

---

# How to institutionalise language change in management accounting: the influence of acceptance and belief in the case of ‘value creation accounting’

---

Philipp Hummel

Centre for Sustainability Management,  
Leuphana University Lüneburg,  
Scharnhorststraße 1, 21335 Lüneburg, Germany  
Email: p\_hummel@gmx.de

**Abstract:** This paper aims to examine the antecedents for creating change in organisational decision-making procedures through the management accounting tool ‘value creation accounting’ at a German retailer of organic food. The study expands previous research on drivers and barriers of management accounting change by giving first insights into the role of language in management accounting change processes using a qualitative research approach. Findings highlight the importance of understanding and belief by leaders as well as acceptance by employees for institutionalising management accounting change.

**Keywords:** management accounting; decision-making practices; language; organisational change.

**Reference** to this paper should be made as follows: Hummel, P. (2021) ‘How to institutionalise language change in management accounting: the influence of acceptance and belief in the case of ‘value creation accounting’’, *Int. J. Sustainable Strategic Management*, Vol. 9, No. 1, pp.63–86.

**Biographical notes:** Philipp Hummel is a PhD student in Sustainability Management at Leuphana University Lüneburg, Germany. His research interests are in sustainability management accounting systems. He has published in international accounting journals.

---

## 1 Introduction

In recent years, management accounting change has become an important topic in research as well as in management practice (e.g., Burns and Scapens, 2000; Wanderley and Cullen, 2013). The information management accounting provides is recognised as “essential for companies’ survival in a competitive environment” [Wanderley and Cullen, (2013), p.295], and progressive management accounting systems can support competitive advantages (Wanderley and Cullen, 2013). As management accounting can influence social perception, values, and actions, management accounting change is often used for creating change in corporate decision-making procedures (Broadbent and Laughlin, 2005; Lee, 2011; Schäffer, 2004; Wanderley and Cullen, 2013; Wickramasinghe and Alawattage, 2007). Examples for a change in management accounting that shall influence decision-making procedures are the introduction of a new method for cost allocation

(e.g., Shields, 1995) and the implementation of a completely new management accounting system, i.e., balanced scorecard (e.g., Kasurinen, 2002). The change in management accounting then shall influence not only the decisions made themselves but also the communication as well as the values and ethical orientation within the company (Schäffer, 2004). Management accounting directs the perception and attention of the users of accounting information and can thereby guide decision-making (Schäffer, 2004).

The way management accounting change can influence corporate decision-making procedures is widely investigated in previous research (e.g., Ansari and Bell, 2009; Arroyo, 2012; Broadbent and Laughlin, 2005; Burns and Scapens, 2000; Burns and Vaivio, 2001; Shields, 1995; Wickramasinghe and Alawattage, 2007; Wu and Boateng, 2010; Yazdifar et al., 2005). Burns and Scapens (2000) propose a framework that investigates the influence of different drivers and barriers of changing decision-making procedures through management accounting change. They show how the institutionalisation of management accounting practices is needed for creating lasting change in decision-making procedures that can further influence corporate communication, values, and beliefs (Burns and Scapens, 2000).

Management accounting can be understood as a communication tool, as it is used for transferring information between users via accounting reports (Hummel and Hörisch, 2020; Masztalerz, 2016). The language used in management accounting is important for transferring specific information and perspectives on economic processes. Thereby, it can influence attitudes, social perspectives, and corporate behaviour (Masztalerz, 2016; Sandell and Svensson, 2016). This is why a change of language in management accounting may influence the perception of the social reality presented in accounting terms. In this way, language change in management accounting may change corporate values, beliefs, and finally decision-making practices.

While the current language used in accounting is often criticised for neglecting ecological and social aspects in economic decision-making (e.g., McNicholas and Windsor, 2011), scholars explicitly call for a new language in accounting in order “to facilitate sustainable development” [Barter and Russell, (2013), p.145]. With this issue in mind, companies have introduced a new management accounting tool called value creation accounting (VCA; German ‘Wertbildungsrechnung’) in order to change decision-making procedures. VCA was developed by the German drugstore chain dm and was introduced at the German organic wholesaler Alnatura at the beginning of the 2000s (Hummel and Hörisch, 2020; Irle, 2008). There, it replaced the before used contribution margin calculation. Even though it was developed by German companies, VCA is applicable and usable by companies in all countries and in different languages (Hummel and Hörisch, 2020).

In contrast to conventional management accounting tools, ‘VCA uses a different, more value-oriented language design’ for the single accounts in management accounting to support ethical aspects in corporate decision-making [Hummel and Hörisch, (2020), p.187]. Therefore, a language design is used that does not label the single accounts as ‘costs’ but uses a terminology that highlights the contributions of the accounts to value creation (Hummel and Hörisch, 2020).

In addition to the changes in terminology, VCA uses a different order of the accounts compared to conventional accounting techniques (Hummel, 2016). For example, accounting positions are divided into four different groups: ‘added value’ for sales, less sales tax, and cost of goods, ‘external contribution’ for all accounts that are connected to external services, i.e., costs for external cleaning service, ‘pre contributions’ for accounts

that are internally allocated to the considered business unit, i.e., allocated costs for internal human resource management, and ‘own contributions’ for accounts directly linked to the performance of the considered business unit, i.e., costs of employees within the business unit (Hummel, 2016). Table 1 provides an example of VCA for a supermarket.

**Table 1** Example of VCA for a supermarket

	<i>Current month</i>	<i>Previous month</i>	<i>Difference</i>
Sales	€ 600,000	€ 560,000	€ +40,000
Sales tax	€ 100,000	€ 80,000	€ +20,000
Goods purchased	€ 300,000	€ 290,000	€ +10,000
<i>Value creation</i>	<i>€ 200,000</i>	<i>€ 190,000</i>	<i>€ +10,000</i>
Consumable material	€ 200	€ 180	€ +20
Energy	€ 1,000	€ 700	€ +300
<i>Sum external services</i>	<i>€ 40,000</i>	<i>€ 37,000</i>	<i>€ +3,000</i>
Employee department	€ 3,000	€ 3,600	€ -600
IT and systems	€ 15,600	€ 15,300	€ +300
Accounting	€ 5,100	€ 5,000	€ +100
<i>Sum pre-values</i>	<i>€ 50,000</i>	<i>€ 53,000</i>	<i>€ -3,000</i>
Tax	€ 800	€ 500	€ +300
Employee income	€ 81,200	€ 74,500	€ +6,700
Investments	€ 18,000	€ 19,000	€ -1,000
Debt/relief	€ 10,000	€ 6,000	€ +4,000
<i>Sum own value</i>	<i>€ 110,000</i>	<i>€ 100,000</i>	<i>€ +10,000</i>

*Source:* Adapted and translated by Hummel (2016)

An important tool of VCA is the monthly report that presents the results of the business unit, i.e., supermarket, for the given month compared to other business units and time frames (see Table 1). As this report is used for communicating the business unit’s value creation process, sales, and cost structure to the employees of a company, VCA is often described as an internal tool for communication (see, e.g., Hummel, 2016).

Due to changes in its appearance (i.e., terminology and structure), VCA aims at creating change in decision-making procedures, particularly by highlighting social aspects as consequences of business decisions (Hummel and Hörisch, 2020). In a survey-based experiment, Hummel and Hörisch (2020) use the language design of VCA to analyse the effects of language and wording in accounting on economic decision-making. Their findings indicate that the language used in management accounting can influence economic decision-making procedures besides the numbers themselves. In their study, VCA wording increased the decision-makers’ priority of social aspects in decision-making and decreased their willingness to cut costs, most notably employee costs (Hummel and Hörisch, 2020).

This paper is based on the assumption that changes in language design of management accounting can lead to changes in corporate decision-making procedures if they are institutionalised within the company. Thus, based on a case study at a German wholesaler of organic products, it aims to answer the following research question: What

are the drivers and barriers of institutionalising VCA as a management accounting change within companies for changing decision-making procedures?

In the first part of this paper, a review of previous research dealing with management accounting change as well as the role of language in organisational change processes is presented. The subsequent section explains the methodological approach applied in this paper as a qualitative case study. Then, the findings of the case study are illustrated and used to answer the research question. Finally, the findings are discussed and compared with previous research, and implications for theory and practice are presented.

## **2 Literature review**

### *2.1 Language in management accounting*

Language is a tool of communication that creates and transports social perception of reality (Berger and Luchman, 1966) and may therefore influence human understanding and decisions (Ferraro et al., 2005). Scholars indicate that “language is implicated in most of the phenomena that lie at the core of social psychology,” i.e., change of attitude, social perception, and interaction [Krauss and Chiu, (1998), p.41, cited by Bavelas, (2005), p.181]. In the communication of business, language plays an important role. Schrodt (2002) states that many organisations nowadays use rhetorical means in order to influence their organisational environment, for example the behaviour of employees. Concerning the culture of an organisation, Jones (2011) highlights the importance of language in creating and changing corporate culture and identification.

Language plays an important role in management accounting, as accounting is used for representing and communicating a picture of reality (Masztalerz, 2016). Martineau (2017, p.244) even describes accounting as a language “that every manager must understand and learn to master accounting.” Previous research intensively investigates the influence of accounting on the social perception of reality and on social aspects in economic decision-making (e.g., Cooper, 1992; Costa et al., 2014; Hines, 1988). For example, Hines (1988) shows how accounting influences the way people understand and interpret social processes. Further studies support this assumption and explicitly focus on the role of the language used in accounting and decision-making (Costa et al., 2014; Sandell and Svensson, 2016). Studies show that the specific language design used in accounting does not only represent the economic reality but can change attitudes and actions.

Previous studies show that the language chosen in accounting can influence decision-making in several aspects. This research investigates the influence of language in financial narratives (e.g., Walters-York, 1996), the power of the type of language in decision situations (Costa et al., 2014), as well as the effects of terminology used for single accounts (Hummel and Hörisch, 2020). Literature finds that the language used in accounting can have far-reaching consequences for economic decision-making and social perception of economic processes (Hummel and Hörisch, 2020). This is why numerous scholars call for a new use of language in accounting to support a more ethical economic decision-making (e.g., Hummel and Hörisch, 2020; Mitchell et al., 2015; Schaltegger et al., 2017).

While the effects of language in (management) accounting have been investigated in previous research, the study at hand focuses on the role of language in management accounting change processes and its institutionalisation within organisations.

## *2.2 Management accounting change*

When a company decides to change the way it reports, analyses, or conducts corporate information to support management, the process is defined as management accounting change (Wickramasinghe and Alawattage, 2007). This can firstly be a change in the use of given management accounting tools and processes (Wanderley and Cullen, 2013). Secondly, the introduction of new management accounting tools and methods can be defined as a management accounting change (Belal, 2002; Burns and Scapens, 2000). When investigating the introduction and use of VCA instead of conventional accounting techniques, the study at hand follows the second type of management accounting change. This view is mainly supported by North American scholars (Wanderley and Cullen, 2013).

Previous research shows how management accounting not only influences the internal decisions made themselves, but also the perceived values and culture within the company (Schäffer, 2004). Those aspects of economic processes that are reported in management accounting receive more attention in decision-making and corporate discussions (Priddat, 2009). In this way, management accounting directs the perception and attention of the users of accounting information and can shift the social perception of the economic process as well as the importance ascribed to social aspects in decision-making (Schäffer, 2004; Schäffer and Steiners, 2003). Contrafatto and Burns (2013) show that this is how management accounting influences the way social and environmental aspects are perceived and treated within companies, and Burritt et al. (2019) conclude that for achieving sustainable change within companies, change in management accounting is needed (also see Schaltegger and Wagner, 2006).

This stream of research outlines the managerial impact of management accounting, which “involves more than technical issues of cost control” (Becker and Messner, 2005). However, management accounting change processes are not always successful, and changes in management accounting do not always have an influence on internal decision-making procedures (Burns and Scapens, 2000; Scapens and Roberts, 1993; Shields, 1995).

While many studies analysing management accounting change use quantitative research methods and therefore focus on what “can be counted and measured” [Wanderley and Cullen, (2013), p.304], fewer studies focus on qualitative aspects in management accounting change processes (Wanderley and Cullen, 2013). As one of the few exceptions, Armitage et al. (2016) uses a qualitative study to analyse the influences and use of management accounting in small and medium-sized organisations. Using in-depth field interviews, they found several corporate characteristics that influence the use of management accounting in small and medium-sized companies, like the particular industry in which a company operates and the age of the company.

## *2.3 Institutionalisation of management accounting change*

Burns and Scapens (2000) propose a popular theoretical framework for the conceptualisation of management accounting change. They proceed from the opinion that

changes in the form of the internal management accounting systems represent changes in the formal rules of the organisation. These implemented new corporate rules can create new routines within the company, when they are reproduced in different ways through the behaviour of the employees. When these rules and routines are used unconsciously in everyday working life, then they are institutionalised within the company, that is, they become corporate institutions (Sprakman, 2006). Burns and Scapens' framework focuses on internal institutions (Siti-Nabiha and Scapens, 2005) which are based on the definition of Barley and Tolbert (1997). Following their approach, institutions can be understood as the 'taken-for-granted assumptions' that influence actions and relationships between humans (Barley and Tolbert, 1997). Institutions then contain the corporate rules and routines and in this way influence company's values, beliefs, and also the distribution of power within the company (Burns and Scapens, 2000).

When it is institutionalised, the management accounting change becomes "simply the way things are" [Burns and Scapens, (2000), p.11], i.e., it becomes the taken-for-granted way of behaving within the organisation. As an essential part of the corporate management processes, these institutionalised management accounting practices 'represent the expected form of behaviour' and influence power and relationships within the organisation [Burns and Scapens, (2000), p.11]. Previous research shows that new management accounting approaches often are not institutionalised within companies and therefore might not be able to affect decision-making procedures (Ansari and Bell, 2009).

## *2.4 Antecedents for the institutionalisation of management accounting change*

Previous research on management accounting change found some drivers and barriers that may influence the institutionalisation of management accounting change (e.g., Innes and Mitchell, 1990). The investigated drivers and barriers of institutionalising management accounting change that are relevant to the given study can be divided into three types of antecedents: organisational structure, corporate culture and leadership, and human resources.

### *2.4.1 Antecedents related to organisational structure*

Innes and Mitchell (1990) identify factors that influence change processes in a general manner. These are contextual factors in the wider environment of the organisation that "provide decision makers with the reasons and grounds to initiate and permit change" (p.5). Contextual factors are, for example, organisational structures as well as the structure of product life cycles (Wanderley and Cullen, 2013). In this way, management accounting change can be supported or hindered by a specific organisational structure, i.e., strict or flat hierarchical structures, given routines, and the organisational autonomy of a parent company or other stakeholders (Wanderley and Cullen, 2013).

In the same way, Roberts and Silvester (1996) identify organisational structure as a key influencing factor that may support or hinder the institutionalisation of management accounting change. These structural factors include the given hierarchy of the company and the dependency of the company's departments on each other.

Management accounting change processes are time-consuming and require a lot of employee effort as well as financial resources. This is why adequate resources, e.g., financial resources and the availability of staff, are further factors identified as conducive to change in previous literature (Innes and Mitchell, 1990).

### *2.4.2 Antecedents related to leadership and culture*

Besides these structural factors, studies found several internal factors that influence management accounting change processes. Important internal factors identified in previous literature are in the area of organisational culture and leadership (e.g., Brooks and Bate, 1994; Markus and Pfeffer, 1983; Waweru et al., 2004, 2005; Wu and Boateng, 2010).

Management accounting change is shaped by the existing institutions within the organisation, i.e., organisational routines, norms, and ways of thinking. For this reason, the management accounting change needs to fit into these institutions that are already in place to become institutionalised (Burns and Scapens, 2000). This is why the “habits of organizational members and the underpinning assumptions which are taken-for-granted” are important influences on management accounting change [Burns and Scapens, (2000), p.13].

Wanderley and Cullen (2013) show how management accounting is often defined as a “fundamentally local concern” (p.298), which means that further internal factors in regard to leadership and corporate culture influence management accounting change. Management accounting change as a local phenomenon is influenced by the kind of relationships within the company, like power asymmetry and political interplay (Wanderley and Cullen, 2013). Additionally, Burns and Vaivio (2001) point out the role of the company’s top management in successfully implementing management accounting change.

In addition to the drivers of institutionalisation of a management accounting change, Burns and Scapens (2000) define several barriers in regard to leadership and culture, that create resistance to change: competing interests and objectives, lack of knowledge and experience within the company, missing openness of leaders to change the way of thinking, as well as existing routines and institutions within the company.

### *2.4.3 Antecedents related to human resources*

Besides the role of leaders, the role of employees in management accounting change has perceived much attention in previous research. Burns and Scapens (2000) explicitly state that it is not only the openness of leaders but also the openness of employees that influences institutionalisation of management accounting change. Since management accounting change can influence organisational routines, values, and beliefs, employees need to be open for changing the way of thinking as well as existing routines (Burns and Scapens, 2000).

Further influencing factors regarding human resources identified in previous literature are individual commitment of employees as well as their attitude towards change and understanding of the change process (Argyris and Kaplan, 1994; Strelbel, 1996; Waweru et al., 2004). This is supported by the study of Shields (1995) whom identifies sufficient employee training as a further influencing factor of management accounting change. Cobb et al. (1995) emphasise the role of individual employees as leaders in change processes. They found several barriers to a management accounting change, most notably the changing priorities, and staff attitudes to change.

All in all, management accounting change as well as its barriers and drivers has been investigated intensively in research in past decades (Arena and Azzone, 2005; Burns and Scapens, 2000; Burns and Vaivio, 2001; Lee, 2011; Shields, 1995; Spraakman, 2006;

Waweru et al., 2005; Wickramasinghe and Alawattage, 2007). Research found that “an understanding of the habits of organizational members and the underpinning assumptions” are required to understand management accounting change [Burns and Scapens, (2000), p.13]. Since previous research on management accounting change mostly uses quantitative methods, Wanderley and Cullen (2013) suggest that this research should be further developed by using a qualitative research approach to focus on “the ‘how’ and ‘why’ questions in a research project” [Wanderley and Cullen, (2013), p.304]. Similarly, Parker (2012) calls for more qualitative research on management accounting to consider aspects that are difficult to measure, like values and individual perception.

## 2.5 *The role of language in change processes*

Burns and Scapens (2000) base their framework of the institutionalisation of management accounting change on the relationship between speech and language. They argue that for effective speech, the used language “must conform to the underlying, tacitly understood, structure of the language” [Burns and Scapens, (2000), p.8]. Similarly, management accounting changes need to fit the rules, routines and norms within the organisation. Burns and Scapens (2000) note that language changes over time through the speech acts of society. In the same way, organisational institutions change over time due to the activities of employees and leaders, i.e., changes within management accounting (Burns and Scapens, 2000).

While previous studies investigate the institutionalisation of management accounting change in general, less attention is paid to institutionalisation of language changes in management accounting as part of an organisational change process. In order to investigate the influence of language (change) on decision-making processes, Hines (1988) highlights that people create the society and its concepts, i.e., language, themselves and, at the same time, accept and thereby institutionalise them. In this way, society is regulated by these concepts, who form a “symbolic order” [Cooper, (1992), p.30]. This symbolic order is already in place in society and must be accepted and institutionalised by human beings in order for them to take part in society (Cooper, 1992). People confronted with language have to accept the specific language and its logic to use it for communication. Under these circumstances, language can influence perception and human actions (Cooper, 1992). Then, language “not only reflects our worlds but also shapes and creates them” [Cooper and Senkl, (2016), p.498].

In the same way, management accounting is able to create a specific view on economic processes and thereby may influence behaviour and values of employees (Breton and Aggeri, 2018). Lopatta et al. (2017) show that the language in accounting information has power beyond the quantitative information itself. By analysing the effects of VCA, Hummel and Hörisch (2020) found that VCA can increase the importance ascribed to social aspects in decision-making and thereby leads to changes in decision-making.

Table 2 shows the theoretical perspectives and potential influencing factors elaborated on in previous research that was considered as important for the aims of this study. Numerous previous studies investigate management accounting change and its antecedents for institutionalisation within companies. However, the antecedents for institutionalising management accounting change through language design in management accounting, i.e., implementation of VCA, has not been studied so far. For this reason, previous studies (e.g., Hummel and Hörisch, 2020; Parker, 2012; Wanderley

and Cullen, 2013) explicitly suggest future research to address long-term effects of management accounting change using qualitative case studies. This study complements prior research by offering a qualitative analysis on the effects of VCA. A case study is performed at Alnatura to determine antecedents for institutionalising VCA as management accounting change.

**Table 2** Antecedents for institutionalising management accounting change and language change

<i>Antecedents for institutionalising management accounting change related to...</i>	
Organisational structure	<ul style="list-style-type: none"> <li>• Adequate resources (Innes and Mitchell, 1990)</li> <li>• Organisational structure (Wanderley and Cullen, 2013)</li> </ul>
Leadership and organisational culture	<ul style="list-style-type: none"> <li>• Organisational culture (Burns and Scapens, 2000)</li> <li>• Value-fit (Burns and Scapens, 2000)</li> <li>• Top-level management support (Burns and Vaivio, 2001)</li> <li>• Openness by leaders (Wanderley and Cullen, 2013)</li> <li>• Diverging goals and interests (Wanderley and Cullen, 2013)</li> </ul>
Human resources	<ul style="list-style-type: none"> <li>• Openness and attitude towards change (Burns and Scapens, 2000)</li> <li>• Employee turnover (Cobb et al., 1995)</li> </ul>
<i>Antecedents for institutionalising language change related to...</i>	
Individual level	<ul style="list-style-type: none"> <li>• Understanding (Cooper, 1992)</li> <li>• Acceptance by individuals (Hines, 1988)</li> </ul>
Group level	<ul style="list-style-type: none"> <li>• Be in Place first (Cooper, 1992)</li> <li>• Belief in it (Cooper, 1992)</li> </ul>

### 3 Method

This study follows the call of previous research (e.g., Hummel and Hörisch, 2020; Wanderley and Cullen, 2013) and conducts a qualitative analysis to explore the use of VCA in a case study. This approach is commonly used for case studies in which there is limited research (Benbasat et al., 1987), and offers the opportunity to investigate practical situations in a natural setting (Bryman and Bell, 2011). The given study is based on semi-structured face-to-face interviews. The participants were employees from Alnatura, which is the largest German retailer of organic food. Alnatura sells organic food and non-food articles in 126 supermarkets throughout Germany. About 1,300 Alnatura products are sold in more than 14,000 supermarkets and drugstores in Germany and Europe. Alnatura employs over 2,960 people and generated a turnover of 770 million Euros in the financial year 2016/2017 (Alnatura GmbH, 2018).

For this study, 15 interviews were held over ten months between January and October 2018. The interviewees were store managers of Alnatura, as sales and store management is a key topic of management accounting at Alnatura. The interviewee selection was done considering the interviewees' gender and location within Germany. Apart from these criteria, the interviewee selection was random. These criteria are "not intended to achieve

statistical representativeness” for Alnatura’s employee population but rather to have different perspectives from various employees [Carollo, (2016), p.145]. Due to the use of face-to-face interviews and the process of interviewee selection, the identity of the interviewees was not completely anonymous and confidential, which may limit the results for the reason of not being credible. However, the interviewees were assured that the research is conducted independently and for scientific use only. Additionally, the interviewees received a written agreement which assures them that the interview material is 100% treated confidentially and anonymously. For this purpose, the interviewees were assured that the transcriptions of the recordings would be anonymised and that no conclusions could be drawn about the interviewee.

In order to mitigate a potential bias in the interviewees’ accounts, especially due to the absence of anonymity, and to ensure credibility of the findings, the study uses further sources of data for the analysis, e.g., company management reports and press releases.

As it is the case in previous studies, the interviewees chose the location for the interviews (Carollo, 2016). The main purpose of this was to make them feel as comfortable as possible. All of the interviews took place at the workplace of the interviewees or a public place nearby. The length of the interviews varied between 30 to 60 minutes. All interviews, except two, were fully recorded and transcribed. The interviews were held in German and translated into English for presentation in this paper. In order to ensure consistency of meaning when translating the interviews, the translations were double checked by a second researcher.

The interviews investigate the organisational context in relation to current and successful management change practices as well as the organisational factors influencing the management of organisational change processes, i.e., VCA. The main focus of the interview was the interviewees’ use and perception of VCA, especially its influence on the organisational structure, company culture, and human resources and vice versa. The interviews’ basic structure is provided in appendix A. in order to make sure that the interview approach was consistent in all interviews, all interviews were conducted by the author of the study following previous studies (e.g., Armitage et al., 2016)

The data is collected by using a semi-structured interview guideline to facilitate an in-depth interview with store managers of Alnatura. The semi-structured interview process enables the interviewer to focus on a limited number of points and makes it possible to “obtain rich and in-depth data” [Bögel et al., (2019), p.363]. The interview material was evaluated based on the generic process model proposed by Mayring (2000). A multi-step process was used to identify the key findings from the interviews:

- Before starting the analysis process, the researcher read through the transcribed interviews and the additional material to “obtain the sense of the whole” [Bengtsson, (2016), p.11].
- Next, the analysis aspects were described, including coding rules, definitions, and examples. The coding rules were defined in a coding list that includes definitions of the codes and examples to “minimize a cognitive change during the process of analysis in order to secure reliability” [Bengtsson, (2016), p.12]. In order to increase the validity of the coding procedure, two investigators performed the coding separately for a selected number of codes according to the coding rule agenda and then compared and discussed their results as well as the obtained consensus.

- In a further step, the open coding procedure was started by the researcher breaking down the material into smaller ‘meaning units’, that is, sentences or small paragraphs of the material that are coded according to the coding rules [Bengtsson, (2016), p.11]. Each meaning unit was labelled with a code that “should be understood in relation to the context” [Bengtsson, (2016), p.11].
- After analysing about 25% of the material, the categories, and coding agenda was checked and modified if necessary.
- After the analysis process, a final revision of the texts and check of reliability was conducted.
- In the following process, categories and sub-categories were identified, which “should be internally homogenous and externally heterogeneous” [Bengtsson, (2016), p.12]. Then, the findings and results were interpreted and compared to the results from previous research.

## **4 Findings**

This section presents the main results of the analysis process. After a description of the use of VCA, the presentation of the results is divided into the three types of antecedents for institutionalisation of management accounting change identified in the literature review.

### *4.1 The use of VCA as a communication tool*

Participants mainly use VCA once a month to get a general overview and feedback about the efficiency of the business unit for the previous month. Interviews show that VCA is not only used for decision-making itself but also for communicating and understanding economic processes:

We use VCA to understand financial processes in our supermarket. It shows us how well we worked in the last period and what we can do better. VCA makes it possible for us to better understand the economic process. We communicate VCA to our employees and show them how things work in our company.  
(Tanja)

Press releases introducing the VCA approach at Alnatura support this view by highlighting the transparency of VCA as an important difference to the before used management accounting tool. Thus, every employee at Alnatura is able to check the performance of their business unit, i.e., supermarket, on the computer (Irle, 2008).

VCA is used by the interviewees themselves as well as their assistants and some other employees. Most of the interviewees said that they put the VCA report in the employee room where all members of their team can have a look at it and get an idea of the financial performance in the previous month. This is done “to get as many people on board as possible.” (Daniel) The interviews clearly show that VCA serves as an essential reflection tool concerning the economic reality of the business unit. Furthermore, VCA is used as a basis for decision-making and as a feedback tool. The users compare the results of the VCA report with a predefined plan as well as with the results of other internal business units.

In the interviews, the structure and order of the accounting terms of VCA play a major role. Most interviewees describe the structure of VCA as an expression of the understanding of value creation as a process of working together. The structure of VCA describes two opposing perspectives, the perspective of the customer (sales) and that of the company (value creation), as it is the case with ‘costs’ in conventional accounting. The vocabulary of VCA is seen as very important, as it strongly differentiates from the language of conventional accounting. The different vocabulary of VCA is often associated with the importance of social factors in decision-making. This is particularly evident with the activities (and costs) of employees, which are presented as an essential part of value creation in the economic process. The accounting term ‘employee income,’ instead of ‘staff costs’ in conventional management accounting, is particularly perceived as a specific expression of social reality:

Employee income is associated with wages and salary. The appreciation that the employee creates values and does a good job. This is a completely different perspective on the employees and their work (...) and the term “staff” is negative associated. Staff costs have a negative impact so that it does not sound positive. You do not want to generate costs. The negative impact is in focus. (Maria)

Just like the accounting term ‘employee income,’ the term ‘values’ instead of ‘costs’ is seen as very important for the given perspective on economic processes. The choice of terms aims to reflect those expenditures relate to the different factors needed to create value:

If one designates the activities in the headquarter as ‘pre-values,’ then the positive value character is in the foreground. It means that people are doing something for you. With costs, this is directly negative. One does not appreciate it but sees it as something negative. No one wants to have costs, but everyone needs value creation. (Thomas)

Some of the interviewees did not see any or only limited influence of VCA on decision-making procedures and/or company culture compared to conventional management accounting tools: “After all, we’re still distributors and need to keep an eye on our outcomes.” (Peter). Others described a strong influence of VCA on decision-making procedures, especially on the company culture of Alnatura. One interviewee, who had been in a situation of financial distress, stated that VCA makes people try to find other solutions rather than only cutting staff costs:

If I take an ‘employee’s income’ and if I reduce ‘staff costs’, then the starting point is the same. But perhaps I would be able to find a different approach. For ‘staff costs’, I would perhaps cut costs. And for an ‘employee’s income’, I would rather look for alternative solutions. (Ralph)

Additionally, many interviewees see VCA as a necessary part of Alnatura’s organisational culture to promote the company’s values and reflect them in the field of accounting and decision-making. Some interviewees expect that, without VCA, Alnatura might lose some of its cultural values.

When analysing the interviews, it is noticeable that the process of change through VCA is carried out in a very specific organisational context at Alnatura. Some of these context factors are perceived as drivers, while others are perceived as a barrier of creating change in decision-making procedures through VCA. Three major fields that may

influence the institutionalisation of VCA are investigated: organisational structure, company's culture and leadership, and human resources.

#### *4.2 Antecedents related to organisational structure*

Interviewees described it as beneficial that the organisational structure at Alnatura is flat and non-hierarchical. In general, communication within the company is direct and open. Furthermore, collaboration is perceived as collegial and on eye level. Even if organisational structure and hierarchy are needed in general, the interviewees said that structures at the company should be flat and flexible. Structures should make it possible for all employees to use VCA. This can be a beneficial factor for supporting the institutionalisation of VCA. Companies still need structures and rules, but these need to be flexible to support VCA. For this, you need "a lot of trust as well as working at eye level and very flat hierarchies (...)" (Andrea).

In management reports, the approach for internal communication is described as creating an appreciative and interested attitude within the company towards each other (Alnatura GmbH, 2018). Communication within the company is aimed to be on eye level, and every leader as well as every employee is asked to give mutual feedback within their working teams. This is also part of the leadership guidelines and trainings of the company (Alnatura GmbH, 2018, 2020).

Many interviewees especially described the structure and organisation of corporate internal communication as an important factor for the use and success of VCA. The necessary factors for internal communication are to be direct, open, and very transparent. Transparent communication and information can be seen as a key antecedent of organisational structure for the institutionalisation of VCA since it is highlighted by many interviewees. As mentioned before, VCA should be communicated openly and transparently to all employees of the team, not just to supervisors and management.

While flat hierarchical structures and transparent communication are considered as driving forces for the institutionalisation of VCA, scarcity of resources such as time is seen as a hindrance to the institutionalisation of VCA. People, especially leaders and employees, need time to engage with VCA, understand the values transported by VCA, and talk about it: "That's just like VCA as such. You need time to deal with it." (Paul).

The scarcity of resources like time and economic pressures is considered as the most important hindrance to this kind of management change. One participant compared Alnatura with a conventional discounter, where the (economic) pressures on employees and leaders are perceived as much higher, and it might be a hindrance to successfully reach an institutionalisation of VCA:

But for the majority (of discounters), the pressure is just that big. It comes from above, from the regional management. That's just, I think, so big that it would not work that well. (Daniel)

The scarcity of resources presented in the interviews is mostly due to economic pressures of missing time, missing employees (or employee capacity), and missing financial resources.

### 4.3 Antecedents related to company culture and leadership

The interviews show that there is a strong connection between VCA and the organisational culture. Thus, it may be interesting to take a closer look at the perceived organisational culture and working environment at Alnatura and its potential effects on the institutionalisation of VCA.

Alnatura's organisational culture attaches great importance to prioritise social and ecological aspects over financial aspects in its activities. Organisational culture therefore focuses strongly on considering all stakeholders in the decision-making process. The importance of social aspects in the company is also presented by the fact that the working environment is often described with the metaphor 'family':

It's a bit like a big family. You listen to each other and you are there for each other. (Maria)

Concerning VCA, the importance of a value fit between the organisational values and goals connected with VCA can be found in the interviews. For institutionalising VCA, some cultural values need to exist in the company that fit the values connected with VCA. When the company culture values social aspects, VCA can transport these values into decision-making procedures.

Management reports of Alnatura highlight the importance of social aspects in leadership within the company and for their corporate culture (Alnatura GmbH, 2020). Additionally, press releases about VCA at Alnatura highlight those specific values need to be in place first so that VCA can be used efficiently. In their article about VCA at Alnatura, Irle (2008) shows that the values that can be supported by VCA need to exist within the organisation so that VCA can support these values in corporate decision-making. Additionally, leaders need to be open for a change of their attitude and of given routines and values, and they should also be open for giving up responsibility (Irle, 2008). The company's leadership guidelines cover this aspect by asking leaders to be open for working on their own attitude and values regarding the company's culture and support these values (Alnatura GmbH, 2018).

Besides cultural values, interviewees mentioned the importance of a trial-and-error culture that allows learning from it. Failures are seen as a positive effect for learning and personal development. This culture needs an understanding of mistakes as chances for learning and personal development, not as something that has to be avoided. Besides the trial-and-error culture, leadership plays an important role in enabling employees to understand VCA and to enable individual as well as organisational change processes. Leadership has to take time to explain the importance and the aims of VCA to its employees:

Explain how we think and what we mean. On the one hand, the concepts are confusing. On the other hand, they can help to understand and experience the culture. One gets involved in the concepts and culture of Alnatura. (Maria)

Leadership needs to understand the concept and aims of VCA, to be able to transport this knowledge to their employees. Besides understanding, leaders need to believe in the importance and the success of VCA to transport the aims and values of VCA. This is perceived as important antecedents for the successful use of VCA:

The regional manager has to live the values he communicates. He listens to you (...). (Maria)

Alnatura offers their employees a variety of trainings on several different topics. These topics include values and beliefs of Alnatura's culture. For example, in the 'Kulturimpuls' seminar, employees from different management levels can discover the company's vision, mission, and corporate principles together (Alnatura GmbH, 2020).

The role of leadership and company culture is seen as a crucial factor for the success or failure of VCA. The values and aims of VCA have to be accepted by leaders and they have to be motivated to support these values in their working team:

So, if that's what the term is, then it's effective (...). If this is just written on the wall and not lived, then you can forget about it. (Thomas)

In addition to the support and belief of managers, the interviewees mentioned the importance of the support of top management. Alnatura is a family-owned business lead by Professor Dr. Rehn, whose role in supporting the power of VCA and social change is mentioned by many interviewees.

Alnatura was founded in the 1980s by Professor Dr. Rehn (Alnatura GmbH, 2020). In internal as well as public interviews, his role as a pioneer regarding sustainable entrepreneurship is highlighted (Alnatura GmbH, 2018, 2020). For example, in his interview in the foreword of the Alnatura public sustainability report, he talks about his ideal of creating something meaningful for people and the earth with founding Alnatura, and about the importance of values for the leadership culture at Alnatura GmbH (2018).

To sum up, the interviews show the importance of "living the values of VCA and explanation of it." (Thomas). Consequently, leaders have to accept the values, follow them, and explain these values to their employees. Additionally, the top management support is found to be a crucial success factor. Only then can VCA have an impact on organisational change.

#### *4.4 Antecedents related to human resources*

When it comes to the antecedents on the level of human resources, the way employees react and handle VCA is seen as an important factor in the interviews. First, motivation and openness of employees to work on their beliefs and values is mentioned by many interviewees. The interviews show that the motivation of employees is a critical factor for the success of VCA since employees have to deal with the values of VCA, understand and accept them, and integrate them into their working behaviour:

Employees need to be open for a mind change and motivated. They should also try to understand the values. (Paul)

Consequently, employees need the willingness and motivation for changing themselves and the organisational culture. They have to be willing to deal with the values of VCA as they "must always be lived and desired." (Paul).

For supporting this willingness for change, motivation and openness may be helpful if employees understand the aims and goals of VCA. When understanding the aims of VCA, it may lead to dialogue about the values of an organisation that may support organisational change. One interviewee described her own experience with understanding the company's values through dealing with VCA. She explained how she was irritated when she started working with VCA for the first time. Then she started dealing with VCA, its numbers, terms, and vocabulary. Finally, she understood the aims and values of

VCA and its importance for company culture. This was the point when she started to change her thinking about social values and social aspects of decision-making.

The interviews show that employees that are not motivated and open to cultural change can be a hindrance to the institutionalisation of VCA. The language design and values of VCA need to be understood and accepted by the employees. Consequently, it is not only about motivating employees but much more about openness for something new and about acceptance of VCA as a new tool:

It is important and necessary that employees do not oppose it. Besides, they need to deal with the concepts and internalize it. They have to accept the language. (Paul)

The interviews show how VCA needs to be accompanied by a specific attitude. Employees need to be open and willing to work on their values as well as their beliefs to develop and share an attitude that supports the values connected to VCA:

The important thing is how you think about it (...). You have to develop a certain attitude. Only then can the changed language change the way we see and act in the world. (Paul)

The interviews provide some examples of how this institutionalisation of VCA can work in practice. Most frequently, interviewees said that it is necessary for leaders to know the meaning of the new language design and communicate it to their employees. Then, the employees also need to understand the reasons behind this language and develop a new way of thinking:

As I have said earlier, it's about living it and it's about an explanation: We do not want to use the concept of staff but the concept of employees, because they work with each other and cooperate. We see ourselves as a working group. (Thomas)

All in all, the analysis of the interviews found certain antecedents related to organisational structure as well as to organisational culture, leadership, and the individual level.

## **5 Discussion and conclusions**

### *5.1 Discussion*

As management accounting can influence corporate values, beliefs, and decision-making, management accounting change has become an important topic in science and business practice in recent years. However, not every management accounting change automatically leads to successful changes within an organisation (Burns and Scapens, 2000). This is why an institutionalisation of management accounting change is necessary to support a successful implementation of the change. Previous research has already examined a variety of barriers and drivers of institutionalising management accounting change within companies (e.g., Burns and Scapens, 2000; Kasurinen, 2002). Most of these studies use quantitative research methods for investigating management accounting change and thus are limited in analysing qualitative aspects like attitudes, values, and beliefs (Wanderley and Cullen, 2013). This is why previous scholars call for investigating management accounting change processes using qualitative methods (e.g., Wanderley and Cullen, 2013). In addition to this lack of research, limited attention is given to the

antecedents for institutionalising management accounting change through language design, i.e., VCA, in previous research (Hummel and Hörisch, 2020). This is why the study at hand uses a qualitative research approach to answer the following research question: What are the drivers and barriers of institutionalising VCA as a management accounting change within companies for changing decision-making procedures?

Having a limited sample size in mind, some conclusions can be drawn from the study at hand. As it is the case in previous research, this study found a variety of drivers and barriers for the institutionalisation of management accounting change, i.e., VCA that can be divided into three types of antecedents: organisational structure, culture and leadership, and human resources.

Previous research on the antecedents of management accounting change mainly focuses on antecedents of organisational structure. These factors include the corporate hierarchical structures and communication as well as resource management. The interviews support this assumption and show that, in the case of VCA, a flat hierarchical structure and direct transparent communication on eye level are seen as drivers of a successful institutionalisation of management accounting change. An additional structural element that perceives much attention in the interviews is the existence of adequate resources. These resources include time for dealing with VCA as well as adequate financial resources to prevent excessive economic pressures (where possible).

Besides these structural factors, cultural factors are assigned much importance in the conducted interviews. Especially the values of the organisational culture and the values VCA aims to support (i.e., ethical values) are seen as important factors when introducing and using VCA. A value fit between the values, beliefs, and culture within the organisation and the VCA is needed to successfully institutionalise VCA. That means that the values that VCA wants to support need to exist within the organisation's culture and leadership, for example, by introducing them within leadership guidelines and by employee/leadership trainings.

In regard to organisational culture, the interviews show that a trial-and-error culture can support VCA. In general, mistakes shall be seen as something positive since you are able to learn something and gain new knowledge. As concluded in previous research (e.g., Burns and Vaivio, 2001), in the interviews, the top management also plays an important role in supporting the institutionalising of VCA by transporting the values and the importance of VCA to the leaders and the employees.

Additional to leadership and culture, human resources are found to be important influences on the institutionalisation of VCA. Just as Burns and Scapens (2000) found, the interviews showed that employees need to be open to change their attitude and routines when working with VCA.

Besides the similarities to previous research, some differences need to be introduced and discussed on antecedents for institutionalising language change in management accounting, i.e., VCA. The findings of this paper mainly differentiate from previous research concerning the task of leadership and the function of the employee. As concluded in previous research (e.g., Cobb et al., 1995), the interviews show that leadership plays an important role related to supporting the institutionalisation of management accounting change. However, in contrast to previous research on management accounting change, the analysis of the interviews shows that it is necessary for the leaders to believe in the effects and importance of the management accounting tool, i.e., VCA. Leaders need to understand the purpose of VCA, communicate it to their employees, and believe in the effects and benefits of VCA. Further, the leaders have to

transfer VCA into the working environment and encourage the employees to understand the values. While previous research states that leaders shall be open for changing their own beliefs and values within management accounting change (Burns and Scapens, 2000), the interviews show that, in the case of VCA, it is necessary for leaders to not only be open for a mind change but also to believe in the effects and importance of VCA. Thus, its role is crucial for transporting the values of VCA and differs significantly from previous research.

The reason for the different roles of leaders in VCA can be explained by adding the role of language in change processes as investigated by previous research (e.g., Cooper, 1992; Hines, 1988). Cooper (1992) argues that for institutionalising language within groups of people, i.e., society, the influencing object, i.e., language, has to be in place first. That is, the specific logic and design of language have to be lived, recognised, and accepted by the people to become institutionalised. In the case of VCA within an organisation, the specific logic of VCA has to be recognised by the leaders of the organisation. In this way, VCA can be “in place” [Cooper, (1992), p.30] and thus support an institutionalisation of VCA. Leaders have to believe in the importance of VCA’s aims and apply VCA and its values. In this way, they can transport the values of VCA to their employees. In contrast to other management accounting change studies, this study highlights the relevance of the belief in VCA and the acceptance of its values by the leaders for a successful change of decision-making procedures.

On the level of human resources, the interviews show that, in the case of VCA, employees do not only create the change but are part of the change themselves. This is why it may be important for employees to understand the purpose of VCA and accept it with its connected values. Employees have to be willing to be part of the organisational change, connect with the values of VCA, and be willing to change their minds and beliefs. As Cooper (1992) concludes, in order to be an unconscious part of social reality, the logic and meaning of language and accounting have to be accepted by individuals. This study shows that VCA can support change in decision-making practices, if the employees as well as the leaders accept the meaning of VCA. That is why the acceptance of the employees is an important factor in VCA use beyond the openness to deal with the change. If employees accept the meaning of VCA, then it can create change in decision-making practices by supporting a new attitude of decision-makers that supports social values.

As investigated in previous literature, it is necessary for the management accounting changes to also match the institutions in the company that are already in place (Burns and Scapens, 2000). At the same time, the new management accounting practice can also be institutionalised under the antecedents outlined above. In this case, it influences organisational rules and routines as well as corporate values and beliefs. The interviews show how the structure and language of VCA create and institutionalise a certain way of thinking about economic reality. This view puts more importance on social aspects in decision-making. In this way, VCA can contribute to a change in decision-making procedures.

## *5.2 Implications for theory and practice*

Previous research on management accounting change found that the institutionalisation of change is needed for changing decision-making procedures (Burns and Scapens, 2000). In this way, new management accounting approaches can form institutions and thereby

influence corporate values, beliefs, and decision-making procedures. While drivers and barriers of institutionalising management accounting change are outlined in previous studies (e.g., Waweru et al., 2004; Wu and Boateng, 2010), less attention is paid to institutionalising management accounting change related to changes in language design, i.e., VCA. This study combines research on management accounting change with research on language change and gives first insights into antecedents for institutionalising changes through new language design in management accounting, i.e., VCA. It thereby outlines some antecedents, most notably the role of leadership and employees. This paper applies the framework of Burns and Scapens (2000) to the case of VCA by using a qualitative case study. Findings show that their framework can give further insights into the effects of language change in management accounting but needs to be combined with theory on language change.

As investigated in previous research, language plays a particularly important role in management accounting change processes by influencing social perception and behaviour. However, this study found that the effects of language in management accounting change need some effort on the side of managers to be successful. In fact, an institutionalisation of VCA is necessary, and therefore some antecedents are required that may support or hinder management accounting change.

The implications for managers therefore suggest that companies should pay more attention to internal factors in processes of management accounting change through new accounting approaches, especially the attitude of leadership and employees towards the content of change.

As it is the case with spoken language, the logic of VCA has to be “in place” [Cooper, (1992), p.30] among the leaders of the company first. Then, it has to be conveyed to the employees. This can be done by means of the explanation of the logic, e.g., by training and seminars. Employees have to understand the logic of VCA, and thus adequate resources, especially time to learn about VCA and its values, are needed as well as openness of employees to deal with VCA, its values, and their own attitude. From the leaders, a brief understanding of VCA and its values is needed. Additionally, leaders need to be open to change their own attitudes and values as well as their kind of leadership. For example, leaders have to be willing to give their employees more responsibility and transparency concerning information. Those aspects of leadership can be integrated into the company’s leadership guidelines, policy, and trainings to support the institutionalisation of management accounting approaches like VCA. Table 3 provides a brief summary of the findings regarding influencing factors and practical implications for managers.

### *5.3 Conclusions and limitations*

All in all, this study examines the antecedents for institutionalising management accounting change through a new language design, i.e., VCA. In contrast to previous research, the given study shows that the role of the individuals, i.e., leaders (leadership) and employees differs from the role in general management accounting change processes. For institutionalising management accounting change through VCA, the most important thing is the attitude of leaders and employees towards VCA and the change itself.

**Table 3** Influencing factors and practical implications of VCA

<i>Antecedents related to...</i>	<i>Influencing factors</i>	<i>Practical implications</i>
Organisational structure	Flat hierarchical structure	Develop non-hierarchical structure
	Transparent and direct communication on eye-level	Develop transparent and direct corporate communication approach to all employees
	Adequate resources	Give time for dialog and dealing with the change
Culture and leadership	Organisational value-fit	Support ethical values in your organisation, i.e., trainings and seminars.
	Trial-and-error culture	Create a trial-and-error culture that allows making mistakes
	Belief and openness of leadership	Support importance of change to leadership and train leader's attitude towards change content (e.g., leadership guidelines and trainings)
	Support of top management	Involve top management in communicating change process
Human resources	Openness of employees	Train employees to be open for a mind change
	Understanding and acceptance of VCA	Offer dialogue and trainings for understanding importance of change and corporate values

As it is the case in all studies, the given case study has some methodological limitations, such as the lack of generalisation of the population, which establishes some limitations concerning the interpretation and application of the results. The first limitation is the small and restricted sample size of selected people who are all working in the same organisation with the same cultural context. Due to limited resources, only 15 interviews with managers from one company were held in the course of the study, neglecting the comparability with other companies. Further, none of these interviews were held with managers from the head quarter of the company. Consequently, it is better to be cautious when transferring these findings to other companies with different cultures and working environments as well as to other countries with different ways of life and languages. Further studies might enhance the analysis by considering different organisations and countries.

In terms of VCA being used as a communication tool, the interviews do not state clearly whether all the actions reported by the interviewees are voluntary or required by the management, for example, within their leadership guidelines and policy.

Finally, as stated in the methodology section of the given study, the identity of the interviewees was not completely anonymous, which may limit the credibility of the findings. However, the interviewees have been assured that the interview material will be treated independently, confidently, and anonymously. Additionally, further sources of data (e.g., management reports and press releases) were used for the analysis to ensure credibility of the findings.

Wanderley and Cullen [(2013), p.304] highlight that qualitative studies “reveal the human, social world behind the numbers that require and may trigger new management

accounting practices” and therefore call for more qualitative research on management accounting change. The given study follows their call by conducting a qualitative study on the antecedents of institutionalising management accounting change on VCA. It offers first insights into differences and similarities between management accounting change processes in general and language change processes in management accounting, i.e., VCA.

## References

- Alnatura GmbH (2018) *Unser Beitrag für Mensch und Erde*, Nachhaltigkeitsbericht, 2017/18, Bickenbach.
- Alnatura GmbH (2020) *Unser Beitrag für Mensch und Erde*, Nachhaltigkeitsbericht, 2019/20, Darmstadt.
- Ansari, S. and Bell, J. (2009) ‘Five easy pieces: a case study of cost management as organizational change’, *Journal of Accounting and Organizational Change*, Vol. 5, No. 2, pp.139–167.
- Arena, M. and Azzone, G. (2005) ‘ABC, balanced scorecard, EVA: an empirical study on the adoption of innovative management accounting techniques’, *International Journal of Accounting, Auditing and Performance Evaluation*, Vol. 2, No. 3, pp.206–225.
- Argyris, C. and Kaplan, R.S. (1994) ‘Implementing new knowledge: the case of activity-based costing’, *Accounting Horizons*, Vol. 8, No. 3, pp.83–105.
- Armitage, H.M., Webb, A. and Glynn, J. (2016) ‘The use of management accounting techniques by small and medium-sized enterprises: a field study of Canadian and Australian practice’, *Accounting Perspectives*, Vol. 15, No. 1, pp.31–69.
- Arroyo, P. (2012) ‘Management accounting change and sustainability: an institutional approach’, *Journal of Accounting and Organizational Change*, Vol. 8, No. 3, pp.286–309.
- Barley, S.R. and Tolbert, P.S. (1997) ‘Institutionalization and structuration: studying the links between action and institution’, *Organization Studies*, Vol. 18, No. 1, pp.93–117.
- Barter, N. and Russell, S. (2013) ‘Organisational metaphors and sustainable development: enabling or inhibiting?’, *Sustainability Accounting, Management and Policy Journal*, Vol. 4, No. 2, pp.145–162.
- Bavelas, J. (2005) ‘The two solitudes: reconciling social psychology and language and social interaction’, in Fitch, K. and Sanders, R. (Eds.): *Handbook of Language and Social Interaction*, pp.202–223, Lawrence Erlbaum Associates, Mahwah.
- Becker, A. and Messner, M. (2005) ‘After the scandals: a German-speaking perspective on management accounting research and education’, *European Accounting Review*, Vol. 14, No. 2, pp.417–427.
- Belal, A.R. (2002) ‘Stakeholder accountability or stakeholder management: a review of UK firms’ social and ethical accounting, auditing and reporting (SEEAR) practices’, *Corporate Social Responsibility and Environmental Management*, Vol. 9, No. 1, pp.8–25.
- Benbasat, I., Goldstein, D.K. and Mead, M. (1987) ‘The case research strategy in studies of information systems’, *MIS Quarterly*, Vol. 11, No. 3, pp.369–386.
- Bengtsson, M. (2016) ‘How to plan and perform a qualitative study using content analysis’, *NursingPlus Open*, Vol. 2, pp.8–14.
- Berger, P.L. and Luchman, T. (1966) *Social Construction of Reality*, Double Day, New York.
- Bögel, P., Pereverza, K., Upham, P. and Kordas, O. (2019) ‘Linking socio-technical transition studies and organisational change management: steps towards an integrative, multi-scale heuristic’, *Journal of Cleaner Production*, Vol. 232, pp.359–368.
- Breton, M. and Aggeri, F. (2018) ‘Counting before acting? The performativity of carbon accounting called into question - calculation acts and dispositifs in a big French construction company’, *M@n@gement*, Vol. 21, No. 2, pp.834–857.

- Broadbent, J. and Laughlin, R. (2005) 'Organisational and accounting change: theoretical and empirical reflections and thoughts on a future research agenda', *Journal of Accounting and Organizational Change*, Vol. 1, No. 1, pp.7–25.
- Brooks, I. and Bate, P. (1994) 'The problems of effecting change within the British civil service: acultural perspective', *British Journal of Management*, Vol. 5, No. 3, pp.177–190.
- Bryman, A. and Bell, E. (2011) *Business Research Methods*, 3rd ed., University Press, Oxford.
- Burns, J. and Scapens, R.W. (2000) 'Conceptualizing management accounting change: an institutional framework', *Management Accounting Research*, Vol. 11, No. 1, pp.3–25.
- Burns, J. and Vaivio, J. (2001) 'Management accounting change', *Management Accounting Research*, Vol. 12, No. 4, pp.389–402.
- Burritt, R.L., Herzig, C., Schaltegger, S. and Viere, T. (2019) 'Diffusion of environmental management accounting for cleaner production: evidence from some case studies', *Journal of Cleaner Production*, Vol. 224, pp.479–491.
- Carollo, L. (2016) *Critical Perspectives on Sustainability Business Contexts: Paradoxes, Rhetorics and Identities*, Università degli studi di Milano, Milan.
- Cobb, I., Helliar, C. and Innes, J. (1995) 'Management accounting change in a bank', *Management Accounting Research*, Vol. 6, No. 2, pp.155–175.
- Contrafatto, M. and Burns, J. (2013) 'Social and environmental accounting, organisational change and management accounting: a processual view', *Management Accounting Research*, Vol. 24, No. 4, pp.349–365.
- Cooper, C. (1992) 'The non and nom of accounting for (m)other nature', *Accounting, Auditing and Accountability Journal*, Vol. 5, No. 3, pp.16–39.
- Cooper, C. and Senkl, D. (2016) 'An(other) truth: a feminist perspective on KPMG's true value, sustainability accounting', *Sustainability Accounting, Management and Policy Journal*, Vol. 7, No. 4, pp.494–516.
- Costa, A., Foucart, A., Hayakawa, S., Aparici, M., Apesteguia, J., Heafner, J. and Keysar, B. (2014) 'Your morals depend on language', *PLoS ONE*, Vol. 9, No. 4, p.e94842.
- Ferraro, F., Pfeffer, J. and Sutton, R.I. (2005) 'Economics language and assumptions: how theories can become self-fulfilling', *Academy of Management Review*, Vol. 30, No. 1, pp.8–24.
- Hines, R.D. (1988) 'Financial accounting: in communicating reality, we construct reality', *Accounting, Organizations and Society*, Vol. 13, No. 3, pp.251–261.
- Hummel, P. (2016) 'Erkenntnis fördern, Haltung gewinnen. Die Wertbildungsrechnung bei Alnatura und dm – drogerie markt', *Controllier Magazin*, Vol. 41, No. 5, pp.73–76.
- Hummel, P. and Hörisch, J. (2020) 'The hidden power of language: how 'value creation accounting' influences decisions on expenditures, cost reductions and staff costs', *Sustainability Accounting, Management and Policy Journal*, Vol. 11, No. 1, pp.187–206.
- Innes, J. and Mitchell, F. (1990) 'The process of change in management accounting: some field study evidence', *Management Accounting Research*, Vol. 1, No. 1, pp.3–19.
- Irlle, M. (2008) 'Zahlen bitte', *Brand Eins*, Vol. 20, No. 9, pp.130–145.
- Jones, N.L. (2011) *Talking the Talk: The Confusing, Conflicting and Contradictory Communicative Role of Workplace Jargon in Modern Organizations*, University of Rhode Island, Rhode.
- Kasurinen, T. (2002) 'Exploring management accounting change: the case of balanced scorecard implementation', *Management Accounting Research*, Vol. 13, No. 3, pp.323–343.
- Krauss, R.M. and Chiu, C.Y. (1998) 'Language and social behavior', in Gilbert, D.T., Fiske, S.T. and Lindzey, G. (Eds.): *The Handbook of Social Psychology*, pp.41–88, McGraw-Hill, New York.
- Lee, K.H. (2011) 'Motivations, barriers, and incentives for adopting environmental management (cost) accounting and related guidelines: a study of the republic of Korea', *Corporate Social Responsibility and Environmental Management*, Vol. 18, No. 1, pp.39–49.

- Lopatta, K., Gloger, M.A. and Jaeschke, R. (2017) 'Can language predict bankruptcy? The explanatory power of tone in 10-K filings', *Accounting Perspectives*, Vol. 16, No. 4, pp.315–343.
- Markus, M.L. and Pfeffer, J. (1983) 'Power and the design and implementation of accounting and control systems', *Accounting, Organizations and Society*, Vol. 8, Nos. 2–3, pp.205–218.
- Martineau, R. (2017) 'What are management tools made of? The “listic” structure of managerial artifacts', *M@n@gement*, Vol. 20, No. 3, pp.239–265.
- Masztalerz, M. (2016) *Why Narratives in Accounting?*, Vol. 434, pp.99–107, Research Papers of Wroclaw University of Economics.
- Mayring, P. (2000) 'Qualitative content analysis', *Forum Qualitative Sozialforschung*, Vol. 1, No. 2, pp.1–10.
- McNicholas, P. and Windsor, C. (2011) 'Can the financialised atmosphere be effectively regulated and accounted for?', *Accounting, Auditing and Accountability Journal*, Vol. 24, No. 8, pp.1071–1096.
- Mitchell, R.K., van Buren, H.J., Greenwood, M. and Freeman, R.E. (2015) 'Stakeholder inclusion and accounting for stakeholders', *Journal of Management Studies*, Vol. 52, No. 7, pp.851–877.
- Parker, L.D. (2012) 'Qualitative management accounting research: assessing deliverables and relevance', *Critical Perspectives on Accounting*, Vol. 23, No. 1, pp.54–70.
- Priddat, B.P. (2009) 'Kann es 'Wirtschaftsethik' geben?', *Ein Zustandsberichtsversuch. Zeitschrift für Wirtschafts- und Unternehmensethik*, Vol. 10, No. 3, pp.341–357.
- Roberts, M.W. and Silvester, K.J. (1996) 'Why ABC failed and how it may yet succeed', *Journal of Cost Management*, Vol. 10, No. 9, pp.23–35.
- Sandell, N. and Svensson, P. (2016) 'The language of failure: the use of accounts in financial reports', *International Journal of Business Communication*, Vol. 53, No. 1, pp.5–26.
- Scapens, R.W. and Roberts, J. (1993) 'Accounting and control: a case study of resistance to accounting change', *Management Accounting Research*, Vol. 4, No. 1, pp.1–32.
- Schäffer, U. (2004) 'Zum Verhältnis Unternehmensethik und Controlling', *Zeitschrift für Wirtschafts- und Unternehmensethik*, Vol. 5, No. 1, pp.55–76.
- Schäffer, U. and Steiners, D. (2003) *Zum Begriff des Controllinginstruments*, Working Papers on Management Accounting and Control No. 6, European Business School, Oestrich-Winkel.
- Schaltegger, S. and Wagner, M. (2006) 'Integrative management of sustainability performance, measurement and reporting', *International Journal of Accounting, Auditing and Performance Evaluation*, Vol. 3, No. 1, p.1.
- Schaltegger, S., Hörisch, J. and Freeman, R.E. (2017) 'Business cases for sustainability. A stakeholder theory perspective', *Organization and Environment*, DOI: 1086026617722882.
- Schrodt, P. (2002) 'The relationship between organizational identification and organizational culture: employee perceptions of culture and identification in a retail sales organization', *Communication Studies*, Vol. 53, No. 2, pp.189–202.
- Shields, M.D. (1995) 'An empirical analysis of firms' implementation experiences with activitybased costing', *Journal of Management Accounting Research*, Vol. 7, pp.148–166.
- Siti-Nabiha, A.K. and Scapens, R.W. (2005) 'Stability and change: an institutionalist study of management accounting change', *Accounting, Auditing and Accountability Journal*, Vol. 18, No. 1, pp.44–73.
- Spraakman, G. (2006) 'The impact of institutions on management accounting changes at the Hudson's Bay Company, 1670 to 2005', *Journal of Accounting and Organizational Change*, Vol. 2, No. 2, pp.101–122.
- Strebler, P. (1996) 'Why do employees resist change?', *Harvard Business Review*, May–June, Vol. 74, No. 3, pp.86–92.
- Walters-York, L.M. (1996) 'Metaphor in accounting discourse', *Accounting, Auditing and Accountability Journal*, Vol. 9, No. 5, pp.45–70.

- Wanderley, C. and Cullen, J. (2013) 'Management accounting change: a review', *BASERevista de Administração e Contabilidade da Unisinos*, Vol. 10, No. 4, pp.294–307.
- Waweru, M.N., Hoque, Z. and Uliana, E. (2004) 'Management accounting change in South Africa', *Accounting, Auditing and Accountability Journal*, Vol. 17, No. 5, pp.675–704.
- Waweru, N.M., Hoque, Z. and Uliana, E. (2005) 'A survey of management accounting practices in South Africa', *International Journal of Accounting, Auditing and Performance Evaluation*, Vol. 2, No. 3, p.226.
- Wickramasinghe, D. and Alawattage, C. (2007) *Management Accounting Change: Approaches and Perspectives*, Routledge, Oxon.
- Wu, J. and Boateng, A. (2010) 'Factors influencing changes in chinese management accounting practices', *Journal of Change Management*, Vol. 10, No. 3, pp.315–329.
- Yazdifar, H., Askarany, D., Askary, S. and Daneshfar, A. (2005) 'Power and politics and their interrelationship with management accounting change', *The International Journal of Knowledge, Culture and Change Management*, Vol.5, No. 5, pp.149–157.

## Appendix

### *Interview basic structure*

This structure and questions was used as an overall orientation during the interviews. However, as the main focus was to have an open conversation and to get to know the individual and personal perception of the interviewees to the topic, the interviews were open and could differ to this structure.

<i>Interview topic</i>	<i>Sample questions</i>
Personal background	Tell me something about your professional background.
Company culture	How do you perceive the company culture at Alnatura?
Understanding of VCA	Please describe VCA.
Use of VCA	How do you/your team work with VCA?
Differences of VCA to conventional accounting approaches	Can you compare VCA to other accounting techniques?
Effects of VCA	How does the work with VCA influence your work at Alnatura?
Process/antecedents of management accounting change	Are there any antecedents to use VCA? Are there any factors needed/helpful/challenging in regards to: <ol style="list-style-type: none"> <li>1 organisational structure</li> <li>2 leadership and culture</li> <li>3 human resources</li> <li>4 others?</li> </ol>
Further aspects	Are there any other aspects that you would like to address in this context?