbers and words	Words and numbers	Discourse and experiences
Analysis/ interpretation	Verification/ falsification	Correlation and regression	Triangulation and comparison	Sense-making; understanding
Outcomes	Confirmation of theories	Theory testing and generation	Theory generation	New insights and actions

4.4 The place of the researcher

Research relying on a sole researcher is influenced by the researcher's experiences, beliefs, and understanding, which inevitably impacts the conversations and data collected during the semi-structured interviews (Creswell et al., 2003). Identifying the influences generated by the researcher during the data-gathering process can mitigate these biases. Deliberate steps can be taken or initiated in the analysis and the presentation of the findings to minimise and manage those influences (Irvine & Gaffikin, 2006).

In this research, my experience as an active finance professional for over twenty years has impacted my standpoint on traditional budgeting. Being part of finance teams or leading those budgeting cycles has provided me with significant experience in the process, with all its advantages and disadvantages. My ten-year employment in Valora Holding AG (2011-2020), the site of this research, in various functions with increasing responsibilities in the finance administration areas of the Food Service division has given me deep insights into the process in the company and the questions around improvements. All nine interviewees were former colleagues, and my experience with them over different periods has provided me with helpful background knowledge, which also helped me interpret body language

during the interviews. It also increased the level of trust during the conversations and helped to get to the crucial parts of the questions discussed.

My professional experience after my time with Valora as CEO of a bakery chain with 190 points of sales and 2,300 employees has further positive benefits in that it brings a deep awareness of the budgeting practice as well as the food retail sector to my research and allows me to quickly build rapport and engage with interview participants because of shared knowledge and experiences. My membership in various finance and controlling communities has further improved my awareness of the importance of the research question. Especially after the COVID-19 pandemic and the war in Ukraine impacted the international business world, the discussion and critical voices towards traditional budgeting have become louder in the practitioners' communities.

However, my background and personal experience with the interviewees have also impacted my questioning focus during the interviews and my interpretation. It also impacted the analysis of the resulting data, and this possible bias is mitigated by using an interview protocol, allowing participants to engage freely (via open-ended questions) and openly without deliberate influence. By adopting a systematic analysis process and ensuring that excerpts from the interviews are included in the findings, readers can make their assessments regarding interpretation. The following section outlines this research's research methods, including the sample frame, the data-gathering approach, and the ethical considerations.

4.5 Research Methods

As commented above, quantitative (associated with positivism) and qualitative (associated with interpretivism) research methodologies can be distinguished from a technical or methodological perspective. Both research methods could be employed with respect to the specific research question of this research - whether traditional budgets are functional during crises. However, the underlying objectives of how companies have reacted during the pandemic, what decision drivers are the underpinning forces pushing decision-making, and if the knowledge of the professional influences the behaviour are all complex and people- or organisation-driven topics. The complexity of the question and the researcher's philosophical standpoint led to a qualitative research approach that enables an in-depth exploration to unravel new knowledge about how decisions are made when budgeting systems are decided upon. Providing detailed data and complex information is a strength

of qualitative research methods (Easterby-Smith et al., 2012). The conceptual tools within the primary qualitative area can be divided into observation, interviews, focus groups, questionnaires, and surveys (Bell et al., 2018).

Questionnaires and surveys are applied to larger participant groups, and survey questions will be somewhat structured. It is also possible to use open questions (Bell et al., 2018) compared to closed ones, enabling the participant's voice to be heard. With open questions, the “interviewer” can specifically ask for the participant´s broader thoughts and open new areas of knowledge. Both questionnaires and surveys are usually administered non-face-to-face using online platforms, which facilitates easy distribution. However, with this method, many essential elements of body language and other cues cannot be observed (Coderre, St-Laurent, & Mathieu, 2004). On the other hand, interviews offer a more in-depth approach to primary data gathering in qualitative research. Interviews have significant advantages over surveys and questionnaires as they allow enhanced results and insights when the interviewer conducts the interviews professionally and builds a sound emotional relationship with the interviewee (Tracy, 2019). Interviews can be broadly divided into several categories, including structured, semi-structured, and unstructured. Each of these allows the researcher to limit or add flexibility to the interview right from the beginning. In a semi-structured interview, the interviewer has a list of themes that guide him or her along the possible way of the interview.

Focus groups can be used to interview more than one participant. They are usually groups of people of between four to twelve participants where the research question or elements are discussed (Chai, Barrios, Gómez-Benito, Berrío, & Guilera, 2024). The overall epistemological position defines how the focus group is used. Where positivist researchers encourage interaction to derive sometimes not directly communicated positions, interpretivists use focus groups to construct meanings via social interaction (Tritter & Landstad, 2020). It is a very efficient way to reach many participants simultaneously, but it is also time-consuming and complex to conduct, transcribe and analyse. It should be used when the group effect benefits your research project, but researchers should also be aware of the disadvantages of the group effect bias (Easterby-Smith et al., 2012).

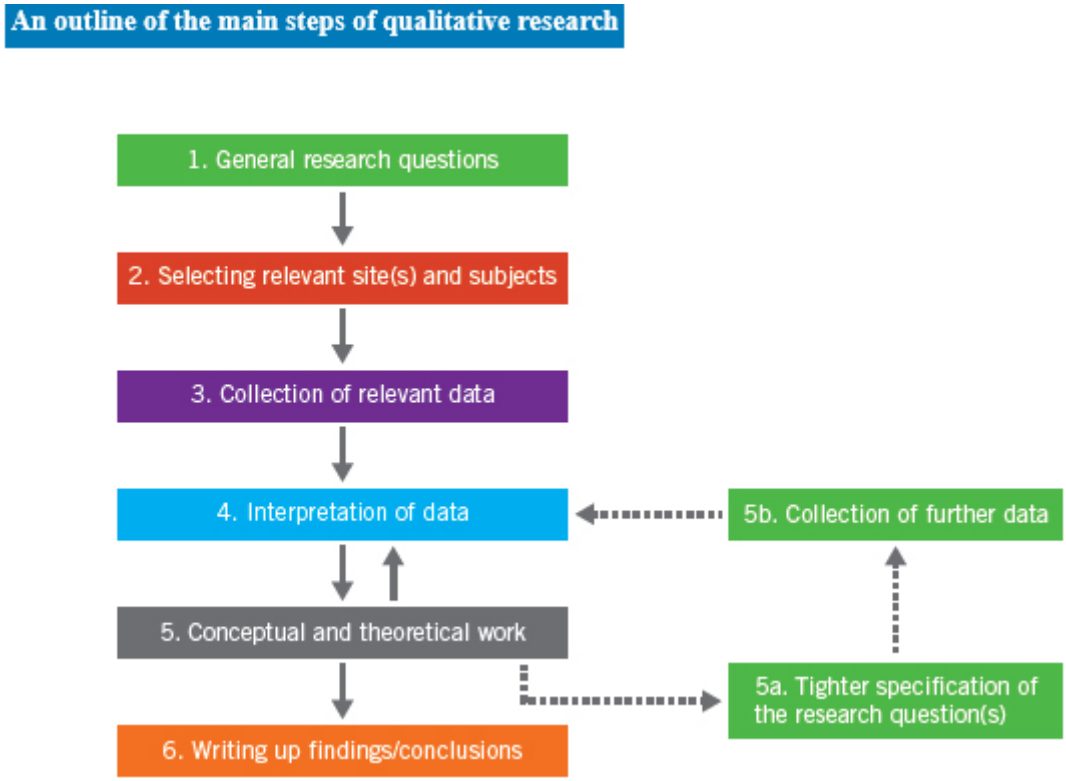
If the research aims to answer questions on naturally occurring behaviours in their usual contexts, observation can be the method of choice (Hurst, 2023). When access to a social setting like an organisation or a social network is available, observation allows the generation of understanding and knowledge by shadowing, watching, making video and audio recordings, collecting documents, and reflecting on the issue. During observation,

data is collected as field notes, which can later be organised, analysed, or coded to derive a new understanding (Hurst, 2023). Observation is a very intense research method that requires substantial resources and time commitment. It has limitations related to the role of the researcher in the field. On the other hand, the richness of the data can be an advantage of this research method (Bell et al., 2018).

For this research, semi-structured interviews are adopted to increase the likeliness of finding relevant new insights into the topic. Further, especially in social sciences, when an in-depth and multi-faceted understanding of complex issues in real-life contexts is examined, the case study approach is utilised, whereby the participants come from a specific corporation. (Saunders, 2019). This method is chosen as other available alternatives were not deemed as appropriate in this research. It was deemed preferable to alternatives for the following reasons. Observation is used for behavioural monitoring and requires long-term access to the area. It also requires significant resources to collect, structure and analyse the manifold data. Understanding underlying decision drivers and how traditional budgets were used during the crisis years cannot be analysed via observation as the time has already passed. Questionnaires or surveys with closed and, to a certain extent, open questions are helpful for some of the questions of this research, such as whether the traditional budget for specific years was useful in light of the crisis. However, the research question identified goes deeper and aims to understand underlying decision drivers. Hence, a questionnaire approach would not deliver on the underlying research objectives. Focus groups are efficient when the research question depends on the interaction between various people (Tritter & Landstad, 2020). This research aims to understand the individual viewpoints and decision drivers for handling traditional budgets; therefore, the focus group approach was not considered. However, further investigation of the solution provided below could be of interest later in the study. The disadvantages of focus groups, a significant amount of required time and resources, and potential group thinking should be carefully considered.

The qualitative research approach was chosen for this research because its strength is its ability to derive new insights from detailed data and complex information (Easterby-Smith et al., 2012). The process chosen to approach the problem is congruent with Bell et al. (2019), illustrated below.

Figure 4-5 - Qualitative research design; Bell et al. 2019, p.358



The first step is to engage in a critical and reflective analysis of the research problem, which is the relevance of traditional budgets in turbulent and quickly changing circumstances for the research. Two crises, the global COVID-19 pandemic and the war in Ukraine, are external factors that provide relevant data context.

The next step is to identify the relevant areas and, within the region, the appropriate group of people who provide a high level of knowledge and management. In the case of this research, the Swiss retail market was selected as outlined above, and within this market, one of the top three retail corporations was selected. Valora Holding AG is a relevant and dominant player in the market, and the interview group consisted of the top nine management people within the organisation (Benoit, Altrichter, Grewal, & Ahlbom, 2024). Valora will be described in the following chapter.

The next step in the process is the collection of relevant data; here, different opportunities are available within qualitative research. Observation, focus groups, and interviewing are the three techniques considered for this research and within qualitative research in general (Bell et al., 2018). After critically evaluating alternatives, this research approach follows the

data collection process from semi-structured interviews in a single organisation. The nine top executives within Valora corporation were interviewed, which ensures the possibility of creating relevant data from those nine individuals free from the possible social intervention, which might occur in a focus group with higher-ranked people in the same room.

4.5.1 Sample frame – Valora Holding AG

Considering the overall question, one of the dominant business players in the Swiss Retail landscape is the site of the study. The selected company, Valora Holding AG (Valora), was chosen for this qualitative case study due to its unique position within international retail, especially the food retail sector, and its relevance to the study´s research objectives. The company has demonstrated significant growth over many years, robustness throughout the COVID-19 pandemic and the war in Ukraine, and innovation in small-unit retail operations and bakery product production (Valora-Adhoc_FEMSA-takeover, 2022). Hence, Valora Holding AG is a valuable case for exploring whether traditional budgeting in times of crisis is still functional. Moreover, Valora is particularly relevant due to its specific organisational setup with two divisions in very different business units. Hence, the impact of the crisis was different, and the company leadership had to make methodological budgeting decisions for all its business. The company´s rich history, access to the relevant senior managers and willingness to participate in the research process made it an ideal case for an in-depth qualitative analysis. Additionally, the company operates in a dynamic environment that reflects the broader trends and issues in the industry, making it a suitable context to draw insights that can be applied to similar organisations. By studying Valora, the research objectives to gather detailed, context-specific data around the budgeting practice will contribute to a deeper understanding of the field. Finally, the selection of Valora Holding AG is justified by the access and availability of relevant data sources, mainly interviews, necessary to conduct this comprehensive study. A brief history of Valora follows.

In 1905, in Olten, Switzerland, the parent company “Schweizer Chocoladen & Colonialhaus” was founded, selling chocolates and other luxury foods. A dynamic development occurred until 1919 when 130 points of sale (POS) existed, and the company was rebranded to “Merkur AG”. Various mergers and acquisitions in Switzerland and abroad diversified the company until 1934. In 1985, the Selecta Group, a company producing vending machines, was acquired and expanded into Germany, Sweden, and France, resulting in a European

footprint of Merkur AG. In 1988, the first step towards the no-food category was undertaken by acquiring Bico, a mattress producer ("Company History," Valora Holding AG; 2022).

In 1990, the Schmidt Agence and the Kiosk AG were acquired, combining to create 1500 POS in Switzerland, which can be called the founding stone of the company's success. 1991 the company entered the trade sector by acquiring Alimarca AG and other trade companies. In 2001, the business developed into the leading European distributor of fast-moving consumer goods with the takeover of the Consiva group in Scandinavia ("Company History," Valora Holding AG; 2022).

On the 1st of July 1996, Merkur Holding AG became Valora Holding AG, and the company continued to buy and sell companies for further diversification. One of the divestment activities became Selecta in 1997, and three divisions were formed: Kiosk, Alimarca and Slumberland. In 2000, Melisa in Ticino was acquired, and Valora built its position in press distribution. In Switzerland, the coffee bar concept Caffé Spettacolo was founded from within the company. In 2001, Slumberland was divested, and press distribution expanded into Germany, Luxemburg, and Austria. Until 2007, Valora was reorganised into three divisions: small-scale retail, press and book distribution, and trade for fast-moving consumer goods. In 2008, Valora employed around 6000 people, was present in three countries with 1400 POS and served around 60.000 trade customers in ten countries ("Company History," Valora Holding AG; 2022).

Various strategic initiatives in 2009 and 2010 led to the acquisition of all German kiosk outlets and the Norwegian distributors EMH and ScanCo, and the portfolio of the trade division was extended to cosmetics. 2012 was a critical year for Valora with the acquisition of 1300 POS from Lekkerland in Germany. Also, the takeover of Ditsch and Brezelkönig led to entry into food production in the pretzel business. Strategically, the group made the decision to focus on small retail and food and divested the trade and press distribution divisions. In 2017, Valora strengthened its focus, expanded into the core markets, and acquired BackWerk with outlets in Germany and the Netherlands. With BackWerk, Valora gained a presence in the city centres of Germany and became the leading vertically integrated snack food company in Germany. In the same year, with the carve-out of Pretzel Baron in the United States of America, the production of soft pretzels was strengthened abroad, and significant investments in the German production facilities were announced. Refurbishments of various formats within the group reshaped the face of the portfolio, and investments into digital solutions and autonomous stores were initiated in 2019 ("Company History," Valora Holding AG; 2022).

At the beginning of 2020, the global pandemic COVID-19 hit the world and heavily impacted Valora. Due to lockdowns in some of the countries Valora operates in, some POSs must be closed entirely, and others have significantly reduced opening hours. Rigid cost measures and governmental support in all countries led to a resilient operating model for the group, which also used the pandemic to invest in digitalisation projects. In 2021, the acquisition of Back-Factory was announced, and Valora operated over 2800 POS in five countries with around 15.000 employees ("Company History," Valora Holding AG; 2022). By then, the company was listed on the Swiss stock exchange with a company value of around 1.1 billion Swiss Francs (Valora-Adhoc_FEMSA-takeover, 2022).

Very significant news was announced in 2022 when the Mexican “Fomento Económico Mexicano, S.A.B. de C.V. (FEMSA)” took over Valora, delisted the company from the Swiss stock exchange and integrated it as their European division into the global corporate setup. Significant growth expectations were announced as part of the acquisition, and Valora was asked to double in size by 2028 ("Company History," Valora Holding AG; 2022). Valora Holding AG’s impressive past performance and ambitious outlook for the future make it an ideal subject for analysis in this research. The next section of this thesis will outline the data-gathering approach.

4.5.2 Interview data collection process

The interview process started with the selection of the interviewees. The organisation chart was analysed within the corporation selected for this research, and the top nine executives were chosen as interview participants, as they were the people responsible for the budgeting process and those with the power to change it. It was key to select only the cohort of people having the organisational power to change the process, as only those could reflect on the underlying reasons for their decisions during the crisis without hypothetical actions. Additional company employees were not interviewed on purpose because the focus of the data gathering was explicitly on the cohort of individuals with the power to change the budgeting methodology at Valora. In interviews with a broader group of people data could have been collected around general expectations towards the traditional budgeting process. Still, the focus of this thesis was to interview only the cohort of managers which could not argue that they would have changed something but did not have the power to. This research aims to understand underlying expectations and, more importantly, in this context, why the traditional way of budgeting was conducted during turbulent times. Furthermore, the

interconnection between individual academic or business experience and budgeting approach alternatives was interesting. An interview guide was created and comprised fourteen questions around eight main topics (see Appendix 1). The questions were formulated to discuss the research question and its objectives. Due to the semi-structured setup of the interview process, enough flexibility was given to dive deeper into issues raised during the interview when the researcher saw an opportunity to gain new knowledge and further understand the interviewee's position.

The interviews took place over nine weeks in the summer of 2023. In preparation for the interviews, all interviewees received guidance on how the interviews would be conducted and how the data would be handled. All participants signed consent forms before the interviews. In some of the company's locations, coronavirus restrictions were still in place, or interviewees' business schedules did not allow for face-to-face interviews. Hence, six interviews were conducted online using the video conferencing software Microsoft Teams, and three were conducted face-to-face. The three face-to-face interviews were at the company's location in Essen, Germany. The researcher used two recording devices, a mobile phone and a voice recorder, during the face-to-face interviews and the recording functionality within Microsoft Teams for the online interviews. Additionally, the researcher took notes, recording body language or expressions of special interest, to incorporate those as part of the findings. After every interview, the researcher summarised the discussion and highlighted the most essential elements of the interview. The interview duration was between 120 and 80 minutes. In four cases, the interviewees expressed their high interest in the study and vocalised big expectations towards the outcome of this research. All interview recordings were transcribed using the software Otter and later reviewed for typographical errors. Para-language was also eliminated when it did not reveal any feelings important for the interview. Later, the data was analysed using NVivo software, and the theoretical analysis approach was applied.

4.6 Data analysis method

After the interviews are conducted, the data must be analysed and interpreted. A challenge within qualitative research is the substantial amount of large and complex data generated when numerous interviews are conducted (Dierckx de Casterlé, De Vliegher, Gastmans, & Mertens, 2021). All nine interviews were transcribed, and the transcripts were analysed

using the software NVivo. The entire set of data that was created during the research for this research was stored using the software Box on a drive managed by Aston University.

The data analysis follows a thematic analysis approach, a widely applied methodology in qualitative research (Braun & Clarke, 2023; Nowell, Norris, White, & Moules, 2017). It aims to interpret patterns within qualitative data. The thematic analysis offers researchers a flexible and rigorous analytical approach to qualitative data in many research fields (Braun and Clarke, 2023). A critical element of thematic analysis is coding. During the coding process, researchers assign thematic tags, labels, or codes to data sections, which are later summarised to distil common themes and patterns (Vaismoradi et al., 2013). Iterative coding and theme development cycles help refine and consolidate the themes to examine them critically and avoid concluding too early. This quality process is also called reflexivity (Braun & Clarke, 2023; Nowell et al., 2017). Reflexivity appreciates the subjective nature of human experiences and highlights the interpretive nature of qualitative research (Braun & Clarke, 2023; Nowell et al., 2017).

This research follows the thematic analysis methodology by coding the interview data, deriving common themes and patterns, and, using the reflexivity approach, checking the themes various times in iterative cycles. During the coding process, part of the data was parameterised with thematic tags to create data clusters under the same tag. Later, those tags were again reviewed and compared to similar tags and themes derived, which resulted in identical answer categories. Coding was a structuring process of the immense amount of data created during the interviews, which led to the findings in the next chapter. The coding logic can be seen in further detail in (see Appendix 3). As the research aims to add to the existing literature and the business world, the engaged scholarship model, as detailed above, was followed during the data analysis phase.

The following section will outline the ethical considerations in general and precisely how this research complies with them.

4.7 Research Ethics

Ethics in academia has a long history. Plato, Socrates, Aristotle and Spinoza looked into this aspect of human behaviour in detail (Dhiman, 2021). Later, Kant wrote about ethics in combination with moral philosophy and the concept of duty. Kant commented on the connection between ethics, justice and coercion, which later became very important in

science (Kant, 1996). Scientists sometimes conduct ethically questionable activities that satisfy their curiosity (Karabag, Berggren, Pielaszkiewicz, & Gerdin, 2024). Politicians can, as a reaction, be provoked to regulate those activities by legislation. However, as scientific activities develop over time, this approach cannot be deemed efficient (Wood, 2008). This was why three Canadian research communities developed a common (Tri-Council) self-regulation for the scientific community. This self-regulation requires the entire research community to realise sensible research areas and act according to moral standards (Kitchin, 2003). It can be realised following Kant´s categorical imperative to "act only according to that maxim by which you can at the same time will that it should become a universal law" (Korsgaard, 1996; p. 77-105). A more moral expression of the formula was "so act as to treat humanity, whether in your person or another, always as an end and never as only a means"(Pogge, 1998; p. 230).

This research is supervised by Aston University, which is one of the leading business schools that holds the gold standards of "triple-crown" accreditation from the Association to Advance Collegiate Schools of Business (AACSB), the Association of MBAs (AMBA) and the EFMD Quality Improvement System (EQUIS) (Shao & Tissington, 2010). Universities within the "triple-crown" tier are proven schools with the highest quality standards, which includes all ethical considerations (Zhao & Ferran, 2016). The specific approach this research had to comply with following the university requirements is outlined below.

Generally, three key ethical themes are importance, integrity, risks, and data transparency (Gregory, 2003). Within integrity, the dominating question is whether the researcher follows rigorous research principles. Examples of malpractice are fabrication, plagiarism, careless interpretation of data and misinterpretation. The fundamental question for every researcher is if the research is conducted to add to the scientific body or for personal purposes only (Easterby-Smith et al., 2021). The researcher of this research is aware of the integrity and will ensure the non-occurrence of malpractice as the research question will add to the scientific body and the business world. Furthermore, plagiarism and wrong interpretation of data will be prohibited due to the tight cooperation with the supervisory team and a very high self-awareness towards professionalism from the author, proven by the record of accomplishment.

Regarding risks, one can say that in business research, there is typically not much risk to participants, like being deceived or physically harmed, which are possibilities in medical research. Risks to researchers, like researching in dangerous countries or sensitive

research areas, are more common (Bell et al., 2018). In the specific case of this project, no substantial risk areas of significance can be identified.

Within data, one can subdivide into primary data, which the researcher collects. Secondary data was collected by somebody else. Forms of data collection within the chosen research methodology were outlined earlier. This project will not investigate secondary data other than as part of the literature review, so the possible ethical challenges are not further examined. Primary data collection, primarily via semi-structured interviews, will be the primary data collection endeavour for the research. Here, it will be critical to ensure data protection following the General Data Protection Regulation (GDPR) of the European Union (EU) regarding personal data. So, confidentiality and anonymity are essential, and participation and consent forms were issued before every interview. Furthermore, all participants were selected by their position within the organisation and not by any exclusion criteria. Before the interview, the execution ethics consent form issued and required by Aston University was compiled. All relevant ethical considerations were addressed, and compliance was ensured.

As one of the essential elements of ethical rules in academic research, individuals must voluntarily give informed consent before participating in this research (Klykken, 2022). All participants interviewed had to sign consent forms before the interview process and received a participant information sheet with all information about how their data was handled and kept confidential. They could withdraw at any time before, during or after the interviews.

Summarising the ethical formal approval process this research undertook before the primary research was conducted, the first step was compiling a research ethics application form, which outlined the details of the research process. The most crucial part was the involvement of human participants, where the selection methodology, the possibility for the participants not to give consent at any stage of the process, and the data storage logic were outlined. After the interviews were conducted, the vast amount of relevant data was analysed following the data analysis method described in the next chapter.

The first four chapters of this thesis—the Introduction, Literature Review, Theoretical Framework, and Research Methodology—outline the current knowledge in the field, the research question, and the methodology for creating new knowledge in academia and the business world. The next chapter will discuss the findings, followed by the conclusion in chapter 6.0.

5.0 Data Analysis

As outlined in Chapter 4, nine semi-structured interviews were conducted as the central part of the primary data-gathering process for this research. This chapter will analyse the interview data transcripts employing the thematic analysis approach utilised via the Nvivo software. The first section will analyse the first group of questions in the interview protocol (see Appendix 1). These questions sought insight into the current budget understanding within Valora. The following section will analyse the extent of knowledge and experience the interviewees have about alternative budgeting approaches. As this research investigates the traditional budgeting praxis in crises, the impact of the COVID-19 pandemic and the Ukraine war are analysed next. The final two sections discuss the usefulness of the budget from 2020 to 2022 and the implications of the VUCA world to examine the possible skill sets required by finance people in more volatile times.

5.1 Budget understanding within Valora

The first part of the budget understanding discusses the process itself and the concerns around it. This is followed by a discussion about the strategy formation function and its importance within Valora. Alternative forms of budgeting and the inflexibility of the current process within Valora are examined, followed by an evaluation of the payment function and the impact of the delisting from the Swiss stock exchange.

5.1.1 Budget process at Valora and time concern

In all nine interviews, the budgeting process within the Valora corporation was described in very similar terms. Two of the interviewees summarised it as follows:

“The annual static budget is a bottom-up process that starts in August and ends with the final approval by the board towards the end of the year, typically in December” ("DBA Interview 3," 2023).

“My understanding of the budget, and I would refer to the budget at Valora specifically, of course, is the financial plan for the next year. So for all the major accounts regarding P&L, Cash Flow, balance sheet, and maybe some operational KPI like same store sales development.” ("DBA Interview 4," 2023).

This process, which lasts five months from its commencement, results in complete budgeted profit and loss statements for the two divisions and each business unit. Further, complete budgeted balance sheets and cash-flow statements are produced as part of the budgeting process. Most interviewees noted that the starting point for the process is the sales plan prepared for each individual point of sale.

"So usually it we start with, we start with sales, sales, budgeting on the POS level. …,the next step, we plan costs, like personnel costs, marketing costs, otherwise plant expansion" ("DBA Interview 3," 2023).

As discussed in Chapter 4.5.1, Valora had 2.800 points of sale by the end of 2022, illustrating the significant level of resources needed for the budgeting cycle. All interviewees mentioned the effort, time, and resources needed for the budget process. In three interviews, it was noted that the resources and the effort were excessive and that the managers questioned whether the process needed to be changed ("DBA Interview 2," 2023; "DBA Interview 3," 2023; "DBA Interview 8," 2023).

"Generally speaking, and spontaneously, things which come to my mind are, they take a lot of time, especially if you have several updates throughout the year, in combination with any forecasts. The question is, how precise they actually are given the time you have to." ("DBA Interview 2," 2023).

"Well in general terms, I think it's a muscle that we developed over years of experience. I think we have to question how we use the muscle, the budget as a muscle, not to create more and more conflict with that, with that management or with, ultimately, the culture you tried to develop." ("DBA Interview 3," 2023)

Further, four interviewees questioned the justification for the considerable time investment, particularly whether the costs outweighed the benefits. ("DBA Interview 1," 2023; "DBA Interview 3," 2023; "DBA Interview 4," 2023; "DBA Interview 5," 2023; "DBA Interview 9," 2023). Typical of the comments were:

"I never saw any point in doing them other than to please somebody else's desire for control." ("DBA Interview 1," 2023).

"I hate those concepts; I would refer to them as the Black Death of financial planning because there is a hard end to the business. The day after the budget is finished, so if you do to December the 31st, there's no concept of the first of January. There is no contextualisation or the ability to contextualise decisions about implications later in a longer time period." ("DBA Interview 5," 2023).

"I think the budget process, everybody knows that a lot of time is allocated, especially but only from the finance team controlling team but also from business teams. And there is always a debate whether we allocate too much time, and you're absolutely right." ("DBA Interview 3," 2023).

The target levels within the budget are crucial. A common practice noted at Valora, as identified in the counter-current process, was to build a safety cushion in the first draft of the bottom-up created budget, as explained in one comment from Interviewee 2:

“ And given also the safety cushions, probably everybody who's preparing a budget includes a cushion, and if he had that, or several layers, the question is, how accurate the budget at the end of the day will be. “

This ensured that the top-down changes would not increase expectations beyond what could be delivered. However, this led to a longer budget preparation time due to requiring multiple iterations. This occurs despite all participants knowing the consequences of building in a safety cushion as part of the normal budgeting cycle. As a result, the CEO, the CFO, and budget managers had to carefully balance ambitions across all business units and, ultimately, the two divisions to ensure that there were more or less equal expectations with respect to the level of performance. Achieving this balance requires senior management to have a deep understanding of the individual situations and circumstances in each of the business units; otherwise, the cushions incorporated in the business units and the two divisions could not be equally identified and calibrated.

Another view from all nine interviewees was whether budgeting within Valora distinguished a reasonable budget from an insufficient budget from their perspective. A solid majority stated that a sensible budget is detailed, thoroughly compiled bottom-up and ambitious enough to be delivered but still realistic to be achieved. Here, the level of ambition is an outcome of the counter-current process within the company and an evident appreciation of the willingness to perform and develop the company ("DBA Interview 7," 2023). The interviewee stated,

“We come from a bottom up world, let's call it I call it the Gegenstrom, whatever the English term is, we have some bottom up, of course, we, we streamline it and give some top top down guidance, it's kind of a mix.” ("DBA Interview 7," 2023).

It can be argued that the group of nine senior executives, based on their job roles and experience, is obliged to strive for good results, and this might be different when asking lower-level employees. A poor budget was described as unrealistic, not detailed enough and inconsistent, so it was not professionally compiled. Another group of the interviewees mentioned budget ownership as a differentiator between good and poor ("DBA Interview 1," 2023; "DBA Interview 6," 2023; "DBA Interview 7," 2023). Interviewee 6 outlined it as,

“But still, a good product is when people do, let's call it a small group of people really know what they do what they plan”.

An alternative description was,

> *"So that, that you have that it's possible to work on it and realistic to work on it, and also take the team with you and have it behind the budget."* ("DBA Interview 7," 2023).

Here, one element of the counter-current process can be that corporations do not agree with the bottom-up results and require so much more in performance that the local management at one point no longer buys into the agreed results and accepts the budgets as the corporate ambition (Paul & Paul, 2014). From a motivational point of view, this could lead to low performance of the respective management and the teams (Ewert & Wagenhofer, 2008).

Comparing the interviewee responses to this first group of questions to the prior literature, it can be said that there is a high level of agreement with the literature regarding the budgeting process. Kennerly and Neely (2001) described the counter-current process similarly to how Valora conducted budgeting. The resource intensity and length of time taken for the process, along with the question of its benefits in comparison to the resources expended, was raised by many interviewees and is also reflected in the literature (Barrett & Fraser Iii, 1977; Bruns Jr & Waterhouse, 1975; Bunget, 2021; Hope & Fraser, 2003; Jensen, 2001). Hope and Fraser (2003) noted that the traditional budgeting process is outdated because it is overcentralised and time-consuming. Jensen (2001) commented that budgeting consumes a lot of time and that everyone knows the process is not helpful. However, it has to be said that the prior research, while it addressed the operational functions of budgeting, the challenges with the process and the question of resource intensity, did not address the "North-Star" element identified by the interviewees. Besides the concerns, there were also positive elements which the interviewees stated upon.

5.1.2 Strategy formation – "North Star"

However, despite the concerns about the significant resources devoted to the budget process, seven participants identified that the budget process was a time for reflection on the critical strategic initiatives of the company and the long-term direction of the company. Two executives specifically used the term that the budget serves as a "North Star" for Valora, leading the way forward strategically ("DBA Interview 3," 2023; "DBA Interview 6," 2023).

"*…it's a very good process of reflection on our own business and business models to go through all the line items and reflect why do we have to put in the numbers or plan the numbers as we do."* It was added*: "…within Valora, the ambition is that it is very integrated in a way that business, sales, support functions and the finance community work very closely together in a bottom-up budgeting process, and by doing that, there is communication across all the units that would probably be less specific without knowing that it has to translate it into a very tangible result. We call it our "North Star". ("DBA Interview 3," 2023).*

"I cannot imagine running a company without any "North-Star", let's call it budget, whatever it is, "North-Star", a guiding principle, somewhat. So typically, budget when you say budget, typically shakes people because I think a lot of people have negative, very negative, let's call it association with the term budget, and the whole process becomes very time, time-consuming."

Commenting on the first significant impact for the company from COVID-19 in the year of 2020 the senior executive further commented,

"I mean, the general business model you guys build up was just giving us kind of a "North-Star" for our survival, right?" ("DBA Interview 6," 2023).

Others mentioned that only with a plan to compare against can one know if a particular business unit or division is on track ("DBA Interview 8," 2023; "DBA Interview 9," 2023).

"Otherwise, you cannot compare, you cannot build a benchmark, you cannot assess whether something is good or bad." (Interview 8).

The "North-Star" element was identified as important to Valora's management; however, this has not been highlighted as such a dominant factor in the literature. An overwhelming majority of interviewees positively commented on the importance of the budget process within Valora to provide a strategic direction to the company. Considering this issue, Chabotar (2010, p.17) commented, "A budget can also serve a strategic function as a fundamental statement of priorities and beliefs. It tells a story about how much money is earned and spent and which goals and activities are truly important to the institution". This strategic planning function is important for Valora's senior executives as it gives the budget a certain sense whichis congruent with Chabotar (2010).

In three interviews ("DBA Interview 3," 2023; "DBA Interview 5," 2023; "DBA Interview 6," 2023), it was explicitly stated that the numbers being the result of the process are unnecessary, but the process itself cannot be neglected. During the interview process around the process itself, the position was detailed, and one element that was emphasised to still be of high importance was strategic planning and the question of where the company wants to get to and what the main priorities are. Interviewee 3 said:

"I think the budgeting is, first of all, it's an excellent time for reflection. It's a very good process of reflection on our own business and business models to go through all the line items and reflect why do we have to put in the numbers or plan the numbers as we do."

Confirming earlier interview findings, the “North-Star” element was further mentioned, and it was highlighted that in the VUCA world, it is deemed even more important to take the time and work on the strategy. This is because the key levers of the business strategy and where the business's strengths and opportunities must be well understood and transparent to navigate turbulent times.

5.1.3 Inflexibility of the budget at Valora

When COVID-19 started and there were significant consequences like shutdown and other impacts on Valora’s business model (more in section 5.2), the managers faced an entirely new situation that had never occurred before. As Interviewee 4 put it,

“… in these first months that we were hit so unexpectedly, surprisingly by the pandemic, and we had to think of how can we set up a plan and imagine what our cash flows will be. We also set up a tool or a model that also referred to the budget, and we kind of discount or used maybe the structure of the of the p&l to develop a new plan.” ("DBA Interview 4," 2023)

During those months, the executives found that the traditional budget for the year was too static and not flexible enough to deliver what they needed.

“Due to the size scale on our industry, and on our business, that external shock, meant and rendered the budget that we have the static budget for an annual period that we have defined, not only useless, but if I put it in the context of leadership, people's systems processes completely irrelevant, because the leadership challenge as well as the people systems process challenge was, was in no way relatable then.” ("DBA Interview 5," 2023)

In general, it was apparent during all interviews that a certain level of discontent with the stativity of the traditional budget prevailed and that all executives felt some level of uncertainty, which could not be addressed with the existing tool. This was summarised on point by one statement,

“We are not flexible enough to adjust targets when new things happen with the current budget process.” ("DBA Interview 1," 2023)

With the above comment towards the budget process, the concern about the missing flexibility is twofold: on the one hand, when something happens when the budgeted year has already started and on the other hand, when something happens during the budget process. This can also be found in the existing literature. When comparing this senior executive's reaction to the ineffectiveness of the budgets during this period to existing literature, the concern that budgets are too static and not flexible enough was confirmed.

Hill (2016) commented that a typical budgeting cycle can last from two to four months from start to completion. Within Valora, it was described that the process starts in August and ends with the final approval of the board in December ("DBA Interview 7," 2023). The length of the budgeting process can be concluded to be in line with what other companies do, as it was found in a comprehensive study by Hope and Fraser (2003). Their study resulted in 10-15 weeks for the entire budgeting cycle when they conducted an intensive international study into the business world (Hope & Fraser, 2003). The length of the budget process (5 Months) within Valora was also identified as contributing to delayed decision-making. The interviewee commented that new employee hires, which are planned as part of the budget or pay raises, must wait for execution until the board has final approval ("DBA Interview 7," 2023). Interviewee 7 stated,

“It's a little hard is the start of the budget in July/August, and the approval from the board in beginning of December/January means everything you plan is not approved for five months.”

This might cause employees not to be hired or to leave the company because of long-lasting decision processes. This problematic situation of delayed decision-making until a budget is approved and actions are executed can also be found in the literature (Prendergast, 1997; Schwartz, Spires, Wallin, & Young, 2009). Schwartz et al. (2009) looked at behavioural implications and delays in budget approval decisions and found that decisions are dealt with until final budget approval is given.

Hansen (2003) argued that traditional budgets are too static and not flexible enough to accommodate changes in the micro- or macroenvironment surrounding the company. Looking at Valora´s senior executive's answers, this can be confirmed. Interviewee 9 said,

“After a month, you could delete the budget because you could already see it goes in a different direction, and the budget cannot be changed”.

In interview 3, the interviewee stated,

"…we didn’t have a single discussion about deviations because the budget was so far off and could not be changed.”

Another essential element in the interview process was whether the managers would miss anything without a budget or if they would feel comfortable without a budget. The spontaneous reaction by many of the interviewees was to state that after the last three years of constant turmoil, they would not miss anything without a budget:

“Nothing would have been missing without a budget!” ("DBA Interview 1," 2023)

The statement was reinforced by a gesture with the hand like pushing something off a table.

The fact was further explained and justified by the fact that most traditional budgets during the crisis years (2020-2022) had lost their relevance very early on. It was strongly emphasised that the traditional budget is not flexible enough to react to crises ("DBA Interview 4," 2023; "DBA Interview 5," 2023).

"The concept of budget for me that I'm referring to here is a very static one. These were annual reviews looking forward for a fixed financial year. I hate those concepts." The person continued saying with reference to the year 2020, "*In that year, it made no further sense to use the budget at all. Why? Because the assumptions within the budget were for a while for let's call it normal levels of volatility." ("DBA Interview 5," 2023).*

An important outcome from the interviews was that in two instances, new forecasting approaches were identified that are in place to adjust to changing circumstances and to replace the traditional budget when it is no longer useful.

5.1.4 Alternative forms of budgeting

Within Valora, as a consequence of the fact that the budget for the COVID-19 years was not helpful, different dynamics occurred in the development of forecasting approaches, individually designed within the divisions and business units ("DBA Interview 2," 2023; "DBA Interview 5," 2023). In interview 2, the manager outlined that the business unit had introduced an OKR system to steer the business through turmoil. Interviewee 2 explained:

"*But what we use is basically an OKR system. It has been started in companies in Silicon Valley, like Google, etc., and we have a special tool implemented, which is linked to all the different systems."*

In interview five, the interviewee outlined that a forecasting approach had been established. The system was established so the business could look at the next twelve months periodically and incorporate any changes directly into the outlook. Interviewee 5 described,

"What we found at that time was that our business approach to budgeting and to forecasting, because it was built for an annual static model, was unable to be transferred into a more dynamic rolling model. And as a result, we are in a position where we effectively had to ignore the annual model that we spent months working on and move into a completely new way of working."

On a corporate level, this was not known. Hence, this uncontrolled and uncoordinated process led to additional effort and resources for the individual forecasting exercise while the traditional official process was still in place. This increased the time-consumption concern from the managers, although individual forecasts were created solely on their side. Additional planning layers were added on the business unit level without communicating

this with the corporate colleagues, which raises questions about cultural cohesion during those challenging times.

Both managers were asked if those new procedures were aligned or even communicated with corporate finance. They both responded negatively. This resulted in the situation that the leadership team in two business units installed new and alternative forecasting tools to manage and steer their business units through uncertain times of crisis without communicating those new ways of planning to the other colleagues in the organisation and especially not to the corporate finance team ("DBA Interview 2," 2023; "DBA Interview 5," 2023). Interviewee 2 explicitly outlines the view on an internal “world” of his business and another “world” of what the corporate finance team needs, saying,

> *“I have to navigate two worlds in one world is the corporate world and one is an agile world. And I need a budget for the corporate world and I need a system for the agile world, and I tried to fix them or try to link them as good as possible. But if I wouldn't be agile and kind of completely separate from the corporate, then probably I wouldn't need the budget this way, maybe for other reasons, because I have to provide to shareholders or stakeholders when needed. But for me to steer the team to company that Okay, our OKR system is clearly better than the budget.”*

Interviewee 5 stated,

> *“We are rolling forecast logic. Okay. So I already have my forecast already go into Q1 2024. And this isn't something we ever share with the group or group hasn't. The group officially, as far as the law is concerned, the world ends on the 31st of December.”*

When asked why those alternative models were not discussed with their colleagues, both managers drew a connection to the performance evaluation function of the budget in the form of the bonus system within Valora. Within the company, a bonus system is established, which offers variable payouts to eligible employees when specific goals are reached. Those goals used to be on a company level, including the EBIT of Valora Group, other company-wide key performance indicators, and specific individual goals. As mentioned in Interview 2, the goal setting was shifted to increase personal performance goals and decrease the company-wide element to initiate a reaction towards the fluctuations in company results and very different performances within the business units.

This phenomenon can also be found in the literature and is known as decoupling (Perez & Robson, 1999). Perez and Robson (1999) studied a European subsidiary of a North American car manufacturer and found that middle managers in the division participated in the official corporate budget to confirm the political necessity, but they showed a low level of “buy-in” and involvement. In 2015, Harrison et. al investigated organisational decoupling in the US steelworkers and defined it as the possible divergence of formal procedures and

everyday practices. They concluded that decoupling should be understood as a contingent outcome of local power struggles over work organisations as they respond to changing institutional fields (J. A. Harrison et al., 2015). Another study confirmed the logic of corporate groups and shadow business practices (Anker-Sørensen, 2022). What was found during the interviews supports the decoupling phenomenon mentioned in the literature, and hence, Valora should, going forward, pay attention to this.

In the other business units, the managers tried to steer the business through the uncertain times without a solid planning approach. This heterogeneous setup of planning approaches and activities between the corporate finance department and the two business units is not ideal, as the business units in larger corporations should be aligned to be as efficient as possible (Briggman, 2014).

In 2021, corporate accounting realised the traditional budgets were not useful anymore and installed a group-wide forecasting approach for cost and CapEx measures ("DBA Interview 3," 2023; "DBA Interview 4," 2023). The tool was described as,

> *"…and particularly since 2021, we've implemented a new process, or like, put a new planning item, or planning process into our whole approach of planning. And that's called the CCM. It's like, cost and capex management. So it's intra year and not in the full year view. But always for the coming months to have a very short term view on the next periods."* *("DBA Interview 4," 2023)*.

However, the forecasting tool was added to the traditional budgeting process. Although the new owners' (FEMSA) budgeting requirements were not yet fully understood at the time of the interviews, the budgeting process Valora must comply with in the future consists of an traditional budget and three forecasts throughout the year ("DBA Interview 7," 2023). Furthermore, it was found that the development of alternative forms of budgeting was justified by the inflexibility of the budget in place as the crisis occurred.

5.1.5 Usefulness of variable compensation

The manager's view on the variable compensation function described within Valora showed a clear picture. Almost all of the respondents said they do not believe in the current bonus system. *"I do not believe it at all."* ("DBA Interview 1," 2023), *"But in my view, that's a flawed system."* ("DBA Interview 2," 2023), *"..but currently, it is very bad."* ("DBA Interview 5," 2023), *"The individual has no real impact on overall EBIT."* ("DBA Interview 7," 2023) and even sarcastic statements like *"In good years, its applied, in bad years one finds arguments*

to still pay the bonus." ("DBA Interview 8," 2023), indicate, that the top management of Valora is not in favour of the current bonus system. Other interviewees stated, *"In general terms, I like the idea of having a rewards system that is bound to the budget, but I would prefer longer-term goals."* ("DBA Interview 6," 2023) or even *"…in general, it is a very important part of our reward system."* ("DBA Interview 4," 2023). So, only one of the managers agrees with the current system, whereas most senior executives are against it. This is surprising to a certain extent, as it's the senior management's task to set up the remuneration package for all employees. During the conversations, the critical assessment was, to a certain extent, further detailed and explained. Interviewee 2 stated*, "For top management, a variable portion on company goals is ok; for lower-level employees, more individual targets are important, and we do not have that within Valora."*. The literature (Osterloh & Frey, 2002) also discusses this impact on global company goals versus individual goals and mentions favoured longer-term goals. However, a more general aspect is looked at.

Frey and Osterloh (2002) asked, "Does pay for performance motivate employees?". Differentiating between intrinsic motivation, the self-driven motivation within every human being, and extrinsic motivation, one receives something for a specific action, which can be seen as key in their research. The dominant statement is that every human being is intrinsically motivated from the beginning. When extrinsic motivation is offered, like a variable bonus payment, they conclude that all intrinsic motivation is abolished and that only increasing extrinsic motivation offerings increases performance (Osterloh & Frey, 2002). In recent years, the topic has been researched in various settings, and it was confirmed that extrinsic motivational effects can increase productivity in a cohort of low-level workers in Africa (Ndudi et al., 2023). The study did not examine the impact on intrinsic behaviour after offering the external benefit. Abosch (1998) conducted a broad survey of many companies in the US and found inevitable confusion and mixed results from the sources. Some said that the variable pay helped to meet the targets, but others completely disagreed. So, it can be concluded that extrinsic motivation has positive performance effects with unclear outcomes towards the company goals and the potential risk that, once in place, it must be maintained as the effect on the initial intrinsic motivation is unclear in case of cancellation.

The literature also addresses the point raised by the senior management during the interviews that some favoured more long-term goals. Some research focused on top executive variable compensation schemes, which concluded that long-term goals ensure more strategic thinking in favour of the company than a short-term financial focus (Greene, 1997; R. Krause, 2009). The long-term goals for non-executive employees have not been

well-researched in academia. However, another critical element mentioned by the interviewees, the impact of individuals on global company goals, is a vast body of research literature. In Sri Lanka, it was found that the more specific the goal setting in a blue-collar environment is, the higher the performance increase (Wickramasinghe & Wickramasinghe, 2016). It was also found that there seems to be a connection between the percentage of variable pay and the increase in performance when the goals are specifically tailored to the individual (Bucklin & Dickinson, 2001). It was also investigated in age-diverse workforces that the performance impact differs between different age cohorts (Kollmann et al., 2020). Campbell (2007) found that global company goals have no significant positive effect on individual performance, which confirms the interviewees' sceptical position. It can be concluded that the critical viewpoint from Valora´s senior management addresses more long-term goals and a goal-setting process tailored towards the individual employee compared to company-wide goals, which is congruent with the existing research.

5.1.6 Impact of delisting and summary of Valora's budget process

Another element was also mentioned in most of the interviews. Valora is no longer a listed company as part of Valora´s acquisition by FEMSA. Prior to the acquisition, Valora was listed on the Swiss Stock Exchange with defined and regular requirements to report numbers and inform financial analysts and potential shareholders. The new ownership structure means that investors and the capital market no longer need a traditional budget for purposes like guidance and investor documents (Djamil, 2023). This aspect was mentioned to underscore that the interviewees would feel comfortable without budgets in this new situation. When looking at this argumentation, it is apparent that the requirement of a listed company to give plans and outlooks to the capital market is an external requirement and not something the internal management needs to steer the company. While the argument appears logically correct, considering whether the senior executives would miss something without a traditionalbudget is irrelevant. The external argument that budgets are essential for listed companies was justified by a comprehensive study in Brazil where the budgeting approaches were compared between listed and unlisted companies (Mendes-Da-Silva & Saito, 2014). The study's outcome is that listed companies require strong and professional budgeting capabilities to ensure guidance and feedback towards the capital market and the investor community. This element is non-existent for non-listed companies.

The budgeting process within Valora can be summarised as a five-month-long planning process that starts at the bottom and is consolidated at the corporate level. Review meetings are conducted, and possible counter-current process steps lead to the final result ("DBA Interview 4," 2023). Overall, the ambition level is an essential element for the quality of the budget in the eyes of the senior management team. During the crisis periods, the budget was not deemed flexible enough, and in some business units, individual forecasting approaches were created and added to the existing budgeting process. This particular behaviour was not aligned and sometimes not communicated on purpose because performance evaluation systems were in place. Furthermore, the strategic “North-Star” element was emphasised and is essential to the company. The existing literature review shows a high level of unity regarding concerns of budgets not being flexible enough and being static (Hansen, 2011; Hill, 2016). The motivation to create forecasting approaches which are not aligned and specific to the business unit is an exciting element for further investigation. The next set of questions discussed the COVID-19 impact on the business.

5.2 Impact of COVID-19

This section will analyse the impact of COVID-19 on Valora, how the different managers perceived it, and what happened to the traditional budget of the respective year. With respect to the impact of COVID-19 on Valora, the year 2020, when the pandemic hit, can be described as a very challenging one for Valora. The global impact and regulatory restrictions significantly affected the company. As the 2020 annual report outlined, it led to a substantial decline in customer frequency and overall lower demand, especially for food-to-go. The retail landscape for food is distinguished between on-the-go consumption, meaning the consumer eats the offering right away and at-home consumption, where the consumer takes the offering home and consumes it there (Jebarajakirthy et al., 2021). Earnings before interest and tax (EBIT) dropped from 91 million Swiss francs (CHF) in 2019 to 14 million CHF in 2020, which was an 85% drop in earnings (Annual-Report-Valora, 2021). Also, the free cash flow dropped by 50% from 76 million CHF to 38 million CHF. As part of the annual report, the group CEO stated that the EBIT of 2020 could only be generated by significant cost reductions in the entire corporation and because of supporting measures by the Swiss government (Annual-Report-Valora, 2021).

The main impact on the company resulted from the disruption to locations in high-traffic spots like airports, train stations, and city centres. Due to the pandemic, those locations

have either been restricted or fully closed as part of the COVID-19 policy measures. Over 60% of the 640 sales points within the Food Service division had reduced opening hours during the year (Annual-Report-Valora, 2021). The company introduced a cost and capital expenditure reduction program to counterbalance the effects of decreased customer frequency on cash flow and revenue as part of the overall crisis management and strategic agenda. As per the CEO, this program significantly contributed to the overall positive EBIT at the end of the year and avoided reporting losses. Moreover, the shareholders contributed to the strong cash flow by waiving the dividend payment for the first time in the last decade. Both emergency measures are communicated as being critical to the overall financial reaction during the first crisis year (Annual-Report-Valora, 2021). Another crucial element was short-time work, a political mechanism to decrease the likelihood of companies terminating employee contracts but reducing the hours and paying state compensation instead. Before COVID-19, this measure was limited to companies in critical situations, reduced qualification limits, and simplified the entire state-run program (Hijzen & Salvatori, 2022).

Another essential aspect of the Valora business model is rents to landlords, as all units are rented. Usually, the rents for widespread locations are high, reflecting the business potential. In times of lockdowns and reduced opening hours forced by the government to safeguard the population, the question arises of whether the landlord or the tenant has to “pay” for the resulting sales decrease. This discussion became especially important for Valora in connection with the landlord Schweizer Bundesbahn (SBB), the biggest landlord for point of sale at Swiss train stations. Many of the details of the conversations are confidential company knowledge. Still, the very close and strong partnership led to a situation where the pain of the crisis was shared between the two companies (Neuhaus, 2020). In combination, all the above measures and government support measures led to the company generating a positive EBIT in 2020.

Another significant measure was the shareholders' decision regarding the cash flow. For a long time, Valora shares were known for their solid dividend payout scheme, which was executed from 2010 to 2019. However, when the pandemic hit in 2020, the investors chose to forego the dividend payout to bolster the company's cash situation and support it in this challenging situation. This decision, a testament to the shareholders' commitment and adaptability, played a crucial role in the company's resilience during the pandemic (Annual-Report-Valora, 2021).

The responses by the interviewees to questions addressing the impact of COVID-19 were strongly reflective of the commentary above. In two interviews, the first expressions reflected that a physical threat was felt and that the fear for everybody's life was overwhelming at the beginning of the situation ("DBA Interview 1," 2023; "DBA Interview 3," 2023).

"Going back to February 2020. I felt very much responsible. But really, in the very beginning of COVID, I didn't think much about the business, I thought in terms of, it sounds ridiculous of looking back, but I wanted to save lives. That was my priority. I feared for everybody's life." ("DBA Interview 1," 2023)

The statement was reinforced by taking both hands in front of the face and shaking the head.

Interviewee 3 noted:

"*Yeah, I mean, this is a map on multiple dimensions. But I think starting with the people with management, I think the most severe impact was there was for the first time experience, literally a physical threat. But our people were still operating at the frontline and nobody knew whether that's a great idea to keep these doors open. And this was in the first place quite a responsibility because there's no guidance."*

This shock was felt by many senior executives, as other studies have outlined (Ho, Hofmann, & Schwaiger, 2023; Lamorgese et al., 2024). Over the first weeks, the focus was described as purely being concentrated on protecting the workforce at the point of sale. After ensuring employee safety, all of the interviewees outlined the severe business impact on the business. Losing over 90% of sales due to the shutdown of entire locations and a breakdown of public life led to a business hold within a few days. Especially in 2020, governments worldwide closed entire business sectors due to the density of people within them. Hence, restaurants and bakeries with seating had to be closed entirely, leading to a total sales loss.

The interviewees' body language showed clear signs of tension even after some time had passed since the peak of the COVID-19 crisis. The interviewees rubbed their heads and eyes and articulated how challenging the situation was. One interviewee said that his business unit went from record levels of utilisation to having the lowest number of orders for 30 years in only three weeks, shaking his head in disbelief ("DBA Interview 5," 2023).

"In a nutshell, we went from being at record levels of utilisation to having the lowest amount of orders coming in for 30 years in the space of three weeks." ("DBA Interview 5," 2023).

Others also underlined the immense decrease in sales in combination with no time to react and prepare. Hence, one of the managers said,

“I mean, nobody knew what was coming up, let's be honest. But just, I think the scattered showers I mean, we're well detected the signs, okay, something's really coming up here. I mean, nobody knew how, how, how tremendous the impact was the, I would say, people were getting in alert situation.” ("DBA Interview 6," 2023).

The interviewee raised both eyes and looked forcefully into the interviewer's eyes to reinforce the feeling described.

As a reaction to the new and significantly challenging situation, all managers initiated cost-cutting procedures aligned with governmental aid systems. Capital spending was kept to an absolute minimum. The safeguarding of employees stood out as the major concern during the first weeks of the pandemic and was monitored closely, but questions about the company's financial stability were also discussed early into the situation ("DBA Interview 7," 2023; "DBA Interview 9," 2023).

“And we were shocked when we did that plan with minus 20 and minus 10. So, the reality was that we lost around 80% of our sales, and there's no way you can be profitable at that level.” ("DBA Interview 7," 2023)

Interviewee 9 commented:

“And that was the time when we came to the, I would say exactly to the numbers for the financial institute, right, which defines the covenant which we have to achieve. And the other thing was the minimum of liquidity we need to run the business. And only this was the target. And to steer these numbers, you had only one thing that was capex, and the other was cost. And only these two numbers were very important.”

The central aspect many participants mentioned was bank covenants. Valora, as part of its financing structure, had bank loans, which usually require specific financial metrics to be met to comply with the covenants. In Valora’s case, it was a certain leverage ratio, an indicator of a company’s financial health, usually calculated as debt divided by equity or debt divided by capital (Billett, King, & Mauer, 2007). Due to cost-cutting measures and shareholders waiving the dividend payment, Valora was able to continue to comply with the covenant (Annual-Report-Valora, 2021).

As the interviews confirmed the challenging situation with the abovementioned aspect, the next question looked at the interviewees' knowledge of alternative budgeting approaches.

5.3 Knowledge of alternative budgeting approaches

All nine interviewees were asked during the interview process whether they had learned any alternative budgeting approaches, either during their academic education or professional experience. Overall, all of interviewees stated they did not understand alternative budgeting approaches from either their studies or professional lives. Considering the nine interviewees' extensive experience and education level, this situation was surprising. However, two interviews (Interview 3, Interview 8) mentioned that the Hilti model was taught in Swiss business schools as an example of an alternative budgeting approach.

"Hilti was always the example. This is now it's almost sad to say, 25 years ago and this is still the example today, right whenever I have mentioned that everybody refers to Hilti." ("DBA Interview 3," 2023).

Interviewee 8 said,

"…this Hilti model, this rolling, whatever they call it, I don't know. For me, as I said, this is still a budget but in a different structure you know, it's more this rolling part how fixed it is."

Hilti is a global machine tool manufacturer from Liechtenstein, which reported over 6.5 billion Swiss Francs of revenue in 2023 (Corp., 2023). During the beginning of the 21st Century, the company became known for abolishing traditional budgets and introducing parts of the beyond budgeting discipline (FMVA & Hessel Brouwer CMA, 2021). The senior management at the time articulated a strong position against traditional

budgets, outlining many of the above-discussed critical viewpoints towards the discipline. Particularly, they argued that traditional budgets are too static and not able to react accordingly when market circumstances change. Hilti also introduced an external goal-setting element that no longer compared against the prior year but against a benchmark of market figures. The goal was no longer to increase profit by 2% over last year but to increase it by 2 % over the market benchmark. With this change in how goals are set, the company implicitly factored changes in the market environment into their internal procedures (vom Brocke, Petry, Schmiedel, & Sonnenberg, 2014).

Although Hilti was used as an example of alternative budgeting approaches, as can be seen by the statement of the two Valora senior executives educated in Swiss Universities, it must be said that Hilti never really abolished traditional budgeting. It was still conducted lightly, and a rolling forecast model was added and updated every quarter, which updated the light budget (vom Brocke et al., 2014). Another element that has to be mentioned is Hilti's

ownership structure. The company has always been family-owned and never had the requirement of external capital market communication. This facilitated the company's decision to strive towards new alternatives. During the interviews, the two executives did not mention anything towards a specific alternative budgeting approach. Instead, they referenced the Hilti budgeting model, not having deep insights other than that the budget was done in another way. Later in the conversation, one of the interviewees revealed that he had been in touch with Hilti finance executives. His impression was that *"Hilti compiles a ' budget, like all other companies, only added the rolling forecast logic and told everybody they would do something new"* ("DBA Interview 8," 2023). This is only an individual statement but is of some relevance due to the seniority of the interviewee, especially within the Swiss finance community.

Overall, it can be concluded that neither the higher education of the nine senior executives interviewed nor their professional experience provided them with an insightful knowledge of alternative budgeting approaches. As outlined above, in the business world, not many companies have introduced alternative forms of budgeting, so the lack of experience can be explained from a business world angle. However, the lack of knowledge from the educational perspective must be looked at in further detail and builds ground for future research.

The next section of questions during the interview revolves around the usefulness of the traditional budgets that were compiled during the crisis years.

5.4 Usefulness of the 2020 and 2021 Budgets

After all nine interviews outlined the impact of the global pandemic on their areas of responsibility, the interviews continued by asking how helpful the traditional budget for 2020 was for the managers. All nine interviewees clearly stated that the 2020 budget was utterly useless and that they had not looked at the documents after COVID-19 started to impact the business. From *"Zero, niente, nada."* ("DBA Interview 1," 2023) over *"It was irrelevant."* ("DBA Interview 2," 2023) and "*In that year, it made no further sense to use the Budget."* ("DBA Interview 5," 2023) to "*I did not look at it at all."* ("DBA Interview 8," 2023) the statements made it very clear that the traditional budget which had been created in 2019 and should serve as the basis for 2020, was useless by late January 2020.

Looking at this situation, an entire company had invested significant resources in creating a budget for 2020, discussing it, having various counter-current loops, and finally agreeing on it. The company is then confronted with a crisis which makes the entire work obsolete. Consequently, investigating if anything would have been missing in 2020 without a budget, all nine interview partners answered no and concluded that they would not have reacted differently if they had not had a traditional budget for 2020. Only one interviewee (Interview 3) stated that due to the timing of the last budget discussion being only two months ago, the detailed knowledge of initiatives, cost drivers and strategic pillars was still known. Hence, a sound short-term reaction was facilitated.

The discussion around the unusefulness of the 2020 budget led to body language responses like shaking heads and comments like

“Really unbelievable how much work went into it.” ("DBA Interview 7," 2023)

After this recollection of the usefulness of the 2020 traditional budget, the next area of investigation looked at whether anything was changed for the 2021 budget. It could be assumed that when an entire corporation agrees on a dysfunctional outcome with significant resource input, the organisation changes the process to improve it. However, the majority of the respondents answered, *"No, we changed nothing”* ("DBA Interview 1," 2023; "DBA Interview 2," 2023; "DBA Interview 7," 2023; "DBA Interview 8," 2023). One interviewee stated that the approach was the same but was taken less seriously, with more room for errors or a more extensive safety cushion ("DBA Interview 3," 2023). One of the senior managers outlined that the process was much more top-down than in previous years, with stricter goal setting by corporate finance, which was articulated as:

“I would say, so there was it was a little bit more top down, I would say.” ("DBA Interview 9," 2023).

This analysis identifies that despite senior management abandoning the 2020 budget that had been significantly impacted by COVID-19 and was consequently outdated by virtue of being developed under different circumstances, Valora still went into 2021 with the same budget process and the exact resource requirements.

After a year of ups and downs and different lockdown and release requirements initiated by the government to protect citizens and help the economy (Marcel et al., 2020), the company entered the new year (2021). The fundamental anticipation underlying the budget process was that the situation would calm down and become more stable. However, in 2021, with new variants of the virus, the COVID-19 pandemic evolved into a race for vaccines to reach a level of immunity which reduces the risk of high mortality (Metzger et al., 2021). This

situation again led to unstable frequencies and sales, and the year became even more unstable.

During the interviews, it was discussed how valuable the traditional budget for 2021 was in addressing that year. Not surprisingly, all respondents stated that the budget was not at all beneficial in managing their business. Most commented similarly, *“Like 2020, not useful at all.”* ("DBA Interview 6," 2023). Throughout the interviews, the managers started reflecting on the relevance of the traditional budget in the COVID-19 situation and looking forward. Interview 9 stated,

“So with frequency analysis, home office effects, to provide the financial guys more with a view from the business and say, hey, that is most probably what happened.”.

The person ("DBA Interview 9," 2023) described that steering the company after two years in the pandemic was only possible by intensely analysing customer frequency data resulting from lockdowns or other impacts towards opening hours. Home-office work became a standard location option for employees to reduce infection risks in busy offices. According to the senior manager, this also led to a frequency change that needed analysis. Furthermore, the person explained that those business unit specifics to corporate finance became more critical so those colleagues could better understand fluctuations. Another interviewee ("DBA Interview 5," 2023) outlined that in early 2022, the business unit's management started initiating a rolling forecast mechanism for the next six months to provide some guidance in place for the traditional budget for the year. Here, the traditional budget was no longer used, and an alternative was initiated only on the business unit level. Whether the following model was shared with corporate finance or other business units was answered with *“No!”.* Similarly, interviewee two described the setup of an OKR system in his business unit, separate from the traditional budget and the only tool he worked with to steer the company through the crisis. The interviewee stated,

"The OKR system goes far beyond what we do in the budget process.” And further*: “It gives us kind of flexibility every three months to see, are we working on the most important things?” ("DBA Interview 2," 2023)*

Interview 3 identified a new way of looking at what budgeting means in the company. He expressed that the discussion about the budget validity in 2021 was almost cynical because it no longer had any relevance. The senior manager continued by saying that before the pandemic, the budget had a set of principles everybody had agreed to during the process. It was noted ("DBA Interview 3," 2023) that *“every group, every society, every living organism needs a set of principles.”* And it was continued that *“it´s like a constitution; in a country, you need to agree on a certain set of principles.”*

The interviewee outlined that the crisis had proven that the principles are more important than the actual budget result in EBIT and other metrics. It is said that a rolling model would give more flexibility to factor in new developments without losing anything compared to the traditional way. However, the executive says that this is not true for the constitutional element of the budgeting process, the “North-Star” element as it is called within the company, as that does not change so quickly. One interviewee commented,

“.., if the budget becomes too dynamic, it can lose the purpose of defining principles”. ("DBA Interview 3," 2023).

During the interviews, two respondents answered differently than the other seven interviewees, saying that only traditional budgets will give guidance and that, however you call other approaches, they will still be budgets ("DBA Interview 7," 2023; "DBA Interview 8," 2023). Both argue that resource allocation and the possibility of comparing it with a goal or target in a budget would not be possible without a traditional budget. One of the interviewees ("DBA Interview 7," 2023) later commented that rolling models might also be possible but poorly understood. The other interviewee outlines that a financial view is needed for investors and the capital market ("DBA Interview 8," 2023). During the interview, the distinction between budgeting functions made the position more explicit and focused the above statement on the resource allocation function. Hence, in two interviews, it was said that the resource allocation function is essential no matter what crisis his occurring; in seven interviews, all operational functions of budgeting were seen as unimportant.

During the primary research phase, it was again examined whether any changes had been introduced to the budgeting process for the fiscal year 2022. Again, most respondents answered this question negatively, further outlining that the budget process was always conducted for 2022 in anticipation of a slowing down of the pandemic turmoil.

Summarising the above, the budgets for 2020 and 2021 were not used due to the turmoil in Valora's market caused by the global COVID-19 pandemic. Most senior executives of the worldwide company stated that the reaction to the crisis would not have been any different without a budget. Throughout the interviews in this area, it became more apparent that the operative functions of the budget became obsolete, but the strategic function became more important. This finding contrasts a mixed method study conducted by Becker et al. (2016), where the opposite was found during the financial crisis, which started in 2008. The paper found that the planning and resource allocation function gained importance during the economic crisis. The study also found that the overall judgement on budgets is too broad and that the specific tasks of the approach must be looked at in further detail.

This thesis contextualises the converging findings on the relevance of the planning and resource allocation function, resulting in the magnitude of the crisis on the business. With an unforeseen global pandemic causing sales to break down by up to 80%, as outlined above, planning and resource allocation become obsolete as the magnitude is more critical, even business-critical.

The next set of questions during the interviews looked at the Ukraine crisis, which started at the end of February 2022. This crisis challenged governments and the business world differently than the COVID-19 crisis and is, therefore, another valuable situation to investigate in light of the research question.

5.5 War in Ukraine and its impact on the business

After the invasion of Ukraine by Russian troops in late February 2022, the global world and later its economies were faced with a new challenge, although the COVID-19 pandemic had not come to a complete halt (Obłój & Voronovska, 2024). The main impact, besides the political dimension of the invasion and the first war in Europe after almost seventy years of peace, was twofold. On the one hand, Russia used its power supply to many European countries as a weapon to counter the initiated penalties to the country after the invasion (Stoelzel Chadwick & Long, 2023). On the other hand, inflation rose to levels unknown to many (Maurya et al., 2023). On top of that, global supply chains came under pressure, especially for goods produced in Russia and Ukraine, such as wheat, yeast, and others. Due to the penalties imposed on Russia, for example, the ban on Russian harbours, massive amounts of containers became stuck in other harbours and caused consequential impacts on the entire logistics chain internationally (Cekerevac & Bogavac, 2023). This situation imposed many challenges on companies worldwide, which had to make sure that the products they needed for their own production or which they sold as part of the business model had been secured. Combined with rising inflation rates, purchasing prices got severely under pressure.

Due to the FEMSA acquisition of Valora in late 2022, no full-year financial report is available to analyse the impact the war in Ukraine had on the company compared to the years the company was still listed on the Swiss Stock Exchange. However, the last financial report officially published, the Half-Year Report of 2022, communicates no impact, and the word “Ukraine” is not mentioned (Valora-Adhoc_FEMSA-takeover, 2022). COVID-19 is still

outlined in some detail, but no word is said about the consequences of the war in Ukraine and its impact on the economy or individual businesses. This can be due to the time lag that impacts inflation and supply chains and the heterogeneity of Valora's business units. As described previously, the two divisions with very different operating models and target markets are retail, with only pure retail business and food service, with many food retail formats and one production unit. Hence, during the interview process, it was essential to look into 2022's impact on the business units and how the traditional budget for 2022 was perceived. Regarding the impact of the Ukraine situation on the business, a section of interviewees outlined that the impact was never significant; they continued saying that increases in purchasing prices resulted in increases in sales prices to cover the margin, so the burden was fully transferred to the customers. Interviewee 4 described,

"I would say, really the biggest impact was in terms of inflation, or costs, and especially Cogs development. And then especially in the very first step in the b2b business, where we have the production side and all the raw material that needs to be ordered and paid.".

One-third of the interviewees outlined that the production unit was hit very hard, significantly impacting the business model from both the energy and purchasing sides. In interview 6 it was said while nodding the head to reinforce the statement,

"And once you know, the Ukraine, and then this whole thing about flour, etc. was going completely wild. We kind of had this process already. "

The production unit within the Food Service Division commented on significant raw material, energy and other price increases, which could not be pulled over into sales prices with short notice and resulted in a margin decrease ("DBA Interview 2," 2023; "DBA Interview 3," 2023; "DBA Interview 7," 2023; "DBA Interview 8," 2023; "DBA Interview 9," 2023). In interview 7 it was said, *"I think we were the most affected was food service. "* and it was further explained, *"the production company say this kind of ingredients are getting more expensive. Prepare yourself for higher costs."* Interviewee 2 stated, *"Well, that was that was actually a bigger impact than the pandemic".*

However, it is important to note that the production unit is in Germany, where energy prices were significantly affected by dependence on Russian gas. In contrast, most retail units are in Switzerland, where the impact was less severe. One senior executive answered the question with *"very significant"* ("DBA Interview 9," 2023) and concluded that every supplier asked for price increases, and the energy cost increase was around 35%. Looking at the answers, it can be said that Ukraine impacted the central part of the company, but due to possible price increases on the sell side, the impact was far less significant compared to

the pandemic. For one business within the group, the production company's impact can be described as the next critical crisis after COVID-19.

During the interviews, the usefulness of the 2022 budget for the senior managers was examined. Again, a split between the businesses can be seen: many said it was more practical than the previous year's budgets, but due to the price increases in purchasing and sales, they all said it was not very useful. One manager said, "*For most businesses, it was not very useful."* ("DBA Interview 4," 2023). On the other hand it was outlined that the budget was utterly redundant after February as so many things changed. Following the conversation with one of the interviewees, the manager continued,

"Without the rolling forecast which we had introduced, we would have been lost just with the corporate budget" ("DBA Interview 5," 2023).

The impact on the German production unit, which produced bakery products, was especially significant because the war mainly impacted the main ingredient, wheat. A significant amount of wheat for the world market is grown in the Ukraine, and it was not always secure to have it shipped out of the region (Devadoss & Ridley, 2024).

So, although the Ukraine invasion had less of an impact on Valora and its businesses overall, all managers stated that the 2022 traditional budget was not very useful. This results in the same subsumption concluded in section 5.1: that all nine senior managers of the company assessed a significant uselessness in looking at the traditional budget the organisation had created for 2022.

Bringing the three years for 2020-2022 together, it can be summarised that Valora produced three traditionalbudgets as full-scale processes with significant amounts of time and resources invested, and retrospectively, the senior management concluded it was useless regarding the operational functions of budgeting. This confirms that the first significant finding of this research is that in times of significant crisis, the operational tasks of budgeting, planning and control, resource allocation and performance evaluation do not help manage and steer the businesses thoroughly as they are currently delivered by traditional budgets.

Next, this thesis will discuss whether and how the manager's view of traditional budgeting changed after 2020-2022.

5.6 View on budgets and VUCA

During the interviews, in most conversations, a certain level of disbelief was reached where the managers, in retrospect, realised what had happened over the crisis years. Statements about the significant amount of time and effort that had gone into creating the budgets, underscored with strong body language, showed how they questioned whether a new approach or alternative method should have been discussed. At this stage, it was vital to understand if the view of budgeting had changed over the years 2020-2023 given the reflection on the lack of usefulness of the budget that had been described. Comments like:

"The annual budget is not flexible enough." ("DBA Interview 2," 2023),
"As the CFO of the company, I would set clear macro assumptions to align the business units." ("DBA Interview 6," 2023),
"Budgeting after the last three years is a lot more top-down." ("DBA Interview 9," 2023) or
"We got prepared to work on forecasts and understand our business deeper." ("DBA Interview 7," 2023)

show that the executives had experienced changes in the way they look at budgeting.

A positive outcome from the crises was also mentioned in three interviews where the corporate understanding of the individual business model of the business units was mentioned as increased after the crisis years ("DBA Interview 1," 2023; "DBA Interview 3," 2023; "DBA Interview 5," 2023).

"*The Black Swan event changed the understanding, the corporate understanding towards a more frequently updated rolling forecast or however you want to call it." ("DBA Interview 5," 2023).*

Another learning was articulated:

"The learning element from the pandemic was that you looked more precisely on internal value drivers and business model setups. Less rigorously on trying to predict external behaviour like sales." ("DBA Interview 3," 2023).

All comments show that less effort is spent on the specific number but more rigorously on the value drivers of the business unit. Also, there seems to be an increased understanding of corporate finance for the business unit specifics as those drove the impact over the crisis years and were discussed and challenged to find the right path forward. This increased understanding between the business units and corporate finance can be seen as beneficial, especially in light of the earlier critical voices where two managers stated that they had devised alternative planning approaches but purposely had not involved corporate finance ("DBA Interview 2," 2023; "DBA Interview 5," 2023). It also must be noted that one senior

executive said that his view on budgets had not changed at all. The individual stated that COVID-19 was a one-time event and would never occur again. Hence, no new measures or approaches would be necessary ("DBA Interview 8," 2023). The same interviewee stated that the budgets of all three crisis years had been entirely useless, and nothing would have been missing without them.

As the majority of the interviewees confirmed changed views during the discussions, it was apparent that managers aspired to have alternative budgeting techniques and new solutions. In light of the FEMSA takeover described above, some of the managers stated that they hoped with the new ownership, planning horizons would be more long-term and that FEMSA would act in a way that leaves more freedom to the business units and Valora as a whole as long as agreed financial and strategic milestones are met ("DBA Interview 2," 2023; "DBA Interview 3," 2023; "DBA Interview 4," 2023; "DBA Interview 5," 2023; "DBA Interview 6," 2023). Interviewee 2 stated,

"what I hear and feel from meeting is that FEMSA has a much longer view in terms of planning than Valora".

Another noted:

"As I said before, they (FEMSA) have this one instrument is long range plan, I think, which is pretty good." ("DBA Interview 6," 2023).

It was also mentioned that FEMSA had already announced a new budgeting approach with a traditionalbudget plus three forecasts during the year ("DBA Interview 7," 2023). It was described as,

"Yea, next financial year and three midterm plan years since we being acquired by FEMSA, it's next four years." ("DBA Interview 7," 2023).

Although this process is new to Valora, it cannot be seen as a new way of budgeting, as outlined in this thesis. The FEMSA process does not address any of the disadvantages of traditional budgeting outlined but only adds three forecasts to a traditional traditional budgeting. Other hopes towards approaches under the new ownership were:

"I hope we can speak more transparently about financials with the team as the ad-hoc relevance towards the stock market is gone" ("DBA Interview 8," 2023),
"..less layers of approval, and a quicker process." ("DBA Interview 7," 2023) and
"The rigidness on creating numbers for the next financial year might decrease, and you might be able to allocate the resources and the time more to the value driver and integrated process." ("DBA Interview 5," 2023).

The value driver focus goes hand in hand with the strategic function of budgeting, which the company called the “North-Star” element. It was emphasised (Interview 1) as paramount when evaluating the advantages of the current process. This emphasis even increased after the years 2020-2022, as can be seen in the comment*, “ The “North-Star” becomes even more important after the last years”* ("DBA Interview 3," 2023). This means that the “North-Star” has gained in importance within the company after the crisis, and in light of VUCA, any alternative to the traditional way of budgeting has to address this strategy formation function of budgeting.

When the crisis years resulted in the described situation, budgets that had required a lot of effort to be created became obsolete. Still, because of a lack of knowledge of alternative approaches, no change was applied. This research looks at the manager's expectations of the developments in the future. Many academics (Kail, 2010; Mack et al., 2015; Worley & Jules, 2020) argue that the world will not return to the steady and plannable state it was in many Western countries for many years. The VUCA world concept is described in chapter 3.5. states that volatile, uncertain, complex and ambiguous times lie ahead of us (Worley & Jules, 2020), and if this is also the expectation of Valora´s senior management, the topic of this research becomes even more relevant. During the interviews, the VUCA concept was explained but not described in every detail as it is well-known within the company, as can be seen by the following statement: *“And I mean, we learned in a VUCA world which we introduced to the management team...”* ("DBA Interview 3," 2023).

When confronted with their estimation of the future, considering VUCA, all interviewees said they think the future will uphold different crises comparable to 2020-2022. Only one executive stated, *“Yes, but to me, COVID has nothing to do with VUCA.*” This is the same individual who stated COVID-19 was a one-time pandemic ("DBA Interview 8," 2023). All others commented strongly, such as: “*Yes, I am sure the world will not become less VUCA looking forward” (Interview 3)* or “*Yes, the world will stay very volatile, and we have to adjust” ("DBA Interview 1," 2023).*

The senior executives of Valora anticipate challenging and unpredictable times ahead, making managing their business units difficult. In interview 9, it was said:

“Absolutely. So I would say, after Corona, I thought. Really now it's over. So I see, there is never a normal world. So it's always changing.”

However, as shown, they do not all think that the operational functions of budgeting helped during the crisis years and, due to the lack of alternative approaches, have no solution for setting up the business as they advance. Also, the “North-Star” element of the existing

traditional budging process is essential and should be upheld. Additionally, it was shown that as a positive development, the understanding of the business unit specifics was increased through the crisis, and it is anticipated that this increased understanding will be beneficial in the future.

The situation outlined can be described as deadlocked in the current approach due to a lack of alternatives or knowledge of other options. The necessity to develop new ways of budgeting is underscored by the shared understanding that the VUCA world will continue to prevail. During the interview process, in three conversations with managers, a new dimension was discussed, which was not expected by the author of this thesis.

5.7 The skill set dimension

When discussing the topic of this thesis with the interviewees in three conversations, an aspect was mentioned and further elaborated on, which can be subscribed as the required skill set of finance people. During the reflection part of the conversations, when managers vocalised being disappointed about the current outcome of the traditional budgets, especially when taking the resources needed, it was also said that a critical element currently missing is the skill set of corporate finance functions. They need to understand the business model to understand and incorporate it into group-wide aligned new ways of budgeting and planning. One manager summarised this as:

“The skill set of people is crucial - they have to understand the business model.” ("DBA Interview 6," 2023).

Here, it must be explained that in corporations such as Valora, it is a typical setup that business units have local finance teams, although a central corporate finance function usually defines the logic of the budgeting process at the group level. Interviewee 6 described it as:

“So how you do budget is defined by a group controlling. And in general, that’s a CFO topic he defines, and you go.”

When corporate finance hires new finance people, those individuals will be trained and educated in traditional budgeting. Still, they do not understand the individual business model. Pre-pandemic, this effect or lack of deep business knowledge was not crucial as there was less volatility. Another senior executive stated,

"*What keeps me up at night related to budget the most is the impact on the culture it has.*" *("DBA Interview 3," 2023).*

This manager also mentioned the necessary change in the skill sets of finance people and the change the individual anticipates from a command-and-control type culture to a more participatory culture looking at planning. Another manager commented on the possible cultural implications of FEMSA as the new parent company originated in Mexico.

"And absolutely, culturally, this is another dynamic as seen with FEMSA, which tends to have a hierarchical system. The cultural decision in our situation in Latin America is some feedback from some Spanish and Mexican businesspeople I know. And they said, look, society has a lot of people, lower-end people with less education and a super elite on top. The super elite are used to thinking, making clear decisions, and being strategic, and they don't have a big middle management. Completely the opposite for Valora and Europe." ("DBA Interview 5," 2023).

All statements bring up the qualifications and skill sets of finance people, which they attribute to possible new budgeting approaches. This aspect is not currently covered in the academic literature and might also go hand in hand with the earlier raised topic of what is taught in business schools. The aspect can be summarised as follows. To implement new and more agile approaches of planning, which are flexible enough to produce valuable outcomes in times of crisis, the finance community must be educated in those alternatives during education and on the other hand, it will no longer be enough to understand the compilation of numbers provided by business units. The finance community of the future will need the skill set and the willingness to understand the value drivers of the business units within the company. For companies like Valora, with retail businesses, food production units, and consumer banking units in various countries worldwide, this necessity results in challenges when looking for talent.

During one of the interviews, the manager stated that if Valora does not assess its people's skill sets and confirm that the company has what it needs to go a radically new way, this new route should not be pursued. The company would be better off sticking to the current process ("DBA Interview 6," 2023). So here again, on the one side, it is apparent that the Valora senior management agrees that the traditional budget was insufficient during the crisis. Still, no clear way forward is envisioned due to a lack of knowledge within the management and skill set questions regarding finance people's understanding of business model value drivers.

After outlining and discussing the interview data, the section will outline the key findings.

5.8 Key Findings

The main question of this thesis is whether traditional budgets are helpful in times of crisis. The COVID-19 global pandemic and the war in Ukraine are two crisis triggers with different magnitudes and implications for the business world. This is true in the Swiss retail world, especially in Valora Holding AG. Specifically, the research aims to understand how companies reacted during the crisis regarding the budgeting process. Furthermore, the underlying decision drivers for the specific reaction were investigated. A key research objective was also to identify what expectations are associated with the operational function of budgets and to what extent the individual professional knowledge of budgeting approaches has impacted decisions made. Lastly, the research examined what managers have learned from the crisis and how it will affect future budgeting practices. From the preceding analysis of the interview data, this thesis has relevant findings.

5.8.1 How has the company reacted during the crisis concerning the budgeting approach

Within Valora, the common budgeting practice is comparable to many other companies in the business world (Arnold & Artz, 2019). A traditional traditional budget is created in five months in a bottom-up process with counter-current cycles between local units and corporate finance. Toward the end of the calendar year (usually in December), the board of directors approves the budget, which is used as a comparison basis for the next year. At the beginning of the year 2020, when the global COVID-19 pandemic started to develop and escalate out into the world, a significant impact on Valora´s business resulted from Swiss government decrees like lockdowns of areas with high footfall (Mesaric et al., 2022). Hence, the company's top line was impacted significantly, and immediate measures to cut costs and capital expenditures had to be imposed (Annual-Report-Valora, 2021 ; "DBA Interview 1," 2023). All of the interviewees stated that the traditional budget for 2020 was useless and was not looked at after the crisis started. It was also said that without the budget for that year, nothing would have been missing.

Throughout 2020, the pandemic developed in waves with ease of the safety measures towards the end of the summer to early autumn (Chetty et al., 2024). The preparation of the traditional budget for 2021 fell into this period, and nothing was changed in the process in anticipation of a more stable 2021. Towards the end of 2020, the next wave of lockdown

measures was introduced, impacting the first quarter of 2021. Again, this resulted in a significant impact on the company, and again, all of the senior executives outlined that the 2021 budget was *"completely useless"* as Interviewee 2 stated.

During the summer months, as people used outside locations more frequently, the infection rates dropped again, and the world was more prepared to anticipate increasing rates by the end of the year (Chetty et al., 2024). Also, the vaccine was developed, and more and more people received their vaccinations in 2021, further relaxing the situation (Tzenios et al., 2023). Within this period, the traditional budget for 2022 was compiled, again without any significant change to the process or approach. In late 2020, the corporate finance department and the CFO office within Valora introduced a new rolling method to plan cost and capital expenditure, which was called "CCM"; however, it was not linked to any of the traditional budgets but added to the to-do list of all impacted managers and finance professionals ("DBA Interview 7," 2023).

At the beginning of 2022, the pandemic was still not overcome, and a further crisis/disruption occurred. In late February of that year, Russia invaded Ukraine, resulting in impacts on supply chains, inflation-driven price increases, and, in some countries, very challenging energy price situations (Tong, 2024). This war within Europe impacted the different business units within the Swiss company; however, it did not impact them equally. The retail division reported no significant impact other than purchasing and energy price increases, resulting in sales price increases but no real effect on margin (Valora-Adhoc_FEMSA-takeover, 2022). The production unit within the Food Service Division commented on significant raw material, energy and other price increases, which could not be pulled over into sales prices with short notice and resulted in a margin decrease ("DBA Interview 2," 2023; "DBA Interview 3," 2023; "DBA Interview 7," 2023; "DBA Interview 8," 2023; "DBA Interview 9," 2023). In interview 7 it was said, *"I think we were the most affected was food service. "* and it was further explained, *"the production company say this kind of ingredients are getting more expensive. Prepare yourself for higher costs."* Interviewee 2 stated, *"Well, that was that was actually a bigger impact than the pandemic".* Although the impact of the war in Ukraine was very different to that of COVID-19, almost all of the interviewees stated that the 2022 traditional budget was still not useful. During the interviews, it was clear that all operational functions of budgeting became obsolete after the pandemic and the Ukraine war, as all interviewees commented that the budget was useless and most had not introduced alternatives to their business units. This finding contrasts with the study by Becker et al. (2016), which found that the operational functions of resource allocation and performance evaluation became more critical considering the financial crisis (Becker et al.,

2016). The difference could be in the significance of the economic crisis compared with the global COVID-19 pandemic, but this also builds the ground for further research.

However, four senior managers specifically mentioned the importance of the strategic function of budgeting, which was called “North-Star” element, as still being an essential function of the budgeting process, which they all want to preserve ("DBA Interview 3," 2023; "DBA Interview 5," 2023; "DBA Interview 6," 2023; "DBA Interview 9," 2023).

Looking at the executives' reactions, it can be summarised that only two managers initiated alternative forecasting models within their units. On the one hand, a rolling forecast was aligned with the traditional budget to a certain extent (Interview 5). On the other hand, an OKR system was put in place, completely separate from the official budget ("DBA Interview 2," 2023). All other managers commented on a deeper understanding of the business drivers and had to deliver on the corporate CCM model, but no fundamental approach was shown.

To conclude this first research objective of this research, it can be said that the company showed no aligned approach towards a budgeting alternative other than the CCM, which was not aligned with any of the budgets. In only two business units, alternative approaches were developed individually, and those were not shared with corporate finance on purpose. This confirms the decoupling phenomenon found earlier in the literature (Perez & Robson, 1999). As the “North-Star” element, which stands for the strategic function of planning, was paramount for many of the managers, the traditional annual budgeting process was conducted in all crisis years without any adaptation. This finding confirms earlier research (Spraakman et al., 2023) by confirming the importance of the strategy formation function. It adds to the research conducted by Langfield-Smith (1997), which researched the relationship between management control systems and business strategy and concluded that the knowledge of this relationship is limited. Hence, this thesis finding indicates that, business strategy is key for managers even in crisis times, and even more critical than the MCS tool box (Langfield-Smith, 1997). . Especially, because the senior managers agreed on its uselessness for three consecutive years.

The research question of this thesis can hence be answered clearly, as traditional annual static budgets are not functional during a crisis.

In light of the management control theory, this finding results in a serious state of need, as budgets are an essential element of the management control systems (MCS) introduced above. When those become dysfunctional, managers lose an integral part of their company

management toolbox. The necessity to develop alternatives occurs immediately, but in the case of Valora, it can be concluded that only two managers developed alternative methodologies, and all others relied on the CCM tool installed centrally by the CFO office. This finding should lead to a more intense discussion about budgeting alternatives, as it is an integral part of the management control theory. The above finding furthermore supports earlier academic research results asking for alternative approaches post-COVID-19 due to the limited usefulness of traditional budgets (Metcalf & Gupta, 2021; Porter & Yeh, 2021).

The next objective of this thesis was to determine the underlying decision drivers for the possible action.

5.8.2 What were the underlying decision drivers for the action taken

During the interviews, it became apparent that only a few business unit managers had initiated specific actions or introduced new budgeting approaches. From the corporate finance and the CFO office side, the cost and capital expenditure (CapEx) tool “CCM” was introduced to cut and manage costs and CapEx as quickly and efficiently as possible. The underlying reasons or decision driver for this can be found in a comment from Interviewee 3, who stated,

“But cost we can influence and CapEx we can. So, we introduced that. And this became kind of a rolling forecast thing, of, CapEx and cost.”.

The rationale for introducing CCM was that the resource allocation function was no longer provided by the traditional budget, which was upheld, nevertheless. In a situation with a significant impact on sales, cost and CapEx are the most essential elements that can be influenced as a reaction to the crisis's impact. An interesting dynamic was described when the manager outlined that the tool had been discussed over the years and asked whether it should still be in place or abolished.

So, the CCM was established as a crisis management tool, which was later not abolished as many in the company realised how valuable the rolling approach was in adapting to changed circumstances. However, no other senior executive explicitly mentioned the tool during the interviews and identified it as a new way of budgeting and planning their business. Two managers commented that they had introduced specific alternative models to steer through the crisis years. In one business unit, an OKR system was established ("DBA Interview 2," 2023).

The interviewee also commented on how the OKR system differentiates from the annual traditional static budget by saying that the OKR system goes beyond the traditional budget because it defines goals and targets down to individual teams, and at the same time, also includes the strategy formation function.

It is described as a rolling model updated every three months and broken down into individual team goals.

Another senior executive elaborated on introducing a rolling forecast model ("DBA Interview 5," 2023). The individual outlines the concern that a plan tied to a fiscal calendar does not pay enough attention to the beginning of the next fiscal year. Furthermore, the flexibility of the rolling forecast, which can be adjusted monthly, is mentioned and deemed essential in times of turbulence ("DBA Interview 5," 2023).

This research objective concludes that cost and CapEx reduction requirements drove the centrally initiated CCM due to the significant business impacts. Furthermore, two individuals have introduced alternative budgeting forms (Rolling forecast and OKR) explicitly without communicating this to corporate finance which supports the decoupling phenomenon discussed in the literature and contributed incrementally by showing that decoupling also exists in the Swiss business world (Perez & Robson, 1999).

Many business unit managers later appreciated this as they realised the benefit of the tool. However, it was not understood as an alternative to the traditional budget because corporate finance initiated a discussion to abolish the tool. The individual planning approaches, an OKR system in one business unit, and a rolling forecast in another business unit were undertaken to address the challenging situation and steer the business successfully through the challenges. Those two budgeting alternatives confirm the academic discussion around them (Hill, 2016; Rieger & Luge, 2024; Vellore, 2022). In the comments of the manager discussing the OKR system, operational and strategic functions of budgeting are addressed, which should lead to further research into the field of OKRs.

The next objective this thesis investigates is the expectations of the operational functions of budgets.

5.8.3 What expectations are associated with the operational functions of budgets

The literature (Arnold and Artz, 2019) describes operational budgeting functions as planning and control, resource allocation, and performance evaluation. During the interview, all managers outlined their understanding and expectations regarding those functions.

The planning and control function is a common approach in many businesses and within Valora as well, as can be seen from the budget process outlined in Chapter 5.1. Deviations are usually shown monthly, right after the month-end close is compiled. With the deviations “on the table,” the management team can initiate corrective action to get back on plan. It was made clear that it is vital to understand the business drivers and strategic initiatives to a high degree to develop a relevant budget. It was also commented that the target must be realistic but challenging to create a specific “buy-in” from all team members. The senior executives communicated the expectation that all variances, which are later compared between plan and actual figures, must be well understood. It became clear that all interviewees were experienced in creating and analysing data and had a generally very high understating of the planning and control function.

The resource allocation function was also well known, and during the interviews, it became apparent that the senior executives were familiar with it and had applied it regularly. Most interviewees also stated that this function is essential for deciding what is necessary for the business and, hence, where resources should be allocated. However, during the pandemic, which significantly impacted the business, the established logic of how resource allocation was conducted was obsolete, and the participants no longer deemed it essential for steering their areas of responsibility. With the introduction of the CCM by the CFO office, it can be argued that the resource allocation function was centralised by the group and taken away from the business unit level due to the resource constraints caused by the crisis. This could be further emphasised as the CCM was still in place after the COVID-19 pandemic, as the business unit responsible realised the benefits of a forecast logic with a three-month horizon, allowing them to react to changes in the business environment.

For the performance evaluation function, all of the interviewees stated that the current bonus system at Valora was useless and should be abolished or adapted to shift towards more individual goals and fewer group targets. Currently, the system is based on Valora Holding AG's goals compared to the budget and the business units' financial goals

compared to the budget. During the interviews, it was questioned whether an individual can impact the entire company or if goals should be more individualised.

The performance evaluation function was the most critical during the interviews. A general question about the usefulness of external compensation elements was asked, and the answers were comparable to the literature, as outlined above. Following this finding adds incrementally to the work of Frey and Osterloh (2002) in confirming and strengthening the critical viewpoint towards pay for performance models.

The question of to what extent the individual professional knowledge of budgeting approaches impacted the decision to keep the traditional budget should be examined from two angles. On the one hand, two managers introduced alternative models, a rolling forecast approach, and an OKR system ("DBA Interview 2," 2023; "DBA Interview 5," 2023). Both senior executives stated that they had no prior knowledge from their academic education on those alternative models but had heard of the OKR approach from companies in Silicon Valley and the rolling forecast model during earlier work experiences. On the other hand, none of the other managers introduced new planning approaches; they relied on the CCM tool, which had rolling forecast elements.

Fundamentally, experienced managers who have not encountered alternative budgeting approaches will be reluctant to try something new during low pressure because the imminent need does not exist. In times of crisis, as this thesis showed, the likeliness of new tools is limited due to other priorities. Many executives have realised the need for new planning approaches, especially after the COVID-19 global pandemic and the war in Ukraine.

Those alternatives should deliver on the operational functions of budgeting of planning and control and resource allocation. Alternatives should be flexible to adapt to changes occurring and the strategy formation function also has to be part of it.

In conclusion, further research is needed to understand the extent to which alternative budgeting approaches are taught in business schools. The results of this research indicate that it is essential that these are incorporated into business school curricula to prepare future executives with a broader set of tools to be better prepared in the expected VUCA world, which will confront managers with volatile, uncertain, complex and ambiguous new challenges. This finding also has to be strengthened in the light of the contingency theory. As outlined above the main contribution of contingency theory is that due to the complex environments and circumstances companies operate in, the way they have to be managed

and steered is very unique. Having said this, the critical question can be asked, how traditional budgeting could find such a wide distributing into basically most companies in the world although contingency theory clearly point into far more curtailed solutions.

The next objective this thesis investigates is the possible lessons the executives gathered during the crisis and potential changes that might be derived from them.

5.8.4 What have managers learned from the crisis, and how will it impact budgeting in the future

Throughout the interview process and the data analysis, it became apparent that all interviewees reflected on the research question to a certain extent. This showed both the high relevance of the topic in general and the executives' high involvement with budgeting. The COVID-19 pandemic, as well as Ukraine, had a significant impact on the company, as outlined in sections 5.2 and 5.5. Hence, what was learned from those critical years was an essential aspect of the interviews. When confronted with the question what learnings the interviewees drew from the crisis it was outlined that the value drivers got more attention and the managers had understood their businesses to a deeper level. **The described learnings and impact on the future of budgeting within the company showed that the understanding of the business has shifted towards a deeper understanding of the business's value drivers. This can be understood as a positive outcome, as a deeper understanding of the business model is beneficial in any situation.**

At the same time, it also negatively reflects on the traditional budget as the statements show a lack of deep understanding of its requirements in times of less turmoil where traditional budgets were valuable.

Another interviewee stated from a different angle and outlined that,

"Budgeting after the last three years is a lot more top-down" ("DBA Interview 9," 2023).

On the one hand, some say the business understanding is intensified, and others state the budget is more top-down than this. This also shows the individual reactions of the managers. Some took on more initiative and created alternative budgeting approaches, whereas others relied on a more top-down approach and relied on what was provided and expected by corporate finance.

Another learning element outlined reflected the forecasting approach introduced with the CCM tool to all business units.

It reflects the manager of one business unit who introduced a complete rolling forecast logic to the business unit. This can also be understood as a learning, as this executive sees the rolling forecast as helpful in steering the business, whereas the traditional budget is useless.

Another manager introduced a new tool to steer the business: an OKR system, which can also be seen as a learning tool for the future. The interviewee stated during the interview,

All reactions show that the interviewees first had concerns about the traditional budget, secondly that an OKR or a rolling forecast system is better for business and that the planning horizon should cover not only 12 months but more. Overall the reaction observed leads into tailored budgeting systems towards the specific needs of the organisation or sub-sections of it which follows what the contingency theory describes at its core.

However, new budgeting approaches might require new skill sets for finance professionals.

5.8.5 Skill set of finance people

As outlined above, during the interview process, some managers mentioned another dimension, which further complicated the solution.

It was described that over the crisis years, corporate finance employees had to understand the business drivers in much more detail than in past years due to the more frequent changes and resulting coordination at the group level.

This required understanding adds another level of skills necessary to finance people as it is no longer sufficient to handle big data and align planning results.

Furthermore, it requires the willingness and capability to understand different business models. Companies like Valora, with multiple business models, countries and dynamics under one umbrella, require mentally very flexible people who shift towards business understanding and away from pure financial skills. This requires finance professionals' education and early job experience to focus more on specific business models and be closer to the business than currently seen in companies like Valora. The interviewees vocalised significant doubts regarding this requirement. Hence, this lack of skilled and experienced

professionals, in combination with the lack of knowledge of alternative models and a more recent requirement triggered by the crisis described, can be seen as the answer to missing alternatives which have not found their way into the business world.

This finding goes hand in hand with the conclusion of a relatively new research into the area of finance profession skill sets (R. Lawson & CSCA, 2020). A global survey study of over 1400 accounting and finance professionals found that the business focus after COVID-19 shifts towards cash forecasting and management and risk management, which will require different skills by finance professionals.

Overall, it can be concluded that this thesis showed that traditional budgets were of no use during Valora's crisis years. It confirmed the diverse concern that traditional budgets are too static and inflexible to incorporate changes in the business environment and that the resources invested are not deemed reasonable. Also, the strategic element, called “North-Star”, within the company is associated with the importance of setting aside time for the long-term plan of the company and the main levers.

6.0 Conclusion, recommendations and future research

This chapter identifies the research's objectives (Section 6.1) and summarises the findings (Section 6.2). It also discusses the contribution to research and the implications of the findings (Section 6.3) before discussing limitations of this research (Section 6.4) and providing avenues for future research (Section 6.5).

6.1 Objective of the research

The start of the global pandemic in 2020 and the years of significant impacts on international societies that followed, and the war in Ukraine in February 2022, meant that the world, particularly Europe, has been faced with prolonged turmoil. During these challenging times, the question of whether traditional budgets were able to deliver on their core functions and support managers in directing and operating businesses became even more relevant. Of note was the inflexibility of traditional budgets and their inability to adapt to rapidly changing circumstances. Subsequent to changes in the political landscape in the post-Cold War era, the US military had similarly faced rapidly changing threats. This more or less constant state of instability at the edge of chaos was given the acronym VUCA (volatile-uncertain-complex-ambiguous) and is understood as the new normal for the modern environment (Bouée, 2014). This concept quickly gained traction in the business world, emphasising that today's environment will continue to be unpredictable. As a result, managers must develop strategies to navigate constant change and uncertainty effectively.

The existing concerns about traditional budgeting, particularly its inflexibility, together with the VUCA circumstances that are currently prevalent, lead to the research question of this thesis:

Are traditional annual static budgets functional during crisis?

The research objectives are to understand how companies responded during the crisis regarding their budgeting processes. Furthermore, the underlying decision drivers for the specific reaction were investigated. A key research objective was to determine the expectations associated with the operational function of budgets and to what extent individual professional knowledge of budgeting approaches has influenced the decision. Another research objective was to examine what managers have learned from the crisis and how it will affect future budgeting practices.

The research was conducted using a case study approach, whereby the top management of the Swiss retail corporation Valora Holding AG was interviewed regarding the research questions. The engaged scholarship philosophy, introduced in chapter 4.2, a participatory research method aimed at transferring academic findings into practical application, was used. The following section will summarise the key findings.

6.2 Key findings

Traditional budgets are useless in times of crisis, as outlined above. This appears to be especially true when the respective crisis has a significant impact on the business. However, the VUCA world concept is widely accepted, and many envision a future marked by turmoil, crisis, or significant technological impact (e.g., AI). Today, most companies worldwide still employ traditional budgeting methodologies, despite many being dissatisfied with them. Considering the contingency theory, it can be questioned why companies have not started to try alternatives earlier and find their individually most efficient set of methodologies but still rely on the traditional way. In market economies, management control systems remain essential for guiding a business. Budgeting is a key component due to the operational functions introduced and discussed above. Therefore, one way of argumentation can be that managers need budgeting to steer their business; however, many have no experience in alternative forms of budgeting, neither from their education nor from prior work experience. Some managers, on the other hand, are keen on using alternatives like rolling forecasts or OKRs, but because of the impact on the performance evaluation (“bonus”) function or simply the lack of trust in corporate finance, they do not talk about it and strengthen the decoupling phenomenon. Trying alternatives is not common, as there may be an insecurity due to a lack of knowledge and a missing skill set among finance people. During the crisis, alternative top-down approaches, such as the CCM tool, were effective and helped, but they were never fully incorporated as viable alternatives or further developed after the crisis's impact decreased. Hence, the key finding of this thesis can be summarised as:

Organisations believe in the VUCA world, and considering contingency theory, they should try using the existing budgeting alternatives and find the best individual solution. This alternative has to deliver on the planning and control and the resource allocation function, be flexible to incorporate changes and include the north star element for longer-term

strategy formation. They should also upskill their people to lose respect for other options and become more agile in VUCA times.

The findings will be described in more detail below.

First, the research looked at how managers reacted to the budgeting process during the crisis and what underlying decision drivers were for the reactions. **The traditional budgets for 2020-2022 were not useful** from an operational perspective for most of the senior executives interviewed. As outlined above, creating a yearly budget within the company takes five months. It involves all business unit finance departments, and the business unit heads, so there is a significant time commitment. Considering those invested resources, it was astonishing that the managers stated they would not have missed anything without traditional budgets for those years. Although the interviewees commented that the traditional budgets were useless from an operational perspective**, the strategy formation function, called "North-Star" within Valora, was essential as it prepared for the crisis because of the alignment and the understanding of the key business levers.** The "North-Star" within Valora was found to be necessary because of the process it requires. This element of the budgeting process requires all involved to think deeply about the key strategic levers of the business units, which aligns all involved. It was also said that due to this alignment, the reaction after the crisis hit was more straightforward because the key areas of importance were all business.

Bringing the three years for 2020-2022 together, Valora produced three traditional budgets as full-scale processes with significant amounts of time and resources invested, and retrospectively, the senior management concluded that they were not useful with respect to the operational functions of budgeting. This confirms that the **first key finding of this thesis is that in times of significant crisis, the operational tasks of budgeting, planning and control, resource allocation and performance evaluation do not help manage and steer the businesses using traditional annual static budgets.** However, **the strategy formation function of budgeting was deemed highly important** as management emphasised the essential understanding generated during the process as necessary.

The research evaluated the expectations associated with budgeting functions and how the individual professional's knowledge of budgeting approaches impacted the reaction during the crisis. The interviewees deemed all three operational functions of budgeting, planning and control, resource allocation, and performance evaluation to be well known to them and of use to different levels. The performance evaluation function within Valora is a

combination of company-wide goals and individual business unit financial goals that were formed, and all managers evaluated the current process as entirely useless. The resource allocation function was commented as , but also meaningless in times of crisis, as the magnitude shifted entirely away from the usual practice of allocating within set budgetary boundaries. It was also found that the corporate controlling department, headed by the group CFO, had introduced an obligatory tool (CCM) which centralised the resource allocation. Planning and control were also well-known to all study participants, but they were irrelevant due to the magnitude of the crisis. It can be summarised that the operational functions of budgeting were known to the interviewees but lost relevance during the crisis.

It cannot be said in detail what managers have learned from the crisis and how it will affect future budgeting, but relevant findings have evolved and might indicate some possible future implications. Overall, it was found that the years of **crisis led to an increased focus on the value drivers of the business units**. This meant that managers had to understand their business during the crisis to ensure that the correct measures were initiated. At the same time, some individuals relied more on a top-down budgeting approach and took no initiative. This could indicate a different level of ambition or be intertwined with individual knowledge and, hence, capabilities to react. Furthermore, the rolling forecast logic was positively commented upon, and hence, **a finding of the research is that more frequent planning cycles, not an annual one, should be incorporated and become part of the planning agenda**. On one hand, this was introduced with the CCM tool by corporate finance and, on the other hand, introduced in one business unit as an entirely new approach of steering the business.

Two responsible business unit managers introduced alternative budgeting forms without purposely communicating them to the central finance department. A rolling forecast model was introduced in one of Valora´s business units, and OKR systems were introduced in another. Both interviewees' argument not to share those new systems with the group controlling was the performance evaluation logic on the one side, as the ambition of the latest systems was higher than the official annual traditional budget and hence the hurdle for a bonus increase. On the other hand, they argued that the corporate finance department would stick to the traditional budget anyway. Here, it can be clearly stated that within Valora, decoupling took place in the form of different budgeting approaches without communication and alignment because the traditional budgeting was seen as the corporate or official way that had to be executed, regardless of its usefulness.

Furthermore, the thesis analysed that **none of the nine senior executives understood alternative budgeting approaches**. Although two Swiss-educated executives mentioned the “Hilti model,” none of the other interviewees recalled educational or business experiences from earlier positions in different companies that confronted them with alternatives to the traditional budgeting practice. Two executives outlined alternative approaches they had introduced in their areas of responsibility. They have not presented those as genuine alternatives to the traditional approach.

An additional finding of this thesis was a new element added by some interviewees as part of the interview process. When discussing alternatives to traditional budgeting with the interviewees, it was found that **the managers anticipate a people skills issue for a new finance professional required in organisations.** The rationale was that all systems that are not static but can adjust to changes in circumstances require people who understand both the finance side of budgeting and the business model of the unit in question. For traditional budget processes, finance people in group finance departments today do not require deep knowledge about the business units' specialities because their job is the compilation of the numbers to derive a complete budget set. For more flexible budgeting systems, which require more frequent changes and adjustments, the interviewees envision **finance people who combine the skills of finance professionals with a deep understanding of the business model**. This finding can build fruitful ground for further research.

Overall, this thesis delivered profound findings that contributed to academic and business research.

6.3 Contribution and practical implications

Research on budgeting has questioned the justification of immense amounts of resources required compared to its benefits (Hope & Fraser, 2003; Libby & Lindsay, 2007). Considering various crises, the questions have become louder (Becker et al., 2016; Bunget, 2021; Hendieh, 2023). However, most international businesses still have the traditional budget practice because the alternatives do not deliver on everything that is required and even more importantly, because the people in charge lack the experience and knowledge or alternatives.More profound alternatives, like beyond budgeting, were discussed frequently, and some businesses tried to adopt them. Still, there are also cases of companies that have shifted back to the traditional way, primarily because of a change in

the people in charge (Becker, 2014; Bucklin & Dickinson, 2001). In light of the COVID-19 pandemic, its unprecedented impact on the world, and the Ukraine war, 2020-2022 has built fruitful ground to address the question and learn how managers view budgeting in times of significant crisis (Bunget, 2021; Hendieh, 2023).

6.3.1 Empirical contribution

This thesis adds to the existing literature by conducting qualitative research with semi-structured interviews with a Swiss retailer with international operations. The case study approach generated deep insights into a large corporation in Switzerland during COVID-19 and the Ukraine war, which significantly impacted the company. The managers confirmed the concerns outlined in the literature (Hope & Fraser, 2003; Libby & Lindsay, 2007) that the resources required to create a traditional budget do not justify its benefits.

Furthermore, the thesis contributed to academic research with the proof of a multinational corporation's senior executives concluding that three years of the traditional l budget were not useful. This finding contradicts the study by Becker et al. (2016), which looked at budgeting during the financial crisis and concluded that planning, control, and resource allocation functions had gained importance. This might be due to the difference in significance on the business between the financial and COVID-19 crises. At the same time, this thesis confirms that the performance evaluation function decreased in importance during the economic crisis, which was also an outcome by Becker et al.. (2016).

Additionally, detailed knowledge is added to the existing literature and extends it by examining the expectations towards the budgeting functions and working out the importance of the strategic formation function. This contributes to the studies by Spraakman (2023) and Langfield-Smith (1997)

The thesis confirms and incrementally adds to the concern around the variable payment function as outlined in the literature (Osterloh & Frey, 2002) and even agrees with Bykova (2023) as all interviewees stated that the current variable payment scheme practice of Valora should be abolished.

As part of the learning managers gained during the crisis years, the introduction of a rolling forecast and an OKR system in two business units contributed positively to the discussion in the literature around those alternatives (Hill, 2016; Huhtakangas, 2020; Rieger & Luge, 2024; Vellore, 2022).

In Spain, a survey study into over forty companies by Lorain et al. (2015), combined with in-depth interviews conducted during the financial crisis in 2008 and again in 2013, looked at how companies' reactions towards traditional budgeting were after the financial crisis. In the findings of that study in the 2013 surveys, a majority of the respondents said that the budget became obsolete after its approval because of environmental changes (Lorain et al., 2015). This thesis could confirm the earlier finding by Lorain et al. (2015).

A contribution to research is the skill set dimension of finance people, which is outlined as a requirement for alternative budgeting forms. This skill set dimension is critical to upskilling finance professionals with more profound business model skills, enabling reactions to quick environmental changes. This finding confirms the study by Lawson (2020), which also showed that the finance function desperately needs to be upskilled post-COVID-19.

The skill-set element closes the circle to another new addition to the research body: the finding that alternative budgeting approaches were not known. The reason for that is one of many implications of the research. It is emphasised that all companies look at alternative budgeting models to find the best one. In agreement with the contingency theory, the likelihood of a universal new budgeting solution is low.

6.3.2 Practical contributions

Since the interview phase, two interviewees have contacted the interviewer, asking about the status and the findings. In general, the researcher's impression during the interviews was that the topic was of very high interest to the audience, and none of the interviewees questioned the necessity of the study. The question of whether the traditional way of budgeting is still the right tool to steer through the VUCA world has been asked many times. However, with the global pandemic and a war in Europe, the world has increased uncertainty and impacted businesses.

One of the practical contributions of the thesis is the proof of unnecessary resource consumption by traditional budget compilations in times of crisis. The thesis proved that traditional budgets (for 2020-2022) were compiled and, ultimately, completely useless. This contributes to the business world in that sense, as is emphasised by the urgent need for alternatives and change, which confirms a vast research body (Espolov et al., 2023; Güngör Göksu, 2023; Hendieh, 2023).

Furthermore, the thesis contributes to the expectations managers have towards the operational functions of budgeting. In summary, it was found in this thesis that the planning and control and the resource allocation function are of high importance and an essential element of the toolbox that managers need to steer their business (see section 5.8.3). This was further strengthened by the fact that managers outlined they had understood their business unit value drivers more deeply during the crisis and that this will be key for future professional development. Additionally, the performance evaluation function should be abolished. It should no longer be based on Valora's budgets, as all of the corporation's managers stated they do not believe in the performance evaluation system. The management of Valora should abolish it and start a process to establish a new remuneration logic for the entire company, which confirms earlier research (Bykova et al., 2023; Osterloh & Frey, 2002).

The strategic functions of budgeting clearly show that the strategy formation function ("North-Star") is paramount for the organisation (see section 5.1.2). Although research into the strategy formation function in times of crisis is missing, prior literature can still be confirmed and incrementally added to, outlining its paramount importance for companies in the business world (Collins et al., 1997; Spraakman et al., 2023). It can be concluded that a new way of budgeting should deliver on the strategy formation function, planning and control, and resource allocation. For the operative functions, it is key to have a flexible and more frequent way to adjust to environmental changes.

Two managers had introduced new budgeting approaches within their business units, such as a rolling forecast and an OKR system. Both can be seen as possible alternatives for companies going forward, as also found in earlier research (Bochert et al., 2022; Hill, 2016; Huhtakangas, 2020). Both managers, on purpose, decided not to communicate their alternative budgeting methodologies to the corporate finance team. This supports the decoupling phenomenon also found and discussed by Perez (1997).

In two cases, the interview process created a confident expectation of a new solution based on this thesis. The managers followed up sometime after the interviews, asking if the findings could be shared and if something came out. This shows an eagerness to change and a lack of knowledge about what to do differently among the top nine managers of the global corporation.

A key implication (section 5.8.5) is that people's financial skill sets might have to change for more flexible budgeting. Besides the finance skills, the requirement of deep business model knowledge or the capacity to understand business models is an additional element that

must be integrated into the business school curriculum and the introduction and development processes in organisations. Prior research has also found the necessity to upskill in finance departments to react to COVID-19 (R. Lawson & CSCA, 2020). Furthermore, the current business school curriculum, in general, has to be looked at to ensure that alternative budgeting models are also part of business student education.

Following the engaged scholarship model introduced in section 4.2, this research conducted a participative form of research to obtain the different perspectives of all involved stakeholders. Hence, the recommendation in the following section is tailored explicitly to Valora and builds on the researcher's deep understanding after analysing the transcribed interviews and comparing them to the existing literature. The engaged scholarship approach focuses on practical problem solving, which could be proposed and recommended.

6.3.3 Recommendations

This research adopted the engaged scholarship model to study a complex real-world problem. As a consequence, it is incumbent on it to inform a potential solution/s for the problem. Looking at the outlined challenges, traditional budget approaches no longer deliver what is expected of them in times of crisis. As senior executives anticipate what is known as the VUCA world going forward, it can also be concluded that the requirement for new solutions that help managers steer their business in turbulent and less stable times will prevail. Since many senior executives have not been educated in alternative approaches, this must be changed, and those more agile methods must be incorporated into business school curricula.

For now, it is emphasised that managers start working with the alternative approaches available and gather practical experience to identify the best solution for each company. In the case of Valora, as one business unit within the corporation already has experience with OKR systems, it is advised to take this pilot project and widen it to all other areas. This process should start with the company’s top goals and then break those down into the business units and, even more importantly, the teams. This results in a cohesive and aligned process throughout the entire company. OKR systems are updated quarterly, giving enough flexibility to react to changing circumstances that would align with the experiences already made with the CCM tool. Also, goals set within an OKR logic are met when 70-90% are reached, supporting to over exceed goals. The goals should be visualised with full transparency so that all teams can see the progress of others, which will increase intrinsic

motivation and healthy competition. Based on the OKR goals, Valora should find a way to derive a rolling twelve-month plan. This ensures that resource allocation decisions can be made with enough lead time and can also be adjusted every three months. This connection or bridge from OKRs to a full corporate P&L is the major challenge that must be worked on. Also, elements like Balance Sheets and Cash Flow statements must be considered. However, it is apparent from the above findings that the resources needed to work on this alternative are well invested time. When successfully implemented, it could result in a far more suitable approach with not more but fewer required resources, as the exercise would be conducted on a far more regular basis. Hence, new developments could be incorporated into the twelve-month rolling outlook.

Alternatively, the more established zero-based budgeting has been commented upon as a solution after the COVID-19 pandemic, as described above. Porter (2021) highlighted after analysing the increased numbers of bankruptcies in the US that relying on past performance and last year's numbers is no longer relevant in times of turmoil. He furthermore strengthened the look into the Zero-based Budgeting (ZBB) direction, where companies start planning without looking at past numbers (Porter & Yeh, 2021). Bunget (2021) analysed organisations and company reports which were published for the financial year of 2020 and pointed into the ZBB direction by labelling it the best alternative.

Additionally, the “North-Star” dimension, strategic alignment, and long-term planning should be conducted annually, emphasising long-term planning and the main levers of the businesses. As understood from the interviews, this process might also align with the new owner's expectations, FEMSA.

One aspect mentioned during the interviews must be considered: the skill set of finance professionals. For the OKR approach to work appropriately, Valora must upskill the existing workforce and hire experienced new people capable of understanding different business models and applying the OKR approach accordingly, together with the local teams.

6.3.4 Limitations of the research

The rich insights from the literature review and the findings from the semi-structured interviews provided both academic and practical contributions. However, the research has limitations.

While the use of semi-structured interviews has many advantages in qualitative research, particularly with respect to the richness of data collected from participants with a deep understanding of the issue being investigated, it also has limitations. First, the interviewees' responses derived from the nine semi-structured interviews may represent a biased perspective of individuals, decisions, and events. Second, the recorded interviews were transcribed and interpreted by the researcher, so there are limitations concerning the researcher's interpretation of results, subjectivity and researcher bias. The small sample size and the limited scope of nine interviews conducted in a Swiss retail corporation limited the generalizability of the findings. Furthermore, the interview process that was conducted lacks replicability as qualitative research relies heavily on the context of the case study and the specifics of this thesis.

To address some of the above limitations, thematic analysis, which systematically identifies and interprets patterns or themes in data, was used during the coding process. Thematic analysis was also applied as it can extract rich data and detailed insight even with a small sample size (Nowell et al., 2017).

Despite the limitations outlined, this thesis makes essential contributions to budgeting in academia and the business world and smooths the way for further research.

6.4 Future research avenues

The findings of this study provide a rich foundation for further research in the field of budgeting and, specifically, the functions and utility of traditional budgets in times of uncertainty. Future research could conduct more semi-structured interviews with the case study company to gain a wider understanding of how Valora's budget is seen and to gather other employees' expectations, after the top nine managers have been interviewed. Another extension of this study could be to conduct a quantitative survey of international companies, asking whether the 2020-2022 traditional budgets were functional. An empirical analysis of that nature would help determine the validity of this research's findings. Furthermore, qualitative research can be conducted in other parts of the world and other industries, as this thesis focuses on a retail company in Switzerland. As the strategy formation function of budgets ("North-Star" within Valora) has not been studied in great detail so far, future research could look into this specific function to analyse if in other companies, the importance of the function is comparably high and also if alternative approaches can be found which have separated this function form the operational functions

of budgeting. There is also a fruitful opportunity to investigate if the strategy formation function becomes more important in VUCA and what competencies companies must develop to conduct it successfully.

The interviewees' limited knowledge of alternative planning approaches highlights the need to discuss integrating these models into business school curricula. This discussion should begin with analysing how budgeting is currently taught in business education. Additionally, it should be analysed what employee development programs exist to develop company employees without knowledge of alternative budgeting methodologies. Additionally, concerns were raised about the skill set of finance professionals, particularly their ability to understand diverse business models in depth. This raises an important question: Are there enough professionals with this expertise, or can they be effectively upskilled? Future research could explore this issue further and analyse what specific skills will be needed in the future.

To further understand the above outline contradiction between Becker et. al (2015) and this thesis, looking at the planning and control and the resource allocation function and its importance during crisis, this could be investigated in further detail to better understand the differences of those functions with varying levels of crisis intensity.

Additionally the proposed solution for Valora and other companies involves integrating an OKR system with an annual strategic plan. This could be initiated and observed with a focus group approach and later analysed. The current OKR systems must be expanded into a company's P&L aggregation, ensuring the high flexibility of the quarterly adjustments. The “North-Star” element must be maintained by having an annual strategic planning cycle that looks at the following years with the focus on the main drivers of the individual business units and an update on market dynamics that might impact the business. The decoupling phenomena found within Valora should be further analysed to ensure complete transparency and communication within corporations to prohibit decoupling. Budgeting is a political and cultural practice, and the disintegration of systems or processes within the same organisation have various risks that must be better understood.

The lack of comparative or longitudinal studies on how companies adapted their budgeting processes in different industries, geographies, or crisis types builds further opportunity for additional research.

When considering why alternative forms are rarely fully adopted in practice, there is a lack of grounded, critical research on the barriers to adoption, such as complexity, resistance to

change, or lack of top-management knowledge and experience. This is very fruitful ground for future research.

Furthermore, the phenomenon of layered crises, such as COVID-19, war, inflation, supply chain instability, and labour shortages, and their cumulative and interacting effects on budgeting are poorly understood and should be analysed in the future.

Furthermore, many proposals for new budgeting systems are top-down and conceptual, often developed by consultants or academics. The lived experiences of CFOs, controllers, department heads and others during crises are underrepresented in academic literature. They should be a basis for future research on the topic, following this thesis ' methodological approach.

Since the interview phase, two interviewees have contacted the interviewer, asking about the research's status and findings, especially if a new budgeting approach will be an outcome of the research. All managers gave positive feedback during the interviews and indicated a high understanding of the research question and a significant need for change.

The thesis shows how relevant the topic is in the business world. Academics have the chance to support the necessary change as they advance, with the possible result of better approaches for executives to steer companies in VUCA times.

References

Abdelzaher, T., Diao, Y., Hellerstein, J. L., Lu, C., & Zhu, X. (2008). Introduction to Control Theory And Its Application to Computing Systems. In Z. Liu & C. H. Xia (Eds.), *Performance Modeling and Engineering* (pp. 185-215). Boston, MA: Springer US.

Abongo, S. (2018). *The Effect of Budgeting Process on The Financial Performance of Top 100 Small And Medium Firms in Kenya.* University of Nairobi,

Abosch, K. S. (1998). Variable pay: Do we have the basics in place? *Compensation & Benefits Review, 30*(4), 12-22.

Abulibdeh, A., Zaidan, E., & Abulibdeh, R. (2024). Navigating the confluence of artificial intelligence and education for sustainable development in the era of industry 4.0: Challenges, opportunities, and ethical dimensions. *Journal of Cleaner Production*, 140527.

Adnan, T., Praptiningsih, N., & Kalbuana, N. (2024). Analyzing The Impact Of Research And Community Service Programs Of Higher Education Institutions On Local Economic Empowerment In Indonesia: A Literature Review Study. *International Journal of Teaching and Learning, 2*(1), 210-222.

Ahiya, A., Tomar, A., & Singh, P. (2021). ECHOES OF TAYLORISM: HOW INDUSTRY 4.0 RISKS REPEATING THE MISTAKES OF SCIENTIFIC MANAGEMENT.

Ahrens, T., & Chapman, C. S. (2004). Accounting for Flexibility and Efficiency: A Field Study of Management Control Systems in a Restaurant Chain. *Souplesse et efficience : une étude sur le terrain des systèmes de contrôle de gestion d'une chaîne de restauration., 21*(2), 271-301. doi:10.1506/VJR6-RP75-7GUX-XH0X

Aitken, C., & Ersoy, E. (2023). War in Ukraine: The options for Europe's energy supply. *The World Economy, 46*(4), 887-896.

Ajitha, P., & Nagra, A. (2021). An Overview of Artificial Intelligence in Automobile Industry–A Case Study on Tesla Cars. *Solid State Technology, 64*(2), 503-512.

Aksan, N., Kısac, B., Aydın, M., & Demirbuken, S. (2009). Symbolic interaction theory. *Procedia-Social and Behavioral Sciences, 1*(1), 902-904.

Al-Jumaili, H. N., & Awad, M. A. Zero-Based Budgeting Versus Management Strategy And Applicability.

Alesani, D. (2012). Rethinking budgeting as a continuous process. *Pub. Admin. Rev., 72*, 885.

Alipour, J.-V., Falck, O., & Schüller, S. (2020). Homeoffice während der Pandemie und die Implikationen für eine Zeit nach der Krise. *ifo Schnelldienst, 73*(07), 30-36.

Allen, D. G. (1988). Relevance Lost: The Rise and Fall of Management Accounting. By H. Thomas Johnson and Robert S. Kaplan. Boston: Harvard Business School Press, 1987. xv + 269 pp. Notes and index. $24.95. *Business History Review, 62*(1), 176-178. Retrieved from https://EconPapers.repec.org/RePEc:cup:buhirw:v:62:y:1988:i:01:p:176-178_05

Andelic, N., Allan, J., Bender, K. A., Powell, D., & Theodossiou, I. (2024). Performance-related pay, mental and physiological health. *Industrial Relations: A Journal of Economy and Society, 63*(1), 3-25.

Anessi-Pessina, E., Barbera, C., Langella, C., Manes-Rossi, F., Sancino, A., Sicilia, M., & Steccolini, I. (2020). Reconsidering public budgeting after the COVID-19 outbreak: key lessons and future challenges. *Journal of Public Budgeting, Accounting & Financial Management, 32*(5), 957-965.

Anker-Sørensen, L. (2022). *Corporate Groups and Shadow Business Practices*: Cambridge University Press.

Annual-Report-Valora. (2021). Letter to the shareholders. Retrieved from https://www.valora.com/media/investors/publications/en/reports/2020/2020_valora_gb_reporting_en.pdf

Ardila, A. D. A., & Hernández, A. H. H. (2024). Impact of the Development of Skills in Resilience and Financial Education in the Professional Development of Military Personnel: To Face VUCA Environments. In *Organizational Management Sustainability in VUCA Contexts* (pp. 184-203): IGI Global.

Ardini, L., & Dewi, N. (2016). Understanding Budget Reality in The Perspective of Symbolic Interactionism. *International Research Journal of Business Studies, 9*, 105-118. doi:10.21632/irjbs.9.2.105-118

Ardini, L., & Dewi, N. H. U. (2023). Understanding Budget Reality in The Perspective of Symbolic Interactionism. *International Research Journal of Business Studies, 9*(2), 105-118.

Argyris, C. (2013). The impact of budgets on people. In *The evolution of behavioral accounting research (RLE accounting)* (pp. 1-39): Routledge.

Arnold, M., & Artz, M. (2019). The use of a single budget or separate budgets for planning and performance evaluation. *Accounting, Organizations & Society, 73*, 50-67. doi:10.1016/j.aos.2018.06.001

Arwidi, O., & Samuelson, L. A. (1993). The development of budgetary control in Sweden—a research note. *Management Accounting Research, 4*(2), 93-107. doi:https://doi.org/10.1006/mare.1993.1007

Backhouse, R. E., & Bateman, B. W. (2012). Keynes and the welfare state. *History of economic thought and policy*(2012/1).

Barrett, M. E., & Fraser Iii, L. B. (1977). Conflicting roles in budgeting for operations. *Harvard Business Review, 55*(4), 137-146. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=3867496&site=ehost-live

Barros, R. S., & Ferreira, A. M. D. S. d. C. (2023). Management control systems and innovation: a case study grounded in institutional theory. *Journal of Management Control, 34*(1), 109-133.

Bartocci, L., Grossi, G., Mauro, S. G., & Ebdon, C. (2023). The journey of participatory budgeting: a systematic literature review and future research directions. *International Review of Administrative Sciences, 89*(3), 757-774. doi:10.1177/00208523221078938

Beard, C. (2017). *The economic basis of politics*: Routledge.

Becker, S. D. (2014). When Organisations Deinstitutionalise Control Practices: A Multiple-Case Study of Budget Abandonment. *European Accounting Review, 23*(4), 593-623. doi:10.1080/09638180.2014.899918

Becker, S. D., Mahlendorf, M. D., Schäffer, U., & Thaten, M. (2016). Budgeting in Times of Economic Crisis. *Contemporary Accounting Research, 33*(4), 1489-1517. doi:10.1111/1911-3846.12222

Bedford, D. S., Speklé, R. F., & Widener, S. K. (2022). Budgeting and employee stress in times of crisis: Evidence from the Covid-19 pandemic. *Accounting, Organizations and Society*, 101346. doi:https://doi.org/10.1016/j.aos.2022.101346

Bell, E., Bryman, A., & Harley, B. (2018). *Business Research Methods*(5 ed.).

Ben Hassen, T., & El Bilali, H. (2022). Impacts of the Russia-Ukraine War on Global Food Security: Towards More Sustainable and Resilient Food Systems? *Foods, 11*(15), 2301.

Bennett, N., & Lemoine, J. (2014). What VUCA really means for you. *Harvard Business Review, 92*(1/2).

Benoit, S., Altrichter, B., Grewal, D., & Ahlbom, C.-P. (2024). Autonomous stores: How levels of in-store automation affect store patronage. *Journal of retailing*.

Berent, I., & Platt, M. (2021). Empiricism is Natural. *Oxford Studies in Experimental Philosophy Volume 4, 4*, 112.

Berg, T., & Madsen, D. Ø. (2020). The evolution of a management control package: a retrospective case study. *Journal of Applied Accounting Research, 21*(4), 763-781. doi:10.1108/JAAR-10-2019-0148

Berland, N., & Boyns, T. (2002). The development of budgetary control in France and Britain from the 1920s to the 1960s: a comparison. *European Accounting Review, 11*(2), 329-356.
Berland, N., & Boyns, T. (2002; p. 349). The development of budgetary control in France and Britain from the 1920s to the 1960s: a comparison. *European Accounting Review, 11*(2), 329-356.
Berry, A. J., Broadbent, J., & Otley, D. T. (2019). *Management control theory*: Routledge.
Bhandari, B. (2024). An evaluation of budgeting practices: A case study of Company X.
Bhimani, A., Sivabalan, P., Soonawalla, K., & Wakefield, J. (2024). Annual budgets and rolling budgets use in UK and Australian firms. *Journal of Management Control, 35*(4), 509-561.
Billett, M. T., King, T. H. D., & Mauer, D. C. (2007). Growth opportunities and the choice of leverage, debt maturity, and covenants. *The Journal of Finance, 62*(2), 697-730.
Black, J. (2000). *The development of professional management in the public sector of the United Kingdom from 1855 to 1925: the case of the ordnance factories*: Open University (United Kingdom).
Bleeker, R. (2001). Key features of activity-based budgeting. *Journal of Cost Management, 15*(4), 5-20.
Blum, J., Mosler, M., Potrafke, N., & Ruthardt, F. (2020). Ökonomenpanel: Wie bewerten Ökonom* innen die wirtschaftspolitischen Reaktionen auf die Coronakrise? *ifo Schnelldienst, 73*(04), 48-51.
Bobokulova, M. (2024). UNCERTAINTY IN THE HEISENBERG UNCERTAINTY PRINCIPLE. *Академические исследования в современной науке, 3*(2), 80-96.
Bochert, S., Wiltinger, K., Born, J., & Brügmann, S. (2022). Die Bedeutung von Objectives and Key Results im agilen Kontext unter besonderer Berücksichtigung der Rolle des Controllings. *CARF Luzern 2022*, 45.
Bogsnes, B. (2023). *This is Beyond Budgeting: A guide to more adaptive and human organizations*: John Wiley & Sons.
Bolten, J., & Berhault, M. (2018). VUCA-World, virtuelle Teamarbeit und interkulturelle Zusammenarbeit. *Digitalisierung und (Inter-) Kulturalität. Formen, Wirkung und Wandel von Kultur in der digitalisierten Welt. Stuttgart: ibidem Verlag. S*, 105-131.
Bonn, I., & Christodoulou, C. (1996). From strategic planning to strategic management. *Long range planning, 29*(4), 543-551.
Borino, F., Carlson, E., Rollo, V., & Solleder, O. (2024). International firms and COVID-19: Evidence from a global survey. *Review of World Economics*, 1-34.
Bortis, H. (1997). *Institutions, behaviour and economic theory: a contribution to classical-Keynesian political economy*: Cambridge University Press.
Bortis, H. (2024). Luigi Pasinetti and the making of classical-Keynesian political economy. *Structural Change and Economic Dynamics, 69*, 395-405.
Bosch, S., Schlenker, F., Bohn, J., Kupies, S., & Schmidt, M. (2023). Deutschland–Pionierland der Energiewende. In *Energie-Weltatlas: Transformation des Energiesystems in globaler Perspektive* (pp. 81-91): Springer.
Bouée, C.-E. (2014). Leading in uncertain times.
Bower, J. L. (1972). *Managing the resource allocation process: A study of corporate planning and investment*: Irwin Homewood, IL.
Boyer, E. L. (1990; p16). *Scholarship reconsidered : priorities of the professoriate*: Princeton, N.J. : Carnegie Foundation for the Advancement of Teaching, [1990] ©1990.
Braun, V., & Clarke, V. (2023). Is thematic analysis used well in health psychology? A critical review of published research, with recommendations for quality practice and reporting. *Health Psychology Review, 17*(4), 695-718.
Bresser-Pereira, L. C. (2019). From classical developmentalism and post-Keynesian macroeconomics to new developmentalism. *Brazilian Journal of Political Economy, 39*(2), 187-210.

Briggman, C. A. (2014). *Corporate budgeting In practice: driving strategic focus and performance.* Massachusetts Institute of Technology,
Brimson, J. A., Antos, J. J., & Mendlowitz, E. (2012). Activity-based budgeting. *Handbook of budgeting*, 767-790.
Brüggemann, P., & Olbrich, R. (2023). The impact of COVID-19 pandemic restrictions on offline and online grocery shopping: New normal or old habits? *Electronic Commerce Research, 23*(4), 2051-2072.
Bruns Jr, W. J., & Waterhouse, J. H. (1975). Budgetary Control and Organization Structure. *Journal of Accounting Research (Wiley-Blackwell), 13*(2), 177-203. doi:10.2307/2490360
Bucklin, B. R., & Dickinson, A. M. (2001). Individual monetary incentives: A review of different types of arrangements between performance and pay. *Journal of Organizational Behavior Management, 21*(3), 45-137.
Bufan, I. D. (2013). The role of the budgeting in the management process: Planning and Control. *SEA–Practical Application of Science, 1*(01), 16-37.
Bukh, P. N., Ringgaard, A., & Sandalgaard, N. (2024). Moving beyond Beyond Budgeting: A case study of the dynamic interrelationships between budgets and forecasts. *European Accounting Review*, 1-27.
Bunget, O. C. (2021). Reconsidering Budgeting after the COVID-19 Outbreak. *The Audit Financiar journal, 19*(162).
Butschke, A. (2001). *Planung der Unternehmensziele*: diplom. de.
Bykova, A., Lobza, A., Gavrysh, J., Soroka, I., & Karpenko, Y. (2023). The effectiveness of bonus payment as a financial incentive for top management.
Cachon, G., & Terwiesch, C. (2008). *Matching supply with demand* (Vol. 20012): McGraw-Hill Publishing New York.
Cajas-Guijarro, J. (2024). A Classical Marxian Two-Sector Endogenous Cycle Model. *Metroeconomica*.
Caliendo, M., & Wittbrodt, L. (2022). Did the minimum wage reduce the gender wage gap in Germany? *Labour Economics, 78*, 102228.
Campbell III, J. (2007). *Motivation, attitudes, goal setting, performance and interactive effects of pay for performance*: Capella University.
Cardoni, A., Kiseleva, E., Arduini, S., & Terzani, S. (2024). From sustainable value to shareholder value: The impact of sustainable governance and anti-corruption programs on market valuation. *Business Strategy and the Environment, 33*(1), 19-42.
Carenys, J. (2010). Management control systems: a historical perspective. *International Bulletin of Business Administration, 7*(1), 37-54.
Cavallaro, F., & Nocera, S. (2024). COVID-19 effects on transport-related air pollutants: insights, evaluations, and policy perspectives. *Transport Reviews, 44*(2), 484-517.
Cekerevac, Z., & Bogavac, M. (2023). IMPACT OF COVID-19 AND UKRAINERUSSIA WAR ON THE INTERNATIONAL TRADE AND LOGISTICS. *Mest Journal, 11*(1).
Chai, C., Barrios, M., Gómez-Benito, J., Berrío, A., & Guilera, G. (2024). Information Retrieval in Face-to-Face and Online Focus Groups. A Systematic Review. *International journal of qualitative methods, 23*, 16094069241286856.
Chandler Jr, A. D. (1969). *Strategy and structure: Chapters in the history of the American industrial enterprise* (Vol. 120): MIT press.
Chetty, R., Friedman, J. N., & Stepner, M. (2024). The economic impacts of COVID-19: Evidence from a new public database built using private sector data. *The Quarterly Journal of Economics, 139*(2), 829-889.
Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *sociology, 6*(1), 1-22.

Cidav, Z., Mandell, D., Pyne, J., Beidas, R., Curran, G., & Marcus, S. (2020). A pragmatic method for costing implementation strategies using time-driven activity-based costing. *Implementation Science, 15*, 1-15.
Ciotti, M., Ciccozzi, M., Terrinoni, A., Jiang, W.-C., Wang, C.-B., & Bernardini, S. (2020). The COVID-19 pandemic. *Critical reviews in clinical laboratory sciences, 57*(6), 365-388.
Coderre, F., St-Laurent, N., & Mathieu, A. (2004). Comparison of the quality of qualitative data obtained through telephone, postal and email surveys. *International Journal of Market Research, 46*(3), 347-357. doi:10.1177/147078530404600303
Collins, F., Holzmann, O., & Mendoza, R. (1997). Strategy, budgeting, and crisis in Latin America. *Accounting, Organizations and Society, 22*(7), 669-689.
Company History. (Valora Holding AG; 2022). Retrieved from https://www.valora.com/de/group/companyhistory/
Coonley, H. (1925). The Development of Industrial Budgeting. *The Annals of the American Academy of Political and Social Science, 119*(1), 64-79.
Cooper, R., & Kaplan, R. S. (1998). THE PROMISE--AND PERIL--OF INTEGRATED COST SYSTEMS. *Harvard Business Review, 76*(4), 109-119. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=780244&site=ehost-live
Çorakçı, A., Omay, T., & Hasanov, M. (2022). Hysteresis and stochastic convergence in Eurozone unemployment rates: evidence from panel unit roots with smooth breaks and asymmetric dynamics. *Oeconomia Copernicana*.
Corp., x. x. M. H. (2023). HILTI GROUP OUTPERFORMS THE MARKET IN A CHALLENGING YEAR. Retrieved from https://www.hilti.group/content/hilti/CP/XX/en/company/media-relations/media-releases/2023_business_result.html
Covaleski, M. A., & Dirsmith, M. W. (1983). Budgeting as a means for control and loose coupling. *Accounting, Organizations and Society, 8*(4), 323-340.
Covey, S. M., & Merrill, R. R. (2006). *The speed of trust: The one thing that changes everything*: Simon and schuster.
Creswell, J. W. (2011). *Designing and conducting mixed methods research / John W. Creswell, Vicki L. Plano Clark*. Los Angeles, Calif: SAGE Publications.
Crowther, D., & Green, M. (2004). *Organisational theory*: CIPD Publishing.
Dale, E., Greenwood, R. S., & Greenwood, R. G. (1980). *Donaldson Brown: GM's Pioneer Management Theorist and Practioner.* Paper presented at the Academy of Management Proceedings.
DBA Interview 1. (2023).
DBA Interview 2. (2023).
DBA Interview 3. (2023).
DBA Interview 4. (2023).
DBA Interview 5. (2023).
DBA Interview 6. (2023).
DBA Interview 7. (2023).
DBA Interview 8. (2023).
DBA Interview 9. (2023).
De Vet, J. M., Nigohosyan, D., Ferrer, J. N., Gross, A.-K., Kuehl, S., & Flickenschild, M. (2021). *Impacts of the COVID-19 pandemic on EU industries*: European Parliament Strasbourg, Francuska.
Deshwal, V., & Ali, M. A. (2020). A systematic review of various leadership theories. *Shanlax International Journal of Commerce, 8*(1), 38-43.
Devadoss, S., & Ridley, W. (2024). Impacts of the Russian invasion of Ukraine on the global wheat market. *World Development, 173*, 106396.

Dhiman, S. (2021). Being good and being happy: Eudaimonic well-being insights from Socrates, Plato, and Aristotle. *The Palgrave Handbook of Workplace Well-Being*, 3-32.
Diana, N., Sudarmiatin, S., & Hermawan, A. (2023). Model of Accounting Information System and SMEs Performance in Contingency Theory Perspective. *Asian Journal of Management, Entrepreneurship and Social Science, 3*(03), 47-69.
Dictionary, W. (2024). "Bougette". Retrieved from https://www.wordsense.eu/bougette/
Dierckx de Casterlé, B., De Vliegher, K., Gastmans, C., & Mertens, E. (2021). Complex qualitative data analysis: lessons learned from the experiences with the qualitative analysis guide of Leuven. *Qualitative Health Research, 31*(6), 1083-1093.
Djamil, N. (2023). Factors affecting the Quality of Financial Reports: A Value Relevance Based Analysis. *Jurnal Rumpun Ilmu Ekonomi, 1*(1), 1-11.
Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research, 117*, 284-289. doi:10.1016/j.jbusres.2020.06.008
Drtina, R., Hoeger, S., & Schaub, J. (1996). Continuous budgeting at the HON Company. *Management Accounting (USA), 77*(7), 20-24.
Drucker, A. P. R. (1929). BUDGETING AND THE SALES QUOTA. *Accounting Review, 4*(3), 175. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=8596389&site=ehost-live
Dugdale, D., & Lyne, S. (2006). Budgeting. *Financial Management*, 32-35. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=23548545&site=ehost-live
Easterby-Smith, M., Jaspersen, L. J., Thorpe, R., & Valizade, D. (2021). *Management and business research*: Sage.
Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2012). *Management research : Mark Easterby-Smith, Richard Thorpe and Paul Jackson* (4th ed. ed.): Los Angeles ; London : SAGE.
Edemeka, UDO SAMPSON. (2024). CAPITAL EXPENDITURE BUDGETS AND INFRASTRUCTURAL DEVELOPMENT COST IN COASTAL LOCAL GOVERNMENT AREAS IN AKWA IBOM STATE. *International Journal of Economics, Business and Social Science Research, 02*(01 January - Februara 2024).
Espolov, T., Espolov, A., Aitkozhina, D., Tireuov, K., Raiymbekov, S., & Suleimenov, Z. (2023). Comparing COVID–19 Budgeting Responses: New Budgeting Principles that Resulted from the Pandemic.
Ewert, R., & Wagenhofer, A. (2008). Koordination, Budgetierung und Anreize. *Interne Unternehmensrechnung*, 393-460.
Felício, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of management control systems and performance in public sector organizations. *Journal of Business Research, 124*, 593-602.
Fernandes, B. C. L., & Gomes, J. V. (2023). OKR Methodology: Challenges and Trends. *New Perspectives and Possibilities in Strategic Management in the 21st Century: Between Tradition and Modernity*, 195-208.
Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. *IESE Business School Working Paper No. WP-1240-E*
Fernando, J. (2024; p.1). Investopia. Retrieved from https://www.investopedia.com/terms/c/capitalexpenditure.asp
Fisher, J. G. (1998). Contingency theory, management control systems and firm outcomes: past results and future directions. *Behavioral research in accounting, 10*, 47.
Flach, L., & Steininger, M. (2020). Globalisierung nach Covid-19: Die Folgen der Pandemie für die deutsche Wirtschaft. *ifo Schnelldienst, 73*(07), 17-23.
Flesher, D. L., & Flesher, T. K. (1979). Short history of budgeting. *Woman CPA, 41*(1), 4.

Flesher, D. L., & Previts, G. J. (2013). Donaldson brown (1885–1965): the power of an individual and his ideas over time. *Accounting Historians Journal, 40*(1), 79-101.
FMVA, M. O., & Hessel Brouwer CMA, C. (2021). BUDGETING REVISITED. *Strategic Finance, 102*(11), 24-31.
Forrester, J. (2002). The principal-agent model and budget theory. *Budget theory in the public sector*, 123-138.
Forrester, J. P., & Adams, G. B. (1997). Budgetary Reform Through Organizational Learning:Toward an Organizational Theory of Budgeting. *Administration & Society, 28*(4), 466-488. doi:10.1177/009539979702800403
Foster, T. A. (2017). *Budget planning, budget control, business age, and financial performance in small businesses*: Walden University.
Frankema, E., & Tworek, H. (2020). Pandemics that changed the world: Historical reflections on COVID-19. *Journal of Global History, 15*(3), 333-335.
Frankenhuis, W. E., Panchanathan, K., & Smaldino, P. E. (2023). Strategic ambiguity in the social sciences. *Social Psychological Bulletin, 18*, 1-25.
Frause, N. L., Brenner, R., Juras, P. E., Moravitz, C. L., Schreck, S. P., & Stratton, A. J. (2009). Planning and budgeting—Easing the pain, maximizing the gain. *Journal of Corporate Accounting & Finance (Wiley), 21*(1), 65-72. doi:10.1002/jcaf.20549
Frigo, L. (2024). Learning lessons for anticipatory foreign policy: Estimative intelligence in European foreign policymaking. Learning lessons from an era of surprise, edited by Christoph Meyer, Eva Michaels, Nikki Ikani, Aviva Guttmann, Michael S. Goodman, Edinburgh, Edinburgh University Press, 2022, 370 pp.,£ 85.00 (Hardback), available as ebook. ISBN: 9781399505512. In: Taylor & Francis.
Frow, N. (2010). "Continuous" budgeting: Reconciling budget flexibility with budgetary control. *Accounting, Organizations and Society, 35*, 444-461. doi:10.1016/j.aos.2009.10.003
Gao, X. (2012). A study of the relation between market system evolution and enterprise institution change. *Modern Economy, 3*(4), 392-395.
Gondek, D., Vandecasteele, L., Sánchez-Mira, N., Steinmetz, S., Mehmeti, T., & Voorpostel, M. (2024). The COVID-19 pandemic and well-being in Switzerland-worse for young people?
Gossen, H. H. (1990). JÜRG NIEHANS. *The New Palgrave: Utility and Probability*, 99.
Greene, R. J. (1997). Effective variable compensation plans. *The Journal of Total Rewards, 6*(1), 32.
Greenwald, B., & Stiglitz, J. E. (1987). Keynesian, new Keynesian and new classical economics. *Oxford Economic Papers, 39*(1), 119-133.
Gregory, I. (2003). *Ethics in research*: A&C Black.
Grossmann, I., Weststrate, N. M., Ardelt, M., Brienza, J. P., Dong, M., Ferrari, M., . . . Vervaeke, J. (2020). The science of wisdom in a polarized world: Knowns and unknowns. *Psychological inquiry, 31*(2), 103-133.
Güngör Göksu, G. (2023). A retrospective overview of the using bibliometric analysis. *Journal of Public Budgeting, Accounting & Financial Management, 35*(2), 264-295. doi:10.1108/JPBAFM-04-2022-0061
Gupta, V., Mittal, S., Ilavarasan, P. V., & Budhwar, P. (2024). Pay-for-performance, procedural justice, OCB and job performance: a sequential mediation model. *Personnel Review, 53*(1), 136-154.
Gurton, A. (1999). Bye Bye Budget. *Accountancy, 123*(1267), 60-60. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=7099473&site=ehost-live
Hansen. (2011). A Theoretical Analysis of the Impact of Adopting Rolling Budgets, Activity-Based Budgeting and Beyond Budgeting. *European Accounting Review, 20*(2), 289-319. doi:10.1080/09638180.2010.496260
Hansen, Husieva, & Frankenthal. (2023). *Russlands Angriffskrieg gegen die Ukraine: Zeitenwende für die deutsche Sicherheitspolitik* (Vol. 1): Nomos Verlagsgesellschaft mbH & Co. KG.

Hansen, Otley, & Stede, V. d. (2003a). Practice Developments in Budgeting: An Overview and Research Perspective. *Journal of Management Accounting Research, 15*, 95-116. doi:10.2308/jmar.2003.15.1.95
Hansen, Otley, & Stede, V. d. (2003b). Practice developments in budgeting: an overview and research perspective. *Journal of Management Accounting Research, 15*(1), 95-116.
Hanson, B. (2015). Objectivities: Constructivist roots of positivism. *Quality & Quantity, 49*, 857-865.
Harrison, J. A., Lopez, S. H., & Martin, A. W. (2015). Rethinking organizational decoupling: Fields, power struggles, and work routines. *Social Currents, 2*(4), 341-360.
Harrison, M. (2022). Western sanctions on Russia are working, an energy embargo now is a costly distraction. *Global Economic Consequences of the War in Ukraine Sanctions, Supply Chains and Sustainability*, 3.
Harrison, P. (2011). Adam Smith and the history of the invisible hand. *Journal of the History of Ideas, 72*(1), 29-49.
Harzing, A.-W. (2020). Everything you always wanted to know about research impact. In *How to get published in the best management journals* (pp. 127-141): Edward Elgar Publishing.
Hechtner, F., & Katzlmayr, P. (2024). Was hat der Tankrabatt gebracht?—Zur Inzidenz einer temporären Senkung der Energiesteuer auf Kraftstoffe durch das Energiesteuersenkungsgesetz. *Steuer und Wirtschaft-StuW, 101*(2), 124-142.
Heckman, S., Carver, J. C., Sherriff, M., & Al-Zubidy, A. (2021). A systematic literature review of empiricism and norms of reporting in computing education research literature. *ACM Transactions on Computing Education (TOCE), 22*(1), 1-46.
Hendieh, J. (2023). Budgeting and Financial Techniques Used by SMEs during Crisis. *Journal of Commerce and Accounting Research, 12*(3), 1.
Hendry, C. (1980). Contingency theory in practice, II. *Personnel Review, 9*(1), 5-11.
Heupel, T., & Schmitz, S. (2015). Beyond Budgeting-a high-hanging fruit The impact of managers' mindset on the advantages of Beyond Budgeting. *Procedia Economics and Finance, 26*, 729-736.
Hewege, C. R. (2012). A critique of the mainstream management control theory and the way forward. *SAGE open, 2*(4), 2158244012470114.
Hijzen, A., & Salvatori, A. (2022). The impact of the COVID-19 crisis across different socio-economic groups and the role of job retention schemes-The case of Switzerland.
Hill, L. E. (2016). Pioneering a Rolling Forecast. *hfm (Healthcare Financial Management), 70*(11), 1-2. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=119464153&site=ehost-live
Hines, J. R. (2021). *Global Goliaths: Multinational corporations in the 21st century economy*: Brookings Institution Press.
Hiney, N., Efthymiou, M., & Morgenroth, E. (2025). Adapting to Uncertainty: Black Swans, VUCA Challenges and Airport Resilience Strategies. *Journal of the Air Transport Research Society*, 100068.
Ho, H., Hofmann, C., & Schwaiger, N. (2023). The Covid-19 pandemic and management controls. *Accounting and Business Research, 53*(5), 583-607.
Hobsbawm, E. J. (1960). Custom, wages, and work-load in nineteenth-century industry. In *Essays in Labour History: In memory of GDH Cole 25 September 1889–14 January 1959* (pp. 113-139): Springer.
Hofstede, G. H. (1967). *The game of budget control:"how to live with budgetary standards and yet be motivated by them".* (doctoralThesis). Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=ddu&AN=1302BF2BD509CBEA&site=ehost-live Available from EBSCOhost OpenDissertations database.

Honda, T., Hosono, K., Miyakawa, D., Ono, A., & Uesugi, I. (2023). Determinants and effects of the use of COVID-19 business support programs in Japan. *Journal of the Japanese and International Economies, 67*, 101239.
Hope, J., & Fraser, R. (2003). Beyond Budgeting: How Managers Can Break Free from the Annual Performance Trap. In (pp. 1).
Hopkins, R., & Jenkins, K. (2008). *Eating the IT elephant: Moving from greenfield development to brownfield*: Addison-Wesley Professional.
Hopwood, A. G. (2009). The economic crisis and accounting: Implications for the research community. *Accounting, Organizations & Society, 34*(6/7), 797-802. doi:10.1016/j.aos.2009.07.004
Horngren, C. T. (2004). Management Accounting: Some Comments. *Journal of Management Accounting Research, 16*, 207-211. doi:10.2308/jmar.2004.16.1.207
Horváth, P. (2003). Hat die Budgetierung noch Zukunft? In U. Schäffer (Ed.), *Budgetierung im Umbruch?* (pp. 4-9). Wiesbaden: Gabler Verlag.
Houy, C., Fettke, P., & Loos, P. (2010). Empirical research in business process management–analysis of an emerging field of research. *Business Process Management Journal, 16*(4), 619-661.
Hudson, P. (2012). *Understanding why 'Beyond Budgeting' has not been widely adopted.* (Electronic Thesis or Dissertation). Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=ddu&AN=56A64ADD41BE5E1D&site=ehost-live Available from EBSCOhost OpenDissertations database.
Huhtakangas, O. (2020). Rolling forecasting in budgetary systems: case study.
Huppertz, G., & Kracht, F. (2022). Agilität durch digitale Transformation: Es ist höchste Zeit. In *Finanzielle Führung von Familienunternehmen: Transparenz–Compliance–Performance–Strategie–Governance* (pp. 107-122): Springer.
Hurst, A. (2023). Participant observation. *Introduction to Qualitative Research Methods*.
Huxley, T. H. (2024). *Lectures on evolution*: BoD-Books on Demand.
Ilyas, S. (2021). A review: The influence of participation budgeting toward organization behavior factors. *Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12*(4), 734-739.
Inoua, S., & Smith, V. (2023). The classical theory of supply and demand. *arXiv preprint arXiv:2307.00413*.
Irvine, H., & Gaffikin, M. (2006). Getting in, getting on and getting out: reflections on a qualitative research project. *Accounting, Auditing & Accountability Journal, 19*(1), 115-145.
Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research: Part E, 136*, N.PAG-N.PAG. doi:10.1016/j.tre.2020.101922
Jarman, N. B., Sanjay. (2009). *New era budgeting*. Retrieved from https://www.pwc.co.uk/assets/pdf/accounting-and-business-magazine-new-era-budgeting.pdf
Jebarajakirthy, C., Das, M., Maggioni, I., Sands, S., Dharmesti, M., & Ferraro, C. (2021). Understanding on-the-go consumption: A retail mix perspective. *Journal of Retailing and Consumer Services, 58*, 102327.
Jensen, M. C. (2001). Corporate Budgeting Is Broken -- Let's Fix It. *Harvard Business Review, 79*(10), 94-101. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=18217070&site=ehost-live
Johanning, V. (2023). IT Management by Objectives: OKRs Instead of Management by Objectives (MbO). In *Organization and Management of IT: The New Role of IT and the CIO in Digital Transformation* (pp. 171-175): Springer.

Johansson, T., & Siverbo, S. (2014). The appropriateness of tight budget control in public sector organizations facing budget turbulence. *Management Accounting Research, 25*(4), 271-283. doi:10.1016/j.mar.2014.04.001

Johnson, H. T., & Kaplan, R. S. (1987; p. 125). The rise and fall of management accounting; . *Strategic Finance, 68*(7), 22.

Johnson, H. T., & Kaplan, R. S. (1990). Relevance Lost: The Rise and Fall of Management Accounting (Hardcover). In (pp. 1).

Jones, L., & McCaffery, J. (2020). Budgeting according to Wildavsky: A bibliographic essay. In *Budgeting, Policy, Politics* (pp. 13-40): Routledge.

Jones, L. R., & McCaffery, J. L. (2005). Reform of the Planning, Programming, Budgeting System, and management control in the US Department of Defense: Insights from budget theory. *Public Budgeting & Finance, 25*(3), 1-19.

Joshi, P., Al-Mudhaki, J., & Bremser, W. G. (2003). Corporate budget planning, control and performance evaluation in Bahrain. *Managerial Auditing Journal, 18*(9), 737-750.

Kail, E. G. (2010). Leading in a VUCA environment: C is for complexity. *Harvard Business Review. December, 3*.

Kan, M., & Miller, S. A. (2022). Environmental impacts of plastic packaging of food products. *Resources, Conservation and Recycling, 180*, 106156.

Kang, H., Liu, S., Chen, Q., Shen, Y., & Sun, X. (2024). Bonus-based mercenary punishment promotes cooperation in public goods games. *Heliyon, 10*(1).

Kant, I. (1996). The categorical imperative. In *Thinking about the Environment* (pp. 96-102): Routledge.

Kaplan, R. S. (1984). The Evolution of Management Accounting. *Accounting Review, 59*(3), 390. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=4490847&site=ehost-live

Kaplan, R. S. (1994). Flexible budgeting in an activity-based costing framework. *Accounting Horizons, 8*(2).

Karabag, S. F., Berggren, C., Pielaszkiewicz, J., & Gerdin, B. (2024). Minimizing Questionable Research Practices–The Role of Norms, Counter Norms, and Micro-Organizational Ethics Discussion. *Journal of Academic Ethics*, 1-27.

Kashyap, P. K. (2022). ANALYZING THE MIXED ECONOMY IN THE UNITED STATES. *DYNAMICS OF DEVELOPMENT ADMINISTRATION*, 33.

Kaushik, S., Chadhar, M., Firmin, S., & Tatnall, A. (2024). Innovation in Context: A Contingency Theory Perspective on Blockchain Adoption.

Kazar, G., Mutlu, U., & Tokdemir, O. B. (2023). Development of zero-based budgeting approach for multinational construction contractors. *Engineering, Construction and Architectural Management, 30*(10), 5217-5232.

Kennerley, M., & Neely, A. (2001). Enterprise resource planning: analysing the impact. *Integrated Manufacturing Systems, 12*(2), 103-113. doi:10.1108/09576060110384299

Kenton, W. (2022). Variable Cost: What It Is and How to Calculate It. Retrieved from https://www.investopedia.com/terms/v/variablecost.asp

Khan, A. (2024). *Fundamentals of public budgeting and finance*: Springer Nature.

Khorshid, S., Kamyabi, Y., & Khalilpour, M. (2024). Presenting and explaining a model to create the value of the company according to the role of accounting standards management, financial reporting quality and audit quality using meta-innovative models. *Journal of Investment Knowledge, 13*(50), 239-262.

Kiluange, F., Rouco, C., & Silva, A. P. (2024). Military Leadership in a VUCA Environment and BANI Scenario: A Systematic Literature Review.

Kitchin, H. A. (2003). The Tri-Council Policy Statement and research in cyberspace: Research ethics, the Internet, and revising a 'living document'. *Journal of Academic Ethics, 1*, 397-418.
Kliman, A. (1990). A Successful Budget Process. *Public Budgeting & Finance, 10*(2), 110-114. doi:10.1111/1540-5850.00867
Kloot, L. (1997). Organizational learning and management control systems: responding to environmental change. *Management Accounting Research, 8*(1), 47-73.
Klykken, F. H. (2022). Implementing continuous consent in qualitative research. *Qualitative Research, 22*(5), 795-810.
Kojonsaari, A.-R., & Palm, J. (2023). The development of social science research on smart grids: a semi-structured literature review. *Energy, Sustainability and Society, 13*(1), 1.
Kollmann, T., Stöckmann, C., Kensbock, J. M., & Peschl, A. (2020). What satisfies younger versus older employees, and why? An aging perspective on equity theory to explain interactive effects of employee age, monetary rewards, and task contributions on job satisfaction. *Human Resource Management, 59*(1), 101-115.
Korsgaard, C. M. (1996; p. 77-105). Creating the Kingdom of Ends. *Cambridge UP*.
Kramer, S., & Hartmann, F. (2014). How top-down and bottom-up budgeting affect budget slack and performance through social and economic exchange. *Abacus, 50*(3), 314-340.
Krause, R. (2009). Does "Long-Term Compensation" Make CEOs Think Long-Term? A Study of CEO Compensation in the Commercial Banking Industry. *Wall Street Journal, 1*, A1.
Krause, S., Trumpp, A., Dichtl, T., Kiese, S., & Rutsch, A. (2024). Neue Arbeitswelt, neue Arbeitsorte: Auswirkungen von Homeoffice auf den Büroimmobilienmarkt. *ifo Schnelldienst, 77*(03), 63-73.
Krebs, T. (2023). Die Verlängerung einer modifizierten Strompreisbremse zur Stärkung der deutschen Wirtschaft. *Wirtschaftsdienst, 103*(10), 676-679.
Kronenberg, V. (2024). *V. Krisenerfahrung und die Frage nach den Perspektiven und Szenarien einer Ökologisch-Sozialen Marktwirtschaft 2030.* Paper presented at the Zukunft. Vertrauen. Gestalten.
Kurdelbusch, A. (2002). Multinationals and the rise of variable pay in Germany. *European Journal of Industrial Relations, 8*(3), 325-349.
Kurniawan, -., Maulana, A., & Iskandar, Y. (2023). The effect of technology adaptation and government financial support on sustainable performance of MSMEs during the COVID-19 pandemic. *Cogent Business & Management, 10*(1), 2177400.
Kurz, H. D., & Salvadori, N. (1998). Understanding 'classical'economics. *Studies in long-period theory*.
Lamorgese, A., Patnaik, M., Linarello, A., & Schivardi, F. (2024). Management practices and resilience to shocks: Evidence from COVID-19. *Management Science*.
Langfield-Smith, K. (1997). Management control systems and strategy: a critical review. *Accounting, Organizations and Society, 22*(2), 207-232.
Lazaro-Mojica, J., & Fernandez, R. (2021). Review paper on the future of the food sector through education, capacity building, knowledge translation and open innovation. *Current Opinion in Food Science, 38*, 162-167. doi:https://doi.org/10.1016/j.cofs.2020.11.009
Lee, A. C., Khaw, F.-M., Lindman, A. E., & Juszczyk, G. (2023). Ukraine refugee crisis: evolving needs and challenges. *Public Health, 217*, 41-45.
Levitt Jr, A. (1998). The numbers game. *The CPA Journal, 68*(12), 14.
Levonian, Z., Erikson, D. R., Luo, W., Narayanan, S., Rubya, S., Vachher, P., . . . Yarosh, S. (2020). *Bridging qualitative and quantitative methods for user modeling: Tracing cancer patient behavior in an online health community.* Paper presented at the Proceedings of the International AAAI Conference on Web and Social Media.
Lewis, V. B. (1952). Toward a theory of budgeting. *Public Administration Review, 12*(1), 42-54.

Libby, T., & Lindsay, R. M. (2007). BEYOND BUDGETING OR BETTER BUDGETING? *Strategic Finance, 89*(2), 46-51. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=25946775&site=ehost-live

Libby, T., & Lindsay, R. M. (2010). Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice. *Management Accounting Research, 21*(1), 56-75. doi:10.1016/j.mar.2009.10.003

Littler, C. R. (1978). Understanding taylorism. *British Journal of Sociology*, 185-202.

Liu, C., & Yu, M. (2024). *A Financial Budget Model Based on Blockchain and Data Mining.* Paper presented at the Proceedings of the 2024 9th International Conference on Intelligent Information Processing.

Lohan, G. (2013). *A brief history of budgeting: reflections on beyond budgeting, its link to performance management and its appropriateness for software development.* Paper presented at the International Conference on Lean Enterprise Software and Systems.

Lohr, M. (2012). Specificities of managerial accounting at SMEs: case studies from the German industrial sector. *Journal of Small Business and Entrepreneurship, 25*(1), 35.

Lorain, M. A. F. G., García Domonte, A., & Sastre Peláez, F. (2015). Traditional budgeting during financial crisis.

Loxley, W., & Nanwani, S. (2024). Society and COVID-19. In *Social Structure Adaptation to COVID-19* (pp. 3-31): Routledge.

Mack, O., & Khare, A. (2016). Perspectives on a VUCA World. In O. Mack, A. Khare, A. Krämer, & T. Burgartz (Eds.), *Managing in a VUCA World* (pp. 3-19). Cham: Springer International Publishing.

Mack, O., Khare, A., Krämer, A., & Burgartz, T. (2015). *Managing in a VUCA World*: Springer.

Mahmud, M., Soetanto, D., & Jack, S. (2021). A contingency theory perspective of environmental management: Empirical evidence from entrepreneurial firms. *Journal of general management, 47*(1), 3-17.

Malmi, T., & Brown, D. A. (2008). Management control systems as a package—Opportunities, challenges and research directions. *Management Accounting Research, 19*(4), 287-300.

Maneejuk, P., Kaewtathip, N., & Yamaka, W. (2024). The influence of the Ukraine-Russia conflict on renewable and fossil energy price cycles. *Energy Economics, 129*, 107218.

Marcel, S., Christian, A. L., Richard, N., Silvia, S., Emma, H., Jacques, F., . . . Annelies, W.-S. (2020). COVID-19 epidemic in Switzerland: on the importance of testing, contact tracing and isolation. *Swiss medical weekly, 150*, w202205.

Marginson, D., & Ogden, S. (2005). Coping with ambiguity through the budget: the positive effects of budgetary targets on managers' budgeting behaviours. *Accounting, Organizations & Society, 30*(5), 435-456. doi:10.1016/j.aos.2004.05.004

Marotta, G., & Au, C.-D. (2022). Budgeting in the Age of Artificial Intelligence–New Opportunities and Challenges. *Available at SSRN 4168230*.

Marple, R. P. (1946). COMBINING THE FORECAST AND FLEXIBLE BUDGETS. *Accounting Review, 21*(2), 140. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=7040890&site=ehost-live

Marshall, J. (1982). Organisational theory and industrial location. *Environment and Planning A, 14*(12), 1667-1683.

Matějka, M., Merchant, K. A., & O'Grady, W. (2021). An empirical investigation of beyond budgeting practices. *Journal of Management Accounting Research, 33*(2), 167-189.

Mathiassen, L. (2017). Designing engaged scholarship: From real-world problems to research publications. *Engaged Management Review, 1*(1), 2.

Maurya, P. K., Bansal, R., & Mishra, A. K. (2023). Russia–Ukraine conflict and its impact on global inflation: an event study-based approach. *Journal of Economic Studies, 50*(8), 1824-1846.

Mbah, R. E., & Wasum, D. F. (2022). Russian-Ukraine 2022 War: A review of the economic impact of Russian-Ukraine crisis on the USA, UK, Canada, and Europe. *Advances in Social Sciences Research Journal, 9*(3), 144-153.

McDonough, W., & Braungart, M. (2017). The next industrial revolution. In *Sustainable solutions* (pp. 139-150): Routledge.

McWilliams, B., Sgaravatti, G., Tagliapietra, S., & Zachmann, G. (2023). How would the European Union fare without Russian energy? *Energy Policy, 174*, 113413.

Meister, A., Winkler, C., Schmid, B., & Axhausen, K. (2023). In-store or online grocery shopping before and during the COVID-19 pandemic. *Travel Behaviour and Society, 30*, 291-301.

Mendes-Da-Silva, W., & Saito, R. (2014). Stock exchange listing induces sophistication of capital budgeting. *Revista de Administração de Empresas, 54*, 560-574.

Mesaric, R., Mondal, A., Asmussen, K., Molloy, J., Bhat, C. R., & Axhausen, K. W. (2022). Impact of the COVID-19 Pandemic on Activity Time Use and Timing Behavior in Switzerland. *Transportation Research Record*, 03611981221087233.

Metcalf, B., & Gupta, P. C. M. A. C. A. (2021). FINANCIAL FORECASTING AMID COVID-19. *Strategic Finance, 102*(10), 36-41. Retrieved from https://www.proquest.com/scholarly-journals/financial-forecasting-amid-covid-19/docview/2509036210/se-2?accountid=15390

http://widgets.ebscohost.com/prod/customerspecific/s9815128/redirect.php?genre=article&issn=1524833X&volume=102&issue=10&date=2021-04-01&spage=36&title=Strategic+Finance&atitle=FINANCIAL+FORECASTING+AMID+COVID-19&au=Metcalf%2C+Brandon%3BGupta%2C+Pradeep%2C+CMA%2C+%28INDIA%29%2C+CA&isbn=&jtitle=Strategic+Finance&btitle=

Metzger, C. M., Lienhard, R., Seth-Smith, H. M., Roloff, T., Wegner, F., Sieber, J., . . . Egli, A. (2021). PCR performance in the SARS-CoV-2 Omicron variant of concern? *Swiss medical weekly, 151*(4950), w30120-w30120.

Meznar, M. B., & Johnson Jr, J. H. (2005). Business-government relations within a contingency theory framework: Strategy, structure, fit, and performance. *Business & Society, 44*(2), 119-143.

Miceli, M. P., & Heneman, R. L. (2000). Contextual determinants of variable pay plan design: A proposed research framework. *Human Resource Management Review, 10*(3), 289-305.

Miliband, D. (2023). The World Beyond Ukraine: the survival of the West and the Demands of the Rest. *Foreign Aff., 102*, 36.

Möller, K., Nenonen, S., & Storbacka, K. (2020). Networks, ecosystems, fields, market systems? Making sense of the business environment. *Industrial Marketing Management, 90*, 380-399.

Mool, B. (2023). New Keynesian and New Classical Debate on Contemporary Macroceconomic Development. *Journal of Economics Students, 1*(1), 16-28.

Moura, R. L. d., Carneiro, T. C. J., & Dias, T. L. (2023). VUCA environment on project success: The effect of project management methods. *BBR. Brazilian Business Review, 20*, 236-259.

Müller, O., Neuhann, F., & Razum, O. (2020). Epidemiologie und Kontrollmaßnahmen bei COVID-19. *DMW-Deutsche Medizinische Wochenschrift, 145*(10), 670-674.

Muñoz, L. (2023). Sustainability thought 174: Using the sustainability market price to derive the three imperfect market ways to manage the consequences of distorted traditional market pricing mechanisms under externality cost management. *International Journal of Latest Engineering and Management Research (IJLEMR), 8*(1), 01-13.

Murray, P. (2003). Organisational learning, competencies, and firm performance: empirical observations. *The learning organization, 10*(5), 305-316.

Mutinda, J. K. (2013). *The Relationship Between Capital Budgeting Techniques and Financial Performance of Banks Listed at the Nairobi Securities Exchange.* University of Nairobi,

Nagl, A., & Nagl, A. (2015). Iterative Plananpassungen zur Erreichung der Zielvorgaben/-vereinbarungen. *Der Businessplan: Geschäftspläne professionell erstellen Mit Checklisten und Fallbeispielen*, 239-240.
Naismith, R. (2021). *A cultural history of money in the medieval age*: Bloomsbury Publishing.
Nani, D. A., & Safitri, V. A. D. (2021). Exploring the relationship between formal management control systems, organisational performance and innovation: The role of leadership characteristics. *Asian Journal of Business and Accounting, 14*(1), 207-224.
Ndudi, E. F., Kifordu, A. A., & Egede, N. M. (2023). The Influence of Intrinsic and Extrinsic Motivation in Workers' Productivity: Empirical Evidence from the Construction Industry. *Global Journal of Human Resource Management, 11*(2), 96-112.
Neely, A., & Bourne, M. (2000). Why measurement initiatives fail. *Measuring Business Excellence, 4*(4), 3-7.
Neely, A., Bourne, M., & Adams, C. (2003). Better budgeting or beyond budgeting? *Measuring Business Excellence, 7*(3), 22. doi:10.1108/13683040310496471
Neilsen, E. H. (1974). Contingency theory applied to small business organizations. *Human relations, 27*(4), 357-379.
Neimark, M., & Tinker, T. (1986). The social construction of management control systems. *Accounting, Organizations and Society, 11*(4-5), 369-395.
Neuhaus, M. (2020). Valora: CEO Mueller fordert von SBB tiefere Mieten wegen Coronavirus. Retrieved from https://www.nau.ch/news/schweiz/valora-ceo-mueller-fordert-von-sbb-tiefere-mieten-wegen-coronavirus-65728223
Neumark, D., & Shirley, P. (2022). Myth or measurement: What does the new minimum wage research say about minimum wages and job loss in the United States? *Industrial Relations: A Journal of Economy and Society, 61*(4), 384-417.
Nguyen, D. H., Weigel, C., & Hiebl, M. R. (2018). Beyond budgeting: review and research agenda. *Journal of Accounting & Organizational Change, 14*(3), 314-337.
Nickerson, C. (2022). Interpretivism paradigm & research philosophy. *Simply Sociology, 5*.
Niiniluoto, I. (1991). Realism, relativism, and constructivism. *Synthese, 89*, 135-162.
Norris, S. (2024). In the eye of the beholder: Stakeholder perceived value in sustainable business models. *Long range planning, 57*(1), 102406.
Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods, 16*(1), 1609406917733847.
Nuhn, H. F. R., & Schaffitzel, N. (2020). Neue Perspektiven auf das Controlling in VUCA-Zeiten. *Projekt-Management Aktuell, 31*(2), 46-50. doi:10.2357/PM-2020-0027
Nunden, N., Abbana, S., Marimuthu, F., & Sentoo, N. (2022). An assessment of management skills on capital budgeting planning and practices: evidence from the small and medium enterprise sector. *Cogent Business & Management, 9*(1), 1-14. doi:10.1080/23311975.2022.2136481
Nwankwo, C. A., Kanyangale, M. I., & Eze, S. U. (2022). Organisational Structure as a Strategic Enabler of Commercial Bank Employees in Nigeria. *Academic Journal of Interdisciplinary Studies, 11*(3), 335-335.
O'Neil, K. (2019). How Qualitative Data Analysis Happens: Moving Beyond "Themes Emerged". *Forum: Qualitative Social Research, 20*(3), 1-8. doi:10.17169/fqs-20.3.3388
O'Grady, W., Akroyd, C., & Scott, I. (2017). Beyond Budgeting: Distinguishing Modes of Adaptive Performance Management. In *Advances in Management Accounting* (Vol. 29, pp. 33-53): Emerald Publishing Limited.
Obłój, K., & Voronovska, R. (2024). How business pivots during war: Lessons from Ukrainian companies' responses to crisis. *Business Horizons, 67*(1), 93-105.

Okeke, N. I., Bakare, O. A., & Achumie, G. O. (2024). Forecasting financial stability in SMEs: A comprehensive analysis of strategic budgeting and revenue management. *Open Access Research Journal of Multidisciplinary Studies, 8*(1), 139-149.
Østergren, K., & Stensaker, I. (2011). Management Control without Budgets: A Field Study of 'Beyond Budgeting' in Practice. *European Accounting Review, 20*(1), 149-181. doi:10.1080/09638180903487842
Osterloh, M., & Frey, B. S. (2002). Does pay for performance really motivate employees. *Business performance measurement: Theory and practice*, 107-122.
Otley, D. (1999). Performance management: a framework for management control systems research. *Management Accounting Research, 10*(4), 363-382. doi:10.1006/mare.1999.0115
Otley, D. (2016). The contingency theory of management accounting and control: 1980–2014. *Management Accounting Research, 31*, 45-62.
Pacheco-Cubillos, D. B., Boria-Reverter, J., & Gil-Lafuente, J. (2024). Transitioning to Agile Organizational Structures: A Contingency Theory Approach in the Financial Sector. *Systems, 12*(4), 142.
Palley, T. I. (2013). Keynesian, classical and new Keynesian approaches to fiscal policy: Comparison and critique. *Review of Political Economy, 25*(2), 179-204.
Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak. *Journal of Business Research, 116*, 209-213. doi:10.1016/j.jbusres.2020.05.036
Parker, G., & Hutti, E. (2022). Race, poverty and unemployment as quantitative predictors of voter turnout in St. Louis amidst COVID-19 and a racial justice movement. *International Journal of Sociology and Social Policy*(ahead-of-print).
Patrick, D. (2023). Energiepolitik unter Strom.
Paul, J., & Paul, J. (2014). Planung: Effektive Planungs-und Budgetierungsprozesse im Konzern. *Beteiligungscontrolling und Konzerncontrolling*, 7-35.
Pavlatos, O., & Kostakis, H. (2021). Budgeting in start-up companies: European survey-based evidence. In *Advances in Management Accounting* (pp. 97-125): Emerald Publishing Limited.
Pearson, C. M., & Clair, J. A. (1998; p. 60). Reframing crisis management. *Academy of management review, 23*(1), 59-76.
Peel, M. J., & Bridge, J. (1998). How planning and capital budgeting improve SME performance. *Long range planning, 31*(6), 848-856.
Perez, L. F.-R., & Robson, K. (1999). Ritual legitimation, decoupling and the budgetary process: managing organizational hypocrisies in a multinational company. *Management Accounting Research, 10*(4), 383-407.
Plant, A. (1932). Trends in business administration. *Economica*(35), 45-62.
Player, S., Leavitt, P., & Collins, R. (2019). Breaking The Budget. *CFO, 35*(3), 34-37. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=137195260&site=ehost-live
Pogge, T. (1998; p. 230). *The categorical imperative*: Rowman & Littlefield, Lanham, MD.
Porter, J., & Yeh, P. (2021). Investing in a Post-COVID Budgeting Process: Using Past Performance Has Gone Out the Window. *American Bankruptcy Institute Journal, 40*(11), 24-25,57. Retrieved from https://www.proquest.com/scholarly-journals/investing-post-covid-budgeting-process-using-past/docview/2593915541/se-2?accountid=15390

http://widgets.ebscohost.com/prod/customerspecific/s9815128/redirect.php?genre=article&issn=19317522&volume=40&issue=11&date=2021-11-01&spage=24&title=American+Bankruptcy+Institute+Journal&atitle=Investing+in+a+Post-COVID+Budgeting+Process%3A+Using+Past+Performance+Has+Gone+Out+the+Window&

au=Porter%2C+Jim%3BYeh%2C+Peter&isbn=&jtitle=American+Bankruptcy+Institute+Journal&btitle=

Powell, D. (2022). Synthetic Control Estimation Beyond Comparative Case Studies: Does the Minimum Wage Reduce Employment? *Journal of Business & Economic Statistics, 40*(3), 1302-1314.

Prendergast, P. (1997). Budget padding: Is it a job for the finance police? *Management Accounting: Magazine for Chartered Management Accountants, 75*(10), 44. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=9711252215&site=ehost-live

Pritchard, D. (2016). *Epistemology*: Springer.

PwC. (2011). Financial planning:

Realizing the value of

budgeting and forecasting. Retrieved from https://www.google.com/search?q=pwc+study+cost+of+budgeting&client=firefox-b-d&sca_esv=7a9597db14345c5b&sxsrf=ADLYWIKqm_etvqbzYcKgWShvPLh5H0Q6vA%3A1737565896694&ei=yCaRZ8D7KfG-xc8Ph9vcsQI&ved=0ahUKEwjA_66w6YmLAxVxX_EDHYctNyYQ4dUDCBA&uact=5&oq=pwc+study+cost+of+budgeting&gs_lp=Egxnd3Mtd2l6LXNlcnAiG3B3YyBzdHVkeSBjb3N0IG9mIGJ1ZGdldGluZzIHECEYoAEYCjIHECEYoAEYCkjoKlCbB1iJKnABeAGQAQCYAZEBoAGvFKoBBDE3Ljm4AQPIAQD4AQGYAhugAuoVwgIKEAAYsAMY1gQYR8ICBBAjGCfCAgoQABiABBhDGIoFwgIREC4YgAQYsQMY0QMYgwEYxwHCAgsQLhiABBjHARivAcICCxAAGIAEGLEDGIMBwgIOEC4YgAQYsQMY0QMYxwHCAhAQABiABBixAxiDARgUGIcCwgIOEC4YgAQYsQMYxwEYrwHCAhAQABiABBixAxhDGIMBGIoFwgIFEAAYgATCAg0QABiABBixAxgUGIcCwgIKEAAYgAQYFBiHAsICEBAuGIAEGBQYhwIYxwEYrwHCAggQABiABBjLAcICBhAAGBYYHsICBRAAGO8FwgIFECEYoAHCAgUQIRifBcICBBAhGBWYAwCIBgGQBgiSBwUxMi4xNaAH0rYB&sclient=gws-wiz-serp

R. Lawson, P., CMA, & CSCA, C. (2020). The impact of COVID-19 on the finance function. *Strategic Finance, 102*(5), 46-52.

Radder, H. (2021). Empiricism must, but cannot, presuppose real causation. *Journal for general philosophy of science, 52*(4), 597-608.

Ragnitz, J. (2023). Staatliche Hilfsprogramme während der Corona-Pandemie: Eine Bewertung aus ökonomischer Sicht. *ifo Dresden berichtet, 30*(6), 3-11.

Raipovna, V. S., Akramovich, N. A., & Durdona, A. (2022). Content and functioning of the market economy. *Journal of Academic Research and Trends in Educational Sciences, 1*(12), 105-110.

Reed, S. (2022). The days of energy deregulation are over in Europe. Retrieved from https://www.nytimes.com/2022/09/08/business/energy-regulation-europe-britain.html

Réka, C. I., Ştefan, P., & Daniel, C. V. (2014). TRADITIONAL BUDGETING VERSUS BEYOND BUDGETING: A LITERATURE REVIEW. *Annals of the University of Oradea, Economic Science Series, 23*(1), 573-581. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=97635608&site=ehost-live

Ricardo, D. (2005). From the principles of political economy and taxation. In *Readings in the economics of the division of labor: The classical tradition* (pp. 127-130): World Scientific.

Rickards, R. C. (2006). Beyond budgeting: boon or boondoggle? *Investment Management and Financial Innovations*(3, Iss. 2), 62-76.

Rieger, M., & Luge, S. (2024). Mit Objectives und Key Results (OKR) die Unternehmenskultur weiterentwickeln. In *Unternehmenskultur als Strategie: Eine Orientierung für Führungskräfte* (pp. 559-579): Springer.

Rigby, S. H. (2024). Marxism and history: A critical introduction. In *Marxism and History*: Manchester University Press.
Roman, G. A. (1997). *The Command or Control Dilemma: When Technology and Organizational Orientation Collide*: Air War College, Air University.
Romero-Silva, R., Santos, J., & Hurtado-Hernández, M. (2024). A conceptual framework of the applicability of production scheduling from a contingency theory approach: addressing the theory-practice gap. *Production Planning & Control, 35*(3), 262-282.
Rosen, G. (2001). Nominalism, naturalism, epistemic relativism. *Philosophical Perspectives, 15*, 69-91.
Rosenthal, U., Boin, R. A., & Comfort, L. K. (2001; p. 10). The changing world of crisis and crisis management. *Managing crises: Threats, dilemmas, opportunities*, 5-27.
Rubel, A. (2023). *Centralized and Decentralized Organizational Structure: The Impact on Employee Satisfaction and Performance.* Paper presented at the Proceedings of the International Conference on Industrial Engineering and Operations Management.
Rubery, J. (2024). Labour Markets. In *The Value of Industrial Relations* (pp. 89-102): Bristol University Press.
Rühli, F., & Thier, A. (2021). *Weissbuch Corona: Die Schweiz nach der Pandemie. Befunde–Erkenntnisse–Perspektiven*: NZZ Libro.
Saâdaoui, F., Jabeur, S. B., & Goodell, J. W. (2022). Causality of geopolitical risk on food prices: Considering the Russo–Ukrainian conflict. *Finance Research Letters, 49*, 103103.
Salamah, S. N. (2023). Financial management strategies to improve business performance. *Journal of Contemporary Administration and Management (ADMAN), 1*(1), 9-12.
Saltapidas, C., & Maghsood, R. (2018). Financial Risk: The fall of Knight Capital Group. *University of Gothenburg*, 1-8.
Samuelson, L. A. (1986). Discrepancies between the roles of budgeting. *Accounting, Organizations and Society, 11*(1), 35-45.
Sansom, B. (2024). Traditional economic systems. In *The Bantu-speaking peoples of southern Africa* (pp. 135-176): Routledge.
Sardana, N., Shekoohi, S., Cornett, E. M., & Kaye, A. D. (2023). Qualitative and quantitative research methods. In *Substance Use and Addiction Research* (pp. 65-69): Elsevier.
Saunders, M. N. K. L. P. T. A. (2019). *Research methods for business students*.
Say, J. B. (1836). *A treatise on political economy: or the production, distribution, and consumption of wealth*: Grigg & Elliot.
Sayyida, S., Hartini, S., Gunawan, S., & Husin, S. N. (2021). The impact of the COVID-19 pandemic on retail consumer behavior. *Aptisi Transactions on Management (ATM), 5*(1), 79-88.
Schermuly, C. C. (2024). Empowerment: Die Mitarbeiter stärken und entwickeln. In *Handbuch Mitarbeiterführung: Wirtschaftspsychologisches Praxiswissen für Fach-und Führungskräfte* (pp. 17-29): Springer.
Schiff, M., & Lewin, A. Y. (1970). The Impact of People on Budgets. *The Accounting Review, 45*(2), 259-268. Retrieved from http://www.jstor.org/stable/244377
Schiff, M., & Lewin, A. Y. (1970 p. 259). The impact of people on budgets. In *Management Control Theory* (pp. 209-218): Routledge.
Schilling-Vacaflor, A., & Gustafsson, M.-T. (2024). Towards more sustainable global supply chains? Company compliance with new human rights and environmental due diligence laws. *Environmental Politics, 33*(3), 422-443.
Schilling, J., Tolksdorf, K., Marquis, A., Faber, M., Pfoch, T., Buda, S., . . . Grote, U. (2021). Die verschiedenen Phasen der COVID-19-Pandemie in Deutschland: Eine deskriptive analyse von Januar 2020 bis Februar 2021. *Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz, 64*(9), 1093-1106.
Schlecht, O. (2024). Grundlagen und Perspektiven der sozialen Marktwirtschaft.

Schmitz, M., Hey, A., & Winn, M. (2013). Shared Services als Hebel für die Optimierung der Finanzorganisation. *Controlling, 25*(7), 367-373.
Schriber, S., & Löwstedt, J. (2020). Reconsidering ordinary and dynamic capabilities in strategic change. *European Management Journal, 38*(3), 377-387. doi:10.1016/j.emj.2019.12.006
Schwartz, S. T., Spires, E. E., Wallin, D., & Young, R. A. (2009). The behavioral implications of aggregation and delay on budget approval decisions. *Fisher College of Business Working Paper*(1495708).
Schwert, G. W. (2011). Stock volatility during the recent financial crisis. *European Financial Management, 17*(5), 789-805.
Searfoss, D. G., & Monczka, R. M. (1973). Perceived participation in the budget process and motivation to achieve the budget. *Academy of Management Journal, 16*(4), 541-554.
Sforza, A., & Steininger, M. (2020). Globalization in the time of COVID-19 [CESifo Working Paper No. 8184]. In.
Shafritz, J. M., & Hyde, A. C. (1978, p.20). Classics of Public Administration (Oak Park, IL. *IL: Moore Publishing Company*.
Shao, L. P., & Tissington, P. A. (2010). Ralph E. McKinney, Jr., Aston University.
Sheard, J. (2018). Quantitative data analysis. In *Research Methods: Information, Systems, and Contexts, Second Edition* (pp. 429-452): Elsevier.
Shim, J. K., Siegel, J. G., & Shim, A. I. (2011). *Budgeting basics and beyond* (Vol. 574): John Wiley & Sons.
Simon, H. A. (1952). A comparison of organisation theories. *The Review of Economic Studies, 20*(1), 40-48.
Singh, J. V., & Lumsden, C. J. (1990). Theory and research in organizational ecology. *Annual review of sociology, 16*(1), 161-195.
Singh, S., Joshi, M., Gandhi, M., & Malik, K. (2024). Sustainability and resilient strategies by entrepreneurial firms in a VUCA world. *World Review of Entrepreneurship, Management and Sustainable Development, 20*(3), 291-308.
Sinkko, T., Caldeira, C., Corrado, S., & Sala, S. (2019). 11 - Food consumption and wasted food. In C. M. Galanakis (Ed.), *Saving Food* (pp. 315-346): Academic Press.
Skoog, M. (2020). Management Control Theory and Practice Integration : Challenges and Possibilities. doi:10.3280/MACO2020-001-S1002
Soden, R., Toombs, A., & Thomas, M. (2024). Evaluating interpretive research in HCI. *Interactions, 31*(1), 38-42.
Sohag, K., Islam, M. M., Tomas Žiković, I., & Mansour, H. (2023). Food inflation and geopolitical risks: Analyzing European regions amid the Russia-Ukraine war. *British Food Journal, 125*(7), 2368-2391.
Sonjaya, Y. (2024). Exploring the Evolution of Budgeting Practices from Traditional to Technology. *Advances in Management & Financial Reporting, 2*(1), 36-45.
Spraakman, G., Maharaj, G., & Nguyen, E. H. (2023). Sanders Foods: Planning for Success—An Instructional Case*. *Accounting Perspectives, 22*(2), 167-177. doi:10.1111/1911-3838.12327
Stanca, L., Dabija, D.-C., & Câmpian, V. (2023). Qualitative analysis of customer behavior in the retail industry during the COVID-19 pandemic: A word-cloud and sentiment analysis approach. *Journal of Retailing and Consumer Services, 75*, 103543.
Stanwick, P. A., & Stanwick, S. D. (2020). The rise and fall of Eastman Kodak: looking through Kodachrome colored glasses. *Am J Humanit Soc Sci Res, 4*, 219-224.
Steves, A., Cho, C., Metin, Ç., Kong, X., & Boland, M. (2021). *The Food Retail Landscape Across Rural America*. Retrieved from
Stoelzel Chadwick, C. M., & Long, A. G. (2023). Foreign Policy Alignment and Russia's Energy Weapon. *Foreign Policy Analysis, 19*(2), orac042.

Stroh, L. K., Brett, J. M., Baumann, J. P., & Reilly, A. H. (1996). AGENCY THEORY AND VARIABLE PAY COMPENSATION STRATEGIES. *Academy of Management Journal, 39*(3), 751-767. doi:10.2307/256663

Sturm, J.-E., Rathke, A., Abberger, K., Daniele, M., Graff, M., Kronenberg, P., . . . Perakis, A. (2023). Konjunkturanalyse: Prognose 2024/2025. Schweizer Konjunktur: Binnenwirtschaft stützt– Aussenhandel schwächelt. *KOF Analysen, 2023*(3), 1-70.

Suver, J. D., & Hadley, G. D. (1978). Budgeting--Key to survival in the small business. *Journal of Small Business Management (pre-1986), 16*(000002), 46.

Tarki, A., Levy, P., & Weiss, J. (2020). The Coronavirus Crisis Doesn't Have to Lead to Layoffs. *Harvard Business Review Digital Articles*, 2-6. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=142483595&site=ehost-live

Taskan, B., Junça-Silva, A., & Caetano, A. (2022). Clarifying the conceptual map of VUCA: a systematic review. *International Journal of Organizational Analysis, 30*(7), 196-217.

Tavares, M. C., Vale, J., & Costa, A. (2024). The Role of Decentralised Managers in Decision-Making in a Large Industrial Company. *Administrative Sciences, 14*(9), 202.

Theiss, E. L. (1937). The Beginnings of Business Budgeting. *The Accounting Review, 12*(1), 43-55. Retrieved from http://www.jstor.org/stable/239028

Tolzmann, G. C., Vincent, R. J., & Lewis, M. R. (2024). Costs, budgeting, and financial decision making. *Clinical Laboratory Management*, 416-441.

Tong, E. (2024). Repercussions of the Russia–Ukraine war. *International Review of Economics & Finance, 89*, 366-390.

Tracy, S. J. (2019). *Qualitative research methods: collecting evidence, crafting analysis, communicating impact*: Wiley-Blackwell.

Travis, P. (1990). Why the AT&T network crashed. *Telephony, 218*(4), 11-12.

Tritter, J. Q., & Landstad, B. J. (2020). Focus groups. *Qualitative research in health care*, 57-66.

Tzenios, N., Chahine, M., & Tazanios, M. (2023). Better strategies for coronavirus (COVID-19) vaccination. *Special Journal of the Medical Academy and other Life Sciences., 1*(2).

Vahrenkamp, R. (2023). Taylor and Taylorism.

Valora-Adhoc_FEMSA-takeover. (2022). Ad-Hoc News before FEMSA takeover. Retrieved from https://www.valora.com/de/newsroom/detail/4635/die-valora-gruppe-erzielt-im-mai-und-juni-2022-einen-nettoumsatzerlos-uber-vorkrisen-niveau-steigert-das-ebit-im-ersten

Van der Stede, W. (2011). Management Accounting Research in the Wake of the Crisis: Some Reflections. *European Accounting Review, 20*(4), 605-623. doi:10.1080/09638180.2011.627678

Varpio, L., Paradis, E., Uijtdehaage, S., & Young, M. (2020). The distinctions between theory, theoretical framework, and conceptual framework. *Academic Medicine, 95*(7), 989-994.

Vaszkun, B. G., & Koczkás, S. (2024). Contingency theory.

Vellore, V. (2022). *OKRs for all: Making objectives and key results work for your entire organization*: John Wiley & Sons.

Ven, A. (2007). Engaged Scholarship: A Guide For Organizational and Social Research. In.

Ver Eecke, W., & Eecke, W. V. (2013). Adam Smith and the Free Market. *Ethical Reflections on the Financial Crisis 2007/2008: Making Use of Smith, Musgrave and Rajan*, 5-21.

Verma, A. (2024). Agile Leadership in the VUCA World: Combating Challenges of the COVID-19 Pandemic. In *VUCA and Other Analytics in Business Resilience, Part A* (pp. 267-285): Emerald Publishing Limited.

Visvizi, A., Troisi, O., & Corvello, V. (2024). *Research and Innovation Forum 2023: Navigating Shocks and Crises in Uncertain Times—Technology, Business, Society*: Springer Nature.

vom Brocke, J., Petry, M., Schmiedel, T., & Sonnenberg, C. (2014). How organizational culture facilitates a global BPM project: the case of Hilti. In *Handbook on Business Process*

Management 2: Strategic Alignment, Governance, People and Culture (pp. 693-713): Springer.
Von Glahn, R. (2023). *Fountain of fortune: money and monetary policy in China, 1000-1700*: Univ of California Press.
Von Hayek, F. A. (1937). Economics and knowledge. *Economica, 4*(13), 33-54.
Von Mises, L. (1978). *The ultimate foundation of economic science*: Liberty Fund.
Wadongo, B., & Abdel-Kader, M. (2014). Contingency theory, performance management and organisational effectiveness in the third sector. *International Journal of Productivity and Performance Management, 63*(6), 680-703. doi:10.1108/IJPPM-09-2013-0161
Wallandar, J. (1999). Budgeting: An unnecessary evil. *Scandinavian Journal of Management, 15*.
Wang, Z., Cai, X., & Liu, Z. (2023). Survival and revival: transition path of the Chinese construction industry during the COVID-19 pandemic. *Engineering Management Journal, 35*(4), 333-345.
Wargitsch, C. (2010). *Management control in Familienunternehmen* (Vol. 2): Peter Lang.
Weber, M., & Weber, M. (1994). Der Zusammenhang zwischen Größen-und Strukturwachstum: Versuch einer Bestimmung von Ursachen und Formen "typischer" Wachstumspfade von Organisationen. *Das Wachstum von Verwaltungsorganisationen: Formen, Ursachen und Grenzen*, 164-215.
West, R. N., & Snyder, A. M. (1997). How to set up a budgeting and planning system. *Management Accounting: Official Magazine of Institute of Management Accountants, 78*(7), 20. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,url,athens,uid&db=bth&AN=9712062874&site=ehost-live
Whig, P., & Kautish, S. (2024). VUCA Leadership Strategies Models for Pre-and Post-pandemic Scenario. In *VUCA and Other Analytics in Business Resilience, Part B* (pp. 127-152): Emerald Publishing Limited.
Wickramasinghe, V., & Wickramasinghe, G. (2016). Variable pay and job performance of shop-floor workers in lean production. *Journal of Manufacturing Technology Management, 27*(2), 287-311.
Wildavsky, A. (1961). Political implications of budgetary reform. *Public Administration Review*, 183-190.
Wildavsky, A. B. (1986). *Budgeting: a comparative theory of the budgeting process*: Transaction Publishers.
Wonkam, A., & Adeyemo, A. (2023). Leveraging our common African origins to understand human evolution and health. *Cell Genomics, 3*(3).
Wood, A. W. (2008). *Kantian ethics* (Vol. 60): Cambridge University Press Cambridge.
Worldbank. (2020). GDP per Capita. Retrieved from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?most_recent_value_desc=true
Worley, C. G., & Jules, C. (2020). COVID-19's Uncomfortable Revelations About Agile and Sustainable Organizations in a VUCA World. *Journal of Applied Behavioral Science, 56*(3), 279-283. doi:10.1177/0021886320936263
Worsley, P. (2013). *Marx and marxism*: Routledge.
Wu, Y. L., Shao, B., Newman, A., & Schwarz, G. (2021). Crisis leadership: A review and future research agenda. *The Leadership Quarterly, 32*(6), 101518.
Yarger, H. R. (2006). *Strategic theory for the 21st century: the little book on big strategy*: Strategic Studies Institute, US Army War College.
Zakeri, B., Paulavets, K., Barreto-Gomez, L., Echeverri, L. G., Pachauri, S., Boza-Kiss, B., . . . Ürge-Vorsatz, D. (2022). Pandemic, War, and Global Energy Transitions. *Energies, 15*(17), 6114.
Zeller, T., & Metzger, L. (2013). Good Bye Traditional Budgeting, Hello Rolling Forecast: Has The Time Come? *American Journal of Business Education (AJBE), 6*, 299. doi:10.19030/ajbe.v6i3.7810

Zhao, J., & Ferran, C. (2016). Business school accreditation in the changing global marketplace: A comparative study of the agencies and their competitive strategies. *Journal of International Education in Business, 9*(1), 52-69.
Zor, U., Linder, S., & Endenich, C. (2019). CEO characteristics and budgeting practices in emerging market SMEs. *Journal of Small Business Management, 57*(2), 658-678.

Appendices

Appendix 1: Interview guide

Interview Guide

Research question: **Are traditional annual static budgets useful during crisis situations?**

Crisis for the purpose on the study: **COVID-19 pandemic and the war in Ukraine**

Objectives:

- To examine how Valora has reacted during the crisis with regard to the budgeting approach
- To examine what was the underlying decision that drives the reaction
- To identify which are the expectations that are associated with the operational function of budgets
- To examine to what extent the individual professional knowledge of budgeting approaches has impacted the decision on the budgeting approach
- To examine the lessons learnt by the managers during the crisis and how will this impact the view on budgeting practices

Questions:

- In general what is your definition of a budget?
    - What do you expect from budgets
    - Would you feel uncomfortable without a budget?
        - Could you please explain why?
    - Have you, either during your academic education or your professional education, come across alternative forms of budgeting?
        - Please share your experience
- Could you describe how the COVID-19 crisis impacted your area of responsibility within Valora
    - How have you personally reacted during this crisis with regard to the annual budget?
    - Do you think the annual budget of the crisis year was helpful to you?
        - Please elaborate
        - Why do you believe this was the case?
    - What would have been missing without the annual budget in the crisis year?
    - What approaches have you used instead and why?
- Could you describe the decision-making process within the organisation in terms of how budgeting is conducted?
- Could you elaborate on what the decision drivers were for your reaction to the crisis regarding the budget?
    - Have you revisited the “plan” more frequently in comparison to a non-crisis year?
    - Did you miss anything from the budget with regard to a specific function you expected?
- How do budgets help you in your role?

    - Could you list the elements of the budget that help you look at your job responsibilities/tasks?
- How has the COVID-19 crisis impacted your view on budgeting?
- Can you describe how the war in Ukraine impacted your area of responsibility within Valora
    - Have you reacted differently in any kind in comparison to the COVID-19 crisis?
    - Do you think the annual budget for the year 2022 was helpful to you?
        - Why do you believe this?
- Please outline if the crisis changed your expectations towards budgets
- Please outline how the crisis changed your expectations towards budgets

Appendix 2: Interview summary

	Question	Yes	No	Comments
1	What do you expect of budgets?	n/a	n/a	
2	Would you feel uncomfortable without a budget?	3	6	North Star
3	Have you come across alternative methodologies of budgeting other than traditional annual ones?	2	7	only Hilti model
4	Can you describe how Covid 19 hit your area of business in early 2020?	n/a	n/a	
5	How useful was the annual budget for 2020?		9	
6	Would have anything been missing without a budget in 2020?		9	
7	For the budget of 2021, have you changed anything?	2	7	
8	How useful was the annual budget for 2021?		9	
9	Describe the Ukraine impact?	n/a	n/a	
10	How useful was the annual budget for 2022?	1	8	
11	Has your view on budgeting changed during the last years?	8	1	
12	What are your expectations on FEMSA budgeting?	n/a	n/a	
13	Do you think in a VUCA world, things will always be like in the last years?	9		
14	What is your view on variable compensation tied to a budget?	n/a	n/a	
	Cultural impact	n/a	n/a	

	Other findings	
	Understanding of a good budget as detailed, bottom-up and ambitious	8
	Important for a good budget is ownership	3

Appendix 3: Coding Sheet

Code Book

Number	Code	Topic	Definition
1	BAL	Alternative methodologies	Knowledge
2	BFP	Function - Planning and control	Planning and Control fucntion
3	BFR	Function - Ressource	Ressource allocation function
4	BFV	Function - Variable Pay	Variable pay function
5	BPC	Budget Process	Level of detail & description
6	BU0	2020 usefulness of budget	Comments on 2020 budget and its implications
7	BU1	2021 usefulness of budget	Comments on 2021 budget and its implications
8	BU2	2022 usefulness of budget	Comments on 2022 budget and its implications
9	CCC	Critical - Command structure	Centralised command structure comments
10	CEN	Critical - Numbers	Emphasis on numbers comments
11	CIN	Critical - Flexibility	Flexibility in question
12	COV	COVID-19	Impact on area
13	CRE	Critical - Ressources	Ressources around budget
14	CTI	Critical - Time-consuming	Time-consumption comments
15	SKS	Skill-Set	Comments towards skill set implications
16	UDD	Underlying decision drivers	Comments towards budget expectations
17	VUC	VUCA	Understanding and implications
18	WUK	War in the Ukraine	Impact on area