



**UNIVERSITY
OF TURKU**

Turku School of
Economics

Strategic Applications of Cost Accounting in Global Business Operations

Master's Thesis
in Accounting and Finance

Author:
Ida-Maria Lius

Supervisor:
Ph.D. (Econ.) Lauri Lepistö

28.10.2024
Aberdeen, UK

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Master's thesis

Subject: Accounting and Finance

Author: Ida-Maria Lius

Title: Strategic Applications of Cost Accounting in Global Business Operations

Supervisor: Ph.D. (Econ.) Lauri Lepistö

Number of pages: 94 pages + appendices 11 pages

Date: 28.10.2024

Abstract.

In today's global marketplace, businesses face intense competition, requiring constant adaptation to sustain growth and profitability. In this context, every company function must align with the overall strategy. A key question arises: How does cost accounting, as a functional area, contribute to the realisation of strategy and the enhancement of competitiveness?

Strategy is examined through Michael Porter's (1985) theory of Sustainable Competitive Advantage. According to this framework, a company can compete effectively either as a cost leader or through differentiation to achieve a sustainable competitive advantage. Therefore, I am exploring potential links between specific strategic focuses and the adoption of both traditional and strategic costing tools.

Since qualitative research allows for direct, in-depth discussions with interviewees, I am also using this opportunity to explore the finance practitioners' perspectives, interpretations, and experiences regarding how current costing systems have evolved, why specific costing tools are selected, how the provided data is utilised strategically, and how costing systems could – and should – be improved under different strategic emphases.

Methodologically, the research data consists of five cases used as instruments to explore phenomena and develop theoretical propositions. The data is constructed by using a combination of preplanned systematic coding (for closed questions) and the detection of emerging patterns or themes (for open questions). The following analysis involves cross-case analysis, both across cases and in contrast to theory, as well as content analysis, with the inductive approach relying heavily on detailed observations, such as quotations.

The final results indicate that all companies consider traditional costing tools (Marginal Costing and Full Costing) to be the most highly valued and utilised tools from a strategic perspective. Overall, companies have incorporated a variety of both traditional and strategic tools into their cost accounting systems, which are generally very sophisticated. The most notable distinction in tool adoption is related to Activity-Based Costing (ABC) and Activity-Based Management (ABM). All cost leader companies (3) had adopted these Activity-Based Costing tools and used this data in their strategic decision-making and in realising their strategies. In contrast, none of the differentiators (2) had fully applied these tools, even at the operational level. Since Activity-Based Costing provides costing data in its most refined form, cost leaders utilise more detailed costing data in strategic decision-making and strategy realisation compared to companies following a differentiation strategy. Given that the choice to adopt specific tools was need-based, this suggests that strategic emphasis could have a direct influence on costing system design.

Secondly, the in-depth interviews reveal that value is interpreted slightly differently between the two groups, which can also explain the mechanisms behind their selection of costing tools. In this data sample, cost leaders see value through performance in activities, and it is defined internally, primarily by the company. Differentiators, instead, interpret value through the uniqueness of activities and definitions provided by the buyer. Of the strategic costing tools, differentiators had adopted Target Costing and Value Chain Analysis, which were not common among cost leaders. It can be inferred that whereas Activity-Based Costing tools support the realisation of a cost leadership strategy by enhancing performance in activities and optimising processes, Target Costing and Value Chain Analysis support a differentiation strategy by fostering unique activities

and attributes in the value chain, ensuring that the value of their operations in product development aligns with buyers' evaluations.

The findings support the view that companies should adopt a set of costing tools aligned with the requirements of their chosen competitive strategy in order to achieve sustainable competitive advantage. Further qualitative research is needed, and generalising the results would require a larger sample, along with methods to isolate this specific contingency factor (i.e., strategic emphasis). A longitudinal research method could be applied to achieve this and such research would offer valuable, practical insights for company decision-makers, providing clarity and greater consensus within the academic community on this topic in the field of management accounting.

Key words: cost management, strategy, competitive advantage, costing, cost accounting, costing techniques, costing tools, strategic business unit, cost control, business control, strategic cost management, cost management system, differentiator, cost leader, prospector, defender

Table of contents

1	Introduction	1
1.1	Background of the study	1
1.2	Research question, choices, and key limitations	3
2	Definitions	6
2.1	Traditional cost accounting approach	6
2.2	Strategic cost accounting approach	8
2.3	Summary	13
3	Theoretical framework	15
3.1	Generic Strategies Model (Porter, 1985)	15
3.2	Porter's General Strategies vs. Costing Approach	19
3.3	Cooper's (1996) Competitive Strategy vs. Cost Accounting	25
3.4	Miles & Snow's (1978) Competitive Strategy vs. Cost Accounting	27
3.5	Summary	29
3.5.1	Literature review	29
3.5.2	Theoretical framework	37
4	Methodology	39
4.1	Qualitative research	39
4.2	Method of data collection: Interviews	40
4.3	Method of data analysis: Qualitative content analysis	43
5	Empirical results	48
5.1	Defining the strategies	48
5.1.1	Case 1: Service company with a cost-focused strategy	49
5.1.2	Case 2: Focused differentiation strategy company, aiming to expand	51
5.1.3	Case 3: Manufacturing company with a cost-focused strategy	52
5.1.4	Case 4: Franchise, competing through differentiation	54
5.1.5	Case 5: Large cost-focused manufacturing company integrating high technological expertise	55
5.2	Strategic cost accounting adaptations in cost leadership and differentiator companies' operations	58
5.2.1	Activity-Based Costing tools	59

5.2.2	Target Costing	62
5.2.3	Value Analysis	63
5.2.4	Life-Cycle Costing	65
5.2.5	Total Quality Management	66
5.2.6	Attribute Costing and Lean Accounting	67
5.3	Experiences of strategic cost accounting practices in global business operations	69
5.3.1	Implementing the strategy from a cost accounting perspective: “What needs to be done?”	69
5.3.2	Current practices and selected costing tools: “Which ones, and why?”	71
5.3.3	Recognised areas of improvements and considerations: “What next?”	76
6	Evaluation: Validity and Limitations	83
6.1	Validity	83
6.2	Limitations	86
7	Conclusions	89
7.1	Answering the research question	89
7.2	Directions for future research	93
	Sources	95
	Attachments	101
	Attachment 1. Definitions	101
	Attachment 2. Questionnaire	108

LIST OF FIGURES

Figure 1.Elements of Absorption Costing system (CIMA, 2005)	7
Figure 2.Theoretical framework: Chapters 1-3	37
Figure 3.Narrative logic: Exploring the experiences	69
Figure 4.Strategic alignment through cost accounting	92

LIST OF TABLES

Table 1.Costing techniques	13
Table 2.Costing techniques and different strategic emphases	29
Table 3.Background information on the participating companies and the interviewees	43
Table 4.Strategy analysis. Case 1.	49
Table 5.Strategy analysis. Case 2.	51
Table 6.Strategy analysis. Case 3.	52
Table 7.Strategy analysis. Case 4.	54
Table 8.Strategy analysis. Case 5.	55
Table 9.Overview of costing tools adoption	58

1 Introduction

1.1 Background of the study

Businesses balance between control and innovation, growth and profitability when seeking an unlimited number of opportunities in the marketplace with a limited number of resources. The starting point for a business is to choose how it will compete in its market: Set a strategy which aligns with business goals. Robert Simons (1998) visualises tensions in balancing business strategy by using the triangle model, where *profit*, *growth* and *control* are the three (sometimes mutually exclusive) forces that need to be considered. *Performance measurement and control systems* allow managers to balance these tensions and manage complex entities effectively.

According to Simons (2014, 15–16), high-performance businesses strive simultaneously for *profitability* and *growth*: Behind increased profits and growth lies constant innovation; Yet, if the emphasis is only limited to *profit* and *growth*, the lack of control begins to increase business risks. Weak control allows errors in operations that sometimes will not be noticed until it is too late, leading to damages and commercial losses. Simons (2014, 16) states that the idea of finding the balance between these organisational tensions is a relevant approach in designing and using several types of formal management systems, including accounting systems, profit planning systems, and performance measurement systems.

In this thesis, I will focus on *cost management systems*, specifically examining the cost management approaches and techniques that businesses have operationalized, as well as the link between these choices and the company's business strategy. Scholarly literature (Horngren, 2015, 712) supports this starting point by stating that the strategic objectives entail the effective use of cost management systems: Cost management is becoming a more strategic function in the company as the changes in costs are more often interpreted as redirecting the strategic priorities.

Horngren (2015, 712) argues that traditional cost management is too cost-focused and should entail an assessment of operational functions, marketing concerns, design constraints, human resource issues and other aspects of organisational activities. This shift in focus would lead cost management to become a more interdisciplinary and

multifunctional activity in the company, which would require companies to adopt a new more strategic cost management approach.

In Roslender and Hart's (2003) explanatory study, however, the researchers found little evidence that strategic cost management approaches, such as *Target Costing*, *Life-Cycle Costing* or *Attribute Costing*, would have been used in the sample companies in the UK. The researchers also observed that strategic management accounting was visible in research literature, but less so in practitioner literature. As the study was carried out in 2003, it will be interesting to see, if after 20 years strategic cost accounting approaches are more evident, well-known and more common methods in companies' management accounting practices. By interviewing practitioners and finance professionals in the industry, there is potential to shed light on the topic of how different cost management approaches have altered the cost management -function's contribution to the realisation of business strategy.

This topic is important for any management accounting professional as they are usually the personnel in the company who solely focus on monitoring the profit margins and by doing so, mitigating the business risks: Competitive advantage is the key to a successful strategy, which ultimately is measured in businesses' profitability. Profitability, in turn, depends on how a company generates revenue and controls costs. Despite a wide range of costing approaches available to strategic management accounting, there is relatively little academic knowledge about how managers choose what techniques will be adopted in different company-specific strategic settings.

I find that this knowledge would be useful for any (future) management accounting professional, and is worth further investigating: Boer (1996, 46) states, that management accountants are responsible for shaping up the corporate accounting information system to support a firm's strategy, and that by playing an active role in implementing the best and the most advanced cost accounting systems, management accountants will increase the value of their contributions as well as ensuring their inclusion on the firm's strategic management team. It is part of management accountants' expertise to be able to tell what cost accounting methods they decide to use and to be able to answer the questions of why certain methods have been implemented.

Recent trends in the business environment also make this subject topical. Tangentially with technology development, business competition has increased. The impact of

increased competition in the market makes brands constantly more important. The initial literature review indicates that strategic cost management techniques have become more essential, especially in companies with differentiation strategies and higher emphasis on branding (compared to cost leaders). Furthermore, there is some initial evidence that companies that apply strategic cost management techniques and compete via differentiation strategies have scored higher profit margins compared to their rivals.

These findings add relevance to this research, as it can be presumed that the strategic costing approach provides such non-financial information for the management that has the potential to improve companies' competitiveness in highly competitive global markets and hence, is relevant information for finance professionals who are accountable for companies' performance and profit margins. This assumption is supported by Blocher et al. (2009, 23) who state that the strategic cost accounting system needs to be in line with the strategy as there is currently so much competition; Blocher et al. (2009, 23) also interpret, that management account professionals have responded to recent changes in the business environment – including increased competition, and advances in information technologies and enterprise resource management - with several methods consisting of strategic costing tools such as *Value Chain Analysis*, *Activity-Based Management*, *Target Costing*, *Life-Cycle Costing*, *Total Quality Management* and *Lean Accounting*. Each of these costing techniques, their prevalence in current business practices, and their links to business strategies will be analysed in this thesis.

1.2 Research question, choices, and key limitations

Research question: *How does the cost accounting approach support the implementation of the chosen business strategy?*

I aim to answer the research question using a qualitative research method: Interviews. The target interviewees are experienced finance professionals operating in different companies, in several countries. Companies need to be large enough so that proper managerial accounting is appropriate, as the company size positively impacts the use of strategic management accounting techniques (Cadez & Guilding, 2008, 18)

The theoretical foundation of this thesis is contingency theory. This theory contends that the appropriateness of any management accounting system depends on the circumstances the company confronts. The term contingency means that something is true only under specific conditions (Chenhall, 2007, 191). Therefore, alignment between the management accounting system, including cost accounting techniques, and the external factors, is in focus when this theory is applied. (Chenhall, 2003, 127-129) Prior management accounting research (Anderson & Lanen, 1999; Tillema, 2005; Cadez & Guilding, 2008) encourages applying the contingency theory perspective when the appropriateness of sophisticated accounting instruments is studied – To contribute to the development of an integrated framework to explain the sophistication of management accounting systems and their success (or lack of success) depending on the circumstances i.e. certain contingency factors. Hence, this perspective is a relevant choice.

As the cost accounting system is a response to a set of contingencies, there would be many potential contingency factors to examine to explain the differences in adopted cost accounting techniques. I have chosen to limit my exploration to the role of only one contingency factor, *competitive strategy*.

To do so, I utilise Michael Porter's (1985) theoretical taxonomy to define alternative company strategies. According to Porter's (1985) theory about competitive advantages, companies can have either a strategic *cost advantage* or a strategic *differentiation advantage*. The research interviews aim to make in-depth observations and suggestions about how cost management approaches differ if the company seeks competitive advantage specifically via *low-cost* or alternatively via *differentiation* strategy.

Porter's (1985) theory is selected because Porter's classification is a widely applied taxonomy in recent, contingency theory-based, strategic management accounting literature (Chenhall, 2003; Chenhall, 2007; Cinquini & Tenucci, 2010; Langfield-Smith, 1997). Porter's (1985) taxonomy is also comparable to other popular taxonomies utilised among strategy scholars, for example, typologies by Miles and Snow (1978), or Gupta and Govindarajan (1984). Finally, a strategy classification brings order to a jumbled array of business choices and supports the later analysis.

Any suggestions regarding how well the cost management approach supports the realisation of the chosen business strategy are based on subjective experiences from the field. I have opted not to analyse the actual financial impact as this would require

quantitative analysis and a larger sample. Instead, my purpose and research object is to gather data about experiences and interpretations, how the current business professionals see and utilise new strategic methods in cost management, and whether they have considered how well this approach complies with the specific business goals, operations, and strategy. Ultimately, I aim to contribute to the current research by increasing the understanding of the relationship between companies' strategic emphasis and the cost accounting system sophistication.

2 Definitions

Accounting system is defined as procedures and mechanisms to collect information about the transactions of a business. Account balances are ultimately summarized in financial statements such as balance sheets, income statements, and cash flow statements. (Simons, 2014, 1) In addition to knowing how they have performed in the past, businesses need to know the profits and costs of the future: Management accounting specifically covers all the information vital in profit planning, costing and control and managerial decision-making.

Johnson and Kaplan (1987, 21-22) state that a management accounting system must provide accurate and timely data to facilitate cost control, measuring and improvement of productivity, improvement of the production processes, and pricing decisions. Management accounting system involves the reporting of financial results or outputs (Bowhill 2008, 445). Neilimo and Uusi-Rauva (2005, 37) further divide management accounting into four typical forms: *Cost accounting*, *investment calculations*, *pricing*, and *performance management*, where budgetary control is the most widely used method. Cost accounting aims to portray a business's total production costs by assessing cost types, cost centers, cost drivers and activities.

2.1 Traditional cost accounting approach

Traditionally costs are classified as fixed and variable costs. The full cost per unit is the variable cost per unit plus the fixed cost per unit at a certain output level. The full cost per unit will therefore change when the level of output changes. The fixed cost per unit declines the more units are made: The curve is regressive. The full cost per unit is a traditional base in pricing, as the simplest way to identify the selling price of a product or service is to sum up the full cost of the unit and markup for profit (Bowhill, 2008, 29-32). A cost accounting system, that uses this data about variable and fixed costs per unit to make budgets and control expenses, relies on traditional *Marginal Costing* i.e. *Variable Costing* i.e. *Direct Costing (US)* (*Fin. Katetuottolaskenta*). In the case of *Marginal Costing*, the amount of production overhead absorbed relates only to the variable element (CIMA, 2005).

Typically, though, as a significant percentage of businesses' total costs are fixed overhead costs, these overhead costs need to be allocated to services and products based on the actual usage and cause. To make this allocation accurate, the costs should be classified as direct and indirect instead of variable and fixed. Whilst variable costs are often direct and fixed costs are indirect, this is not always the case – Indirect costs can also be variable or fixed. (Bowhill, 2008, 105–108)

Absorption Costing (Fin. *Omakustannuslaskenta*) assigns direct costs and all or part of indirect costs to cost units using one or more overhead absorption rate(s) (CIMA, 2005) which are most often predetermined (Bowhill, 2008, 113). *Absorption Costing* is sometimes referred to as *Full Costing* (Fin. *Täyskatteellinen Kustannuslaskenta*), though according to CIMA (2005) this is a misnomer as not all costs are always attributed to cost units. The chart below demonstrates the absorption costing principle.

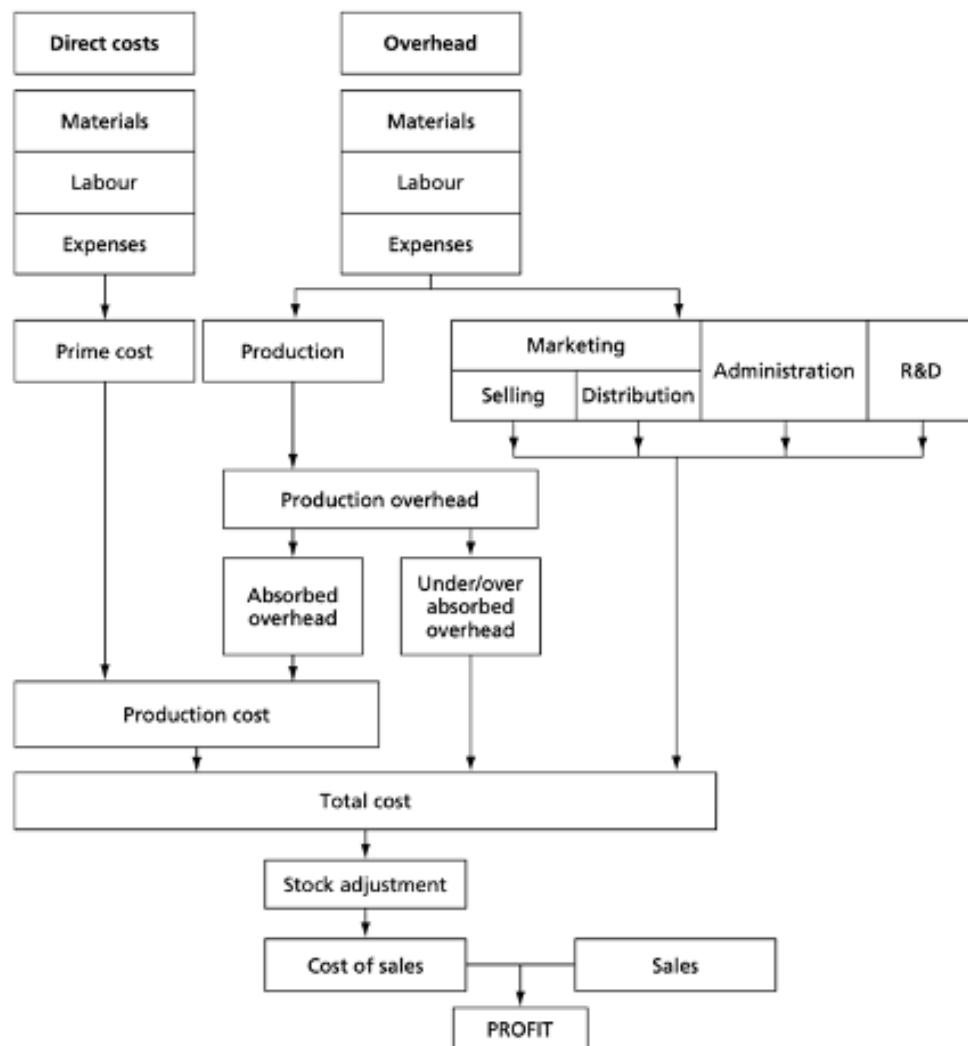


Figure 1. Elements of Absorption Costing system (CIMA, 2005)

As demonstrated in Figure 1, indirect overhead costs, similar to direct costs, can be divided into “material overhead cost”, “labour overhead cost” and “expenses overhead cost”. Both indirect material and labour costs are therefore somewhat variable in nature, as together with direct costs they form the production cost: Material overhead cost is dependent on the amount of material used in production and labour overhead cost is dependent on the number of hours used in production. By apportioning the overhead costs to the products and services, the cost analysis is more detailed and informative and provides a more accurate picture of the full costs of the sold products or services – also making the profit estimates more credible.

Cost centre or *cost pool* is the location where the overhead costs are assigned, and in traditional cost accounting systems, these consist of departments. *Activity-Based Costing (ABC)* was named after the alternative way of allocation. In *ABC*, costs are not accumulated by departments but by activities which form activity cost centres. Another characteristic of the *ABC* systems is the usage of cost drivers (or allocation base): Cost drivers are determinants of the cost of activities. (Drury, 2012, 50)

Processes have a cost dimension (Kaplan and Norton, 1996, 122): This aspect feels specifically relevant in project-based businesses, where all costs should be measurable on process level and when further disaggregated, on activity level. *ABC* systems enable data in this form.

2.2 Strategic cost accounting approach

Chartered Institute of Management Accountants (CIMA, 2005) has defined *strategic management accounting* as management accounting information in which emphasis is placed on information, which is related to factors external to the firm, as well as to non-financial information and internally generated information. At this point, separating the terms *cost control* and *cost management* seem relevant. Drury (2012, 541) emphasises that cost management is clearly a more strategic function, hence, the terms *strategic management accounting* (CIMA, 2005) and *(strategic) cost management* (Drury, 2012, 541) should align. The term *strategic* in strategic management accounting should be

interpreted as the support that these techniques provide in the strategic decision-making process (Cinquini & Tenucci, 2010, 230).

It needs to be highlighted that there is a significant difference between traditional and strategic approaches to cost accounting. The traditional approach with a traditional cost control system emphasizes *cost containment*, whereas the strategic approach is fully focused on active *cost reduction*. Traditional cost control systems rely heavily on accounting techniques and use this information i.a. in comparing the actual results against the budget. By contrast, strategic cost management consists of various actions, where only some of the actions are based on the information that was extracted from the accounting system, and many of the actions do not involve this data at all. (Drury 2018, 590–591)

Strategic cost management seeks cost reductions from any activities that do not add value for the customer: The aim is to enhance customer satisfaction and reduce costs simultaneously. (Drury, 2012, 542-543) Therefore, not all the strategic cost accounting techniques presented in this chapter incorporate accounting data. The concept of *value chain* and its link to the competitive business strategies, will be discussed in more detail in Chapter 3, as part of Michael Porter's (1985) theory on Competitive Advantage, where this idea was first described.

In scholarly literature (Blocher, 2009, 23), certain cost management practices are repeatedly considered as strategic and advanced, i.e. focusing directly on strategy implementation. These practices are *Target Costing*, *Value Chain Analysis*, *Activity-Based Management*, *Life-Cycle Costing*, *Total Quality Management*, and *Lean Accounting*. In Cadezes' and Guilding's (2008) listing the management accounting costing techniques that exhibit strategic orientation are similar to Blocher's listing: *Target Costing*, *Value Chain Costing*, *Life-Cycle Costing*, *Attribute Costing* and *Quality Costing*. In Cadezes' and Guilding's (2008) listing, however, *Activity-Based Costing* is missing. I have chosen to include it in traditional methods because *ABC* is only a method to determine the costs more accurately as overhead costs are fully assigned to activities. *ABC* systems have more cost centers, and a general rule is, that by increasing the number of cost centres, the indirect costs will be more accurately measured by cost objects i.e. products or services. (Drury, 2012, 50-57) *Activity-Based Management* draws on *ABC* as its major source of information, which in turn can be classified into two categories: Either as *operational* (and perhaps "traditional") *ABC* or as strategic *ABM* (Blocher, 2009, 139).

Blocher (2009, 27) later states that both *ABC* and *ABM* can be *key* strategic tools for companies though, especially in organisations with complex operations or a diversity of products. Next, in this chapter, I will provide brief descriptions of the following strategic costing tools: *Target Costing*, *Value Chain Costing*, *Life-Cycle Costing*, *Quality Costing*, *Attribute Costing* and *Lean Accounting (Value Stream Costing)*.

Target Costing is a multidisciplinary team-based approach, recommended in contexts where a team works together to solve customer's problems. This kind of approach fits well when employees working in different functional areas are likely to take account of each other's needs: Then there is no need to fully separate engineering, designing, purchasing, manufacturing or other activities to their individual functions (Bowhill, 2008, 42) Multidisciplinary approach has a potential to bring *cost-effective* achievement of customer expectations, as for example, an expensive engineer would not spend his or her time focusing on difficult features that are not important for the customer (purchasing) or on features that would be more efficiently carried out or modified by the designer who would have a lower cost rate (designing). *Target Costing* is future-focused costing method and usually applied during the design stage. *Target Costing* involves estimating a total product cost calculated by subtracting a profit margin from an estimated or market-based price (Cadez & Guilding, 2008, 27) *Kaizen Costing* is a very similar costing technique to *Target Costing*, but the difference is that *Kaizen Costing* focuses on the present: In *Kaizen Costing* the cost reduction objective is achieved on the manufacturing stage of the product life cycle through continuous improvement, which aims to increase efficiency of the production process (Cooper, 1996, 242-243).

Value Analysis, also known as *Value Engineering*, uses *Target Costing* and *Functionality Analysis* to identify how the product design should be changed, so that the product's or service's costs would be reduced without sacrifices in its functionality; And what unnecessary functions can be eliminated unless the customer is willing to pay extra. The costs of each function of the product or service are compared to the benefit viewed by the customer: This information is usually gathered by conducting interviews and surveys. The value to the customer should always exceed the costs, and if not, then these functions need to be eliminated, modified, or enhanced. (Drury, 2012, 545-546); *Value Chain Costing* is defined as an activity-based approach where costs are allocated to the activities that are required in different phases in the value chain: In design, procure, produce, market, distribute or in service (Cadez & Guilding, 2008, 27). Blocher (2009, 12) defines

analysis of value chain as a tool where the management identifies each step and activity in the value chain that are not competitive, where costs could be reduced, or which activities could be outsourced. Management uses *Value Chain Analysis* also as a tool to find ways to increase value for the customers. In this analysis, each step in the operations will be analysed: How each step affects the company's profits and competitiveness.

Life-Cycle Costing identifies and monitors costs throughout the product's life-cycle, including research and development, design, prototyping, *target costing*, testing, manufacturing, packaging, marketing, distribution, sales and service. Traditional cost accounting is focused on the manufacturing phase, whereas strategically cost accounting should cover the full life cycle of costs. This method shows clearly how a company's design decisions will lock the future costs. (Blocher, 2009, 12–13)

Total Quality Management (TQM) is a technique used by the management to develop policies and practices to result in the company exceeding the customers' expectations. In TQM the product's functionality, durability, reliability and serviceability are analysed, optimised and continuously improved. (Blocher, 2009, 13) The focus in *TQM* is on quality and business processes rather than in results: "*No accounting system ever told anyone if a process is in control or if a customer is satisfied*" (Johnson, 1994, 265-266). Cost management is closely tied to *TQM*, as it provides information about the processes such as cost data about any production defects, wasted labor or raw materials, warranty costs or costs due product recalls, and these cost figures in turn can be used in measuring quality: And demonstrate how improving the processes can increase the quality and hence, decrease the costs. (Blocher, 2009, 13) *Quality Costing* refers to any costs associated with the creation, identification, repair or prevention of defects: Either prevention, appraisal or internal and external failure costs. (Cadez & Guilding, 2008, 27) *Quality Costing* reports help management to recognize any quality problems, and *Total Quality Management (TQM)* draws on the data in this form: Hence, *Quality Costing* supports *Total Quality Management* concept. In 1994's article, Johnson suggests that *TQM* could be the solution to regain competitiveness and profitability that American companies lacked during the 1900s century. Johnson interprets that the focus should shift from inappropriate use of accounting information in management to the management of processes; Contribution of total quality management should become more significant; Overhead costs should relate to direct labour; Product life cycles should be shorter than

before, among several other changes. Johnson believed that the financial management mindset should be replaced with a total quality mindset.

Attribute Costing and Attribute-Based Costing is costing of product attributes that appeal to customers. Attributes can be reliability, operating performance variables, warranty, service, degree of finish and assurance of supply. (Cadez & Guilding, 2008, 26) This data supports the value chain concept. The data is external and needs regular re-evaluation and updating as customers' valuation of product's characteristics is constantly changing. Horngren (2015, 17) states that *Attribute Costing* is useful especially in organisations where capturing real-time market information is significant - and for some companies, this information can be even more significant than the provided data about internal operational activities. The skill here would be to be able to offer attributes that provide high benefits to customers for low cost to the company. *Attribute Costing* is one of the strategic costing tools that manifests strong external orientation. Roslender and Hart (2003, 272-273) view that *Attribute Costing* necessitates cooperation between management accounting and marketing management practitioners. Overall, it seems that most strategic management accounting tools necessitate increased cooperation between accounting and other company's functions, compared to traditional techniques.

Lean Accounting uses *value streams* to measure financial benefits (Blocher, 2009, 13). Companies that use *lean accounting*, as for example *Value Stream Costing*, are companies that implement *lean manufacturing*. Similar to *Attribute Costing*, *TQM* and *Value Chain Costing*, also in *lean* the customer defines the *value*, which can be specific products with specific capabilities at specific prices (Womack & Jones, 2003, 16). Business operations will be seen as a set of value streams producing certain products and services, and these value streams consist for example of design, engineering, scheduling, delivery stages: These steps should be value-adding activities that need to be incorporated to bring the product to the customer. In *lean* thinking management seeks any activities, that do not add value for the customers, and which therefore could be avoided (Womack & Jones, 2010, 19-20). By dropping or modifying these activities the processes will become more streamlined, competitive, and cost-effective.

2.3 Summary

Table 1. Costing techniques

Technique	Traditional Cost Accounting	Strategic Cost Accounting	Sources
Marginal Costing ie. Variable Costing ie. Direct Costing (US) (<i>Katetuottolaskenta</i>)	x		Bowhill (2008), CIMA (2005)
Absorption Costing (<i>Omakustannuslaskenta</i>) Full Costing (<i>Täyskatteellinen kustannuslaskenta</i>)	x		Bowhill (2008), CIMA (2005)
Activity Based Costing (Operational)	x		Drury (2012)
Activity Based Management based on Activity Based Costing (Strategic)		x	Blocher (2009)
Target Costing		x	Bowhill (2008), Cadez & Guilding (2008)
Value Analysis, Value Engineering, Value-Chain Costing		x	Drury (2012), Cadez & Guilding (2008), Blocher (2009)
Life-Cycle Costing		x	Blocher (2009)
Total Quality Management, Quality Costing		x	Johnson (1994), Blocher (2009), Cadez & Guilding (2008)
Attribute Costing, Attribute-Based Costing		x	Horngrén (2015), Cadez & Guilding (2008), Roslender & Hart (2003)
Lean Accounting ia. Value Stream Costing		x	Blocher (2009), Womack & Jones (2003)

According to the literature review, these cost accounting approaches, presented in Table 1, are the most common and well-known techniques, and these are the options that the companies can choose from when selecting the cost accounting tools. In the next phases, it will be interesting to see how these selections have been made and how the business strategy has been considered in these decisions. The list of definitions is exhaustive and in-depth, as in order to be able to evaluate the suitability of these techniques to business strategies, there needs to be some understanding of the most common techniques.

Even though cost accounting and strategic cost accounting are necessarily not separate in practice, on a theoretical level, it still seems relevant to distinguish traditional tools from strategic tools. As can be seen, there is a clear gap between cost accounting and strategic cost accounting techniques: Strategic techniques are more focused on all stages in the business while traditional techniques focus mainly on the manufacturing stage; In strategic techniques external factors will be analysed and external factors are involved in defining *value* or what is *value adding*. When the strategic tools are applied, it becomes evident that the costs in the company do not only derive costs but also derive revenue – Strategic tools are able to explain this causation.

Many of these strategic tools are based on the concept of the value chain (Ruan, 2020) and as a result, most common strategic cost accounting tools are linked to Porter's (1985) work. Porter published a book on competitive advantage, introducing the concept of the

value chain for the first time. In the next chapter, I will discuss Michael Porter's (1985) Theory of Competitive Advantage, which is one of the most widely discussed and studied strategy theories in the literature.

3 Theoretical framework

3.1 Generic Strategies Model (Porter, 1985)

According to Michael E. Porter's theory (1985), companies can achieve competitive advantage through three generic strategies: Cost leadership, differentiation, and focus strategies. The focus strategy is further divided into two variants, cost focus and differentiation variants. *Cost leadership* and *differentiation* strategies pursue competitive advantage in a wide range of industry segments, and both *focus* strategies target only narrow segments in the industry. Sustainable competitive advantage means that a company's profitability stays above the industry average in the long run (Porter, 1985,11); The selected strategy is a route to achieve this goal.

Cost leadership strategy suits the companies that have broad scopes and that serve several industry segments. These companies are low-cost producers that sell products at the industry average but at lower costs compared to their rivals in the market. The product or service needs to meet the expectations of the customers on a very basic level but be comparable to similar products in the market, so that the sales price won't be forced to be discounted. Porter presents *parity* and *proximity* concepts, which specify if the above average profit margin was achieved directly through *cost advantage* or through a slight discount in sales price to reach a desired market share. Porter highlights that in low-cost strategies the company needs to be the cost leader: Not one of several companies competing for this position. Usually cost leadership strategies would require some technological advantage, something that competitors are not able to imitate – A clear strategic preemption to be successful. (Porter, 1985, 12-14)

Cost advantage can be achieved through controlling cost drivers and/or by *reconfiguring the value chain*. Reduction in costs may or may not erode differentiation, but a general rule is that companies should be aggressive in their efforts to reduce costs in any activity that doesn't contribute to differentiation. (Porter, 1985, 99)

Focus strategy with *low-cost emphasis* guides companies to find and pick their most efficient value chains, as these can differ in different segments, and keep focusing on this specific segment only as this has a potential to lead to significant reductions in costs. In theory, companies realising a focus strategy, have set a key cost driver. A company may, for example, set a regional market share as their key cost driver, in case they see market

potential in providing products or services at lower costs in a specific regional area. When successful, the company displaces large national competitors in this region via both focus and low costs efforts. Thus, by implementing a focus with low-cost emphasis strategy. (Porter, 1985, 111)

The most sustainable, and therefore the most important *cost drivers* include *scale*, *linkages*, *interrelationships*, *proprietary learning*, and *policy choices* to create proprietary product or process technology. Scale is usually expensive for competitors to replicate; Linkages are tradeoffs among activities resulting reduced costs and improved performance through optimization and coordination; Interrelationships with sister business units and good coordination between suppliers and third parties create cost advantages; If learning can be kept proprietary it's hard for rivals to imitate; Similarly, new product innovations are difficult to replicate once the innovations are protected by patents. In addition to these cost drivers, companies look for cost advantages from value activities, where each value activity is cost controlled: Activities can be compared against themselves in different times, between different business units and between competitors. Also, internal training, company's culture, employees' motivation, cost reduction programs, constant effort to automate parts of the processes affect the ability to achieve cost leadership. Cost leaders accumulate cost advantages from all these sources to achieve and to sustain the profitability margin above the industry average (Porter, 1985, 112–115).

An analysis of the value chain is the best practice to examine competitive advantage; Value activities and accounting classifications (such as overhead, direct labor, etc.) are not identical. Value activities are first divided into primary and support activities, where primary activities cover activities related to inbound logistics, operations, outbound logistics, marketing and sales and service. Support activities consist of the company's HR, R&D, procurement, and infrastructure (management, finance, accounting, legal, quality management). (Porter 1985, 39-43) In *cost leadership* strategies the performance in these activities will be analyzed and compared to the rivals in the industry, as if the company has a lower cumulative cost of performing value activities, it has a cost advantage. Therefore, also assets need to be assigned to these activities, because the efficiency of asset utilisation affects the activity's cost. (Porter, 1985, 64-67)

Differentiation, in turn, grows out of the company's value chain. In differentiation strategies, companies aim to produce uniqueness that buyers value, and this uniqueness can grow out of all parts of the company, such as raw materials, marketing, product design or certain techniques or technology in operations. All activities in the value chain can contribute to a company's differentiation. (Porter 1985, 119-121)

Differentiation is usually costly, and companies need to perform value activities better than their rivals to gain competitive advantage. Strategic cost analysis should therefore aim to recognize the value activities that are important for differentiation and foster these activities. Differentiation can also be promoted through competitive scopes, by providing a competitive "set of value activities": For example, by providing globally accessible (customer) service and maintenance, and by ensuring products' compatibility with other products. According to Porter's theory, downstream is another source of uniqueness, which can be achieved by carrying out selective distribution, by choosing outlets carefully and by establishing standards and policies in these operations; As well as by identifying strategically suitable suppliers as efficient supplier collaboration is one way to achieve competitive advantage. (Porter 1985, 122–123)

Analogous to *cost drivers* in *cost leadership* strategies, Porter has recognized nine *uniqueness drivers* that explain why a value activity is unique. In theory, these should help businesses to identify what creates differentiation and hence, enable them to evaluate how sustainable the current differentiation is. These drivers include *policy choices*, *linkages*, *timing*, *location*, *interrelationships*, *learning and spillovers*, *integration*, *scale* and *institutional factors*. *Clear policies* and high standards about how the operations are carried out lead to better product features, performance, service, and technologies used, and are seen as *the most important uniqueness driver*. From *linkages* perspective the company aims to meet buyer needs the best way possible through coordination and optimization in value chain, supplier linkages and channel linkages. *Timing* refers to first-mover and late-mover advantages; *Location* the most convenient location choices. *Interrelationships* refer to a situation where uniqueness is achieved by sharing some value activities with sister business units; Proprietary *Learning* creates sustainable competitive advantage; *Integration* may enable a better control of the performance in activities when coordinated with other activities, and also enable new activities to become sources of differentiation. *Scale* can enable a unique way of performing which would not be possible

at small-scale volumes. *Institutional factors* can also sometimes help companies to be unique. (Porter 1985, 124–127)

Focus strategy with differentiation is another focus strategy variant, where the company chooses a narrow segment and aims to achieve a competitive advantage over broadly-targeted competitors in this segment though it wouldn't have a competitive advantage overall. (Porter 1985, 15) Adjectives to describe the operations aligning this strategy could be *low-volume*, *speciality* and *high-quality*. The company aims to meet specific needs of the buyer in this narrow segment; However, it is important to note that the *focus* strategy itself is not a sufficient strategy, but the company needs to make the choice between *cost-focus* or *differentiation-focus*.

As shown, in *cost leadership strategies* the competitive advantage is achieved by *controlling cost drivers* and *by reconfiguring the value chain*. By contrast, in *differentiation strategies* the competitive advantage is achieved by focusing on value (revenue), and how each *activity in the value chain creates value* for the buyer. In *differentiation* strategies companies can even purposely raise costs *if* this enables a premium price via *differentiation*.

Richard S. Allen and Marilyn M. Helms (2006) identified key strategic practices and tactics linked to Porter's generic strategies: In their explorative study they administered the questionnaire for 226 MBA students. The students represented different companies where each had worked at least 6 months and hence, was able to evaluate the strategic emphasis of the company. Allen and Helms (2006) found that it was possible to group strategic practices into Porter's generic strategies. *Innovation in marketing technology and methods, forecasting new market growth, forecasting existing market growth, utilising advertising, fostering innovation and creativity, developing brand identification, refining existing products services, building a positive reputation within the industry for technological leadership, extensive training of marketing personnel, developing a broad range of new products-services, building high market share, providing specialty products/services, targeting a specific market, dropping unprofitable customers, producing products/services for high price market segments* were all practices strongly linked to *differentiation* strategies; *Controlling the quality of products/services, providing outstanding customer service, improving operational efficiency, extensive training of front-line personnel, intense supervision of front-line personnel, vigorous pursuit of cost*

reductions, tight control of overhead costs, minimising distribution costs were practices associated with *cost leadership* strategies. (Allen & Helms, 2006)

As can be seen, the tactics related to differentiation strategy have emphasis placed on attempts to make the product or service special in the mind of the customer (for example, “technological leader”), marketing, new product, or service innovation and on specified market prospects.

By contrast, cost leadership factors emphasise operational efficiency. Also, quality is seen as an important factor to reduce costs as eliminating rework and scrap costs, delivering a service right and timely insures lower costs. Front-line personnel are provided extensive training to make sure that the customer needs are met, which in turn enables streamlining the processes and hence, improves cost efficiency.

These recognized strategic key practices are utilised on a later stage in this thesis: When practitioners are interviewed, these identified practices will support in determining which strategy their company rather represents. It can also be pointed out though, that in practice the strategies are never pure but always overlap to some extent. However, Allen and Helms’ (2006) list of strategic practices will help to define contrary strategies in practical terms.

Furthermore, as the above-mentioned practices could be linked to the generic strategies, this very starting point supports the idea that also cost accounting practices or -techniques could potentially be grouped to either differentiation or cost leadership tactics. Similarly, as Allen and Helms (2006) identified key practices need to support the chosen organisational strategy implementation, also the cost accounting practices need to be consistent with the company’s strategy.

3.2 Porter’s General Strategies vs. Costing Approach

Partridge and Perren (1994) recognised the need for strategic cost analysis in the value chains as they noticed that the traditional costing systems during the time were unable to provide data in this form. Considering the previous chapters, traditional cost analysis would be particularly insufficient when companies relied on differentiation strategies to create sustainable advantage as companies should be able to cost their own value chains,

both currently and prospectively. Traditional cost analysis either fails to reveal visible linkages or account for the value that is created outside the company's boundaries. Partridge and Perren (1994) initiated the discussion on value chain cost analysis as a route to competitive advantage.

In 1991, Bromwich (1991) developed a model describing the creation of value in the context of different Porter's strategies. Bromwich (1991) concluded that the value of the product competing by the *low price* in the market, should consist only of *core attributes* and of the margin; The value of the product competing by the uniqueness in the market, consists of *core attributes*, *differentiating attributes* and of the margin. Bromwich's idea shifted the focus towards the attributes of the products or services, which were fully ignored by the management accountants before. Attributes can be tangible or intangible, and these are what make products or services valuable: Traditional cost accounting methods do not recognize these attributes well. It can be anticipated that this shift in focus and in how the *value* is interpreted, has created the basis for the development of *Attribute Costing* techniques. Both value chain analysis and attribute costing share many similarities and partly overlap, as also according to Partridge and Perren (1994), when the value chain cost analysis is conducted, all costs associated with providing *attributes*, should be compared to the created revenue over the entire lifecycle of the product.

In this thesis, I explore the implementation of the following management accounting techniques: *Marginal Costing*, *Absorption Costing/Full Costing*, *Activity-Based Costing*, *Target Costing*, *Value Chain Costing*, *Quality Costing*, *Attribute Costing*, *Lean Accounting/Value Stream Costing*. Specifically, I explore the implementation of these tools in the context of companies employing contrary business strategies, either a cost leadership or a differentiation strategy. Strategy is a common contingent variable in management accounting research, and thus there are some prior studies, where the costing approaches have been analysed side by side or in parallel to a chosen business strategy categorisation.

In 2020, researchers Petr Petera and Libuse Soljakova investigated the use of strategic management accounting techniques in 90 different large and medium-sized companies in the Czech Republic. Interestingly, Petera and Soljakova (2020) excluded both *Value Chain Costing* and *Attribute Costing* techniques in their research, as they argued that these techniques were not well known among the practitioners according to their preliminary

findings and adding these techniques to the questionnaire survey might have led to misleading results.

This surprises because *analysis of the value chain* is stated to be the best practice to examine competitive advantage (Porter 1985), and *Value Chain Costing* would employ the categories of the value chain in cost allocation. *Value Chain Costing* is also mentioned as one of the most common strategic management accounting techniques in several studies (Cadez & Guilding 2008; Cinquini & Tenucci 2010). Instead, Petera and Soljakova (2020) have included eleven other SMA techniques, i.a. *Target Costing*, *Life-Cycle Costing*, *Quality Costing*, and *Activity-Based Costing* in their study. They found that the correlation between a strategy as a contingent factor and the SMA-use index is positive and statistically significant. They were able to conclude that the use of all strategic management accounting techniques increases with the implementation of *differentiation* strategy: This correlation is the most significant with *Target Costing* and *Quality Costing*, and less so, with *Life-Cycle Costing* and *Activity-Based Costing*.

Likewise, Abdel-Kader and Robert Luther (2008) applied contingency theory in their research. They tested 10 contingency factors, i.a. strategy as a contingent factor, to determine how significantly these characteristics explained the variation of sophistication in management accounting techniques and practices. Their sample consisted of 122 companies in the UK, and the management accounting techniques covered 38 different practices, including cost-volume-profit analysis (*Marginal Costing*), *Activity-Based Costing*, *Quality Costing*, *Target Costing*, *Life-Cycle Costing*, and *Value Chain Analysis*. As expected, cost-volume-profit analysis for major products was the most important costing technique – This is also the most traditional way to carry out cost analysis since cost-volume-profit analysis corresponds to *Marginal Costing*. *Life-Cycle Costing* in turn was the least important costing practice both in terms of experienced importance and usage. These findings align with Petera’s and Soljakova’s (2020) study.

Contrary to Petera’s and Soljakova’s (2020) study though, Abdel-Kader and Luther (2008) found no significant relationship between the sophistication of management accounting practices and the competitive strategy: They rejected the hypothesis that “*Companies following a differentiation strategy would adopt more sophisticated management accounting practices than companies following a cost-leadership strategy*”. The strategic emphasis was determined by asking respondents to indicate the percentage

of the total sales accounted for the products that represent either differentiation or cost leadership. Similarly, Drury and Tayles (2000) found no evidence that the UK companies following a differentiation strategy would have a more sophisticated cost system compared to the cost leaders. Drury and Tayles (2000) anticipated that a sophisticated system would be necessary in order to determine to what extent the higher revenue among differentiators would exceed the additional costs related to differentiation: Drury and Tayles (2000) defined a differentiation strategy as one where the company's products' or services' diversity is a proxy for a differentiation strategy. They found no statistical evidence, however, that the competitive strategy would influence the sophistication of the costing system, but on the other hand, pointed out that variables such as "product diversity" and the "type of cost system adopted" would be difficult items to capture and measure.

Cinquini and Tenucci (2010) in turn, found a significant association between *cost leadership* strategy followers and the use of SMA costing techniques (*Quality Costing*, *Target Costing*, *Value Chain Costing*, *Life-Cycle Costing*, and *ABC/M*). Cinquini and Tenucci (2010) however, did not test what kind of association there would have been between *differentiation* strategy and SMA costing techniques, nor made any comparison between these positionings. Cinquini and Tenucci (2010) investigated 92 Italian medium-large companies and in their research were able to confirm that *Quality Costing*, *Target Costing*, and *Value Chain Analysis* were the most common SMA costing techniques in use, whereas *Life-Cycle Costing* was in the lowest position of usage also in Italy, in line with Petera and Soljakova's (2020) findings in the Czech Republic. It is noteworthy, that overall, the use of SMA costing techniques in Italian companies was significant as less than a decade earlier in Roslender's and Hart's (2003) study there was *only little evidence* of the implemented SMA costing techniques in the UK companies. Cinquini & Tenucci (2010) manage to provide evidence that the SMA techniques are used also among *cost leaders*, but they don't take a stance on whether these are more or less common practices compared to *differentiators*.

Baines and Langfield-Smith (2003) have come to similar conclusions with Petera and Soljakova (2020). Baines and Langfield-Smith analyzed 141 Australian companies, and their findings confirmed that the change towards a *differentiation* strategy increased the use of the following advanced management accounting practices: *Quality improvement programs*, *Target costing*, *Activity-Based Costing*, *Activity-Based Management*, *Value Chain Analysis*, and *Product Life-Cycle Analysis*. Consistent with Cinquini and Tenucci

(2010), also Baines and Langfield-Smith found that *Life-Cycling Costing* was the least utilised technique. Baines and Langfield-Smith (2003) were able to support two other hypotheses as well: *These advanced management accounting practices resulted in greater reliance on non-financial accounting information; The greater reliance on non-financial accounting information in turn resulted in improved organizational performance.* In line with this research, also Chenhall and Langfield (1998b) argued that overall, the companies that had adopted differentiation strategies had better performance scores.

However, it seems reasonable to point out that Baines and Langfield-Smith (2003) have defined *differentiation* strategy slightly differently than Allen and Helms (2006), as Baines and Langfield-Smith have measured aspects of differentiation that are derived from instruments used by i.a. Chenhall and Langfield-Smith (1998b). These aspects of differentiation include practices such as *high-quality products, on-time delivery, effective after-sales service and support, broad distribution, rapid volume/product mix changes, designing and introducing new products quickly and customized products and services.* Almost all these aspects are also recognized practices linked to Porter's *differentiation* strategy according to i.a. Allen and Helms (2006), but some of these aspects could also be linked to *cost leadership* strategy as, for example, *timely delivery* and *high quality* are important factors in eliminating scrap and rework costs.

TQM and *Quality Costing* were strongly linked to product *differentiation* strategies in Chenhall's and Langfield-Smith's (1998b) study and the following hypothesis was supported: *"Higher performing firms that place a strong emphasis on product differentiation strategies will gain high benefits from the following management techniques and management accounting practices: Quality systems, integrating systems, team-based structures, human resource management policies, balanced performance measures, employee-based measures, benchmarking, strategic planning techniques."* The highest performing companies were both *differentiators* and also companies that utilised *especially strategic planning techniques, balanced performance measures, and employee-based measures* more than their rivals. Employee-based measures included i.a. qualitative measures and team performance measures; Balance performance measures included i.a. Balanced scorecard and non-financial measures.

In terms of low-cost strategies, Chenhall and Langfield-Smith (1998b) have been able to confirm that especially traditional accounting techniques (*Marginal- and Full costing vs. Budgetary Performance Measures and Variance Analysis*) have been assessed as beneficial to enhance performance and to support the implementation of the strategy with the low-cost strategic emphasis. However, in the study where they investigated 78 Australian companies, also differentiators assessed traditional accounting techniques as the most beneficial techniques and there were rarely differences in these assessments regarding traditional cost accounting techniques. Chenhall and Langfield-Smith (1998b) expected that also activity-based techniques (*ABC and ABM*) would have been associated with higher performance in companies placing a strong emphasis on low-cost strategies, but this hypothesis wasn't supported. The results were contrary to their expectations as the researchers believed that activity-based techniques would provide information useful in controlling or reconfiguring business processes, in line with Porter's (1985) theory about the low-cost competitive advantage. Contrarily, those were differentiators who had assessed activity-based techniques as more beneficial: Researchers interpreted that perhaps the highest-performing differentiator companies had used this information to improve knowledge about which value drivers enhanced product differentiation. On average though, activity-based techniques were assessed as the least beneficial techniques compared to any other management accounting practices that were explored, including traditional accounting practices. Malmi (1999, 659) ended up with a similar conclusion with Chenhall and Langfield-Smith as he investigated 114 Finnish ABC cases and found no evidence of the correlation between *ABC* implementation and the cost leadership strategy.

Lean accounting/ lean practices have been used both among *differentiators* and *cost leaders*: Hadid (2019) investigated 99 companies in the UK and could confirm a direct positive relation between *differentiation* strategy and lean service practices, and also between *cost leadership* strategy and lean service practices. Further, the results show that there was a positive relation between the implementation of lean practices and its effect on companies' financial performance. Hadid (2019) concluded that it was difficult to determine if the lean practices would be more favoured by companies focusing on differentiation or cost efficiency, or perhaps, both. According to the literature (Hadid, 2019; Cooper 1996; Cooper 1995), Porter's (1985) typology regarding the strategy is not the only typology: The other common one is represented regarding lean enterprises

specifically – And this alternative typology and its connection to Porter’s theory will be examined in the next chapter.

3.3 Cooper’s (1996) Competitive Strategy vs. Cost Accounting

Robin Cooper’s study (1996) strengthens the premise that there is a link between strategy and applied cost accounting practices. Cooper explored 23 business cases in Japanese companies and made a conclusion, that for the companies in this highly competitive environment it was not sufficient to differentiate themselves as either a *cost leader* or a *differentiator* as per Porter’s (1985) theory. This typology was interpreted as too narrow, and hence, Cooper suggests that the companies should rather make the choice between *price* or *quality* and *functionality* to strategically position themselves in the competitive market.

Opposite to Porter’s (1985) theory, competition was not tried to be avoided but rather sought: These Japanese companies had the ability to bring new products to the market that would challenge their competitors’ offerings the way that no company had a sustainable competitive advantage, but rather a temporary competitive advantage. Yet, Cooper (1996) noticed that the applied cost accounting methods were shaped by the chosen strategy and by how the company chose to compete using the “survival triplet” (price-quality-functionality).

Costs were managed by determining the mix of products (both present and future), and then by managing the costs of future products (*Target Costing*, *Value Engineering*, *Inter-organizational systems*) and managing the costs of existing products (*Product Costing*, *Kaizen Costing*, *Total Quality Management*) (Cooper 1996, 243).

Future-focused strategic cost accounting practices, *Target costing*, *Value Engineering* (*Value Costing*), and *Inter-organizational systems* were applied when the company enhanced functionality to survive, and used newer technologies, and had short product life cycles. These practices guide companies to produce products at lower manufacturing costs. (Cooper, 1996, 243-244) Present-focused strategic cost accounting practices, *Kaizen Costing* and *Total Quality Management*, were applied in the companies, where the quality was enhanced. Kaizen focuses on production process improvement and was naturally integrated with the *TQM*- programs. (Cooper, 1996, 243-244).

The present-focused strategic cost accounting practice, *Product Costing*, is always applied, as this is needed to make any estimates of the profitability of a product or service. However, even if the *Product Costing* systems were usually similar to those in Western countries, in some Japanese companies these systems measured product line costs instead of individual product costs. (Cooper 1996, 239). This indicates that there have been future-focused strategic cost accounting practices in use at the designing stage, which expectedly decreases the need to report all the costs at the individual product in the production phase. Researchers expected that the costing systems would be advanced in Japan “given to the importance Japanese companies attach to cost management” but against this expectation, *Activity-Based Costing* was *not* commonly used: Significant product decisions were made at the product line level, and individual product costs were determined on ad hoc -basis outside the formal costing system. Variance analyses were commonly used. (Cooper, 1996, 239-240) Present-focused methods, *Product Costing*, *Kaizen Costing*, and *TQM* were particularly effective when companies decided to compete on *price*, when mature technologies were used, and when the product life cycles were long. (Cooper, 1996, 243-244)

The connection between Porter’s (1985) and Cooper’s (1995) survival triplet typologies is, that according to Cooper’s theory, the survival triplet forms a survival zone for the company’s products (when the products will be sold at the market): The survival zone is the volume created by connecting the three minimum values and three maximum values together in functionality, quality, and price -scales. According to this theory, if this survival zone is small, companies must adopt a confrontation strategy; Cost leadership and differentiation strategies are only successful when the survival zone is large. In the latter situation, companies can create clearly distinguishable products that have high values on one characteristic and low values on the other characteristics. *Price* characteristic is linked to *cost leadership strategy* whereas *both functionality and quality* are linked to *differentiation* strategies. (Cooper 1995, 19-20)

When comparing these results, it can be seen that Cooper’s (1996) findings regarding lean enterprises align with other studies in other companies and support the premise that companies realising differentiation strategies have possibly adopted strategic cost accounting tools more often than cost leaders. Companies that enhanced *functionality*, had applied *Target Costing*, *Value Engineering*, and *Interorganizational Systems*. Similarly, the companies that had enhanced *quality*, had in turn adopted *Kaizen Costing*

and *Total Quality Management*. Present-focused, not strategic costing tools, *Product Costing*, *Kaizen Costing*, and also *TQM* were applied in companies enhancing *low prices*.

Even though Cooper's (1995) survival triple -model has been presented as a basis for creating a confronting competitive strategy, where the company competes by creating a stream of temporary competitive advantages, it is also suggested that this should be the "Third General Strategy". At the same time Porter's (1985) theory was interpreted as obsolete, but still, also in this Cooper's (1995) strategy theory, the companies need to make a choice specifically between the *price* characteristic or *functionality and quality* characteristics as no company can be successful in all three aspects. Even in confrontational strategies a company needs to know what the most critical characteristic is to their competitiveness and excel in this one while remaining inside the survival zone regarding the other two characteristics. (Cooper 1995, 34)

3.4 Miles & Snow's (1978) Competitive Strategy vs. Cost Accounting

Miles & Snow' (1978) typology is another common and valid classification to identify strategy types. *Defenders* (like cost leaders) prosper through efficiency and stability; *Prospectors* (like differentiators) prosper by meeting new product opportunities. (Miles & Snow 1978; Hambrick, 2003, 115) Miles & Snow's types are nearly consistent with Porter's (1985).

Gosselin's (1997) study in Canadian manufacturing companies showed that prospectors adopted Activity-Based cost analysis, *ABC*, more often than defenders. Also, Abernethy and Guthrie (2009), who studied 49 business units, found that prospectors employing strategies of innovation had more sophisticated management accounting systems compared to companies focusing on stable product markets (defenders).

Simons' (1987) findings align with Gosselin's (1997) and Aberdnethy's and Guthrie's (1994) evidence, as also Simons (1987) noticed that prospectors placed more emphasis on accounting information (forecasts, budgets, monitoring outputs). His sample covered 171 Canadian companies and also interviews were carried out to support quantitative data. According to this study, defenders focused less on cost control than was expected and overall used control systems less intensively. Simons (1987) explains this finding by suggesting that companies operating in uncertain environments would employ control

processes more, and these systems would also be more interactive and hence, require ongoing attention of operating managers. Kober, Juliana & Byron's (2003) conclusions are similar to Simons' (1987) as they suggest that prospectors and defenders would use the same type of controls, but prospectors would use these controls in a more interactive manner.

3.5 Summary

3.5.1 Literature review

Table 2. Costing techniques and different strategic emphases

Costing technique	Cost accounting approach	Strategic emphasis (Porter's 1985 typology)	Results	Sample	Source
Target costing	Strategic	Differentiation	"Use of SMA techniques increases with the implementation of differentiation strategy (as opposed to a strategy of cost leadership)": Significant correlation	90 different large and medium-sized companies in the Czech Republic	Peter & Solyakov (2020)
Quality costing/ TQM	Strategic	Differentiation	Significant correlation		
Life-cycle costing	Strategic	Differentiation	Positive influence, but not statistically significant		
ABC/M	Strategic	Differentiation	Positive influence, but the least used technique among the sample companies		
Cost-volume-profit analysis /Marginal costing	Traditional	Cost leadership/ Differentiation	"No significant relationship between the sophistication of management accounting practices (38 practices in total; including cost-volume-profit analysis, ABC, value chain analysis, target costing, quality costing and life-cycle costing), and the competitive strategy. No evidence, that the companies following a differentiation strategy would adopt more sophisticated MA practices than companies following a cost-leadership strategy" The most important technique overall	122 companies in the UK	Abdel-Kader & Luther (2008)
ABC/M	Traditional/ Strategic		Not so important overall		
Value chain costing	Strategic		Important overall		
Target costing	Strategic		Important overall		

Quality costing/ TQM	Strategic		Important overall		
Life-cycle costing	Strategic		The least important overall		
Target costing	Strategic	Cost leadership	Study shows significant use of cost-related strategic management accounting techniques among cost leaders (target-/quality-/life-cycle-/ value chain/ activity-based costing); No comparative data regarding differentiators Common	92 different large and medium-sized companies in Italy	Cincuni & Tenucci (2010)
Quality costing/ TQM	Strategic	Cost leadership	Most used		
ABC/M	Strategic	Cost leadership	Common		
Value chain costing	Strategic	Cost leadership	Common		
Life-cycle costing	Strategic	Cost leadership	Least used		
Target costing	Strategic	Differentiation	The study provides evidence that the change towards a differentiation strategy increased the use of Target costing, quality costing, ABC/ABM, value chain analysis, and life-cycle costing. Baines & Langfield-Smith (2003) also suggest that these tools resulted in greater reliance on non-financial accounting information and improved organizational performance.		
Quality costing/ TQM	Strategic	Differentiation			
ABC/M	Traditional/ Strategic	Differentiation			
Value chain analysis	Strategic	Differentiation			
Life-cycle costing	Strategic	Differentiation			
Quality costing/ TQM	Strategic	Differentiation	The study suggests that differentiators (as opposed to cost leaders), that have adopted quality systems (among several other advanced management accounting practices) were the highest-performing companies by gaining benefits from these practices		

Marginal costing	Traditional	Cost leadership	According to the study, companies with an emphasis on low-cost strategy, assessed marginal and full costing as beneficial to enhance performance and implement the strategy.	78 Australian companies	Chenhall & Langfield-Smith (1998b)
Full costing	Traditional	Cost leadership			
Marginal costing	Traditional	Differentiation	In this same study, also differentiators assessed traditional accounting techniques as the most beneficial and there were no differences in these assessments regarding traditional cost accounting techniques among cost leaders and differentiators.		
Full costing	Traditional	Differentiation			
ABC/ABM	Traditional/Strategic	Cost leadership	Activity-based techniques were expected to be associated with higher performance among cost leaders, but this hypothesis wasn't supported.		
ABC/ABM	Traditional/Strategic	Differentiation	Activity-based techniques were assessed more beneficial among differentiators than among cost leaders - But still, ABC/ABM least beneficial compared to any other management accounting practices		Chenhall & Langfield-Smith (1998b)
ABC	Traditional	Cost leadership	No evidence of a correlation between ABC implementation and the cost leadership strategy.	114 Finnish ABC cases	Ore (1999)
Attribute costing	Strategic	N/A	N/A	N/A	No studies found
Lean/value stream costing	Strategic	Cost leadership	Used among both cost leaders and differentiators. A positive relation between the implementation of lean service practices and financial performance in both groups.	99 companies in the UK	Hadid (2019)
Lean/value stream costing	Strategic	Differentiation			

Costing technique	Cost accounting approach	Price-Quality-Functionality – Strategic positioning (Cooper's 1996 typology)	Results	Sample	Source
Target costing	Strategic	Functionality	Applied	23 Japanese companies	Cooper (1996)
Value engineering/ Value costing	Strategic	Functionality	Applied		
Quality costing/ TQM	Strategic	Quality	Applied		
Kaizen costing/Lean accounting	Strategic	Quality	Applied		
Quality costing/ TQM	Strategic	Price	Particularly effective		
Kaizen costing/ Lean accounting	Strategic	Price	Particularly effective		
Product costing/ Marginal costing	Traditional	Price	Particularly effective		
Product costing/ Marginal costing	Traditional	Quality and functionality	Applied		
ABC/ABM	Strategic	Quality and functionality	Not commonly used		
ABC/ABM	Strategic	Price	Not commonly used		

Costing technique	Cost accounting approach	Prospector-Defender Strategic Positioning (Miles & Snow's 1978 typology)	Results	Sample	Source
ABC/ABM	Strategic	Prospector	Prospectors adopted activity-based cost analysis /ABC more often than defenders.	49 Canadian companies	Gosselin (1997)
Strategic accounting approach (Tools not specified)	Strategic	Prospector	Prospectors had more sophisticated management accounting systems compared to defenders.	49 Business Units (US)	Abernethy & Guthrie (1994)
Strategic accounting approach (Tools not specified)	Strategic	Prospector	More future-oriented, strategic accounting information utilized (forecasts), interactive usage of controls by prospectors.	171 Canadian companies	Simons (1987)
Traditional accounting approach (Tools not specified)	Traditional	Defender	Less cost control and less intensive use of control systems than what was expected.		

Have the companies that have achieved sustainable competitive advantage through *low-cost* strategy, adopted better cost accounting systems and methods, that have enabled better strategic cost analysis compared to their rivals? Is the cost control tighter in companies that implement *low-cost* strategy and which cost management approach then, is operationalized? Have the companies that compete via *differentiation* strategies a better understanding of their value chains and value-adding activities? What cost accounting methods are adopted to gain data about value chains and how the management has utilised this information?

This chapter presents an overview of the most relevant studies regarding the relationship between costing tools and business strategy positioning. The literature review shows mixed results and evidence. Petera & Soljakova (2020) and Baines & Langfield-Smith (2003) suggest that differentiators have adopted more strategic costing tools, especially *Target Costing*, and *Quality Costing*. Similarly, in studies where Miles & Snow' (1978) typology is applied, the usual finding is that prospectors (similar to differentiators) have

adopted more sophisticated management accounting systems and more advanced strategic costing tools compared to defenders (similar to cost leaders) (Simons 1987; Gosselin 1997; Abernethy & Guthrie, 2009). Abdel-Kadel & Luther (2008) and Drury & Tayles (2000) though, would reject these claims, as according to their findings, the cost systems were *not* more sophisticated among differentiator companies.

Common for nearly all studies was, that in general, traditional costing tools were found useful in all companies; In turn, *Attribute Costing*, *ABC/ABM*, and *Life-Cycle Costing* tools were not commonly used among either group. Other strategic costing tools such as *Value Chain Analysis*, *Target Costing*, and *Quality Costing/TQM* were in many cases (Cinquini & Tenucci, 2010; Abdel-Kader & Luther 2008; Cooper, 1996) found useful among differentiators but likewise, among the cost leaders as well, to provide detailed and accurate cost information. Abdel-Kader & Luther's (2008) and Cooper's (1996) evidence aligns with Cinquini & Tenucci's (2010) idea about a "loose coupling" between strategic management accounting techniques and business strategy typology – There are no clear insights on the issue as the same costing tools are able to support different strategic approaches: Also cost leaders need value chain cost analysis.

This makes sense, as cost leaders achieve cost advantage when the sales price is industry average and the cost level is lower compared to competitors: According to the theory (Porter, 1985), the cost advantage is possible through controlling cost drivers and/or by reconfiguring the value chain. Hence, value chain analysis would potentially be the right tool to carry out value engineering if the latter is chosen: Compare the costs of each function to the benefit viewed by the customer, and try to find the costs that could be reduced without sacrificing the products functionality. As per the cost leadership strategy, the product would meet the expectations of the customer on a basic level, and the cost leader company would achieve competitive advantage if the company has a lower cost of performing these value-adding activities compared to rivals.

Value Chain Analysis tool would potentially help optimise the linkages and aid in evaluating the interrelationships which are the two most important cost drivers for cost leaders, in Porter's (1985) theory. One of the most significant cost drivers, however, is scale. If scale is the company's key cost driver, other costing tools such as *ABC/ABM* would potentially be more appropriate to support the optimisation of the economies of scale and increase the efficiency of manufacturing processes. It seems that if the inward

focus suffices in controlling and optimising the key cost drivers (in a way that creates competitive advantage), then the traditional costing tools would (more likely) meet the needs to support the realisation of the low-cost strategies.

Researchers have anticipated that strategic accounting methods are more crucial for companies realising differentiation strategy because they deal more with non-financial information regarding customer satisfaction, product life cycles, policies, technologies, and certain techniques. Porter's (1985) theory recognizes nine uniqueness drivers to explain where the (uniqueness) value derives from: *Policy choices, linkages, timing, location, interrelationships, learning and spillovers, integration, scale, and/or institutional factors*. As there are many ways to achieve uniqueness, a differentiator requires a relatively large amount of information (Govindarajan, 1986, 848); Always though, "*Differentiation grows out of the firm's value chain*" (Porter, 1985). According to the theory, value chain analysis or attribute costing is needed to recognize what activities or attributes create differentiation i.e. value for the customer i.e. profit through price premium. As differentiation is costly for companies, there is a need to recognize the actual sources of value. If there is no analysis carried out, there is a risk that a lot of value chain costs remain unattributed, and the behaviour of costs is not fully understood.

Shank and Govindarajan (1993, 124-137) explain in practical terms how, and why, this strategic cost analysis differs between cost leaders and differentiators. Their field study in a US multinational firm (anonymous) showed that concerning price elastic products, the implementation of new innovative costing tools enabled first to set aggressive cost targets (theoretical ideal costs rather than currently achievable standard costs), then to achieve these ideal cost savings within three years through continuous improvement. Cost improvement opportunities were detected through regular cost reporting of variances. Savings were found from several costs, regarding inefficient handling techniques; Yield losses from non-ideal product formulation; Loss from inefficient drying techniques; Extra cost from the use of higher-priced diluents; Loss from inefficient product flow manufacturing; Cost premium for not using long-run supply contracts. With gradual improvements, the lower standard cost of the product was attained. This permitted the price cut, which led to remarkably higher sales volume and higher market share, while still keeping the net margin percent the same. The company projected that without this price cut for this product that competed aggressively with price, both the sales volume and the market share would have dropped the same year if nothing was done – Despite

the market growth. The company's business was moving from high perceived product differentiation and low price sensitivity toward lower differentiation and higher price sensitivity, which, according to Shank and Govindarajan (1993, 131) is common for companies that have been big winners when first entering the market, but which begin to lose their luster over time: New way to gain competitive advantage is needed as the product is no longer a unique, brand new product in the market.

Shank and Govindarajan (1993, 136-137) strongly state that this cost leadership thinking would be inappropriate for highly differentiated products that are price inelastic. Instead, (strategic) management accounting systems should, for instance, advance quality improvement and evaluation of product features from the value-added point of view. In Shank's and Govindarajan's (1993) field study the company had adopted a milestone reporting system on the development project that focused on developing new innovative product features.

Given Shank and Govindarajan's (1993) findings, logic, and considerations, it would be expected that the empirical research would have found more congruent evidence from the field as presumably companies' cost analysis takes strategic positioning fully into account. One explanation for the mixed results could lie in the fact that the business strategy has been measured differently in different studies, even if the studies would build upon the same taxonomy and contingency theory. This observation is supported by Drury & Tayles (2005, 77), as they state that a major problem with research relating to the contingency factors influencing the design of product costing systems is finding appropriate measures for the contextual variables: *For some of the variables objective measures are not available, and proxy measures have to be used.*

Even though the evidence is mixed, and the literature review doesn't provide clear premises regarding the tradeoffs between the selected costing tools and selected business strategies, many studies confirm that the change in the business strategy causes a change in the management accounting system (including cost accounting system) and that this link still exists. (Simons, 1987; Govindarajan & Gupta, 1985; Dent, 1990; Shank & Govindarajan, 1993; Gosselin, 1997; Chenhall & Langfield, 1998; Anderson & Lanen, 1999; Baines & Langfield-Smith, 2003; Drury & Tayles, 2005; Cadez & Guilding, 2008; Ramli & Iskandar 2014; Hadid, 2019) As most previous studies have been survey-based,

it will bring an interesting dimension to have access to interview strategic business unit persons regarding the topic in the empirical part of the thesis.

3.5.2 Theoretical framework

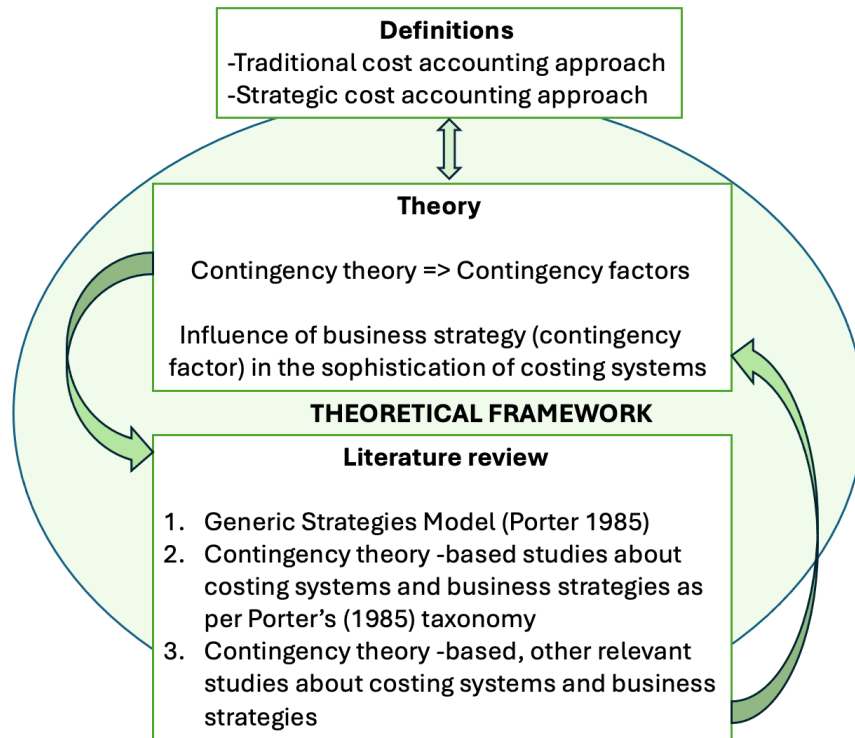


Figure 2. Theoretical framework: Chapters 1-3

This figure summarises the theoretical framework of this thesis. Chapter One introduces contingency theory and explains why this specific theory and perspective were chosen. The contingency approach remains central throughout all stages of the thesis, from the selection of relevant literature to the observations and analysis in the empirical section. Chapter Two defines the key traditional and strategic costing tools. Understanding these tools is essential for conceptualising what the sophisticated costing system might look like today in practical terms. These definitions also aid in understanding the studies discussed in Chapter Three, which presents key literature, including Porter's (1985) theory of Competitive Advantage, as well as recent studies on the relationship between the sophistication of costing systems and companies' strategic emphasis, primarily in the context of Porter's (1985) typology.

The research questionnaire (Attachment 2) is developed based on the literature review and the qualitative methodology outlined in Chapter Four. The qualitative methodology is also applied in the construction and analysis of the sample data in Chapter Five. The limitations of the results will be discussed in Chapter Six. Finally, in Chapter Seven, this thesis aims to provide theoretical contributions and enrich the existing theory through qualitative research by further explaining the influence of strategy as a contingency factor on companies' costing systems.

4 Methodology

4.1 Qualitative research

Behind the qualitative research method, there is the ontological assumption that reality is understood as subjective – subjectivism and constructionism are the terms that both describe the social nature of reality or the reality that is being socially constructed. Consequently, all knowledge is available only through social actors, where people interpret reality in varying ways depending on the context and time. (Eriksson & Kovalainen, 2008, 12-15) This starting point limits what kind of knowledge can be obtained through this study and how the knowledge claims can be made.

Qualitative research is characteristically interpretative: It emphasises understanding human actions and experiences, making interpretation a crucial component of analysing qualitative data. The philosophical foundation of interpretative and constructionist research lies in phenomenology, which does not prescribe dependent and independent variables. Instead, it prioritises the complexity of how humans make sense of situations as they unfold. Additionally, it recognizes that multiple valid interpretations of the same data can exist. (Eriksson & Kovalainen, 2008, 19-20)

The research logic is inductive reasoning, where the researcher strives to identify patterns in the set of research data. The data in question consists of purposefully chosen samples, which potentially support inductive generalisations and the formation of new hypotheses. This is a typical process in qualitative research, in that the hypotheses are not derived from any existing theory, but start to build up towards new theories based on findings and observations in the field (Sharan, 2014, 16-17). The relationship between theory, method, and collected data is interactive and iterative. Therefore, the interpretations and the knowledge claims in this qualitative research follow the logic of inductive reasoning rather than deductive reasoning.

Eriksson & Kovalainen (2008, 51) argue that qualitative research is less concerned with making statements about the commonality of particular findings; Classic case studies, particularly those linked to interpretative traditions differ significantly from the quantitative, experimental and deductive research traditions in business studies. While interpretative case studies focus on detailed, context-rich understandings, quantitative and experimental research aims to produce statistical generalisations (Ghauri & Gronhaug,

2005, 170-171) That being said, (statistical) generalisation is *not* the primary goal in this type of study.

In line with Gummesson (2000, 5), this qualitative approach seeks to present practical realities and function as a “practical stage”, complementing prior theoretical knowledge with a more concrete and practical grasp. The goal is to provide applicable and advantageous knowledge to meet the needs of businesses and professionals in the field: Producing new knowledge about how things work in real life, based on the interviewees’ experiences. Phenomenology is a philosophy behind this type of qualitative research when the research attempts to understand how individuals experience a phenomenon through reductions (Eriksson & Kovalainen, 2008, 308) and where subjective and shared meanings are central (Eriksson & Kovalainen, 2008, 18). Conclusions and premises aim to answer questions such as what changes are likely to succeed in the company and what changes would lead to the desired outcomes. Specifically, the aim is to explain how, or if, the company strategy or strategic changes affect costing methods and how this connection is understood, thereby revealing mechanisms that might also exist in other companies.

A qualitative research approach helps produce new knowledge for the needs of the business field and provides a deeper understanding of the studied phenomenon while complementing the prior theoretical knowledge. All previous studies on the same topic have been survey-based, and the researchers had no chance to discuss the topic with the interviewees; This study enables direct communication between the interviewees and the researcher, adding value to the study.

4.2 Method of data collection: Interviews

Interviewing is the chosen research method to collect the needed data for analysis. This method is ideal when there is no existing theory that could adequately explain the phenomenon in question; To understand better the phenomenon, fieldwork is needed (Sharan, 2014, 15). The research findings aim to describe rather than to be exact, and the findings are based on subjective experiences.

In line with Patton (2002, 5-21), as a researcher, I aim to avoid any preconceptions. Instead, I have striven to provide a framework within which the interviewees can respond

in a way that represents that “part of the world about which they are talking “. This means that their subjective experiences can answer the research question in the best possible way. Even though each interview is separate and unique, the answers should enable the researcher to recognize common key *themes, patterns or insights* from this fieldwork, thereby deepening the understanding of the phenomenon.

The interviewing questions are semi-structured, including both open and closed questions. Open questions enable the interviewee to bring out novel points of views and new ideas and enable the interviewer to ask further clarifying or iterating questions; Closed questions help to compile some coded data which brings structure to the research data which in turn helps in analysing the results. (Fisher, 2010, 207-216) This kind of combined approach is usual in qualitative research (Patton, 2002, 56-57).

The questionnaire consists of four sections. The first section of the questionnaire pertains to questions about the nature of the firm, and the respondent’s current position. The second section focuses on determining and describing the current chosen strategy. The third section of the questionnaire makes inquiries about the company’s currently adopted cost accounting tools. The fourth section includes open-ended questions regarding the respondents’ experiences with the current costing tools and about their views on how the costing tools support the realisation of the business strategy.

The data collection process started by inviting the finance professionals to participate in a face-to-face or a remote interview. The attached files included the initial questionnaire and definitions of the key terms. At this stage, it was emphasised that any given information is anonymised and kept confidential. Potential interviewees were also informed that the interview wouldn’t necessitate preparation as the subjective experiences and views were at the center – Even though some supporting materials were provided in advance (see Appendix).

The interviewees were experienced finance professionals who had worked in the same position for at least two years and were selected based on the companies they worked for: All the companies were large enough and international, and where appropriate management accounting systems were in place. There was no prior reason to expect that these companies' costing systems would be radically different from each other. Each interview lasted 30-45 minutes, and all the answers were recorded and transcribed.

Overall, the sample consists of five interviews, and of five different respondent companies.

The individuals who participated in the interview held relatively high positions in their companies: CFO (Part of the executive team), Controller (Export sales), Business Development Manager, Managing director (in a cost center which is a regional office), and Site Manager (responsible for bidding and project cost control). The interviewees were knowledgeable both about the companies' costing systems and their companies' strategic positioning.

Where possible, I have aimed to find interviewees whose (organisational) focus would rather (or also) be strategic, not only cost center-focused. In large organisations, this would mean that the interviewee would rather work in a strategic business unit (SBU) than in a single cost center (for example, in a factory). Four out of five interviewees had rather strategic roles, enabling access to proprietary business strategy details. In contrast, one interviewee was responsible for a single cost/responsibility centre (regional office), its operations, and profitability: This was noticeable in the answers as well, as the interviewee couldn't tell what kind of (value chain) cost analysis the company would adopt on a higher, strategic level. Finance professionals on the strategic level would likely use different indicators and costing methods than the professionals on the production/operational level, and this assumption is also supported by Partridge and Perren's (1994, 22) analysis.

All five companies operate in different industries and both service-oriented and manufacturing businesses are represented in the sample. The exact industries, revenues, employee numbers, or countries are not disclosed in this qualitative data set. This protects anonymity and confidentiality while enabling open access to this document. Many of the respondent companies are nationally top players in their industries, which are somewhat identifiable through quotations. The locations of the companies vary, however, and the sample is diverse and global in this regard. The companies also differ drastically in size, as the smallest company has a revenue of under 10 million euros and the largest, billions of euros; The smallest company employs under 300 people, and the largest has over 50,000 employees worldwide. The companies were also established at different times, with the oldest dating back to the 1880s and the youngest to the 1990s. Qualitative research enables the comparison of these very different kinds of companies.

Interviews that included both closed-ended and open-ended questions were a suitable way to collect data in this type of phenomenological study. All interviewees were willing to spend time giving full answers to the open-ended questions and provide answers to any additional questions – The sample yields meaningful insights and offers depth despite the relatively small number of interviews. In addition to interviews, any available public data, such as financial statements and available information on the company websites, is utilised as a supporting data source to complement the interviews: The following table summarises these.

Table 3. Background information on the participating companies and the interviewees

	Industry	Size	2023 revenue (€ million)	Employees	Title	Position	Interviewed
Case 1	Service	Medium	Under 500	Under 1500	Business development manager	Strategic business unit	6.3.2024
Case 2	Service	Small	Under 10	Under 300	CFO, in executive team	Strategic business unit	22.3.2024
Case 3	Manufacturing	Large	Under 3 000	Under 5000	Controller (Export sales)	Strategic business unit	11.3.2024
Case 4	Service	Large	Over 100 000	Over 100 000	Operations Manager	Operative business unit	3.4.2024
Case 5	Manufacturing	Large	Under 50 000	Under 50 000	Site Manager	Operative business unit	9.7.2024

4.3 Method of data analysis: Qualitative content analysis

Content analysis in qualitative research is less structured and prescriptive than in quantitative research. (Eriksson & Kovalainen, 2008, 116) Analysis and interpretation of soft and rich data is at the center in this research approach as its goal is to produce detailed and holistic knowledge. Methodologically the collected data can be understood as a set of several cases: A case is an individual (employee), whose experience and the point of view in a certain business context is recorded, analysed and interpreted. Focus is on issues that can be studied by using several individuals as instruments in the study.

Content analysis in this thesis can be said to have elements from both *intensive* and *extensive* case-study traditions as per Eriksson and Kovalainen (2008, 118-119): On the other hand, as per *intensive* case study, the analysis emphasises the interpretation and understanding of the cases in specific contexts and aims to understand and explore the case from the inside, develop understanding from the perspectives of the people involved, and have the key interest in the case itself, not in the pre-given theoretical propositions;

Real-life experiences and detailed descriptions are in focus. On the other hand, as per *extensive* case study research, any recognized common patterns are mapped; Mechanisms and properties in a chosen context for the purpose of developing, elaborating, and testing theory are aimed to be captured if these are detected in the research data.

In this sense, the cases are seen as instruments that can be used in exploring specific business-related phenomena, and in developing theoretical propositions that could be tested and potentially be generalised to other business contexts or theories if applicable. Due to a small number of cases though, the ability to generate knowledge that would extend beyond the cases itself is limited. However, comparisons to the existing theories and prior findings can be made. The former propositions will be tested and where applicable, either confirmed or declined. As Eriksson and Kovalainen (2008, 124) state, “*proposed existence or absence of a phenomenon under certain circumstances*” is the kind of hypothesis that can be tested in this type of case study, and is a relevant way to add something new to the existing theory.

In a qualitative case study, the first phase of the content analysis is to assemble a case record. The aim is to *construct* the collected research data, because as such the raw research data would be too detailed, in-depth, rich, unpredictable and multidimensional to be managed. By simplifying and summarising this data, for example, by themes and categories, this data becomes useful and manageable. (Kovalainen & Eriksson, 2008, 128) This process itself is also, already interpreting and analysing the content. To be able to interpret, summarise, and make conclusions based on this data, also other sources of data are needed – Data, that helps to connect this research material to its right context. There is a constant dialogue between the prior theory and studies and the empirical data during this phase. This part of the study involves preplanned systematic coding, applied to the “closed questions” section of the questionnaire. As the research is grounded in existing theory and attempts to improve it, the same definitions are applied to the structured parts of the interviews and questionnaire, as what “codings” can be found in the previous research. For example, when investigating the application of the costing techniques in different companies, the same terms and definitions used in previous studies are applied in this research. Similarly, the most common taxonomies are used, and the same widely studied contingency factor is included in this study.

However, there are also open questions in the questionnaire where the content analysis needs to lean more towards inductive reasoning. Instead of generalisation, this part of the questionnaire aims to answer the research question through intensive context-bound case observations regarding what happened and why. Patton (2002, 56) suggests that the categories or dimensions of analysis emerge from these open-ended observations “*as the inquirer comes to understand patterns that exist in the phenomenon being investigated*”. Also, Woods (1985, 24) suggests that the categories and models emerge from the collected evidence: Relevant categories should be chosen in terms of *importance*. Furthermore, Patton (2002, 57) suggests that when comparing and contrasting multiple cases, an inductive approach begins by *constructing* individual cases, without assigning them to predefined categories. The first task is to write up the separate cases independently. Once this thorough documentation is complete, the cross-case analysis can begin: Recognising the patterns and themes that cut across individual cases. The primary aim is to gain a full understanding of individual cases before those unique cases are combined or grouped thematically (Patton, 2002, 56). This helps to ensure that the arising categories and discovered patterns are grounded in specific cases and their contexts. Therefore, coding of this part of interviews and questionnaires will be carried out spontaneously and only as applicable, leaving space for direct interpretation.

As inductive analysis relies heavily on a strong base of specific, detailed observations, quotes, documents, and individual cases (Patton 2002, 58), the content analysis will also include direct quotations to provide full access to the meanings of respondents and to reflect their subjective understanding of the phenomenon. Direct quotations are a source of raw data in qualitative research, revealing respondents’ emotions or emotional intensity, their reflections on the world, their thoughts about the events, their experiences and perceptions (Patton, 2002, 21); Responses to open-ended questions represent the most elementary form of this kind of qualitative data.

The value of the direct study of interpretations, intentions, and motives of the people whose behaviour is to be explained, lies in the fact that these can demonstrate how the findings and interpretations have arisen from the data (Patton 2002, 450, 592-593): Entering quotations can be understood as a validation process (Matt, 2004, 329). It includes interpretation to decide what phrases are the most meaningful and provide the most direct and valid access to the most appropriate knowledge.

The starting point in this first phase of the analysis is to use both typologies for content construction, as per Patton (2002, 267-269): Researcher can construct and utilize both indigenous or emic typologies (insider's perspective) and analyst-constructed or etic typologies (outsider's perspective) for analysing the cases. The content analysis includes both the analysis of individual cases and cross-case analyses.

In the second phase, the constructed research data can be further interpreted. One useful analytic technique is analytic induction, which involves comparing emerging categories (developed during the coding process) with existing theories and evidence. The aim is either to refine the existing concepts or alternatively, to generate new categories or concepts that explain emerging phenomena. This process can lead to the generation of new theories. Glaser and Strauss's (1967) grounded theory applies when the new theory is grounded only in the research data that is systematically gathered and analysed.

The main method to conduct content analysis in qualitative research is through comparisons. In this study, the comparisons are primarily made with prior research findings. In this type of analysis, the theoretical framework is a crucial tool that supports the analysis. Only by knowing what other researchers have said about the same issues, it can be possible to know what is *interesting and new* (Eriksson & Kovalainen, 2008, 120).

Even though statistical generalisation was not possible, analytic generalisation may be. If the empirical results of the case study are compared with previously developed theory and two or more cases support the same theory, then replication may be claimed, and there has been found supporting evidence for the predefined theory or theoretical framework. In some case studies, the same issue is approached from the opposite point of view so that there is no strictly predefined theoretical framework, but the case is analysed first, and then the view as per the case is compared to a *variety* of previous theories or theoretical ideas. (Eriksson & Kovalainen, 2008, 294-299).

Another method is to try to detect common patterns, mechanisms, or properties across cases in the set of research data. These will extract from the "natural variation", and do not derive from pre-given propositions. Instead, these findings need to be based on direct interpretation (Stake, 1995, 78). Concepts from prior theory can still be used when this data is analysed, and used to "sensitise" empirical data, to "give a general sense of reference". The theoretical framework supports organising features of this empirical data and describes meanings invested in them. Cross-case analysis searches for similarities

and differences across cases and in contrast to theory. (Eriksson & Kovalainen 2008, 129) In line with Stake (1995, 78), when these are detected, a thematic order will be used (emphasising themes, issues, problems and conceptual categories), in order to construct the content so that it can be linked to other similar empirical patterns in other cases.

Then, the technique called pattern matching will be used: Found patterns from empirical data are compared to the propositions that derive from the theoretical framework. Another way to analyse the detected patterns is to build explanations: Search for causal links in the empirical data, which are then presented in a narrative form. Similarly, any detected repeating cause-effect-cause-effect patterns can also be analysed against a theoretical framework if the theory would be able to explain or predict these events. (Yin, 2002, 116-135)

In qualitative content analysis, there is a chance to find and explain the identified causal relationships. Causalities can be found in both the raw material through in-depth data collection and descriptive write-ups that can provide clues to cause-and-effect relationships, either supporting or refuting the theory (Bennet, 2016). Detailed data, for example, the raised quotations, can describe processes that reveal causal mechanisms: These mental (rather than physical) processes can be detected from behavior (Maxwell, 2004, 254-255): Including recorded speech in the research where the interviews are the main research method. In cross-case analysis instead, the differences between the case studies can show cause-and-effect relationships (Stake, 1995, 36)

Overall, according to the methodology literature, the researcher has to be an interpreter, who both constructs the cases and analyses those. In this analysis, the focus is on the perspectives, conceptions, experiences, interactions, and sense-making processes of the people involved in the study. Some qualitative researchers believe that interpreting is the most important method in the qualitative research process when the research content is analysed – The main purpose is to offer interpretations on the cases made by the research that are explored in a particular (business) context (Eriksson & Kovalainen 2008, 120).

5 Empirical results

5.1 Defining the strategies

In this first part of the interview, there are 18 short open-ended questions. The interviewee is asked to evaluate the claims regarding the company strategy: How *important* each practice is considering the company's current strategic emphasis. The claims are based on prior research (Allen & Helms, 2006; Chenhall & Langfield, 1998), where these 18 practices are associated with either a differentiator or cost leadership strategy.

Even though these questions were initially open-ended to enable inductive reasoning and to capture the respondents' "true" answer, now, in this analysis stage each answer is further interpreted. Points are allocated to each answer on a Likert- scale: Very important (+2), Important (+1), Neutral (0), Not important (-1), Not important at all (-2). These measures are added afterwards, to support content analysis, construct the data, and enable cross-case analysis. To add interpretative validity to these interpretations of the "raw data" as I construct this strategy index, the original comments are shown to support these interpretations. After each answer is interpreted and scored, the averages (strategy indexes) are calculated.

According to the literature review (Porter, 1985), competitive advantage means that the company's profitability is above the industry average; Sustainable competitive advantage means that the company's profitability stays above the industry average. I have highlighted three claims in bold text, that, according to Allen & Helms (2006) have the strongest connection to a company's profitability in this specific strategic position, and have also calculated the averages by including only these claims, for comparison.

Commonly, all companies have characteristics from both strategic orientations. As mentioned in the qualitative methodology chapter, not all contingency factors have objective measures, in which case proxy measures have to be used (Drury & Tayles, 2005, 77) – Strategy is the kind of contingency factor. No strategy is purely just either one, but certain strategic practices (i.e. claims in my questionnaire) exist in weaker or stronger levels with different strategic positionings (Allen & Helms, 2006). Due to this overlap, it is not meaningful to build very exact calculations to try to capture the "real nature" of this contingency factor, but rather aim to find out where the emphasis lies by utilising the earlier recognized main characteristics.

5.1.1 Case 1: Service company with a cost-focused strategy

Table 4. Strategy analysis. Case 1.

Case 1: Medium-sized service company, well-known, and mature in its industry, the interviewee works in a strategic business unit				Points per category			Sources
Claims	Raw data	Points (-2+2)	Interpreted answer	Cost leader	Differentiation	Strategic emphasis	
Achieving lower cost of services than competitors	"Very important, but after Covid and Ukrainian war we have not compared ourselves as much to competitors. It's more like comparing ourselves to ourselves and trying to improve the cost efficiency in everything we do and trying to reach the best possible financial outcome"	1,5	Between important and very important	1,50		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Making service/procedures more cost-efficient	"Very important in all activities"	2	Very important	2		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the cost required for the coordination of various activities	"The industry is heavily regulated and therefore some activities are not linked to other activities, but on those activities that are linked together - Very important"	2	Very important	2		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the utilization of available equipment, services, and facilities	"Again due to the changes that happened during the pandemic and Ukrainian war, and the lower demand overall for our services, we have extra capacity - How to optimize the cost level with the current demand is what is important rather than just optimizing the utilization."	1	Important	1		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing outstanding customer service	"Important. Our strategy even states that "good is enough", but we have still been able to reach exceptional level"	1	Important	1		Cost leader	Allen & Helms (2006)
Introducing new services/procedures quickly	"Important"	1	Important		1	Differentiation	Chenhall & Langfield-Smith (1998)
Forecasting new market growth	"Important, but because of the industry, the new market growth has a lot to do with the Ukrainian war. So we do our focused estimations, it is very important, but for some measures, it is out of our hands."	1,5	Between important and very important		1,5	Differentiation	Allen & Helms (2006)
Innovation in marketing technology and methods	"Here we are more focused on the cost efficiency, so we try to adapt to the best practices so to say but cost efficiency is more important"	-1	Not important		-1	Differentiation	Allen & Helms (2006)
Developing brand identification	"Here I would say neutral. We are interested doing it well, but cost efficiency here would be even more important"	0	Neutral		0	Differentiation	Allen & Helms (2006)
Building positive reputation within the industry for technological leadership	"Neutral"	0	Neutral		0	Differentiation	Allen & Helms (2006)
Introducing new services that are distinct from those of competitors	"We have done things that where we are the first in Europe and we are very proud of it, but it's not the first thing in the strategy because of the financial situation. The number one thing is to be cost efficient and trying to be profitable."	0	Neutral		0	Differentiation	Chenhall & Langfield-Smith (1998)
Offering a broader range of services than the competitors	"Neutral. We want to offer a broad range of services, but rather to know the customers, and offer those services that they would like"	0	Neutral		0	Differentiation	Allen & Helms (2006)
Improving the time it takes to provide services to customers	"Important"	1	Important		1	Differentiation	Chenhall & Langfield-Smith (1998)
Providing high-quality services	"Important. It doesn't have to be exceptional but high quality is a good word"	1	Important		1	Differentiation	Chenhall & Langfield-Smith (1998)
Customising services to customers need	"We are learning all the time more and more who our customers are, and try to customize our services further onto them"	2	Very important		2	Differentiation	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing after-sale services and support	"Not applicable as we are a service company"	N/A	N/A		N/A	Differentiation	Chenhall & Langfield-Smith (1998)
Targeting a specific market	"Neutral here as we have customers from all around the world."	0	Neutral		0	Differentiation	Allen & Helms (2006)
Producing products/services for high-price market segments	"...the number one thing has been to build the basis, so to build all the services for the so said common customers, and now we are aiming to provide services also for the high price -market segment"	0	Neutral		0	Differentiation	Allen & Helms (2006)
OVERALL AVERAGE				1,50	0,46		
Average of the highlighted practices, which have the most to do with profitability in this specific strategic positioning (Allen & Helms, 2006)				1,33	0,33		
Company 1 > Cost leader							

Case Company 1 comes across as a company with a strong focus on cost efficiency, embracing it strategically and prioritising it in all activities that can be optimised within the boundaries of external regulations. In line with Porter's (1985, 112-115) theory, this company looks for cost advantages from value activities by systematically comparing these activities at different times in order to find opportunities to accumulate cost advantages. Even though the respondents were asked to evaluate the importance of the practices only briefly, the interviewee provided extensive insights and communicated proactively the ideas related to strategic priorities. The approach was consistent, and the direction of the company seemed clear.

All other case companies across the board have identified customer service as a target value and a crucial factor in the company strategy. Therefore, it sounds even more

dramatic when this interviewee states that even customer service can be compromised at a strategic level in front of cost savings if needed: Good is enough. This indicates that inside the company, there is some prior knowledge, experiences, and beliefs, that cost-focus especially has been a key in achieving better profitability and hitting the business objectives.

This case also demonstrates that “high quality” does not necessarily equate to differentiation. Especially in business and marketing contexts, high quality does not imply uniqueness or specialty. Instead, “high quality” is assumed to be a basic expectation when these services are tailored to appeal to the mass market, common customers. There is also the trust and expectation that high quality will remain consistent even when the focus shifts from these efforts to improving cost efficiency. This starting point aligns with Porter’s (1985, 99) cost advantage principle, which advises that in cost leadership strategy, controlling cost drivers or reconfiguring the value chain should be done without eroding differentiation.

The possible shift toward a cost-focused strategy among mature companies is noted in the literature review, i.a. Shank & Govindarajan (1993,131). According to their findings, mature companies start to seek new ways to gain a competitive advantage when their product is no longer brand new. Usually, this involves moving from high differentiation and low-price sensitivity toward lower differentiation and higher price sensitivity – Mirroring the shift from a differentiation strategy to a cost leadership strategy. The operations of the Case 1 company align with Shank & Govindarajan’s (1993) findings, as this company also follows this pattern and is a well-established and well-known player in its industry.

On the other hand, the answers also reveal the underlying contextual reasons behind the current strategy: More challenges and uncertainty in external conditions force the company to focus on efforts to watch costs more closely to ensure profitability in the current market environment. This could potentially be a further study suggestion whether companies change their strategic focus towards cost leadership strategies, perhaps to mitigate business risks, in an economic environment that is not so appealing for investments.

The use of the strategic practices identified by Allen & Helms (2006) and Chenhall & Langfield-Smith (1998) in determining the strategic emphasis seems to work well with

this case analysis. Additionally, the strategy index clearly shows that the current emphasis lies on the cost leadership side. The quantitative measures and verbally communicated information align.

5.1.2 Case 2: Focused differentiation strategy company, aiming to expand

Table 5. Strategy analysis. Case 2.

Case 2: Small service company, revenue under 10 M €, high growth, the interviewee works in a strategic business unit				Points per category			Sources
Claims	Raw data	Interpreted answer	Points (-2 to +2)	Cost leader	Differentiator	Strategic emphasis	
Achieving lower cost of services than competitors	"It's not that important, not the cost of it"	Not important	-1	-1		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Making service/procedures more cost-efficient	"Very important, for scalability."	Very important	2	2		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the cost required for the coordination of various activities	"Depends on the lifecycle of the product"	Neutral	0	0		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the utilization of available equipment, services, and facilities	"Not in terms of office space; High importance to optimize the utilization of internal hosting set - up that we are working on"	Between neutral and	0.5	0,5		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing outstanding customer service	"Essential"	Very important	2	2		Cost leader	Allen & Helms (2006)
Introducing new services/procedures quickly	"Essential. It's high importance to deliver new solutions as soon as possible. Speed is crucial:"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Forecasting new market growth	"Very important. Also because we are currently investing"	Very important	2		2	Differentiation	Allen & Helms (2006)
Innovation in marketing technology and methods	"Important. Not urgent, but important"	Important	1		1	Differentiation	Allen & Helms (2006)
Developing brand identification	"We are a very strong brand in X. Within the sector we are in, we are definitely industry leading. It's more in terms being able to develop when we go abroad within the next few years."	Very important	2		2	Differentiation	Allen & Helms (2006)
Building positive reputation within the industry for technological leadership	"Very important. We are in this leadership position right now and hopefully we can maintain it"	Very important	2		2	Differentiation	Allen & Helms (2006)
Introducing new services that are distinct from those of competitors	"Very important. There are some elements to our services that our competitors are not capable of doing at the moment, so we have a bit of a head start on a lot of parts"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Offering a broader range of services than the competitors	"In the niche of X technology, we are definitely a provider providing a broader range of services, in order to attract large customers. So the larger the customer the broader the range of services they would need. So that's definitely a part of our competitive edge"	Very important	2		2	Differentiation	Allen & Helms (2006)
Improving the time it takes to provide services to customers	"Very important, that the deliveries are on time in our day-to-day business."	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Providing high-quality services	"Very important. We are probably one of the highest price solutions at the moment, but we are also the best."	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Customising services to customers need	"We customize our services in terms of consulting services and training services, but we do go quite far in order not to customize our software."	Important	1		1	Differentiation	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing after-sale services and support	"Important in terms of maintaining our reputation as being the leader in our field. So once the customers buy our software, then we do new releases of new functionalities, and then we would go and have a dialogue with them afterwards on how they can utilize our product, the software"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Targeting a specific market	"I think it is always important in terms of being able to do a market penetration"	Important	1		1	Differentiation	Allen & Helms (2006)
Producing products/services for high-price market segments	"Very important."	Very important	2		2	Differentiation	Allen & Helms (2006)
OVERALL AVERAGE				0,70	1,77		
Average of the highlighted practices, which have the most to do with profitability in this strategic positioning (Allen & Helms, 2006)				1,5	1,33		
Company 2 > Differentiator							

According to the strategy analysis, Case Company 2 is a clear differentiator company focused on a narrow industry sector and has unique technology developed to meet the specific needs of the narrow niche market. The company is in the growth phase, and the cost-efficiency efforts are mainly related to growth aspirations, to mitigate the business risks, and to control rapid growth. As long as the competitors are behind and unable to replicate their service, the company has the technological leader position, and the pricing stays inelastic: *"We are one of the highest-priced solutions at the moment, but also the best."* Their strategy, to focus on maintaining this leadership position in their industry, aligns with Shank and Govindarajan's (1993, 136-137) findings, that cost leadership thinking would not be optimal for highly differentiated products that are price inelastic.

Case 2 company is a classical differentiator also according to Porter's (1985) definition, as this company has several uniqueness drivers i.e. creates uniqueness via its *technology*, *product design*, and *timing*. They have first-movers' advantages, and to maintain this position, they need to be innovative and fast, innovate faster than competitors to stay ahead of the game. In line with Porter's (1985) theory, this company has particularly close relationships with its clients and this direct dialogue ensures that the functionalities of the service are relevant to the customers. By utilising this shared knowledge in their own operations, they would be able to evaluate what activities in the value chain contribute to the added value – Measured in revenue. The interviewee states that achieving lower costs than competitors is not that important. This is also in line with Porter's (1985) theory, as in differentiation strategies companies can even raise costs if this enhances differentiation.

5.1.3 Case 3: Manufacturing company with a cost-focused strategy

Table 6. Strategy analysis. Case 3.

Case 3: Large manufacturing company, Under 3 000 M € revenue, Under 5000 own employees, well-known company and mature in its industry, the interviewee works in a strategic business unit							
Claims	Raw data	Interpreted answer	Points per category			Strategic emphasis	Sources
			Points (-2-+2)	Cost leader	Differentiator		
Achieving lower cost of services than competitors	"Very important"	Very important	2	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Making service/procedures more cost-efficient	"Very important"	Very important	2	2		Cost leader	Allen & Helms (2006) ; Chenhall & Langfield-Smith (1998)
Improving the cost required for the coordination of various activities	"Very important"	Very important	2	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Improving the utilization of available equipment, services, and facilities	"Very important"	Very important	2	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Providing outstanding customer service	"Very important"	Very important	2	2		Cost leader	Allen & Helms (2006)
Introducing new services/procedures quickly	"Maybe somewhere in between. Being really quick is not a priority."	Neutral	0		0	Differentiation	Chenhall & Langfield-Smith (1998)
Forecasting new market growth	"Very important"	Very important	2		2	Differentiation	Allen & Helms (2006)
Innovation in marketing technology and methods	"Important"	Important	1		1	Differentiation	Allen & Helms (2006)
Developing brand identification	"Very important"	Very important	2		2	Differentiation	Allen & Helms (2006)
Building positive reputation within the industry for technological leadership	"Very important"	Very important	2		2	Differentiation	Allen & Helms (2006)
Introducing new services that are distinct from those of competitors	"Very important"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Offering a broader range of services than the competitors	"Important"	Important	1		1	Differentiation	Allen & Helms (2006)
Improving the time it takes to provide services to customers	"Important"	Important	1		1	Differentiation	Chenhall & Langfield-Smith (1998)
Providing high-quality services	"Very important"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Customising services to customers need	"Very important"	Very important	2		2	Differentiation	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Providing after-sale services and support	"Very important"	Very important	2		2	Differentiation	Chenhall & Langfield-Smith (1998)
Targeting a specific market	"Important, not a niche market, but still important"	Important	1		1	Differentiation	Allen & Helms (2006)
Producing products/services for high-price market segments	"Very important"	Very important	2		2	Differentiation	Allen & Helms (2006)
OVERALL AVERAGE				2,00	1,54		
Average of the highlighted practices, most to do with profitability in this strategy (Allen & Helms, 2006)				2	1,6667		
Company 3 > Cost leader							

The prioritised practices in Case Company 3 refer to the cost leadership strategic emphasis, although this company also has a strong customer focus. The company aims to

customise its products, and its pricing is not dedicated to low-price market segments but rather targets a mid-market position - not niche but not low-end either. Despite the cost focus, the high-quality standards are important to ensure that these products are also sufficient for high-end market segments. When comparing Case 1's strategy index to this company's results, Case Company 3 is not as clear of a cost leader, as it prioritises also many practices that are typical for differentiating companies. According to the responses, this may be because Case Company 3 has more specific and targeted customers compared to Case Company 1.

The cost drivers, as identified by Porter (1985), that this company has, include scale (large size and broad scopes), linkages and interrelationships (prioritising the coordination of various value activities, prioritising lower 3rd party/supplier costs compared to competitors, and optimising the utilisation of equipment and services). Porter's (1985) theory suggests that for a company to be successful in a low-cost strategy, it must be the cost leader, not one of many companies competing for this position. Additionally, the company should have a clear strategic preemption, such as a technological advantage that competitors cannot easily imitate. Based on the interview, it is evident that this company indeed has such a strategic preemption through its ownership structure: The company operates in a cooperative business model with its raw material producers, where it lends its best technology to these suppliers, which in turn benefits the company through lower raw material costs compared to its competitors.

5.1.4 Case 4: Franchise, competing through differentiation

Table 7. Strategy analysis. Case 4.

Case 4: Service company, franchise model. Worldwide revenue over 100 000 M € The interviewee owns a regional, growing, market center (Operative business unit)							
Claims	Raw data	Points (-2-+2)	Interpreted answer	Cost leader	Differentiator	Strategic emphasis	Sources
Achieving lower cost of services than competitors	"We are cost conscious. Focus is on growth, but then, you have to find ways to lower the costs"	1	Important	1		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Making service/procedures more cost-efficient	"As a market center we develop importance to cost efficiency and growth, which are two parameters. If you are focused on growth, then you can discuss everything else because everything else is connected to growth. If you are not growing, you can't cost cut. If I have to choose couple in the bullets that we have more emphasis, I would choose this."	2	Very important	2		Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the cost required for the coordination of various activities	Not answered					Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Improving the utilization of available equipment, services, and facilities	Not answered					Cost leader	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing outstanding customer service	"If I have to choose couple in the bullets that we have more emphasis, I would choose this"	2	Very important	2		Cost leader	Allen & Helms (2006)
Introducing new services/procedures quickly	Not answered					Differentiation	Chenhall & Langfield-Smith (1998)
Forecasting new market growth	Not answered					Differentiation	Allen & Helms (2006)
Innovation in marketing technology and methods	Not answered					Differentiation	Allen & Helms (2006)
Developing brand identification	Not answered					Differentiation	Allen & Helms (2006)
Building positive reputation within the industry for technological leadership	"We spend a lot of money to our sales employees because we want them to be happy and do their work in the best possible way with customer focus, and professionally. Our focus is first on our people and then our clients. We give the best commissions in the market. This is something we don't want to negotiate. On the other hand, we try as a company to lower our costs, but we mostly intend to having our people happy, because if our people are happy, then our clients will be happy."	2	Very important		2	Differentiation	Allen & Helms (2006)
Introducing new services that are distinct from those of competitors	Not answered					Differentiation	Chenhall & Langfield-Smith (1998)
Offering a broader range of services than the competitors	Not answered					Differentiation	Allen & Helms (2006)
Improving the time it takes to provide services to customers	Not answered					Differentiation	Chenhall & Langfield-Smith (1998)
Providing high-quality services	"The brand is rather high quality brand than cost efficient brand"	2	Very important		2	Differentiation	Chenhall & Langfield-Smith (1998)
Customising services to customers need	Not answered					Differentiation	Allen & Helms (2006); Chenhall & Langfield-Smith (1998)
Providing after-sale services and support	Not answered					Differentiation	Chenhall & Langfield-Smith (1998)
Targeting a specific market	Not answered					Differentiation	Allen & Helms (2006)
Producing products/services for high-price market segments	Not answered					Differentiation	Allen & Helms (2006)
OVERALL AVERAGE				1,67	2,00		
Average of the highlighted practices, most to do with profitability in this strategic positioning (Allen & Helms, 2006)				N/A	N/A		
Company 4 > Differentiator							

Case Company 4 leans towards a differentiation strategy. This conclusion is supported by the following: The interviewee states that the company pays the highest commissions to their sales employees in this industry, where all revenue is generated through the sales made by these personnel. Additionally, the interviewee says that the company invests heavily in their sales staff to ensure that their competency aligns with the brand image, which represents rather high quality than cost efficiency. This is in line with Porter's (1985, 119-121) theory of differentiation strategy, where costs are not cut from these attributes that contribute to differentiation: It is non-negotiable for this company to reduce commissions paid to salespeople now or in the future. This is a strategic choice, as these investments in staff within the sales activity of the value chain have been recognized by the respondent as something that buyers value – The company strives to outperform most competitors in this competitive factor.

5.1.5 Case 5: Large cost-focused manufacturing company integrating high technological expertise

Table 8. Strategy analysis. Case 5.

Case 5: Large manufacturing company, well-known and mature company in its industry. The interviewee works as a site manager and in bidding (in an operative business unit)							
Claims	Raw data	Points (-2+2)	Interpreted answer	Cost leader	Differentiator	Strategic emphasis	Sources
Achieving lower cost of services than competitors	"The offer price determines who gets the contract. In some cases the quality is also valued as part of the comparison price. So while the low cost is crucial, quality is also very important factor in our business field"	2	Very important	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Making service/procedures more cost-efficient	"Cost-effectiveness is most important"	2	Very important	2		Cost leader	Allen & Helms (2006) ;Chenhall & Langfield-Smith (1998)
Improving the cost required for the coordination of various activities	"Our company has many experts in different types of technology categories, and chain of subcontractors and suppliers, so coordination is top priority"	2	Very important	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Improving the utilization of available equipment, services, and facilities	"Our company has significant equipment reserve and expensive special equipment, so efficient utilization of the equipment is very important"	2	Very important	2		Cost leader	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Providing outstanding customer service	"This is our target value. Sometimes we do projects in alliance with end users to ensure good quality and financial results"	2	Very important	2		Cost leader	Allen & Helms (2006)
Introducing new services/procedures quickly	"We are using state of art machinery and methods and BAT techniques to safe work environment as well meet the quality standards and regulations"	2	Very important		2	Differentiation	Chenhall & Langfield-Smith (1998)
Forecasting new market growth	"This is very hard in short term. In long term there are such megatrends that we can see"	1	Important		1	Differentiation	Allen & Helms (2006)
Innovation in marketing technology and methods	"We are always open to them and are looking for markets and new techniques"	1	Important		1	Differentiation	Allen & Helms (2006)
Developing brand identification	"We are very well-known brand, and we feel our responsibility to take good care of that good reputation."	2	Very important		2	Differentiation	Allen & Helms (2006)
Building positive reputation within the industry for technological leadership	"Top machinery and top employees, yes"	2	Very important		2	Differentiation	Allen & Helms (2006)
Introducing new services that are distinct from those of competitors	"We are often limited in the customers' contract inquiry very precisely, but we always tell about alternative better materials and methods as far as possible"	2	Very important		2	Differentiation	Chenhall & Langfield-Smith (1998)
Offering a broader range of services than the competitors	"I see this is our strength. As a large company, we have many divisions of different types of technology. At the same time, our competitors have to rely on a chain of subcontractors to get the same end result"	2	Very important		2	Differentiation	Allen & Helms (2006)
Improving the time it takes to provide services to customers	"The customer contract inquiry includes timetable of works we try to reach and undershoot the estimated time, but also tell at an early stage if we think the customer's schedule estimate is unrealistic"	1	Important		1	Differentiation	Chenhall & Langfield-Smith (1998)
Providing high-quality services	"This is our top priority"	2	Very important		2	Differentiation	Chenhall & Langfield-Smith (1998)
Customising services to customers need	"We work close with customers to sure this"	2	Very important		2	Differentiation	Allen & Helms (2006);Chenhall & Langfield-Smith (1998)
Providing after-sale services and support	"Yes, we have warranties and services of many kinds. Also, life-cycle projects"	2	Very important		2	Differentiation	Chenhall & Langfield-Smith (1998)
Targeting a specific market	"We are providing all kinds of services in several sectors"	0	Neutral		0	Differentiation	Allen & Helms (2006)
Producing products/services for high-price market segments	"Target is of course to be cost efficient. Because of their size, the projects in that sense have "high price". We provide high quality with reasonable prices"	0	Neutral		0	Differentiation	Allen & Helms (2006)
OVERALL AVERAGE				2,00	1,46		
Average of the highlighted practices, most to do with profitability in this strategic positioning (Allen & Helms, 2006)							
Company 5 > Cost leader							

This company has a competitive advantage because its profitability is higher compared to its competitors in the same industry and region (Internal company materials regarding the company strategy, 2024). In many ways, this company could be seen as a differentiator, because they are a well-known brand and the employees are proud to work for this specific brand and feel that they owe to uphold its reputation. The company demonstrates technological leadership with top machinery and top employees and especially, with more specialised expertise: They have more divisions of different types of technology whereas their competitors would need to rely on a chain of subcontractors to achieve similar results. This enables them to offer broader scopes of work and have better control over the projects requiring specialised expertise. The company is known

for delivering high quality as their top priority. The company has many uniqueness drivers (Porter, 1985, 124-127): *Policy choices* (clear policies and high standards to govern operations, strictly defined product features and technologies, avoiding outsourcing some key technologies enables a better chance to ensure high standards and policy adherence throughout the value chain; And better integration between different activities within the value chain), *linkages* (coordination of subcontractor and supplier contracts is a priority) and *location* (local presence).

With this interviewee, there was a chance to present some additional questions afterwards, and the interviewee's view was further asked on how the company differs from the competitors: The response was that while this company has slightly better technologies, the differences within this industry are relatively small. The response to the first question in the questionnaire indicates that the company doesn't compete solely on price but also on quality, and was split was estimated to be around 70% emphasis on price and 30% emphasis on quality. All these factors suggest that this company could align with a differentiation strategy.

However, my own analysis and strategy index suggests that this company would lean slightly more toward a cost focus. Therefore, I asked the interviewee for their perspective on why exactly this company has achieved better profitability compared to its competitors. The response was that it can be a coincidence – In this industry, one larger loss-making project can easily impact quarterly financial results. However, the interviewee noted that this company is likely more conservative and more careful or cautious: Risks are assessed on multiple levels, there are many evaluation processes (gross margin percentages, gross margins, pricing) and permissions are always required from higher levels in the company regarding what is allowed to be offered. Additionally, the interviewee mentioned that as the company is over 100 years old and a mature company in the industry, the company has developed an outstanding network of long-term raw material suppliers and third-party contractors. This supplier network is optimised to be cost-efficient, which has a positive impact on improved profitability. A long history in the market enables the company to secure lower-priced materials and third-party services. Thirdly, the interviewee points out that the budgets are usually well-estimated, and end up being quite accurate. Budgetary performance is at a high level. Compared to competitors, the strategies and operations are generally better in control. I interpret that these are the most critical practices that are strongly associated with better

performance in this specific generic strategy (Allen & Helms 2006, 448) – Cost leadership. The cost drivers that this company has, include *scale*, *linkages*, and *interrelationships*.

Also pricing can reveal something essential about the company's strategy. Case Company 5 offers high quality at reasonable prices. While quality is important, it would be impossible to compete in this industry without competitive pricing. This also limits the extent to which the company can differentiate itself. Since pricing is set by the industry, and there is no significant difference in work features or quality between this company and its rivals, there is way more pressure to lower the costs than to innovate new and more pricey solutions. The company's strategy might, therefore, focus approximately 70% on lowering costs and improving cost efficiency and 30 % on enhancing quality, aligning with how customers score and evaluate the competing bids in this industry (according to the interviewee's example only, as each client has their own scoring system).

According to Porter's theory on cost leadership strategy, cost advantage can be achieved through *controlling cost drivers* and/or by *reconfiguring the value chain*. (Porter, 1985, 99) In *differentiation* strategies companies aim to produce uniqueness that buyers value, which can arise from techniques or technologies in operations (Porter 1985, 119). Despite Case Company 5's top-skilled employees and top machinery, complex projects, special expertise, high quality, and a strong brand, I interpret that this company achieves its higher-than-industry-average profitability through cost focus, although elements of differentiation are also incorporated into the strategy.

Generic strategies characterise strategic positions at the simplest and broadest level. In the next chapter, these strategies are compared with the adopted cost accounting practices. These tools can also reveal more about the company's strategy – What has been measured, what is important and prioritised, and whether these tools' results ground the company's strategic decision-making.

5.2 Strategic cost accounting adaptations in cost leadership and differentiator companies' operations

Table 9. Overview of costing tools adoption

"Has your company implemented the following costing tools/ systems?"															
Yes	Yes, not completely	No answer	No			TRADITIONAL TOOLS			STRATEGIC TOOLS						
STRATEGY	INDUSTRY	SIZE	PHASE	INTERVIEWEE	UNIT	Marginal / variable / direct costing	Absorption costing / Full costing	Activity-Based Costing (Operat. emphasis)	Activity-Based Management based on ABC (Strat. emphasis)	Target costing	Value analysis / Value chain analysis	Life-cycle costing	Total Quality Management/ Quality costing	Attribute costing/ Attribute-based costing	Lean accounting/ Value stream costing
1	Cost leader	Service	Medium	Mature	Business dev. Manager	Strategic	Bright Green	Bright Green	Bright Green	Light Green	Light Green	Light Green	Bright Green	Purple	Purple
3	Cost leader	Manufacturing	Large	Mature	Controller	Strategic	Bright Green	Light Green	Bright Green	Light Green	Light Green	Light Green	Bright Green	Purple	Purple
5	Cost leader	Manufacturing	Large	Mature	Site manager/ Bidding	Operative/ strategic	Bright Green	Bright Green	Bright Green	Light Green	Light Green	Light Green	Bright Green	White	Bright Green
2	Differentiator	Service	Small	New	CFO	Strategic	Bright Green	Light Green	Purple	Bright Green	Bright Green	Light Green	Purple	Purple	Purple
4	Differentiator	Service	Large company, small office	New	Franchise owner	Operative	Bright Green	Purple	Purple	Bright Green	Bright Green	Light Green	Purple	Purple	Bright Green

Table 9 presents the results of the third phase of the questionnaire: The costing tools adopted by the case companies. Bright green refers to the responses where the interviewee responded clearly “Yes”, and when these measures were visible to the interviewees, and this cost accounting data was utilised in strategic decision-making. Light green areas refer to the responses where the interviewee had responded “Yes - On some level” or “Yes - To some degree”, but when the measures of these tools were not very visible, and strategic decisions would not be purely based on this data, even if this data was also taken into account in considerations. Purple areas refer to clear “No” responses, or when the tools were sometimes in discussions, talked about on an abstract level, or mentioned as distant plans to be adopted later, but not currently adopted according to the interviewees’ best knowledge. White colour refers to a situation where the interviewee hasn’t taken a stance on the question: There was only one such situation, as assumingly, the interviewee wasn't familiar with the term (*Attribute Costing*) or hadn't heard this exact term used in the company setting as it's not very well-known technique. The questionnaire body and the definitions of different costing tool terms were provided in advance to all interviewees to ensure that they would interpret and understand the terms in the same way, which adds validity and comparability in analysing the results.

The purpose of this figure is to observe the results as a whole set of data, at a high level and extensively. The results are identical to the earlier studies in the literature review (Abdel-Kader & Luther 2008; Chenhall & Langfield, 1998b; Cooper 1996) and therefore expectable: My findings suggest that traditional costing tools are adopted equally in all

companies, regardless of their strategic emphasis. The nature of cost was also understood similarly in all case companies, as there is a consensus that costs have fixed and variable elements: The costing model separates the costs either into fixed and variable or direct and indirect categories.

It is noteworthy, that both cost leaders and differentiators equally consider traditional tools as the most significant tools in strategic decision-making and in supporting the realisation of strategy. There might have been slight differences here, as according to theory, the traditional costing system has an emphasis on cost containment, whereas the strategic approach is fully focused on active cost reduction (Drury 2018, 590-591) – Hence, possibly indicating that cost leaders and differentiators would utilise this traditional costing data in slightly different ways. In this part of the questionnaire the “shade differences” won’t necessarily become visible that well, but as in the questionnaire there was the possibility to add comments and as there were also many comments added, cost leader companies’ respondents described their costing systems as very traditional, classical, and very detailed — Even too detailed. Differentiators did not use any of these adjectives to describe their costing systems. Among the cost leaders, the costs were measured as low levels as on the product level, and in these companies, there shouldn't be costs whose origin would not be known. This set of data doesn’t clarify the level of accuracy or detail orientation inside the system, or differences in the ways these tools are used, but all companies report that these traditional tools are adopted. Broadly, however, no differences have been found yet.

5.2.1 Activity-Based Costing tools

Activity-Based Costing tools are classified either as traditional or strategic depending on how the data is used and somewhat also depending on the academic source. I interpret that *ABC* tools are either way the first more sophisticated methods where clear differences in adoption between cost leaders and differentiators are starting to show: The evidence indicates that *Activity-Based Costing* is an essential tool among cost-leading companies only, and among cost leaders, *Activity-Based Costing* tools are adopted both in service and manufacturing companies.

“We have a long list of activities in our cost accounting, and putting the activity at the cost is mandatory. For example, invoices don’t go through unless there is an activity marked on them” -Case 1, Cost leader, Service Company

“Strategic decisions are not purely based on this data, but this data is taken into consideration. We follow activity costs for pricing and to see if there is cost efficiency or even better cost efficiency to be achieved” -Case 1, Cost leader, Service Company

“Activity-Based Costing is more focused on the operational side, but you could say that the management bases their (strategic) decisions on this perspective as well.” -Case 3, Cost leader, Manufacturing Company

My definite interpretation is that as cost leaders describe their systems as very detailed (when differentiators do not), and when costs are measured on the lowest possible operational levels, *Activity-Based Costing* tools function as enablers: To enable to maximise the accuracy, details, and preciseness in the costing system – And enable accessible data to find ways to improve cost efficiency. On the other hand, it is also shown that these tools can be used as preventers: Invoices cannot be authorised unless an activity is marked on them, easing cost control. These comments indicate that *ABC* and *ABM* support the realisation of a cost leadership strategy, the competitive advantage that is achieved by controlling cost drivers and by reconfiguring the value chain (Porter 1985).

Additionally, there is an indication that *ABC* tools could replace the value chain analysis in some cases. Case Company 1 comments the following when asked about the adoption of a value analysis tool:

“We are more focused on the activity-based cost management and activity-based management on these.” -Case 1, Cost leader, Service Company

My analysis shows evidence that differentiators do not manage their strategies based on activity-based costing data at all, whereas all cost leaders did so. Partly this can be explained due to the maturity of cost leader companies, and by manufacturing business operations in two case companies; On the other hand, the first cost leader company is a service company. Case company 2, differentiator, reports that while on an operational level the activity-based structure (*ABC*) is adopted to some degree, it doesn’t seem to be as detailed or comprehensive compared to cost leaders’ systems: Case Company 2 has

three cost centres, for where the overhead costs are assigned, as well as a limited number of activities assigned to their services.

“We utilise cost centres within our structure. It is not fully activity-based but somewhat along the way. We have three heads of development, each with their own software programmers and resources. They have activities assigned to each individual or to the department as a whole. Their primary activity is software development.” -Case 2, Differentiator, Service Company

In Case Company 4, the differentiator as well, *ABC* tools are not adopted: On an operational level it wouldn't be the most appropriate method, due to their decentralised service business model and as the current split between direct and indirect costs provides an accurate and correct picture of the business operations in the small cost centre, that is led by the interviewee.

In my sample, all cost-leader companies happen to be large and mature companies, and their operations are complex and have lots of diversity. According to Blocher (2009, 27), both *ABC* and *ABM* can be *key strategic tools* for this kind of companies. It also would make sense that *ABC* is adopted among cost leaders, because *ABC* systems have more cost centres, and as a general rule, by increasing the number of cost centres, the indirect costs will be more accurately measured by cost objects i.e. products, or services (Drury, 2012, 50-57).

Despite these logical assumptions and despite my findings supporting some theories as well, there are not many prior studies aligning. In 1999, Malmi investigated 114 Finnish *ABC* companies and found no relation between *ABC* implementation and cost leadership strategy; Gosselin (1997) found that of 49 Canadian companies adopting *ABC*, prospectors were more likely to adopt *ABC* than defenders; Baines and Langfield-Smith (2003) noticed that the change towards a differentiation strategy increased the use of *ABC* and *ABM* (among several other costing techniques).

Similarly, Chenhall & Langfield-Smith (1998b) state that *ABC* and *ABM* tools were not associated with higher performance among cost leaders, and overall *ABC* was assessed as the least beneficial technique when compared to other management accounting practices (in that study: traditional accounting techniques, balanced performance measures, employee-based measures, benchmarking and strategic planning), both among

differentiators and cost leaders; On the other side, in this study, the group of companies (one cluster of differentiators) that had ranked *ABC* and *ABM* providing high benefits, had also the best organisational performance. It was concluded that these companies can also use *ABC* to improve knowledge about which value drivers enhance product differentiation – However, this wasn't applicable in the two differentiating case companies in my sample.

In line with Chenhall's (1998b) findings though, also my findings support the following conclusion: There is a possibility that *ABC* and *ABM* are most effective when combined with traditional accounting techniques and used in combination. My quotes and responses, though, also support the idea that *ABC* and *ABM* are adopted specifically because of the companies' cost focus: Because the detailed cost report is wanted. Based on my findings, the cost leaders use detailed *ABC* data in *ABM*, in strategic decisions more than differentiators. My findings also indicate that *ABC* tools are more common and important techniques overall than what several former studies would suggest (Petera & Soljakov, 2020; Abdel-Kader & Luther, 2008; Chenhall & Langfield-Smith 1998b; Cooper, 1996).

5.2.2 Target Costing

Target Costing is future-focused. The differentiating and growing company utilises this technique to hit its growth targets: To support market analysis, product/service development, pricing, and customising.

“Yes, we do target costing in two ways. First, we apply it to a full-scale field development: Assessing, through business cases and market analysis, what we are aiming for. We are currently investing ten to twelve million pounds a year, so obviously, you have quite a few business cases to evaluate whether it's worth it and if we can actually raise prices and win more customers. Second, we also use a target cost approach on rare occasions when we do tailor-made development. Here we focus on consumers' needs and what we can build within the frames of what we have.” -Case 2, Differentiator, Service Company

On the other side, target costing is also adopted in a well-established manufacturing Case Company 5, when they utilise it in bidding, in project contracts and in consisting project

budgets. *Target Costing* is utilised between different parts of the company and its suppliers or alternatively between other project parties regarding the alliance projects:

“For example, there is a target cost in some project management contracts or alliance projects. Then, the reward model determines what happens if this target cost is exceeded or falls below and how the rewards or cost savings are shared. The simplest project contract form is a fixed total price contract: If you complete the project at a lower cost, you will earn a good profit. An intermediate option is a contract, which includes both a fixed price and a unit price part. This is an appropriate choice for infrastructure projects where the scope is not known precisely. For example, activities such as how much rock needs to be excavated (in units) can't be forecasted quite exactly; The fixed price component can cover activities that can be forecasted accurately, for example, the costs related to asphalt paving.” -Case 5, Cost leader, Manufacturing Company

Target costing is noticed to have been adopted by both differentiators and cost leaders (Abdel-Kader & Luther, 2008; Cinquini & Tenucci, 2010), but it is usually slightly more associated with companies moving their strategic positioning towards differentiation (Baines & Langfield-Smith; Petera & Soljakova, 2020) My findings are in line with previous studies, as target costing is found as a valuable tool within both groups' business operations. Target costing supports the strategy in slightly different ways depending on strategic emphasis: The differentiating company uses this tool with their market analysis and new product design, whereas the cost leader, for instance, in order to provide a multidisciplinary approach in finding cost-effective ways to meet customer expectations.

5.2.3 Value Analysis

Four out of five case companies report having adapted *Value Analysis* or *Value Chain Analysis*.

“We are vertically integrated and linked; We have all the development done in-house. This means that we conduct value analysis at the start of a project, assessing what functionality can keep us in the highest price ranges and determining the associated costs. We do this, and it's something we are going to

be working towards in the coming years because that's part of being a software company." -Case 2, Differentiator, Service Company

This tool supports differentiation strategy and is particularly well-suited for differentiators whose products or services are relatively price inelastic. *Value Analysis* promotes quality improvement and the evaluation of product features from a value-added point of view, as described by Shank and Govindajan 1993, 136-137). This comment indicates that the differentiator company uses *Value Chain Analysis* to cost the attributes within its value chain. Although the concept may initially seem abstract and theoretical, this comment demonstrates how the differentiator interprets it and how *Value Analysis* is done in practice, as the company strives to identify what activities or attributes create differentiation and enable profit generation through price premiums. In theory this is considered as the best practice and most crucial for differentiators: Drury and Tayles' (2000) anticipate that it is necessary for differentiators to have a sophisticated costing system that enables the company to determine to what extent the higher revenue among differentiators would exceed the additional costs related to differentiation.

"Yes, we do value chain analysis a lot" -Case 3, Cost leader, Manufacturing Company

"This is continuously done and visible during the practical stage, in operations, through continuous improvement. We may change work methods, materials, layouts, and design plans - Always seek better ways to do things. We also suggest these improvements to our clients."-Case 5, Cost leader, Manufacturing Company

Likewise, cost leaders utilise *Value Chain Analysis* to evaluate the attributes and trade-offs between them. Drury (2012, 542-543) advises that *Value Chain Analysis* can be applied to seek cost reductions from any activities or attributes that do not add value for the customer, allowing companies to simultaneously enhance customer satisfaction and reduce costs. In my sample, two cost leaders and two differentiators report using value analysis, and the comments above demonstrate how the same strategic costing tool can be adopted to achieve different outcomes depending on the company's strategy. These findings are consistent with previous literature, suggesting that value analysis is an important and widely used tool (Abdel-Kader & Luther, 2008; Cinquini & Tenucci, 2010; Cooper, 1996) and is successfully adopted by both differentiators (Cooper, 1996; Baines & Langfield-Smith, 2003) and cost leaders (Cinquini & Tenucci, 2010).

5.2.4 Life-Cycle Costing

Life-Cycle Costing was the only method in addition to the traditional costing tools, where all respondents reported the same answer. All respondents were familiar with the term, but life-cycle costing wasn't a main tool nor even considered that strategic tool, but it was still always adopted in some areas of the business.

"We use Life-cycle costing, for example, when purchasing machinery. We might perform different life-cycle evaluations for these investments; In day-to-day costing, life-cycle costing is present but not as visible or frequently used as it is in some other companies." -Case 1, Cost leader, Service Company

"It's not something we apply to everything. It's part of the journey as a software company. You have software that is in early cycles or has a lot of development costs, and at some point, it matures and shifts more toward maintenance and support. Afterward, you just try to maximise the remaining value. To sum it up a bit, it's definitely part of our longer-term strategy - transitioning from current solutions to new ones - but it's not something that is very visible to think as such" -Case 2, Differentiator, Service Company

"We do this as well, but we measure the costs in a very traditional way" -Case 3, Cost leader, Manufacturing Company

"Throughout the year, the sales income is more or less the same, and we have year-round forecasts in place" -Case 4, Differentiator, Service Company

"There are various project and earning models, with the life cycle model being one of them. For example, this model covers planning, building, and maintenance, with the entire project life cycle predetermined to last, for instance, 15 or 25 years. Everything is forecasted, estimated, and decided in advance within the contracts. These projects can also be alliances, involving multiple parties and companies across different phases of the life cycle." -Case 5, Cost leader, Manufacturing Company

Hence, my evidence shows that *Life-Cycle Costing* supports both implementing differentiating and cost-leading strategies. It is noteworthy that all respondents were familiar with the term and consider that their companies adopt this tool to some degree

because in previous studies in my literature review (Cinquini & Tenucci, 2010; Baines & Langfield-Smith 2003; Petera & Soljakova 2020), *Life-Cycle Costing* has been the least commonly adopted, and least important tool; My finding suggests therefore a contrary finding to these studies.

5.2.5 Total Quality Management

According to my evidence, *Total Quality Management (TQM)* and *Quality Costing* are not common among new differentiating companies but have been adopted by all mature cost leaders. This could be interpreted to mean that a company needs to have well-established processes and clear procedures in place, along with recorded data to compare results before these techniques can be effectively utilised. This aligns with the theory presented by Johnson, 1994 (265-266), which suggests that the focus in *TQM* is on quality and business processes rather than on results.

“Errors are hard to spot. We have some parts of the company where we do this a lot. We have noticed that we could do better, we make too many errors there. However, the direct cost effect is hard to measure because we would still have to do a lot of those things that we do now. But yes it’s done, TQM, not only on errors but also on the quality level. If we do things well, we are trying to find out the reasons why we do well. Is it because we spend a lot of money there, or is it that we have let’s say passionate people there. And if it’s because of the passionate people, how to instil the same mentality also to other parts of the company. So yes to this TQM, that we have in different forms based on where we move inside the company.” -Case 1, Cost leader, Service Company

“On total quality management/ quality costing, yes, it’s about exceeding customers’ expectations. It’s not so visible from the controller’s perspective, but we definitely do it” -Case 3, Cost leader, Manufacturing Company

Cooper (1996) found *TQM* to be a particularly effective strategic tool among companies that compete on price: Similarly, Cinquini & Tenucci (2010) identified *TQM* as the most commonly used strategic tool among cost leaders. Meanwhile, *TQM* is also found significant among high-performing differentiators as it is linked to improved organisational performance (Chenhall & Langfield-Smith, 1998b, Baines & Langfield-

Smith 2003). According to my evidence, it cannot be said that the strategic positioning alone would determine if *TQM* is adopted or not: Rather, my findings suggest that this tool is likely more applicable in companies that have well-established processes and measures in place. Comparison between the two groups would be more reliable if there were differentiating case companies that also adopted *TQM* and demonstrated how this tool is utilised in their operations. Case Company 1 example shows how *TQM* is a valuable tool for cost leaders even though there is no financial data involved: They recognise the link between, for example, something so practical as people's enthusiasm and cost savings. Only a change in employees' mentality in some business operations can result in the same effect as financial investments: Reliance on non-financial data and corresponding actions can partially support cost leaders in improving operations and achieving cost savings for competitive advantage.

5.2.6 Attribute Costing and Lean Accounting

Both *Attribute Costing* and *Lean Accounting* were not well-known in either group. This finding is similar to that of Petera and Soljakova (2020), who noticed in their initial study that respondents were unfamiliar with the attribute costing technique, leading to its exclusion to avoid confusion. In my questionnaire, three out of five responses were "No" answers. Only one respondent provided a clear "Yes" answer: A controller at a large manufacturing company, who commented as follows:

“We definitely do this, but from the controller's perspective, it's not that visible in my calculations” -Case 3, Cost leader, Manufacturing company

In this company also *Value Analysis* is a very significant tool – Perhaps this is why the interviewee is also familiar with the term, as these two techniques are closely linked in theory: *Attribute Costing* method should support *Value Chain Analysis*. Attributes as a concept are quite abstract and vague. For example, Cadez & Guilding (2008) comment that attributes that may be costed include *reliability, operating performance variables, warranty arrangements, service, the degree of finish and trim, assurance of supply, and after-sales service*.

All case companies that report conducting *Value Analysis* are, to some degree, incorporating *Attribute Costing*. According to theory, *Attribute Costing* is particularly

useful in organisations where capturing real-time market information is crucial (Horngren, 2015, 17). Case Company 5 interviewee, who did not answer the question about adopting *Attribute Costing*, still states the following:

“Customers’ valuation of products or product characteristics is constantly changing, which is why real-time information is important. We use this information to provide warranties and (maintenance) services. We also know competitors’ value chains, what they offer, what current projects are ongoing, how upcoming projects could be priced, and what upcoming projects we want to pursue. Additionally, our costing systems have features to estimate the value of the work completed so far, to value the estimate at completion (both in revenue and costs), and show early warnings if things are not progressing as forecasted”
-Case 5, Cost leader, Manufacturing Company

Similarly, *Lean Accounting* is either not commonly adopted, or the term is not familiar. Regarding *Lean Accounting*, one respondent stated:

“It would be fantastic to have different touch of value streams that we could control, but we are not there yet, and it’ll take quite a while before we reach that point.” -Case 2, Differentiator, Service Company

Based on my findings with a limited data sample, it is not possible to determine if *Attribute Costing* or *Lean Accounting* would more likely support differentiation or cost leader strategies, or perhaps, both.

5.3 Experiences of strategic cost accounting practices in global business operations

In the final part of the questionnaire, respondents were asked various open-ended questions to explore the quality, extent, and impact of cost accounting tools on the implementation of different company strategies, as well as to identify any recognised needs for improvement. The responses are interpreted and summarised in the following three chapters. The analysis follows a deepening logic, progressing from a broad to a detailed exploration of experiences. The following figure demonstrates the narrative logic.

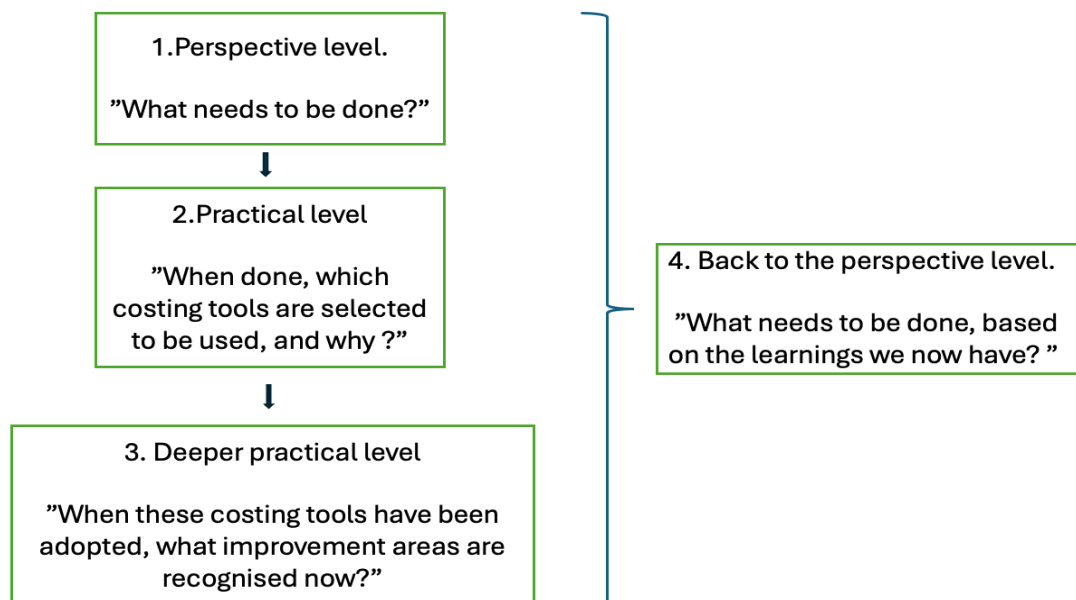


Figure 3. Narrative logic: Exploring the experiences

5.3.1 Implementing the strategy from a cost accounting perspective: "What needs to be done?"

When describing how the strategy is implemented from a cost accounting perspective, the respondents do not mention any specific costing tools or methods. Instead, they focus on the actions they take, placing a strong emphasis on Key Performance Indicators across all companies. Descriptive coding of the interview data reveals that themes – or actions – such as *measuring*, *forecasting*, *monitoring*, and *controlling* are consistently mentioned in all responses. It was surprising that none of the previously mentioned costing tools

were cited in these open-ended answers, especially since the respondents had just been asked about them and their usage in the preceding part of the questionnaire.

“From a cost accounting perspective, we really follow the KPIs every month on how they are doing, and as a controller, how you see by the numbers if the company is implementing strategy and if you see any risks or something alarming, then that should be visible in our numbers and in KPIs every month. I feel like sometimes, as a controller, it’s difficult to pinpoint or connect your daily work to the company strategy – Sometimes it can be very high-level or far away from the numbers.” -Case 3, Cost leader, Manufacturing Company

In these responses, strategy implementation from a cost accounting perspective was consistently viewed as an internal process within the company across all five cases, with the primary focus being internal. Only two out of the five case companies had respondents who proactively mentioned their *clients*, such as highlighting how high-quality cost accounting and accurate calculations and forecasts have ensured meeting clients’ expectations.

This lack of external focus suggests that traditional costing systems are perceived and experienced as a strong, primary instrument linking cost accounting with strategy implementation among finance professionals. According to the literature, for example Drury (2012, 542-543) and Partridge & Perre (1994) argue that in strategic costing, such as in value chain cost analysis, the focus should be on customers and value perceptions. In these systems, the cost object would typically be a value-creating activity or a product attribute. However, the interviews show that in practice, the focus is internal, such as often centred on manufacturing operations, with the cost object being a product or function, as seen in Case Company 1:

“Currently our strategy, or the goal, is to be very cost-efficient. That is one of the pillars of our current strategy, and it involves monitoring all costs, whether it’s investment or operational cost – it’s very important. Often in our discussions, we do yearly budgeting, and after we do the budgeting, we have a lot of discussions about how the strategy is visible in the budget and it often is not. This is because we are a very big company in a regulated industry, so there are lots of things that we have to do, and for that reason, the cost pool itself is very high regardless of the strategy. So often the strategic outcomes are on how to do things rather than

what things we should do because the things that we have to do are regulated. The costs are often very similar, very fixed (regardless of the strategy). However, our current strategy is heavily focused on trying to minimise costs and optimise the cost level.” -Case 1, Cost leader, Service Company

Both Case Company 1 and Case Company 3 perceive that the company strategy is disconnected from the numbers and is not reflected in budgets. This perceived “lack of Strategic Management Accounting (SMA)” within the cost accounting system might explain why respondents felt that strategy and cost accounting are not always clearly connected. There were no significant differences in these perceptions between cost leaders and differentiators.

5.3.2 Current practices and selected costing tools: “Which ones, and why?”

As discussed in earlier chapters, Case Company 1 is identified as a cost leader that utilises both traditional and strategic costing tools in strategy implementation. Notably, they employ *Activity-Based Management* grounded in *Activity-Based Costing*, “to see if there is cost efficiency to be achieved”. In this part of the interview, the business development manager is asked to share their experience and perspective on how the current cost accounting tools support the realisation of the business strategy and the reasons behind the selection of these specific methods.

“We get to find out the costs based on activities, especially, based on whether they are direct or indirect, and we manage that very well... The current costing practices are need based: Current ones are very much what we need... We are satisfied with the current costing system. We get all the information that we need, and we use it in decision-making rather efficiently... You understand better where you have better visibility, and it’s also easier to make arguments for cost optimisation.” -Case 1, Cost Leader, Service Company

Answers to these open-ended questions indicate that the practitioner views the selection of costing tools as primarily need-based, providing the necessary information for decision-making. Satisfaction with the current costing system – including *Marginal Costing* -, *Absorption Costing* -, *ABC* and *ABM*, *Life-cycle costing* - and *TQM* -tools – suggests a strong fit between the contextual variables and the overall costing system.

On the other hand, the interviewee tells that there is some historical weight, “relics” from the past, in the form of certain tools that are no longer seen as applicable to the current business context. Consequently, there are differences in how the usability and benefits of these tools are perceived:

“We still carry some historical weight from how things were done before. For example, Absorption costing is a rather complex method in the way we do it, but historically it was important because we wanted to focus heavily on the details.”-

Case 1, Cost Leader, Service Company

This shows that in some cases, cost accounting sophistication is not just about adopting more advanced strategic tools but also about questioning, re-evaluating, replacing, or discontinuing the use of tools that are no longer the most applicable to support operations. The interviewee from Case Company 1 also notes that certain strategic tools, such as *Target Costing*, are not considered suitable for their business operations due to several factors, for example, one being that the company does not sell products directly to its end users.

“Current systems, methods, and practices, they serve very well the purposes that we need right now. So, it’s very much need-based.” -Case 1, Cost Leader, Service Company

The responses suggest that strategy, as a contingency factor, should not be investigated in isolation. Other contingency factors or variables that might be relevant, based on these responses, include the *end-user market audience* and the *industry*, both of which were recognised as influencing best practices.

In Case Company 5, a cost leader, nearly all costing tools, both traditional and strategic, are adopted. The interviewee from Case Company 5 commented similarly to the Case Company 1 interviewee, noting that the current costing system is “*okay*”, and mentioned that the company has a long history and tradition of doing things a certain way, which affects the selection of costing tools. Additionally, the interviewee explained that the type of inquiry from the client determines the contract model used, and this contract model dictates the costing methods that need to be applied. Therefore, according to the respondent, the *industry* influences the choice of costing methods more than strategic positioning does.

These two cost leaders express satisfaction with their current systems, which can be described as sophisticated, advanced, contemporary, and strategic. They have adopted *all* the traditional costing tools and very many of the most common strategic costing tools: *ABM* (Both), *Target Costing* (Case 5), *Value Analysis* (Case 5) *Life-Cycle Costing* (Both), *TQM* (Both), *Attribute Costing* (Case 5) and *Lean Accounting* (Case 5), where applicable. Subjective experiences can be interpreted so that the current costing systems effectively support the realisation of cost leadership strategies and business operations. These companies have also performed well in terms of actual profitability – e.g, Case 5 is above the industry average. This demonstrates that these tools can contribute to achieving a competitive advantage, as evidenced by higher profits through cost efficiency and cost targets.

Based on the theory and literature review, differentiator companies with a distinct strategic competitive advantage are expected to reflect this in their strategic cost accounting practices. Neither of the differentiator companies in my data sample had fully implemented *Activity-Based Systems*. Instead, and in addition to traditional tools, *Value Analysis* was implemented in both case companies. This use of *Value Analysis* aligns with Shank and Govindarajan's (1993) view that strategic management accounting should advance the evaluation of product features from a value-added perspective in differentiating companies, where price is inelastic. As Porter (1985) notes, "Differentiation grows out of the firm's value chain".

Overall, also respondents from both differentiating companies (Case 2 and Case 4) were satisfied with their existing systems.

"Current costing techniques and cost management practices are already working well. Given the size of our operations, I believe we are doing the best we can and don't need anything additional."-Case 4 , Differentiator, Service Company

According to the responses from Case Company 4, variable and fixed costs are well understood, and these measures are aligned with value chain analysis. Their costing system is rather simple and straightforward but effective. It includes specific reward models, yearly budgets, and forecasts, along with accurately projected levels of industry-specific surpassers and underachievers. Operating at a very grassroots level as a franchise unit, they do not perceive requiring complex tools. However, *Value Chain Analysis* is still performed and is under constant evaluation to ensure profitability.

In Case Company 2, current costing practices are seen as being in a state of significant change, while the company is in a growth stage. The interviewee views this transition as a shift from traditional cost accounting towards a more “*internationalised*” approach to accounting and its follow-ups. Currently, they conduct direct and indirect cost allocations and overhead assumptions across all aspects. The company is developing its costing practices to better align with tracking the strategy.

“We are improving. I’m satisfied with the progress we’ve made over the last year, but it’s a process that takes time going from a very traditional-based accounting and just having a setup accounts, to go to financial management and management accounting” -Case 2, Differentiator, Service Company

“We are only now getting to a point where we are able to track the revenue development and product development in terms of what we sell. It’s still hard for us to follow the cost of development, such as the costs of different parts of the software and how much revenue is generated from them. There’s still work to be done here in terms of being able to meet the strategy, but right now it’s about getting the foundation right. In finance, getting the systems in place, to manage finance effectively. But it takes time.” -Case 2, Differentiator, Service Company

These responses indicate that, in addition to the strategic emphasis as a contingency factor, also the *phase*, where the company is going, affects heavily the costing tool selections that have been made so far, as in time, companies progress towards more sophisticated tools based on their perceived needs at each stage. In the case of Differentiating Case Company 2, the interviewee highlighted the techniques that have notably contributed to cost efficiency and improved profitability:

“We implemented the new mapping of our accounts and carried out a detailed re-costing, which has definitely led to some improvements. However, the most significant impact has been the implementation of cost centres, allowing us to analyse various departments in much greater detail – where costs are incurred and what they consist of. We’re halfway there, but this has already been incredibly helpful in identifying potential cost savings within the company.” -Case 2, Differentiator, Service Company

This comment indicates that a more detailed method of tracking and analysing costs is also in the interests of differentiators, as the upgrade helps identify areas where they can save money by providing a clearer picture of where their expenses are going: By allocating resources more effectively, optimising operations, and investing in quality improvements, companies can offer unique value to customers through better pricing, higher quality, and more innovative products and services.

The interviewee (Case 2, Differentiator, Service Company) believes that they have made progress in the right direction toward a differentiation strategy by creating more *detailed* account maps and improving systems to detect the link between R&D costs and the incurring revenue from those. They are also monitoring the quality of costs (whether indirect, direct, or overheads) more closely. In the responses, there is still a sense that the system is not yet fully clear or entirely managed, as it is still maturing. However, it appears to be sufficiently “manageable” and controlled to support the current high-price -, niche -, differentiation strategy, as long as the product (i.e. the service) remains in the highest price range and the control system continues to enable high innovation.

The interviewee (Case 2, Differentiator, Service Company) is aware of and analyses every phase in the value chain, but costs are not yet allocated to each phase with great accuracy, although this is in progress. In line with the literature review (e.g. Porter, 1985), there is a risk that some activities may remain unattributed or that it may not be fully known which activities actually create differentiation – i.e., value for the customer and profit through price premiums. On the other hand, this level of accuracy is not always a necessity or priority in the early stages of product or service development. For example, as shown in Shank and Govindarajan’s (1993) field study, a milestone reporting system was sufficiently accurate for the development project when the company’s focus was on developing innovative new product features.

Both differentiators have implemented all traditional costing tools (except *ABC*), and several strategic costing tools: *Target Costing*, *Value Analysis*, and *Life-Cycle Costing*. They view their current systems as working relatively well with these tools. Based on these subjective views, it can be said that this type of costing system supports the company’s uniqueness. The competitive advantage derived from uniqueness drivers, such as newly developed technologies, high quality, product life cycles, policy choices,

linkages, interrelationships, and the initiatives for future scaling and strong growth, is supported by these costing practices.

5.3.3 Recognised areas of improvements and considerations: “What next?”

Level of Detail

All cost leaders reported that their current costing systems were highly detailed, which was sometimes perceived as a burden. The interviewee from Case Company 1, mentioned that while this level of detail was necessary in the past, it is no longer required. Consequently, the company has made concrete changes to simplify the system, focusing instead on clarifying the broader picture and “the big lines”.

“We have sacrificed the level of detail a little bit in the past couple of years and we have sacrificed it in order to be more efficient and quicker in our operations, especially given how rapidly and dramatically situations have changed (like with COVID and the war in Ukraine).” -Case 1, Cost leader, Service Company

The example from Case 1, a Cost leader, also illustrates how external changes can catalyse necessary adjustments in costing systems. This suggests that external factors, such as a favourable or unfavourable economic environment, should possibly be considered as additional contingency factors in studies related to costing system design.

The interviewee from Case Company 3 shares similar views with the interviewee from Case Company 1, describing their current costing practices as very traditional and overly detailed.

“Almost too detailed at times, I would say. The level of data is very wide, which is good if you need an explanation for why this product looks like this in this plan; You can find a very detailed level of information about the cost.” -Case 3, Cost leader, Manufacturing Company

Similarly to Case Company 1, Case Company 3 also views its detailed costing system as a hindrance to efficiency. It appears that similar adjustments that have been made in Case Company 1, would also be beneficial for Case Company 3.

“I would hope for more simplified cost accounting. There is a lot of hassle, for example, with R&D costs – like which products should carry these costs or which unit or department. I sometimes wish that we could make it simpler so that we could be more efficient. I don’t think it is very efficient to think about how we are going to divide these R&D costs among each product when it is only one company carrying the cost anyway.” -Case 3, Cost leader, Manufacturing Company

In Case Company 5, another cost leader, the interviewee, noted that some things in their costing systems are calculated in excessive detail, which can be inefficient and time-consuming. However, they acknowledge that this level of detail also brings certain advantages. For example, the Cost of Goods Sold (COGS) calculations are considered valuable and accurate, and they enable the ongoing work to be monitored and compared against estimates. Additionally, the detailed costing system has generated rich data, which in turn has provided benchmarks and detailed, well-informed reference examples that have proven very useful for calculating new tenders and improving the overall accuracy of future budgets and forecasts. Furthermore, all invoices are meticulously recorded and saved in the costing systems, making all cost information easily accessible.

Despite these practices, the interviewee expressed that strategy doesn’t necessarily have that much impact on their costing practices. Instead, the *industry* in which they operate plays a more influential role. For example, they don’t engage in much discussion around strategic pricing, with the interviewee suggesting that the concept of “strategic pricing” feels too abstract or “high-flying” for their practical needs.

Overall, cost leader respondents seek efficiency and frequently question their costing systems from this perspective in their daily work. It appears that they actively drive their costing tools to align with their company strategy of cost leadership – In line with Blocher et al. (2009, 23), who argue that a strategic cost accounting system must be aligned with the company’s strategy due to intense competition, making this alignment essential to remain competitive. The pressure from the practitioners to effect change suggests an additional contingency factor that may influence the adoption of costing tools: *The presence of an influential facilitator* within the company. This facilitator can play a crucial role in ensuring that the costing tools are well-aligned with the current strategy.

I think that these open-ended answers enabled an interesting and noteworthy observation: Differentiators and cost leaders have very different ideas about what needs to be

improved, changed and considered. None of the differentiator companies mentioned anything about “detailed costing systems” in their responses to these open-ended questions regarding possible areas of improvement. This theme emerged unexpectedly from the empiric data, and it was particularly interesting because all cost leader interviewees shared a similar, critical attitude towards this aspect of the costing systems, even using the same adjectives (“Too detailed”). While the sample size is very small, making it impossible to generalise this finding, it was the most evident difference between the experiences of respondents from low-cost and differentiation-focused companies. Therefore, I suggest that in this respect, the cost management approach may differ between the two groups.

These open-ended questions also reveal that, even though companies technically can provide a very accurate picture of all the costs in the company, it is not always perceived as necessary, even among cost leaders. The example of Case Company 1 sheds light on the mechanisms behind this phenomenon: External uncertainty forces companies to sacrifice the level of detail or the level of complexity of the costing systems in order to become more agile, allocate more resources to an outward focus, quickly recognise any warning signs in the system, and respond to rapid changes in the environment. By monitoring the “big picture” that a more simplified cost accounting system can show, companies can better address emerging managerial needs for change or redirection, while tracking current progress. It is also noteworthy that all cost leaders have implemented *Activity-Based Costing (ABC)* and *Activity-Based Management (ABM)* systems, known for enabling cost measurement at the most granular level. This might contribute to the criticism among practitioners that the costing system is too detailed and, at times, inefficient.

On the other hand, for example, the interviewee from Case Company 1 found that better accuracy has, in several situations, helped in achieving cost efficiency and improved profitability: They had implemented object-based costing to monitor costs associated with IT systems and created a cost object for each system. Both development and running costs were accurately allocated to each IT system, which created greater visibility. This improved profitability by making it easier to justify cost optimisation after having this information. These improvements align with Porter’s (1985) theory that cost leaders achieve competitive advantage and above-industry profitability by controlling cost

drivers, as this improvement enabled better control of the cost drivers related to IT system development and operation.

Similarly, in the differentiating company, Case 2, it has been interpreted that improved accuracy in the costing system enables fruitful value chain analysis and provides concrete data to support the analysis and its results: Case Company 2 is going to adopt a new time registration system to accurately record the time spent and allocate it to specific phases of the value chain.

“... so down the line, we would be able to break down our costs throughout the value chain, you might call it, or on all the levels of a product. From initial design stages to the development stages to the testing stages and assurance, and going all the way through, but currently, we are not able to do so within our current systems. To be able to measure the cost in each stage would require a proper time registration system. That is the big debate right now, what we have, because that is the best way of tracking developers’ productivity and then you can also hold it across with salary levels and everything, so you can get a value of what you do, and that is key to being able to control our development as an organisation in general.” -Case 2, Differentiator, Service Company

This approach aligns with the (Drury, 2012) theory, which emphasises that a numbers-based value analysis enhances the comparison between the cost of each function of a product or service and the benefits perceived by the customer. Improved accuracy in cost data enables a detailed analysis of how costs contribute to revenue and supports the evaluation of value both in the present and for future considerations.

Synchronisation and Other Technical Aspects

Synchronisation is one area of improvement that emerged from the research data. The interviewee from Case Company 3, a cost leader, finds that synchronisation causes the costing system to be somewhat vulnerable: Incorrect master data can be propagated across all controllers’ reports, leading to errors appearing in every report. Additionally, an excessive level of detail may complicate the detection of errors within these interconnected systems.

Also Case Company 1, a cost leader, considers synchronisation a key area for improvement in their costing system to support the strategy realisation. They have observed that better synchronisation and harmonisation of the systems would make operations more efficient. For example, they currently use three different systems for reporting investments, which is not very effective.

“If those could be harmonised, it might improve us” -Case 1, Cost leader, Service company

Case Company 1 interviewee believes that it would be beneficial to have some synchronised systems with B2B customers and to enhance this cooperation. Such a system would allow controllers to access mid-month figures, whereas currently, controllers must wait until the end of the month to assess performance properly.

Four out of five interviewees mention technical aspects as essential areas for improvement. While tools like Excel, Power BI, Cube, Microsoft Envision, and various ERPs are widely used, all business practitioners are exploring ways to implement better and faster software solutions, including AI and automation technologies.

“Modern tools which would involve artificial intelligence and automatically do the calculations for use, so you would have more time to do the actual analysis and story-telling rather than basic calculations or searching for the correct numbers.” -Case 3, Cost leader, Manufacturing company

“Sometimes ERP can be very slow and it’s not always user-friendly. I guess the technical side can sometimes slow down processes and implementing the strategy.”-Case 3, Cost leader, Manufacturing company

There is a consensus that the current cost accounting tools do support the realisation of business strategy. However, many responses also indicate that more sophisticated software could potentially support strategy and operations even further. The recognised need for these technical improvements in cost accounting does not appear to be linked to any specific strategic positioning, as these similar views were shared among all interviewees.

(How to) Focus on Strategy

When asked about competitive strategies and how current costing systems support aligning operations, the interviewees' focus was predominantly internal. Based on all the responses to the open-ended questions, it can be said that the responses were roughly 90% internally focused and 10% externally focused. Regarding strategy realisation, the respondents did not frequently mention comparative analysis with competitors, information about their current positioning, or how strategic costing tools have assisted in these aspects. Such responses were notably absent.

For example, in cost leadership strategies, technological advantage is considered essential for a successful strategy (Porter, 1985, 12-14). When pursuing cost savings, cost leaders compare value activities – such as inbound logistics, marketing, outbound logistics, sales and service, HR, R&D, procurement and infrastructure – with those of rivals' in the industry to identify areas for efficiency improvements. Lower cumulative costs in performing these activities can lead to a competitive cost advantage. (Porter 1985, 112-115; 39-42)

Similarly, differentiators must perform value activities better than their rivals to gain competitive advantage (Porter 1985, 122-123). Achieving competitive advantage requires comparison with other players in the industry. According to the theory, strategic cost analysis should or could be used to identify ways to enhance competitiveness in both strategies. However, in my sample, despite the adoption of many strategic tools, the responses to the open-ended questions suggest that these tools are not always utilised strategically in the most optimal way.

Since strategy is always future-focused, companies need to pay attention to their external environment, competitors, and current market trends. This is essential for relevant forecasting and in evaluating whether the stated strategy is being followed. Additionally, to optimally utilise future-focused strategic costing tools – such as target costing or value chain analysis, where external data is crucial – companies must remain aware of these external factors.

In some responses, this lack of strategic focus in cost accounting is somewhat acknowledged, and new costing tools are already seen as a means to address this issue.

Some of these techniques are planned for adoption specifically for this reason. When one interviewee was asked about the changes or improvements that should be made and why, their response revealed insights into how costing tools are perceived. It was noted that traditional and strategic costing tools serve different time spans: Traditional tools focus on shorter-term financial measures, while strategic tools are associated with long-term goals and broader perspectives. Additionally, it is recognised that to be more strategic, cost accounting data would need to include more non-financial data and consist of different qualities of information. To enhance strategic focus, it can be suggested that companies should integrate non-financial data alongside financial data, making cost accounting more holistic and strategy-driven, thereby better supporting a company's strategy realisation.

“Even more focus on the strategy. We would like to be more focused on the future as well. So, creating a long-term forecast. If we spot from the cost accounting perspective something that is not good for us, or practices that are not good for us, it would make sense for us to start lobbying for changes, that things could be done better, more cost-efficiently without sacrificing any, for example, safety or security. There might be even more of the Total Quality Management, sort of like understanding the big picture. And some sort of long-term scenario planning. I don't know if it's a costing tool itself but creating a business plan towards the future.”-Case 1, Cost leader, Service company

The interviewee was further asked if this would mean implementing more non-financial information measurement, which was strongly agreed upon.

“Yes, very much so – and combining non-financial information with financial information.”

6 Evaluation: Validity and Limitations

6.1 Validity

In qualitative research, validity, as defined by Maxwell (1992), encompasses several key types, such as *descriptive*, *interpretative*, *theoretical* and *generalizable* validity.

Descriptive validity refers to the degree to which the actual description holds true (Maxwell, 1992). I have aimed to report detailed, correct descriptions, emphasising practical reality and functions that complement prior theoretical knowledge. Also, I attempted to understand how individuals experience the phenomenon under study and make their subjective and shared meanings central (e.g. Eriksson & Kovalainen, 2008, 208; 18). In line with Patton (2002, 58), I relied on a solid foundation of specific, detailed observations, quotes, and documents, applying inductive analysis by working from the bottom up. The content analysis includes numerous direct quotations to give full access to the respondents' meanings and reflect their subjective understanding of the phenomenon.

Since direct quotations serve as raw data in qualitative research, revealing respondents' emotions and thoughts about their experiences, including these quotations can be considered as part of the validation process: In principle, to say that research findings are valid, means that they are both true and certain (Patton, 2002, 21). "True" in this context means that the findings accurately represent the phenomenon and are supported by evidence, ensuring certainty.

This was made easier by the fact that all interviews were recorded and transcribed, allowing to preserve the accuracy of the interviewees' reflections: Simplifying or summarising the material would have reduced the added value that qualitative, in-depth interview research can provide – such as interpretations, attitudes, causal reasoning, and new insights. I did not want to omit any material, and I found this unnecessary, as the five case interviews comprised a relatively small sample. While some interviews yielded less content, where substantial material was available, it was fully utilised and made visible.

Keeping direct citations in the analysis not only adds validity and trustworthiness but also enhances the narrative's authenticity and natural flow. Ensuring the descriptive accuracy of participants' words also helps reduce subjective bias and misinterpretation. Another

way to improve this kind of validity is through triangulation, which involves the inclusion of multiple perspectives to clarify and support the findings (Eriksson & Kovalainen, 2008, 292-293). In this thesis, its use was limited, but some different types of empirical data were still utilised in addition to interviews, such as companies' financial reports and strategy reports.

By using direct quotes, the focus remains strictly on what was actually said, grounding analysis and interpretations in concrete evidence; *Interpretative validity* refers to how well the interpretation is carried out. Accounts of participants' meanings are constructed based on their own accounts and other evidence. (Maxwell, 1992) In this thesis, interpretations were required to construct the cases and analyse them. The interview questionnaire created a basis for identifying, structuring, and analysing these cases: In the first part, the goal was to identify and interpret the strategic emphasis; In the second part, to determine the costing toolset that was adopted; Finally, in the third part, open-ended questions were used to explore experiences and views, allowing space for new themes, patterns, or causal mechanisms to emerge. The interpretation of this section involved coding and pattern analysis, the results of which are reported in the relevant chapters. Coding was mainly descriptive, working with respondents' actual language to generate codes and categories, aligning with Schwandt (2014, 31). This analysis also involved extensive comparison and contrast between cases and between the responses within the same case.

Regarding the first part, I found that classifying strategies worked well using the template and scoring system, that were applied. Maintaining original quotes adds transparency when the classification is carried out, making it possible to evaluate whether these interpretations are correct. Later in the process, some former studies backed up my interpretations, and these links were found after the strategies were already defined and when I was analysing the open-ended questions. For example, Allen & Helms (2006) list "improving operational efficiency" as a practice that is strongly linked to cost leadership strategy, and in the open-ended questions, this operational efficiency goal was repeatedly mentioned in the comments of respondents who had earlier been interpreted as cost leaders. The answers in both parts of the questionnaire matched, and I deduced the strategies were classified correctly; The companies that were classified as differentiators did not criticise their costing systems for being inefficient at this later stage. Similarly, Case Company 5, defined as a cost leader, had a respondent who later answered in an

open-ended question that their budgetary performance is at a high level, which, according to Johnson & Kaplan (1987), indicates a cost leadership emphasis.

To support interpretative validity, it also proved useful to send the supporting materials to the interviewees in advance, as many interviewees were not necessarily familiar with all the terms initially. This also ensured that all interviewees had a similar interpretation of the costing methods and tools.

When cases are studied, it is also essential to enable the reader to be theoretically informed, aiding in understanding the implications of the study for theory and practice: *Theoretical validity* refers to the adequacy of the suggested theory or explanation. It addresses the theoretical constructions the researcher brings to or develops during the study. (Maxwell, 1992) In this thesis, former theories are utilised by employing the same categories and concepts used by previous researchers, as well as applying these in the analysis. Former theories justify the research question as the theoretical framework shows contrary previous findings and lack of qualitative research exploring this topic. These reasons and the provided theoretical evidence explain why answering this research question adds value within the theoretical framework established in the first part of the thesis.

As the existing theory in this setting lacks a clear consensus, it cannot provide a foundation for forming a testable hypothesis in this thesis. Instead, this raises the question of why prior research has produced mixed results, as demonstrated by the theoretical framework and its summary. During the thesis process, I identified several limitations that make this topic especially difficult to investigate: I suggest that the recognised limitations might also help explain the previously contradictory and sometimes confusing findings. Limitations will be further analysed in Chapter 6.2.

Generalizable validity refers to the extent to which findings from a study can be generalised to other settings (Maxwell, 1992). Realistically, it is not possible to make generalisations from this research data, even though this is stated as one goal in “extensive case-studies”, where the starting point is that existing theory has gaps that need elaborating, as noted by Eriksson & Kovalainen (2008, 122). My sample does not consist of theoretically chosen case samples that would be similar enough to generate a new theory; Additionally, the sample is not large enough to support this. On the other hand, the cases are sufficiently different (in terms of different strategic emphases) to allow

theoretically interesting comparisons and to offer one explanation for the research question.

Generalizability and reliability are closely related terms. Reliability refers to the consistency of results across repeated trials (Eriksson & Kovalainen, 2008, 292). It is important to note that, in non-positivist research, the focus is on investigating the manifestation of a particular issue in a specific setting, making it difficult to reproduce the exact conditions under which the study was conducted. Instead of ensuring repeatability, I supported reliability in this thesis in the following ways: Detailed field notes by using recording device and by transcribing the digital files; Employing some triangulation; Efforts to increase transferability between the researcher and those being studied through thick description and extensive use of quotes; By utilising nearly all gathered data to avoid omitting relevant information; Revising, rereading and reexamining the data multiple times; Including numerous comparisons with previous studies and findings in the content analysis; Conducting cross-case analysis; Applying a critical approach to my work, including attention to and collection of evidence on other contingency factors that were noticed to impact the results.

6.2 Limitations

The main limitation of this study is resource constraint: Small sample size. I acknowledge that there is a limitation to answering the research question, as the evidence consists of five cases, and their subjective experiences. The collected data can be understood as a set of several individual cases. Upon later reflection, I realised that I should have identified all potential interviewees in advance and considered this limitation initially when formulating the research question – what could realistically be researched given this constraint. To find suitable interviewees who could answer questions involving confidential information about their companies, it was necessary to know these people personally so that I could have the opportunity to interview them. Based on my experience, approaching people without a prior connection was not a feasible option.

However, interviewing key personnel helped compensate for this limitation – Quality over quantity, after all. Investigating this topic requires a lot from the participants, as the study's results rely on data obtained from the subjective assessments of managers. To

gather valid and usable data, the interviewee would need to understand how the company's strategy is conceived and implemented, while also knowing how and why the costing tools are used: Ideally, the interviewee would also be a professional who decides what tools will be adopted. In practice, no one person in the company usually handles or is responsible for all these aspects alone, as these are complex topics. Therefore, it requires exceptional expertise, experience, and broad knowledge from the interviewee to be able to answer all questions about the company strategy, costing tools, and business operations, which are all interconnected.

Also, knowing these people and already having their trust meant that there wasn't the kind of limitation regarding transparency where the interviewee, once agreeing to participate, would hide some relevant information for any reason; There was a sense that the interviewees wanted to share their views to the best of their knowledge. Hence, the small sample size and the fact that the interviewees were personal contacts meant there was no need to compromise the depth of the investigation at any point.

Regarding the interviewees who joined this research, there is a bias in the sample, as both differentiators happened to be relatively young companies – new, innovative, and in a rapid growth phase. Presumably, this heavily impacts their current costing tools. Similar research with the same questions regarding adopted costing tools might yield different results five years from now, once planned scaling and related processes are fully established and business operations are more settled. Similarly, this would provide new insights into why certain tools were selected. In contrast, all cost leaders were relatively mature companies with well-established positions in their industries. Therefore, this characteristic of my data sample must be considered when comparing the final results between companies with different strategic emphases: According to the comments, the logic that companies would start by adopting the traditional tools and then progress toward more sophisticated ones as needed is supported.

Lastly, contingency-based research predicts that certain types of costing systems would be more suited to particular strategies. This has been a common way to study the topic, though the findings have been controversial. I believe that I have encountered some of the same challenges as these researchers before. Strategy, as a contingency factor, while offering a fascinating perspective, also brings its challenges. It is not a stable element, as it develops, adapts, and is inherently dynamic. It is not simply an element of context but

rather a choice strongly shaped by the industry and the field. It can also be understood as a way for managers to influence the external environment to make it more controllable, as they can position organisations in a particular environment and thus mitigate uncertainty by making it more predictable. Moreover, there has never been a consensus in the research literature on how strategy can be unequivocally measured or classified – for example, as a cost leader or differentiator strategy – even though Porter's (1985) theory is the primary framework for this classification.

Strategy influences the company's technologies, structure, and the adopted costing tools as well: However, it would be very difficult to extract the effects of strategy on adopting a particular type of costing system from all other contingency factors and events that could be associated with the adoption.

7 Conclusions

7.1 Answering the research question

How does the cost accounting approach support the implementation of the chosen business strategy?

In my analysis, I used five case companies as a data sample. Of these, three follow a cost leadership strategy, and two follow a differentiation strategy. Since all respondents reported being satisfied with their current costing tools and systems, this helped interpret the responses: This could be seen as an indicator that the current costing tools support the realisation of each company's strategy, providing the necessary information for strategic decision-making. The responses also describe well, how companies from different industries have adopted the same tools and successfully integrated these to meet their needs.

All companies consider traditional tools to be the most significant in strategic decision-making and in supporting the realisation of their strategies. The companies that follow cost leadership strategy, have adopted *Marginal Costing*, *Absorption Costing*, and *Activity-Based Costing* – All costing tools classified as traditional. In addition, cost leaders have also implemented several strategic tools: *Activity-Based Management (ABM)*, *Value Chain Analysis*, *Life-Cycle Costing*, *Total Quality Management (TQM)*, and *Attribute Costing*.

Exclusively, only cost leaders in my sample used *Activity-Based Costing* systems extensively in business management and demonstrably in strategic decision-making. This is an important finding, as it suggests that cost leaders indeed utilise more detailed costing data in strategic decision-making compared to companies following a differentiation strategy. This may have a direct impact on the design of costing systems in these companies, as Activity-Based Costing allows for data in its most refined form.

Moreover, the need for non-financial data is recognised by most cost leadership companies. This data is primarily used to identify potential cost-saving opportunities and drive cost optimisation. Such outcomes are provenly achieved through improved quality, such as reducing errors, which in turn increases process efficiency. *TQM* is most applicable and beneficial for cost leader companies that are mature, large players in their

industries, where internal processes are relatively stabilised. All the cost leader companies in my sample fit this profile and have adopted this tool.

Differentiators, in turn, adopted traditional costing tools and, in addition, implemented both *Target Costing* and *Value Chain Analysis*. These were strategically important costing tools for them. The results suggest that *Target Costing* and *Value Chain Analysis* not only support the realisation of a differentiation strategy but also help drive company growth, as both differentiating companies are currently expanding, experiencing strong growth and planning scalability. The findings could also indicate that, as there were not many settled processes in place just yet, this may be one reason why *TQM* has not (yet) been adopted by these companies.

These are the most important characteristics that clearly show significant differences between the companies' costing systems, which are influenced by their strategic emphasis.

In line with theoretical expectations and building on Porter (1985), these findings suggest that companies with different strategic focuses perceive *value* in their operations slightly differently. For example, cost leaders view their products as consisting of activities that can be measured at a highly refined level. This meticulous recording and refinement of all costs appear to be a method for optimising and arguing for cost improvements. By controlling cost drivers and exploring ways to further reduce total costs, cost leaders aim to achieve a competitive advantage and higher profitability. Thus, the value lies in actions and striving for efficiency and in outperforming rivals in the industry through better-managed operational activities.

In contrast, differentiators see value as consisting of both tangible and intangible attributes, with value heavily dependent on customers' evaluation. For example, company leadership considers how to maintain the product within a premium price range. *Value Chain Analysis* helps identify ways to reduce costs associated with attributes that customers are not willing to pay (extra) for while gathering information to enhance the value provided. This tool ensures that functionality and uniqueness remain at a high level, preventing cost reductions from activities where such cuts would compromise value. The link between revenue and cost is constantly evaluated. Differentiators acknowledge the value of uniqueness and seek to understand these product or service attributes by implementing tools to measure, control, and monitor them.

It could be suggested that certain tools have been selected for use due to the differences in how value is perceived. *ABC* and *ABM* appear to support the optimisation of processes and performance in operational activities, while *Value Chain Analysis* and *Target Costing* support the recognition of unique value activities, unique attributes, and buyer's valuation.

Some of my findings are in line with previous studies, while others are not. My findings confirm that traditional tools are most useful in strategy realisation (as in Chenhall's, 1998b study). Secondly, there was no significant difference between the companies' strategic emphases and the overall sophistication of their costing systems, i.e., the adoption of strategic costing tools (as found in Abdel-Kader & Luther's, 2008 study). Petera & Soljakova (2020) and Baines & Langfield-Smith (2003) found a significant correlation between *Target Costing* and a differentiation strategy. This also stands out in my data sample. Cinquini & Tenucci (2010), Abdel-Kader & Luther (2008), and Cooper (1996) found that *Value Chain Analysis* and *Target Costing* were useful among differentiators: My findings align with theirs. They also report that cost leaders found these same tools useful, but the tools are used differently, as cost leaders tend to use them to provide detailed and accurate cost information. According to Cinquini & Tenucci (2010) study, they suggest that strategic management accounting techniques and business strategy typology have a "loose coupling", as there is no clear consensus on the issue since the same costing tools can support different strategic approaches: My findings are consistent with this.

Contrary to previous studies, my findings differ regarding the use of Activity-Based Costing tools. According to earlier research, *ABC* and *ABM* are not very commonly used by either differentiators or cost leaders (Cooper, 1996; Chenhall & Langfield-Smith, 1998b; Abdel-Kader & Luther, 2008), nor was a correlation found between *ABC/ABM* and a cost leadership strategy (Malmi, 1999). However, my findings contradict this, as all cost leaders in my sample had adopted *ABC/ABM* and used these tools strategically. This raises the question of whether some of these earlier studies would yield different results if replicated today.

All the findings mentioned above are summarised in the following figure. Although this is a simplified representation, it aims to comprehensively demonstrate and capture my interpretations. It is important to note that valid generalisations cannot be made based on

this small sample, and all previously discussed validity considerations and limitations apply. With this in mind, the findings of this thesis can be concluded as follows, providing one explanation for my research question.

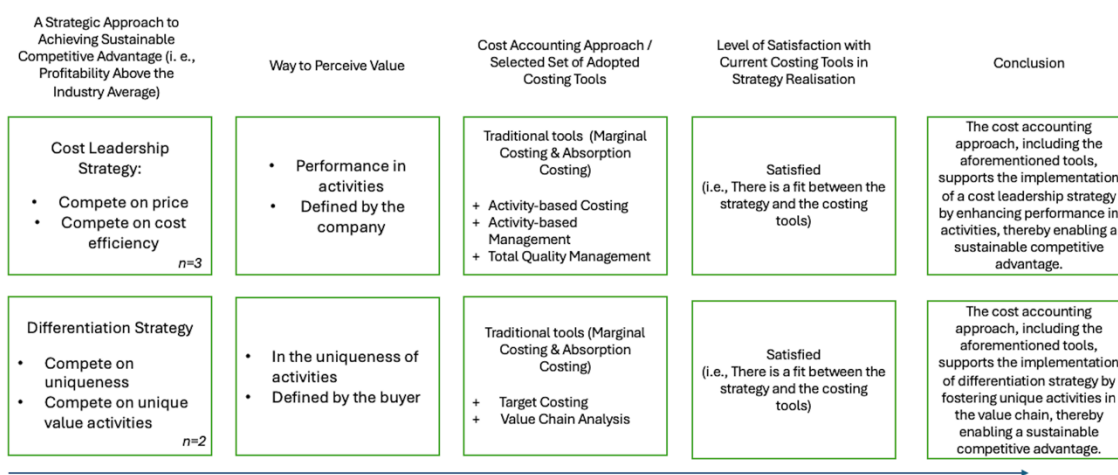


Figure 4. Strategic alignment through cost accounting

Although satisfaction with the costing systems was generally high across all cases, further questions were asked about the areas for improvement. Qualitative data reveal that respondents from differentiating and cost leadership companies had very different perspectives on the purposes of these tools and on how they should be improved. Cost leaders critically evaluated all tool selections based on their efficiency: There was a consensus among them that they would prefer a less detailed costing system if it would enhance cost efficiency, and agility, and allow for better and faster responsiveness to changes in the external environment.

Differentiators currently do not have very refined costing systems in place, but they are interested in improving the accuracy of their systems. This improvement would help them better control the development of their products by providing more precise knowledge about the value of their operations. These insights from the qualitative data deepen the understanding of how costing tools are perceived as supporting the realisation of strategy by practitioners and highlight noticeable differences between these two strategic groups.

Compared to the theory, many respondents' comments align with existing literature. Yet, strategic cost accounting literature emphasises the need for companies to have an intense outward focus to identify and realise market potential. Despite this, the role of clients and

competitors was relatively limited in the responses overall, suggesting that even though the strategic tools are adopted, they are necessarily not utilised to their full potential. Therefore, these companies could benefit from a greater outward focus and a better integration of non-financial data.

Overall, the analysis reinforces the perception that there is a link between company strategy and cost accounting systems. The new data, including recorded experiences, quotes, and the structure of how the responses are constructed, aims to contribute to developing a framework that explains the sophistication of management accounting systems – specifically, cost accounting systems– and their success, depending on strategy as a contingency factor. As a concluding thesis, I propose that companies must adopt a set of costing tools aligned with the requirements of their chosen competitive strategy to achieve a sustainable competitive advantage.

7.2 Directions for future research

The empirical findings indicate that strategic costing tools are widely utilised and adopted, suggesting a need for further investigation into these tools.

The Contingency Theory-based theoretical foundation was generally recommended for exploring the appropriateness of costing systems depending on external factors, as when examining the influence of strategic emphasis. In conclusion, I suggest that the effect of strategy as a contingency factor on companies' costing systems is significant, based on my evidence and interpretations. However, during the empirical process, I identified several other contingency factors that provenly impact the adopted systems alongside strategy. These factors include industry, end-user market audience (B2B or B2C), phase, economic environment certainty, and the presence of an influential facilitator. Additionally, there may be other contingency factors that warrant further exploration.

In further studies, it would be ideal to isolate the effect of individual contingency factors on the phenomenon while minimising the influence of other factors. One potential approach to achieve this is through a longitudinal study method. This approach could help identify the changes that occur when only one contingency factor alters while others remain relatively stable. For example, a longitudinal study could examine how a clear

shift in a company's strategic emphasis affects the adoption of costing tools or the use of tools in existing costing systems.

Alternatively, another suggestion for further research would be to acknowledge the limitations and the complexity of objectively measuring these variables. This would encourage researchers to employ more qualitative methods when studying this topic: Such an approach is highly needed, as there is currently very little qualitative research on this subject.

Sources

Literature

- Abdel-Kader, Magdy & Luther, Rober (2008) The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review* 40 (2008), 2-27.
- Abernethy, M.A. and Guthrie, C. (2009) An Empirical Assessment of the “Fit” between Strategy and Management Information System Design. *Accounting and Finance* 34 (2), 49-66.
- Allen, Richard S. & Helms, Marilyn M. (2006) Linking strategic practices and organizational performance to Porter’s Generic Strategies. *Business Process Management Journal*, Vol. 12 (4), 433–454.
- Anderson, Shannon & Lanen, William (1999) Economic transition, strategy and the evolution of management accounting practices: the case of India. *Accounting, Organizations and Society*, July 1999.
- Baines, Anette & Langfield-Smith (2003) Antecedents to Management Accounting Change: A Structural Equation Approach. *Accounting, Organizations and Society*, Vol. 28, 675–698.
- Bennet, E., MchWhorter E. & Rochell, R. (2016) Opening the Black Box and Searching for Smoking Guns: Process Causality in Qualitative Research. *European Journal of Training and Development*, v 40 n 8-9, pp. 691-718.
- Blocher, Edward J., Stout, David E. & Cokins, Gary (2009) Cost Management: A Strategic Emphasis. Linking strategic practices and organizational performance to Porter’s Generic Strategies. *Business Process Management Journal*, Vol. 12 (4), 433–454.
- Boer, G. (1996) Management Accounting Beyond the Year 2000. *Journal of Cost Management* (Winter), 46–49.
- Bowhill, Bruce (2008) *Business Planning and Control: Integrating accounting, strategy and people*. 1st Edition. John Wiley & Sons Ltd. West Sussex, England.

- Cadez, Simon & Gilding, Chris (2008) An Exploratory Investigation of an Integrated Contingency Model of Strategic Management Accounting. *Accounting, Organizations and Society*, Vol. 33 (7–8), 836–863.
- CIMA *Official Terminology* (2005) The Chartered Institute of Management Accountants. 2005 Edition. CIMA Publishing. Oxford, England.
- Cinquini, Lino & Tenucci, Andrea (2010) Strategic Management Accounting and Business Strategy: A Loose Coupling?. *Journal of Accounting & Organizational Change*, Vol. 6 (2), 228–259.
- Chenhall, R. H. & Langfield-Smith, K. (1998b) The Relationship between Strategic Priorities, Management Techniques and Management Accounting: An Empirical Investigation using a Systems Approach. *Accounting, Organizations and Society*, Vol. 23 (3), 243–264.
- Chenhall, R. H. (2003) Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organization and Society* 28, 127-168.
- Chenhall, R. H. (2007) *Theorizing Contingencies in Management Control Systems Research*. Handbook of Management Accounting Research. Elsevier Ltd.
- Cooper, Robin (1995) *When Lean Enterprises Collide: Competing through Confrontation*. Harvard Business School Press, Boston, Massachusetts.
- Cooper, Robin (1996) Costing techniques to support corporate strategy: Evidence from Japan. *Management Accounting Research*, Vol. 7, 219–246.
- Dent, Jeremy F. (1990) Strategy, Organization and Control: Some Possibilities for Accounting Research. *Accounting, Organizations and Society*, Vol. 15 No. 1/2, pp. 3-25.
- Drury, Colin & Tayles, Mike (2000) *Cost System Design and Profitability Analysis in UK Companies*. CIMA Publishing, London.
- Drury, Colin & Tayles, Mike (2005) Explicating the Design of Overhead Absorption Procedures in UK Organizations. *The British Accounting Review* 37, 47-84.
- Drury, Colin (2012) *Management and Cost Accounting*. 8th Edition, Cengage Learning EMEA, Hampshire, England.
- Drury, Colin (2018) *Management and Cost Accounting*. 10th Edition, Cengage Learning EMEA, Hampshire, England.
- Eriksson, Päivi & Kovalainen, Anne (2008) *Qualitative Methods in Business Research*. Sage Publications Inc.

- Fisher, Colin (2010) *Researching and Writing a Dissertation: An Essential Guide for Business Students*. 3rd Edition, Prentice Hall, Pearson Education Limited, Essex, England.
- Ghauri, P. N. & Gronhaug, K. (2005) *Research Methods in Business Studies: A Practical Guide*. Pearson Education, London.
- Glaser, B. & Strauss A. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine, 1967.
- Gosselin, M. (1997) The Effect of Strategy and Organizational Structure on the Adoption and Implementation of Activity-Based Costing. *Accounting, Organizations and Society*, 22 (2) 105-122.
- Govindarajan, V. (1986) Decentralization, Strategy, and Effectiveness of Strategic Business Units in Multibusiness Organizations. *The Academy of Management Review*, Oct. 1986, Vol 11 No 4 pp. 844-856.
- Gummesson, Evert (2000) *Qualitative Methods in Management Research*. Second Edition. Sage Publications Inc.
- Gupta, A. & Govindarajan, V. (1984) Business unit strategy, managerial characteristics, and business implementation. *Academy of Management Journal* 27 (1), 25-41.
- Gupta, A. & Govindarajan, V. (1985) Linking Control Systems to Business Unit Strategy: Impact on Performance. *Accounting, Organizations and Society*, Vol 10. 1, pp. 51-66.
- Hadid, Wael (2019) Lean Service, Business Strategy and ABC and Their Impact on Firm Performance. *Production, Planning and Control*. Vol. 30 (14), Taylor & Francis Ltd.
- Hambrick, Donald C. On the staying power of defenders, analyzers, and prospectors. *The Academy of Management Executive* (1993-2005), Vol. 17 No. 4, Building Effective Networks (Nov.,2003), pp. 115-118.
- Horngren, Charles T., Bhimani, Alnoor, Datar, Srikant M., Rajan, Madhav. (2015) *Management and Cost Accounting*. Pearson, Sixth Edition, Harlow, United Kingdom.
- Johnson, H. T. & Kaplan, R. S. (1987) *Relevance Lost: The Rise and Fall of Management Accounting*. Harvard Business School Press. Boston, Massachusetts, USA.
- Johnson, H. T. (1994) Relevance Regained: Total Quality Management and the Role of Management Accounting. *Critical Perspectives on Accounting*, Vol. 5, 259–267.

- Kaplan, Robert S. & Norton, David P. (1996) *Translating Strategy Into Action: The Balanced Scorecard*. Harvard Business School Press. Boston, Massachusetts, USA.
- Kober, R. , Juliana N. & Byron P. (2003) *Change in Strategy and MCS: A Match Over Time?* *Advances in Accounting*, Volume 20, 199-232.
- Langfield-Smith, Kim (1997) Management control systems and strategy: A critical review. *Accounting, Organizations and Society*, Vol. 22, No. 2 pp. 207-232.
- Matt, Eduard (2004) The presentation of qualitative research. In U. Flick, E. von Kardoff, I. Steinke *A companion to qualitative research*. Pp. 326-330 Sage Publication Inc.
- Maxwell, Joseph (1992) Understanding and validity in qualitative research. *Harvard Educational Review*, 62, 279-300 (Fall 1992).
- Maxwell, Joseph (2004) *Using qualitative methods for causal explanation*. *Field methods* 16 (3): 243-264.
- Malmi, Teemu (1999) Activity-Based Costing Diffusion Across Organizations: An Exploratory Empirical Analysis of Finnish Firms. *Accounting, Organizations and Society*, Vol. 24, 649–672.
- Miles, Raymond & Snow, Charles (1978) Organizational strategy, structure, and process. *Academy of Management Review* 3 (3): 546-562.
- Neilimo, Kari & Uusi-Rauva, Erkki (2005) *Management accounting*. Edita Publishing Oy, Helsinki, Finland.
- Partridge, Mike & Perren, Lew (1994) Cost Analysis of the Value Chain: Another Role for Strategic Management. *Management Accounting (UK)*. July/August 1994, 22–26.
- Patton, Michael Quinn (2002) *Qualitative Research and Evaluation Methods*. 3rd Edition. Thousand Oaks: Sage Publication Inc.
- Petera, Pets & Soljakova, Libuse (2020) Use of Strategic Management Accounting Techniques by Companies in the Czech Republic. *Economic Research*. Volume 33, Issue 1, Pages 46–67, 1 January 2020 Taylor & Francis Ltd, Scopus, Elsevier.
- Porter, Michael (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*. NY: Free Press, 1985, USA

- Ramli, Ishak & Iskandar, Denny (2014) *Control authority, business strategy and the characteristics of management accounting information systems*. *Procedia - Social and Behavioral Sciences* 164 (2014) 384-390.
- Roslender, Robin & Hart, Susan J. (2003) In search of strategic management accounting: theoretical and field study perspectives. *Management Accounting Research*, Vol. 14, 255–279.
- Schwandt, Thomas A. (2014) *Dictionary of Qualitative Inquiry*. 4th Edition, SAGE Publications, Ltd.
- Shank, J. & Govindarajan, V. (1992) Strategic Cost Management: The Value Chain Perspective. *Journal of Management Accounting Research*, Vol. 4, 179–197.
- Shank, J. & Govindarajan, V. (1993) *Strategic Cost Management: The New Tool for Competitive Advantage*. New York: The Free Press.
- Sharan, B. Merriam (2014) *Qualitative Research: A Guide to Design and Implementation*. Jossey-Bass, John Wiley & Sons Inc., San Fransisco, CA, USA
- Simons, Robert (2014) *Performance Measurement and Control Systems for Implementing Strategy*. New International Edition. Pearson. Harlow, Essex, England.
- Simons, Robert (1998) *Templates for Profit Planning*. Harvard Business School Background Note 199-032, November 1998. Boston, Massachusetts, USA
- Simons, R. (1987) Accounting Control Systems and Business Strategy: An Empirical Analysis. *Accounting, Organizations and Society*, Vol 10 no 1 pp. 51-66
- Tillema, S. (2005) Towards an integrated contingency framework for MAS sophistication: Case studies on the scope of accounting instruments in Dutch power and gas companies. *Management Accounting Research* 16, 101-129
- Womack, J. P. & Jones, D. T. (2010) *Lean thinking: Banish waste and create wealth in your corporation*. Simon & Schuster UK Ltd, London, England
- Woods, Peter (1985) *Conversations with Teachers: Some Aspects of Life-History Method*. *British Educational Research Journal*, Vol. 11, No. 1, pp.13-26
- Yin, Robert K. (2002) *Case Study Research: Design and Methods*. (Applied Social Research Methods Series v. 5), Third Edition. Sage Publications Inc.

Additionally, proofreading and grammar checking of this thesis done with Grammarly AI Writing Assistance and Chat GPT:

Grammarly (2024) Free Plan. Founded by Lytvyn, Max; Shevchenko, Alex; Dmytro, LIDER in 2009. To access the Grammarly Editor, <https://app.grammarly.com/>

Chat GPT, GPT-4o (2024) Free tier. OpenAI. Access to Chat GPT, <https://chatgpt.com/>

Attachments

These two attachments were sent to the interviewees before the interview.

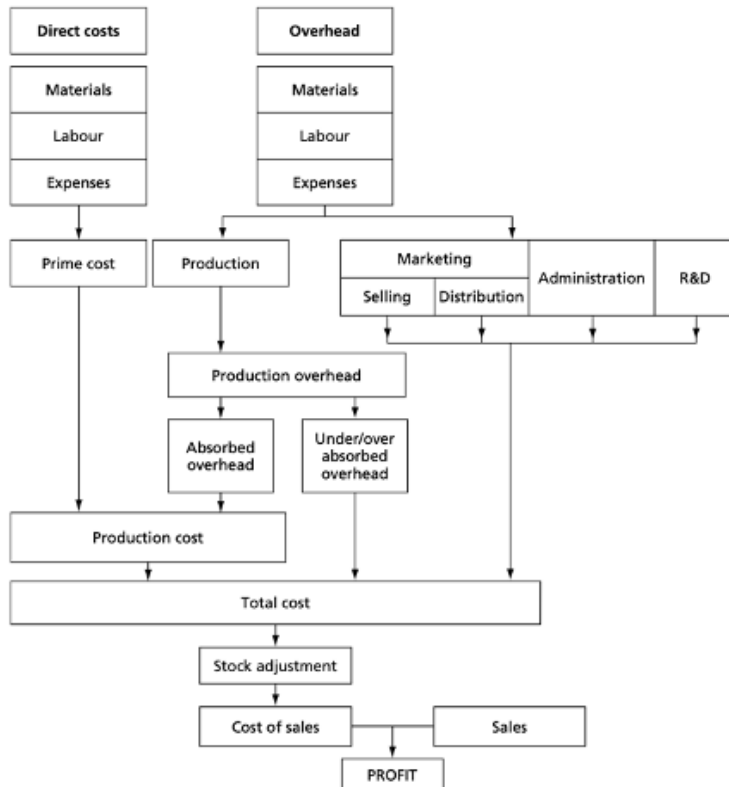
Attachment 1. Definitions

Traditional Cost Accounting Approach

Traditionally costs are classified as fixed and variable costs. The full cost per unit is the variable cost per unit plus the fixed cost per unit at a certain level of output. The full cost per unit will therefore change when the level of output changes. The fixed cost per unit declines the more units are made: The curve is regressive. The full cost per unit is a traditional base in pricing, as the simplest way to identify the selling price of a product or service is to sum up the full cost of the unit and a mark-up for profit (Bowhill, 2008, 29-32). A cost accounting system, that uses this data about variable and fixed costs per unit to make budgets and control expenses, relies on traditional *marginal costing ie. variable costing i.e. direct costing (US)*. In the case of marginal costing, the amount of production overhead absorbed relates only to the variable element (CIMA, 2005)

Typically, though, as a significant percentage of businesses' total costs are fixed overhead costs, these overhead costs need to be allocated to services and products based on the actual usage and cause. To be able to make this allocation accurately, instead of classifying the costs to variable and fixed, the costs should be classified as direct and indirect costs. Whilst variable costs are often direct and fixed costs are indirect, this is not always the case - Indirect costs can also be variable or fixed. (Bowhill, 2008, 105-108)

Absorption costing assigns direct costs and all or part of indirect costs to *cost units* using one or more overhead absorption rate(s) (CIMA, 2005) which are most often predetermined (Bowhill, 2008, 113). *Absorption costing* is sometimes referred to as *full costing* though according to CIMA (2005) this is a misnomer in case not all costs are attributed to cost units. The chart below demonstrates the absorption costing principle.



Elements of an absorption costing system (CIMA, 2005)

As demonstrated in Figure 1, indirect overhead costs, similarly to direct costs, can be divided into “material overhead cost”, “labor overhead cost” and “expenses overhead cost”. Both indirect material and labor costs are therefore somewhat variable in nature, as together with direct costs they form the production cost: Material overhead cost is dependent on the amount of material used in production and labor overhead cost dependent on the amount of hours used in production. By apportioning the overhead costs to the products and services, the cost analysis is more detailed and informative, and provides a more accurate picture of the full costs of the sold products or services - as also making the profit estimates more credible.

Cost centre or *cost pool* is the location where the overhead costs are assigned, and in traditional cost accounting systems these consist of departments. (Drury, 2012, 50). *Activity Based Costing (ABC)* was named after the alternative way in allocation, as in ABC, costs are not accumulated by departments but by *activities*, and these form *activity cost centres*. Another characteristic in ABC systems is the usage of *cost drivers* (or *allocation base*): *Cost drivers* are determinants of the cost of activities.

Processes have a cost dimension (Kaplan and Norton, 1996, 122). This aspect feels specifically relevant in project-based businesses in question, where all costs should be measurable on process level and when further disaggregated, on activity level – *ABC systems* enable data in this form.

Strategic cost accounting approach

Activity-Based Management draws on *ABC* as its major source of information, which in turn can be classified into two categories: Either as *operational* (and perhaps “traditional”) *ABM* or as *strategic ABM* (Blocher, 2009, 139). Blocher (2009, 27), though, later states that both *ABC* and *ABM* can be *key* strategic tools for companies, especially in organizations that have complex operations or diversity of products. Next, in this chapter, I will provide brief descriptions of the following strategic costing tools: *Target costing*, *value chain costing*, *life-cycle costing*, *quality costing*, *attribute costing* and *lean accounting (value stream costing)*.

Target costing is a multidisciplinary team-based approach, which is recommended in contexts where a team works together to solve customer’s problems. This kind of approach fits well when employees working in different functional areas are likely to take account of each other’s needs: Then there is no need to fully separate engineering, designing, purchasing, manufacturing or other activities to their own functions (Bowhill, 2008, 42) Multidisciplinary approach has a potential to bring *cost-effective* achievement of customer expectations, as for example, expensive engineer would not spend his or her time to difficult features that are not important for the customer (purchasing) or what would be more efficiently carried out or modified by the designer who has a lower cost rate (designing). *Target costing* is future-focused and usually applied during the design stage. Target costing involves estimating a total product cost calculated by subtracting a profit margin from an estimated or market-based price (Cadez & Guilding, 2008, 27). *Kaizen costing* is a very similar costing technique to *Target costing*, but the difference is that *Kaizen costing* focuses on the present: In *Kaizen costing* the cost reduction objective is achieved on the manufacturing stage of the product life cycle through *continuous improvement*, which aims to increase efficiency of the production process (Cooper, 1996, 242-243).

Value analysis, also known as *value engineering*, uses *target costing* and *functionality analysis* to identify how the product design should be changed, so that the product's or service's costs would be reduced without sacrifices in its functionality; And what unnecessary functions can be eliminated unless the customer is willing to pay extra. The costs of each function of the product or service are compared to the benefit viewed by the customer: This information is usually gathered by conducting interviews and surveys. The value to the customer should always exceed the costs, and if not, then these functions need to be eliminated, modified or enhanced. (Drury, 2012, 545-546); *Value-chain costing* is defined as an activity-based approach where costs are allocated to the activities that are required in different phases in the value chain: In design, procure, produce, market, distribute or in service (Cadez & Guilding, 2008, 27). Blocher (2009, 12) defines an analysis of value chain as a tool where the management identifies each step and activity in the value chain that are not competitive, where costs could be reduced or which activities could be outsourced. Management uses *value chain analysis* also as a tool to find ways to increase value for the customers. In this analysis, each step in the operations will be analyzed: How each step affects the company's profits and competitiveness.

Life-cycle costing identifies and monitors costs throughout the product's life-cycle, including research and development, design, prototyping, *target costing*, testing, manufacturing, packaging, marketing, distribution, sales and service. Traditional cost accounting is focused on the manufacturing phase, whereas strategically cost accounting should cover the full life cycle of costs. This method shows clearly how a company's design decisions will lock the future costs. (Blocher, 2009, 12-13)

Total Quality Management (TQM) is a technique used by the management to develop policies and practices to result in the company exceeding the customers' expectations. In TQM the product's functionality, durability, reliability and serviceability are analyzed, optimized and continuously improved. (Blocher, 2009, 13) The focus in TQM is on quality and business processes rather than in results: "*No accounting system ever told anyone if a process is in control or if a customer is satisfied*" (Johnson, 1994, 265-266). Cost management is closely tied to TQM, as it provides information about the processes such as cost data about any production defects, wasted labor or raw materials, warranty costs or costs due product recalls, and these cost figures in turn can be used in measuring quality: And demonstrate how improving the processes can increase the quality and hence, decrease the costs. (Blocher, 2009, 13) *Quality costing* refers to any costs

associated with the creation, identification, repair or prevention of defects: Either prevention, appraisal or internal and external failure costs. (Cadez & Guilding, 2008, 27) *Quality costing* reports help management to recognize any quality problems, and Total Quality Management (TQM) draws on the data in this form: Hence, *quality costing* supports total quality management concept. In 1994's article, Johnson suggests that TQM could be the solution to regain competitiveness and profitability that American companies lacked during the 1900s century. Johnson interprets that the focus should shift from inappropriate use of accounting information in management to the management of processes; Contribution of total quality management should become more significant; Overhead costs should relate to direct labor; Product-life-cycles should be shorter than before; Among several other changes. Johnson thought that the financial management mindset should be replaced with the total quality mindset.

Attribute costing and attribute-based costing is costing of product attributes that appeal to customers. Attributes can be reliability, operating performance variables, warranty, service, degree of finish and assurance of supply. (Cadez & Guilding, 2008, 26) This data supports the value chain concept. The data is external, and needs regular re-evaluation and updating as customers' valuation of product's characteristics is constantly changing. Horngren (2015, 17) states that *attribute costing* is useful especially in organizations where capturing real-time market information is significant - and for some companies, this information can be even more significant than the provided data about internal operational activities. The skill here would be to be able to offer attributes that provide high benefits to customers for low cost to the company. *Attribute costing* is one of the strategic costing tools that manifest strong external orientation. Roslender and Hart (2003, 272-273) view that *attribute costing* necessitates cooperation between management accounting and marketing management practitioners. Overall, it seems that most strategic management accounting tools necessitate increased cooperation between accounting and other company's functions, compared to traditional techniques.

Lean accounting uses *value streams* to measure financial benefits (Blocher, 2009, 13). Companies that use *lean accounting*, as for example *Value Stream Costing*, are companies that implement *lean manufacturing*. Similar to *attribute costing*, *TQM* and *value chain costing*, also in *lean* the customer defines the *value*, which can be specific products with specific capabilities at specific prices (Womack & Jones, 2003, 16). Business operations will be seen as a set of value streams producing certain products and services, and these

value streams consist for example of design, engineering, scheduling, delivery stages: These steps should be value-adding activities that need to be incorporated to bring the product to the customer. In *lean* thinking management seeks any activities that do not add value for the customers and which therefore could be avoided. (Womack & Jones, 2010, 19-20) By dropping or modifying these activities the processes will become more streamlined, competitive and cost effective.

Technique	Traditional Cost Accounting	Strategic Cost Accounting	Sources
Marginal Costing ie. Variable Costing ie. Direct Costing (US) (<i>Katetuottolaskenta</i>)	x		Bowhill (2008), CIMA (2005)
Absorption Costing (<i>Omakustannuslaskenta</i>) Full Costing (<i>Täyskatteellinen kustannuslaskenta</i>)	x		Bowhill (2008), CIMA (2005)
Activity Based Costing (Operational)	x		Drury (2012)
Activity Based Management based on Activity Based Costing (Strategic)		x	Blocher (2009)
Target Costing		x	Bowhill (2008), Cadez & Guilding (2008)
Value Analysis, Value Engineering, Value-Chain Costing		x	Drury (2012), Cadez & Guilding (2008), Blocher (2009)
Life-Cycle Costing		x	Blocher (2009)
Total Quality Management, Quality Costing		x	Johnson (1994), Blocher (2009), Cadez & Guilding (2008)
Attribute Costing, Attribute-Based Costing		x	Horngrén (2015), Cadez & Guilding (2008), Roslender & Hart (2003)
Lean Accounting ie. Value Stream Costing		x	Blocher (2009), Womack & Jones (2003)

Sources (Attachment 1):

Blocher, Edward J., Stout, David E. & Cokins, Gary (2009) *Cost Management: A Strategic Emphasis*. McGraw-Hill/Irwin, Fifth Edition

Bowhill, Bruce (2008) *Business Planning and Control: Integrating accounting, strategy and people*. John Wiley & Sons, Ltd

Cadez, Simon & Guilding, Chris (2008) An Exploratory Investigation of an Integrated Contingency Model of Strategic Management Accounting. *Accounting, Organizations and Society*, 33 (7-8), 836-863

CIMA (2005) *Official terminology*. CIMA Publishing, London

Drury, Colin (2012) *Management and cost accounting*. 8th Edition, Cengage Learning EMEA

Drury, Colin (2018) *Management and cost accounting*. 10th Edition, Cengage Learning EMEA

Horngren, Charles T. (2015) *Management and Cost Accounting*. Pearson, Sixth Edition

Johnson, H. T. & Kaplan, R. S. (1987) *Relevance Lost: The Rise and Fall of Management Accounting*. Harvard Business School Press. Boston, Massachusetts

Johnson, H. T. (1994) *Relevance Regained: Total Quality Management and the Role of Management Accounting*. *Critical Perspectives on Accounting*, September 1994, 5, 259-267

Kaplan, Robert S. & Norton, David P. (1996) *Translating Strategy Into Action: The Balanced Scorecard*. Harvard Business School Press. Boston, Massachusetts

Roslender, Robin & Hart, Susan J. (2003) In search of strategic management accounting: theoretical and field study perspectives. *Management Accounting Research* 14 (2003), 255-279

Womack, J. P. & Jones, D. T. (2010) *Lean thinking: Banish waste and create wealth in your corporation*. Touchstone Books, UK

Attachment 2. Questionnaire

Questionnaire

I Background Information

- The industry in which a company operates?
- Your position in a company / Job description?
- Country?
- How would you shortly describe the company's business model?

II Company Strategy

Please indicate/analyze/comment shortly the level of your company strategy's emphasis on the following activities: (Important/Not so important etc.)

- Achieving lower cost of services than competitors?
- Making service/ procedures more cost efficient?
- Improving the cost required for the coordination of various activities?
- Improving the utilization of available equipment, services, and facilities?
- Providing outstanding customer service?
- Introducing new services/ procedures quickly?
- Forecasting new market growth?
- Innovation in marketing technology and methods?
- Developing brand identification?
- Building a positive reputation within the industry for technological leadership?
- Introducing new services that are distinct from that of competitors?
- Offering a broader range of services than the competitors?

- Improving the time it takes to provide services to customers?
- Providing high quality services?
- Customising services to customers need?
- Providing after-sale services and support?
- Targeting a specific market?
- Producing products/services for high price market segments?

III Costing techniques

Has your company implemented the following costing tools/ systems?

Technique	Yes (x)	No (x)	Comments?
<i>Traditional tools</i>			
Marginal costing/ Variable costing/ Direct costing			
Absorption Costing / Full Costing			
Activity Based Costing (Operational emphasis)			
<i>Strategic tools</i>			
Activity Based Management, based on Activity Based Costing (Strategic emphasis)			
Target Costing			

Value Analysis/ Value Engineering/ Value-Chain Costing			
Life-Cycle Costing			
Total Quality Management/ Quality Costing			
Attribute Costing/ Attribute-Based Costing			
Lean Accounting/ Value Stream Costing			

IV Management accountant's/ Controller's Experiences and Views

- How a firm put the strategy into practice from a cost accounting perspective?
- How would you describe the current costing practices?
- How would you describe the current cost structure? /What percentage of costs consists of indirect costs?
- Level of satisfaction with the current costing system?
- How well do the current cost accounting tools support the realization of business strategy?
- Have certain techniques, especially, helped in bringing cost efficiency or improved profitability? Why?
- What kind of changes or improvements should be made? Why?
- Is there a need to adopt new tools in near future? What kind of tools?

- Why are the strategic cost accounting tools less used methods compared to traditional methods in your company?
- Would the current ERP enable the integration of strategic costing tools?
- What are the reasons/aspects that stop or promote the use of strategic costing tools?
- Other suggestions/ ideas / further questions?