



Forthcoming in the Journal of Accounting & Organizational Change

Beyond Budgeting: Review and Research Agenda

Dai Huu Nguyen

Academy of Finance, Hanoi, Vietnam

Christine Weigel

University of Siegen, Siegen, Germany

Martin R.W. Hiebl

University of Siegen, Siegen, Germany

Structured Abstract

Purpose - Beyond budgeting has received an increased amount of scholarly attention in recent years. However, because most of the published research is discrete and unconnected, an overall picture of what is known about beyond budgeting has not evolved. Therefore, the purpose of this paper is to provide an overview of the available research on beyond budgeting. In particular, we compare conceptual papers that mostly stress the benefits of beyond budgeting with empirical evidence on beyond budgeting implementation and offer ideas for future research on beyond budgeting.

Design/methodology/approach - This paper employs systematic literature review methods. After an extensive database search and examination of references/citations, 32 papers were analysed with regard to bibliographical information, research design and findings.

Findings - Although proponents of beyond budgeting have put substantial effort into developing and promoting this concept, numerous empirical studies demonstrate that many organizations being investigated would still rather improve traditional budgeting than abandon it completely. Our review also highlights the main criticisms of traditional budgeting, development of management control systems under beyond budgeting and factors hindering the implementation of beyond budgeting.

Research limitations/implication - This paper suggests that further research is needed on the scaling of beyond budgeting, organizational changes under beyond budgeting and challenges resulting from the implementation of beyond budgeting.

Originality/value - The paper is the first comprehensive literature review on beyond budgeting.

Keywords Beyond budgeting, abandoning budgeting, removing budgeting, traditional budgeting, budget

Paper Type Literature review

1. Introduction

In many contemporary organizations, budgeting is considered to be an important instrument to implement companies' strategies and to fulfil a wide range of further tasks (Hansen *et al.*, 2003). Despite its widespread use, many business managers and practitioners have expressed their dissatisfaction with budgeting. It is often criticized for causing budget gaming and being quickly outdated, time-consuming, costly and inflexible (e.g., Hansen *et al.*, 2003; Hope and Fraser, 1997; Libby and Lindsay, 2003a; Neely *et al.*, 2003).

The most radical solution to overcoming these disadvantages is Hope and Fraser's (2003a) "beyond budgeting" approach. The core element of this approach is abandoning

performance contracts and all the fixed targets that go along with them (Hope *et al.*, 2003). The concept has quickly attracted the attention of researchers, practitioners and managers. Some multinational companies such as Svenska Handelsbanken are reported as having abandoned budgets very successfully (Rickards, 2006).

Although beyond budgeting has enjoyed academia's attention and is regarded one of the most advanced management accounting instruments, the method has not been widely adopted in practice (e.g., Abogun and Fagbemi, 2011; Libby and Lindsay, 2007; Lidia, 2014; Heupel and Schmitz, 2015). Libby and Lindsay (2010) point out that traditional budgeting still plays an important role in many companies and that most firms prefer to improve their budgeting processes rather than abandon them completely. One of the reasons that beyond budgeting is not (yet) widespread in business organizations may be that there is only a limited amount of academic studies as well as insufficient empirical evidence on the concept's implementation in practice, which might help reducing the uncertainties associated with beyond budgeting (Hansen *et al.*, 2003; Rickards, 2006). Therefore, current research does not provide adequate information on how to implement beyond budgeting and manage companies without budgets (Rickards, 2006). However, we argue that the available research on beyond budgeting has remained quite fragmented and unconnected and generally lacks a coherent research agenda. This problem might contribute to practitioners not being able to access research findings in a compressed manner. To help alleviate these problems, the purpose of this paper is to synthesize the available research findings on this topic and to identify potential problems of the beyond budgeting approach that might require further research.

The paper proceeds as follows. In Section 2, we briefly introduce the main tenets of beyond budgeting and in Section 3, we disclose our literature review methods. Section 4 provides the results of the literature review. These findings are structured into the main points of criticism of traditional budgeting, the implementation of beyond budgeting and challenges that arise in the context of this implementation. In Section 5, we identify various fruitful

avenues for further research. Section 6 concludes the paper with its most important implications.

2. Beyond budgeting

Although different methods have been designed to improve traditional budgets, previous research suggests that they are still unable to fully eradicate traditional budgeting's weaknesses (Hope and Fraser, 1997; Neely *et al.*, 2003; Player, 2003). Hence, beyond budgeting has been proposed as an alternative coherent management model that enables organizations to manage performance in varying business environments (Hope and Fraser, 2003a).

The beyond budgeting concept is based on the 12 principles presented in Table I. The first six principles are concerned with creating a flexible organizational structure. Principles seven to 12 deal with designing an adaptive management process that allows performance management to adapt better to highly competitive environments (Hope and Fraser, 2001).

The essence of beyond budgeting is to abandon traditional budgeting's principles by focusing on relative improvement rather than fixed performance contracts and shifting from top-down control to bottom-up empowerment. Instead of adopting rigid measures and incentives, beyond budgeting focuses on providing power to front-line teams. Thus, this concept is deemed to allow companies to adapt their strategies quickly to changing market requirements. By empowering lower-level managers, the beyond budgeting concept aims to enable companies to maintain close relationships with customers (De Waal, 2005; Hope and Fraser, 2001). Hoper and Fraser (2001) further propose that the concept also allows companies to attract and keep talented employees by providing a challenging work environment. In this vein, proponents of the beyond budgeting approach suggest that the performance of employees should be evaluated at the end of each year and that the evaluation should be based on the results that employees could have achieved under the given circumstances of that period (De Waal, 2005). As targets, measures and rewards are aligned with an organization's long-term value

rather than short-term profits, beyond budgeting should also allow companies to focus on value creation instead of cost reduction (De Waal, 2005; Hope and Fraser, 2001).

Table I. Principles of beyond budgeting
(based on Hope and Fraser, 2001, pp. 22–23)

1. Governance	Use clear values and boundaries as a basis for action, not mission statements and plans
2. Performance responsibility	Make managers responsible for competitive results, not for meeting the budget
3. Delegation	Give people the freedom and ability to act, don't control and constrain them
4. Structure	Organize around the networks and processes, not functions and departments
5. Coordination	Coordinate cross-company interactions through process design and fast information systems, not detailed actions through budgets
6. Leadership	Challenge and coach people, don't command-and-control them
7. Goal setting	Beat competitors, not budgets
8. Strategy process	Make the strategy process a continuous and inclusive process, not a top-down annual event
9. Anticipatory management	Use anticipatory systems for managing strategy, not for making short-term corrections
10. Resource management	Make resources available to operations when required at a fair cost, don't allocate them from the centre
11. Measurement and control	Use a few key indicators to control the business, not a mass of detailed reports
12. Motivation and rewards	Base rewards on a company and unit-level competitive performance, not predetermined targets

3. Review methods

To evaluate the current state of the literature on beyond budgeting, this paper applies the systematic review methodology suggested by Tranfield *et al.* (2003). The first step of systematic reviews sets out the motivation for the review, which was presented in Section 1. The second step of systematic reviews identifies the relevant literature. This was done by

conducting a keyword search in various electronic databases (e.g., Emerald, ProQuest, Elsevier ScienceDirect). Within the keyword search, articles were searched that contained a set of keywords in their title, keywords or abstract.

The group of keywords should ensure that the articles were concerned with different aspects of beyond budgeting as summarized in Section 2. The search phrase included the following keywords: “beyond budgeting*” OR “abandoning budget*” OR “abandoning traditional budgeting*” OR “abandoning traditional budget*” OR “abandon budget*” OR “without budget*” OR “replace budget*” OR “replace budgeting*” OR “replacing budget*” OR “absence of budget*” OR “absence budget*” OR “absence budgeting*” OR “remove budgeting*” OR “remove budget*” OR “removing budget” OR “removing budgeting*” OR “budget removal”. For this literature review, all relevant papers available online or published before publication up to 2016 were included in the review.

By using these methods, the initial research resulted in 38 articles. As Tranfield *et al.* (2003) suggest, those articles were scanned and reselected depending on their fit with the review’s topic. Consequently, six papers were eliminated from further analysis. For instance, these excluded papers were written without any reference to scientific studies and entirely practitioner-oriented or were published in a language other than English. The remaining 32 articles were added to the review sample and will be analysed in the following section.

4. Results

4.1 Article characteristics

The bibliographical information of the sample articles is presented in Table II. The articles were published in 21 academic outlets, which can be divided into four larger fields: business and management journals (11 articles), accounting journals (14 articles), finance journals (four articles) and economics journals (three articles). Only one paper was published before 2000 and the number of articles studying beyond budgeting has increased significantly since then.

Table II. Bibliographical sources of the articles included in the literature review

Primary field of journal, journal title	Year(s)															Total
	1997	2000	2001	2003	2005	2006	2007	2008	2010	2011	2012	2013	2014	2015	2016	
Accounting	1	1		1	1			1	1	2	1	1	2		2	14
<i>European Accounting Review</i>		1								2	1		1			5
<i>Management Accounting Research</i>	1								1			1				3
<i>Journal of Accounting & Organizational Change</i>													1			1
<i>Cost Management</i>					1											1
<i>Journal of Management Accounting Research</i>				1												1
<i>Management Accounting Quarterly</i>								1								1
<i>Qualitative Research in Accounting & Management</i>															2	2
Business and Management				6	2	1				1	1					11
<i>CMA Management</i>				2												2
<i>Measuring Business Excellence</i>				1	1											2
<i>Harvard Business Review</i>				1												1
<i>California Management Review</i>				1												1
<i>Investment Management and Financial Innovations</i>						1										1
<i>Journal of Performance Management</i>					1											1
<i>International Business Research</i>										1						1
<i>Baltic Journal of Management</i>											1					1
<i>Optimize</i>				1												1
Finance		1	1	1				1								4
<i>Strategic Finance</i>		1						1								2
<i>Journal of Corporate Accounting & Finance</i>				1												1
<i>Financial Management</i>			1													1
Economics											1		1	1		3
<i>Procedia Economics and Finance</i>													1	1		2
<i>Management Theory & Studies for Rural Business & Infrastructure Development</i>											1					1
Total	1	2	1	8	3	1	1	1	1	3	3	1	3	1	2	32

Table III. Research design of the articles included in the literature review

Author(s), Year	Article Type		Conceptual	Survey	Data Collection		Time Frame	
	Empirical/ Quantitative	Empirical/ Qualitative			Database	Case Study/ Interview	Cross- Sectional	Longitudinal
Abogun and Fagbemi (2011)	x			x			x	
Becker (2014)		x				x		x
Bourmistrov and Kaarbøe (2013)		x				x		x
De Waal (2005)			x					
De With and Dijkman (2008)	x			x			x	
Ekholm and Wallin (2000)	x			x			x	
Hansen <i>et al.</i> (2003)			x					
Hansen (2011)			x					
Henttu-Aho and Järvinen (2013)		x				x		x
Henttu-Aho (2016)		x				x		x
Heupel and Schmitz (2015)			x					
Hope and Fraser (1997)			x					
Hope and Fraser (2000)			x					
Hope and Fraser (2001)			x					
Hope and Fraser (2003a)			x					
Hope and Fraser (2003b)			x					
Hope <i>et al.</i> (2003)			x					
Libby and Lindsay (2003a)			x					
Libby and Lindsay (2003b)			x					
Libby and Lindsay (2007)	x			x			x	
Libby and Lindsay (2010)	x			x			x	
Lidia (2014)	x			x			x	
Max (2005)		x				x	x	
Neely <i>et al.</i> (2003)			x					
O'Grady and Akroyd (2016)		x				x		x
Ostergren and Stensaker (2011)		x				x		x
Player (2003)			x					
Rickards (2006)			x					
Sandalgaard (2012)	x			x			x	
Sandalgaard and Bukh (2014)		x				x		x
Vazonienė and Stončiuvienė (2012)			x					
Weber and Linder (2005)			x					
Total	7	8	17	7	0	8	8	7

Table IV. Criticisms of traditional budgeting

Cluster	Finding	Number	Supporting Studies	
			Conceptual Studies	Author(s), year Empirical Studies
The expense	The expenses represent a significant disadvantage of traditional budgeting	5	Hansen <i>et al.</i> (2003); Hope and Fraser (2003a); Libby and Lindsay (2003a); Neely <i>et al.</i> (2003)	Sandalgaard and Bukh (2014)
	The expenses do not represent a significant disadvantage of traditional budgeting	3		Libby and Lindsay (2007, 2010); Lidia (2014)
Gaming behaviour	Gaming behaviour represents a significant disadvantage of traditional budgeting	6	Hansen <i>et al.</i> (2003); Hope and Fraser (2003a); Libby and Lindsay (2003a); Neely <i>et al.</i> (2003); Rickards (2006)	Libby and Lindsay (2010)
	Gaming behaviour does not represent a significant disadvantage of traditional budgeting	2		Libby and Lindsay (2007); Lidia (2014)
Low adaptability in dynamic business environments	Low adaptability in dynamic business environments represents a significant disadvantage of traditional budgeting	7	Hansen <i>et al.</i> (2003); Hope and Fraser (2003a); Libby and Lindsay (2003a); Neely <i>et al.</i> (2003); Rickards (2006)	Ekholm and Wallin (2000); Sandalgaard and Bukh (2014)
	Low adaptability in dynamic business environments does not represent a significant disadvantage of traditional budgeting	3		Libby and Lindsay (2007, 2010); Lidia (2014)

Table IV. Criticisms of traditional budgeting (continued)

Cluster	Finding	Number	Supporting Studies	
			Conceptual Studies	Author(s), year Empirical Studies
Misalignment with the company's strategy	Misalignment with the company's strategy represents a significant disadvantage of traditional budgeting	4	Hansen <i>et al.</i> (2003); Libby and Lindsay (2003a); Neely <i>et al.</i> (2003); Rickards (2006)	
	Misalignment with the company's strategy does not represent a significant disadvantage of traditional budgeting	3		Libby and Lindsay (2007, 2010); Lidia (2014)
Vertical command-and-control	Vertical command-and-control represents a significant disadvantage of traditional budgeting	5	Hansen <i>et al.</i> (2003); Libby and Lindsay (2003a); Neely <i>et al.</i> (2003)	Ekholm and Wallin (2000); Lidia (2014)
	Vertical command-and-control does not represent a significant disadvantage of traditional budgeting	1		Libby and Lindsay (2007)

As suggested by Tranfield *et al.* (2003), we provide information on the study design of the 32 reviewed articles in Table III. Most of the articles are conceptual articles (17 articles). Eight further articles use various qualitative-empirical approaches. All seven quantitative-empirical articles employ survey methods. On the one hand, this relatively small number of empirical studies in our review sample supports the concerns raised by Hansen *et al.* (2003) and Rickards (2006), who bemoaned the lack of empirical research on beyond budgeting. However, more recently, a series of empirical articles on beyond budgeting has been published. This allows us to compare whether the arguments put forward by conceptual articles—which mostly stress the benefits of beyond budgeting—typically hold in practice.

4.2 Criticisms of traditional budgeting

Despite the widespread use of budgets in business practice, a stream of the literature on beyond budgeting suggests that traditional approaches to budgeting will soon be out of date and need to be abandoned (e.g., Hansen *et al.*, 2003; Hope and Fraser, 2003a; Libby and Lindsay, 2003a; Neely *et al.*, 2003; Rickards, 2006). This section presents some of the most criticized disadvantages of traditional budgeting. Similar to Libby and Lindsay (2003a), this paper divides those disadvantages into five clusters (see Table IV): the expenses associated with budgets, gaming behaviour, traditional budgets' low adaptability in dynamic environments, misalignment with the company's strategy and a vertical command-and-control structure. We conclude this section with a brief evaluation of the review findings in Section 4.2.6.

4.2.1 Expenses associated with budgets

Four conceptual papers suggest that budgets absorb a huge amount of time for uncertain benefits. Preparing and negotiating budgets can thus lead to high costs (e.g., Hansen *et al.*, 2003; Hope and Fraser, 2003a; Libby and Lindsay, 2003a; Neely *et al.*, 2003). This is empirically supported by Sandalgaard and Bukh (2014), who show that in their case company,

the budgeting process was very costly, which was one of the main reasons for going beyond budgeting. However, the results of Libby and Lindsay's (2007) survey study show that the average time spent on an entire budgeting cycle is around 10 weeks, whereas proponents of the beyond budgeting approach estimate this to be between 10 and 15 weeks. Thus, although the budgeting process seems to be time-consuming, it might not be as time-consuming as the conceptual beyond budgeting literature suggests (see also the empirical results in Libby and Lindsay, 2010; Lidia, 2014).

4.2.2 Gaming behaviour

Five conceptual papers suggest that due to budgets' use as part of fixed performance contracts, the attainment of budget goals is an important success criterion for managers. Therefore, there is a risk that managers will get involved in gaming and other dysfunctional behaviour to meet the budget goals (Hansen *et al.*, 2003; Hope and Fraser, 2003a; Libby and Lindsay, 2003a; Neely *et al.*, 2003; Rickards, 2006). It is also indicated that the optimization of an individual's performance may affect a company's long-run and value-oriented development (Rickards, 2006). In their survey study of budgeting practices in North America, Libby and Lindsay (2010) confirm the occurrence of budgetary gaming behaviour and find that such behaviour is a problem both in the United States (US) and in Canada. However, two empirical survey studies show that although gaming behaviour exists, some forms of such behaviour do not represent significant disadvantages, while others (e.g., sandbagging) indeed come with serious downsides (Libby and Lindsay, 2007; Lidia, 2014).

4.2.3 Low adaptability in dynamic business environments

Five conceptual articles claim that the traditional command-and-control management style will soon be out of date (Hansen *et al.*, 2003; Hope and Fraser, 2003a; Libby and Lindsay, 2003a; Neely *et al.*, 2003; Rickards, 2006). Consequently, according to proponents of beyond

budgeting, power and authority should be transferred to employees, who are close to the customers (Hope and Fraser, 2003a). Libby and Lindsay (2003a) argue that not only does the use of a fixed budget in the context of dynamic business environments result in coordination problems and/or inefficiencies, but it also decreases the organization's flexibility and ability to handle new opportunities, threats or changes in customers' requirements. Similar results were found in the case study by Sandalgaard and Bukh (2014) and confirmed by the survey study among Finnish firms by Ekholm and Wallin (2000).

In contrast to these findings, three further empirical papers find that low adaptability in dynamic business environments does not represent a major problem (Libby and Lindsay, 2007, 2010; Lidia, 2014). For example, Libby and Lindsay (2010) observe that not only have numerous companies introduced adaptive processes to better cope with unpredictable environments, but they also revised their traditionally developed budgets quite frequently during the budget period.

4.2.4 Misalignment with the company's strategy

Four conceptual articles propose that traditional budgeting processes may have little or no links with long-term strategies (Hansen *et al.*, 2003; Libby and Lindsay, 2003a; Neely *et al.*, 2003; Rickards, 2006). Thus, Libby and Lindsay (2003a) hold the view that it may be difficult for subordinates to understand how their work is linked to the corporate strategy. Additionally, subordinates might be encouraged to engage in budget games to achieve strategic initiatives (Hansen *et al.*, 2003; Libby and Lindsay, 2003a). Results opposing these arguments are found in the empirical studies by Libby and Lindsay (2007, 2010) and Lidia (2014), who find that traditional budgeting processes are often explicitly linked to strategy implementation.

4.2.5 Vertical command-and-control

In a conceptual paper, Libby and Lindsay (2003a) suggest that firms might focus more on the performance of functions, departments, divisions and cost reduction rather than the firm's overall value creation when using budgets that reflect a firm's vertical command-and-control culture. Additionally, two conceptual papers (Hansen *et al.*, 2003; Neely *et al.*, 2003) assume that hierarchical management could intensify departmental barriers, which could hinder knowledge sharing between departments. Thus, in competitive business environments, it may be necessary to apply horizontal control that focuses on customer interests rather than vertical control concerned with managing numbers (Libby and Lindsay, 2003a). These conceptual arguments are empirically supported by Ekholm and Wallin (2000), who find that budgeting can lead to incremental thinking. Further, Lidia (2014) shows that one of the main drawbacks of traditional budgets in Romania is the difficulty achieving the required level of communication, coordination and cooperation for preparing budgets. Contrary to these findings, Libby and Lindsay (2007) report evidence that many companies may not use annual budgets as inflexibly as proponents of beyond budgeting believe.

4.2.6 Evaluation of criticisms of traditional budgeting

In summary, we could identify some research on all five points of criticism regarding traditional budgeting as voiced by Libby and Lindsay (2003a). Both conceptual and empirical papers conclude that annual budgeting can be time-consuming and expensive, can encourage gaming behaviour, might not always be appropriate in a competitive environment, is not always aligned with a company's strategy and can strengthen vertical command-and-control. However, empirical papers argue that while the main elements of the criticisms are valid, these points of criticisms do not hold in all organizations and may be overstated (Libby and Lindsay, 2007, 2010; Lidia, 2014). From the available findings, however, it seems impossible to conclude

which types of organizations are more or less prone to the drawbacks of traditional budgeting approaches.

4.3 Changes to management control systems when implementing beyond budgeting

A frequent theme that emerged from the review sample were changes to management control systems that result from going beyond budgeting. These changes were organized into eight clusters (see Table V for a summary) and will be discussed in the following subsections. We conclude this section with a short evaluation of the findings regarding changes to management control systems when implementing beyond budgeting.

Table V. Changes to management control systems under beyond budgeting

Cluster	Changes	Number	Supporting Studies Author(s), Year	
			Conceptual Studies	Empirical Studies
Targets	Stretch goals based on relative improvement should be used instead of fixed budgets	9	Hansen <i>et al.</i> (2003), Hope and Fraser (2000, 2001, 2003a); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Bourmistrov and Kaarbøe (2013), Ostergren and Stensaker (2011)
	Fixed budget targets are not replaced	1		Sandalgaard and Bukh (2014)
	Target setting should be separated from planning/forecasting	2		Ostergren and Stensaker (2011); Henttu-Aho and Järvinen (2013)
Motivation and rewards	Set rewards based on relative performance measures <i>with hindsight</i>	9	Hansen <i>et al.</i> (2003); Hope and Fraser (2000, 2001, 2003a, 2003b); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Max (2005), O'Grady and Akroyd (2016)
Planning and forecasting	Development of corporate strategic objectives will be devolved to lower levels	8	Hansen <i>et al.</i> (2003), Hope and Fraser (2000, 2001); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Bourmistrov and Kaarbøe (2013); O'Grady and Akroyd (2016)
	Planning focuses on value creation	2	Hope and Fraser (2003a)	Ostergren and Stensaker (2011)
	Updating forecasts	7	Hope and Fraser (2000); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b)	Bourmistrov and Kaarbøe (2013); Henttu-Aho and Järvinen (2013); Max (2005); Ostergren and Stensaker (2011)

Table V. Changes to management control systems under beyond budgeting (continued)

Cluster	Factors/Outcomes	Number	Supporting Studies	
			Conceptual Studies	Empirical Studies
Measures and controls	Base controls on effective governance and on a range of relative performance indicators	8	Hope and Fraser (1997, 2000, 2001); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Max (2005); O'Grady and Akroyd (2016)
Resources	Resources available on demand	8	Hope and Fraser (2000, 2001, 2003a); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Bourmistrov and Kaarbøe (2013); Ostergren and Stensaker (2011)
Role of controllers	Controller role is more strategy-focused within beyond budgeting firms	3		Henttu-Aho (2016); Henttu-Aho and Järvinen (2013), Ostergren and Stensaker (2011)
Coordination	Cross-company coordination actions	6	Hope and Fraser (2000, 2001); Hope <i>et al.</i> (2003); Libby and Lindsay (2003b); Player (2003)	Ostergren and Stensaker (2011)
Organization and culture	Employees get the freedom and capacity to act; the focus is on customer satisfaction	8	Hope and Fraser (2000, 2001, 2003a); Libby and Lindsay (2003b); Player (2003)	O'Grady and Akroyd (2016); Ostergren and Stensaker (2011); Bourmistrov and Kaarbøe (2013)

4.3.1 Targets

Seven conceptual papers hold the view that fixed targets based on annual budgets should be replaced by stretch goals based on relative improvement (Hansen *et al.*, 2003; Hope and Fraser, 2000, 2001, 2003a; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003). Relative performance can be operationalized as targets by using medium-term benchmarks that are either external (e.g., from the same industry such as high-ranked competitors) or internal (e.g., past performance comparisons) (Libby and Lindsay, 2003b). These performance benchmarks are

supposed to make performance evaluation more accurate and impartial and thereby reduce gaming behaviour and motivation issues (Hansen *et al.*, 2003). Ostergren and Stensaker (2011) and Bourmistrov and Kaarbøe (2013) observe in empirical case studies that one of beyond budgeting's cornerstones is setting "ambitious" targets and focusing on value creation rather than cost reduction. In this context, the term "ambitious" is determined by competitors and other external factors. By doing so, targets will become more dynamic and might be able to adapt better to changing competitive environments.

In their empirical case study, Sandalgaard and Bukh (2014) note that companies that change their management accounting system towards a beyond budgeting concept tend to retain fixed targets even though those targets are criticized by the beyond budgeting literature. One reason for this behaviour is the difficulty evaluating performance without fixed targets due to a lack of available benchmarks (Sandalgaard and Bukh, 2014).

Two qualitative-empirical studies (Ostergren and Stensaker, 2011; Henttu-Aho and Järvinen, 2013) propose that separating target setting from planning plays an important role in eliminating traditional budgeting. According to Ostergren and Stensaker (2011), such a separation allows forecasts to be made independently of budget targets. Consequently, as evidenced by Ostergren and Stensaker (2011), managers can be prevented from making forecasts that are similar to the target and therefore easy to achieve, while the resources reserved for too high, but easily achievable cost targets can be freed up.

4.3.2 Motivation and rewards

Eight conceptual papers (Hansen *et al.*, 2003; Hope and Fraser, 2000, 2001, 2003a, 2003b; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003) suggest that linking rewards to fixed targets should be turned into "rewards based on relative performance measures with hindsight" (Hansen *et al.*, 2003, p. 10). "Hindsight" means that targets are adjusted by the actual situation during the period (Hansen *et al.*, 2003). Additionally, the beyond budgeting approach

emphasizes that the development of collective measures and reward programs needs to involve the whole team rather than an individual to achieve a comprehensive view and foster teamwork and information sharing (Hansen *et al.*, 2003; Hope and Fraser, 2003b; Libby and Lindsay, 2003b).

Indeed, Max (2005) observes in an empirical multi-case study that beyond budgeting companies tend to tie incentive compensation to measures other than fixed targets or inflexible budgets. Similarly, O’Grady and Akroyd’s (2016) case company used league tables of key performance indicators (KPIs) to compare the relative performances of their branches. Therefore, all branches in a division could evaluate their performance in comparison to both their peers and the average performance across the division.

4.3.3 Planning and forecasting

Six conceptual papers (Hansen *et al.*, 2003; Hope and Fraser, 2000, 2001; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003) highlight that the development and implementation of corporate strategic objectives will be devolved to lower levels while making sure that lower-level operations are aligned with the corporate strategy. This allows decentralized managers to take whatever action is required to meet their medium-term targets within the agreed upon boundaries. The responsibility of lower-level managers is to transfer the corporate strategy into a local strategy (e.g., by selecting KPIs and developing plans to achieve these goals). As argued by beyond budgeting advocates, these KPIs and performance benchmarks enable organizations to stretch goals and ensure that action plans are continuously reviewed, realistic and risk-appropriate (Hansen *et al.*, 2003; Hope and Fraser, 2000, 2001; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003). O’Grady and Akroyd’s (2016) case study suggests that operational planning should identify targets for the near future as well as specify tasks that need to be completed, but that it does not require detailed plans about how to obtain the goals.

Furthermore, Hope and Fraser's (2003a) conceptual paper argues that beyond budgeting companies should perform continuous planning that focuses on value creation. Ostergren and Stensaker's (2011) findings suggest that beyond budgeting can create incentives for value creation because the planning process in such companies focuses on controlling actions rather than reducing costs as well as on finding relative KPIs that measure real value creation.

In addition, three conceptual papers propose that updating forecasts will allow managers to compare medium-term goals with the actual situation and give them the information they need to adjust actions (Hope and Fraser, 2000; Hope *et al.*, 2003; Libby and Lindsay, 2003b). Two conceptual papers argue that rolling forecasts are important for identifying the necessary changes in key estimates (Hope and Fraser, 2000; Libby and Lindsay, 2003b).

The qualitative-empirical studies of Bourmistrov and Kaarbøe (2013), Henttu-Aho and Järvinen (2013) and Ostergren and Stensaker (2011) support arguments proposed by Libby and Lindsay (2003b) and indicate that the separation of target setting and forecasting is a key success factor for implementing beyond budgeting. Moreover, Henttu-Aho and Järvinen's (2013) case suggests that rolling forecasts play an important role in replacing the planning functions of traditional budgeting. On the other hand, Bourmistrov and Kaarbøe's (2013) and Ostergren and Stensaker's (2011) findings suggest that realistic forecasts should be developed to find the gaps between the target, plan and current situation so that action planning can be adjusted to obtain the goals or, in some extreme cases, to change the goals. Max's (2005) findings imply that using either forecasts over various time periods or rolling forecasts might be ineffective due to the amount of time they require and their accuracy. Thus, Max (2005) suggests "light touch" forecasts, which are forecasts based on the key drivers of performance. This could enable companies to achieve reasonably precise forecasts based on the empirically observed trends of a limited number of significant items.

4.3.4 Measures and controls

Instead of employing centralized controls, several conceptual beyond budgeting papers encourage the utilization of multi-level controls to strengthen effective governance, which supports local decision-making and interferes only when indicators move out of bounds (Hope and Fraser, 1997, 2000, 2001; Hope *et al.*, 2003; Player, 2003). Libby and Lindsay (2003b) argue that by using a self-regulating control approach, local managers can be equipped with strategic, competitive and market-based information. Moreover, management performance can be measured by leading and lagging KPIs. (Hope *et al.*, 2003; Libby and Lindsay, 2003b). O'Grady and Akroyd's (2016) case company evaluated performance by not only comparing performance chronologically but also implementing peer comparisons. By doing so, both branch managers and team members knew how well their branch was performing and when corrective actions were required (O'Grady and Akroyd, 2016).

4.3.5 Role of controllers

Three empirical studies imply that the role of controllers might focus more on strategic issues rather than on controlling accounts after firms abandon budgets (Henttu-Aho, 2016; Henttu-Aho and Järvinen, 2013; Ostergren and Stensaker, 2011). Henttu-Aho and Järvinen (2013) argue that controllers in beyond budgeting firms take over tasks that used to be fulfilled by traditional budgeting such as planning and forecasting. Therefore, the role will require a broader set of skills including analysis and forecasting skills. In line with this notion, Henttu-Aho (2016) states that controllers play a crucial role in maintaining a more holistic and strategic focus in the target setting process that is otherwise rather top-down-driven.

4.3.6 Resources

To deal with uncertainty, threat or opportunities, the conceptual beyond budgeting literature states that organizations need to make sure that lower management levels can access the

required resources quickly (Hope and Fraser, 2000, 2001, 2003a; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003). Making resources accessible on demand will eliminate the possibility of refusing promising investment proposals. Consequently, it is believed that when any projects meet the respective criteria, front-line managers should not only be able to receive the necessary resources to implement these projects, but also be held accountable for their actions (Libby and Lindsay, 2003b). These arguments are supported by Bourmistrov and Kaarbøe (2013) and Ostergren and Stensaker (2011), who observe that the resource allocation process in their beyond budgeting case companies changed in two ways. First, a given set of criteria was used for the allocation of resources. Second, the budgeting process changed from a static process occurring once a year to a dynamic resource allocation process that could occur at any time when someone brought up an interesting project. Moreover, Ostergren and Stensaker (2011) add that by securing the best use of resources for the whole organization, the beyond budgeting approach allows organizations to operate better in a situation of scarce resources.

4.3.7 Coordination

Five conceptual papers highlight that instead of using centralized coordination, cross-company actions should be coordinated to meet customer demand (Hope and Fraser, 2000, 2001; Hope *et al.*, 2003; Libby and Lindsay, 2003b; Player, 2003). It is believed that coordination between central services and operating units allows front-line decision-makers to access customer information. This might encourage a corporation's mutual accountability and help corporations foster customer service orientation and act in an integrated manner to reach a common target (Libby and Lindsay, 2003b).

Currently, only Ostergren and Stensaker (2011) empirically support these conceptual arguments. They conclude that beyond budgeting practices increase the interaction between sub-managers, which forces cross-division management teams to always consider where the

invested capital will bring the greatest profits across units, rather than focusing only on one unit and its performance. By contrast, however, as the resource allocation process under a beyond budgeting philosophy emphasizes the connection between the controllers and division managers, the division managers will have less contact with the sub-department managers (Ostergren and Stensaker, 2011).

4.3.8 Organization and culture

Several conceptual papers imply that radical decentralization is a requirement to apply beyond budgeting (Hope and Fraser, 2000, 2001, 2003a; Libby and Lindsay, 2003b; Player, 2003). It is argued that leaders need to empower front-line teams to make decisions to decentralize organizations (Hope and Fraser, 2003a). Thus, employees not only know what they can and cannot do but also how their work is linked to the big picture—the organization’s strategic goals. Leaders should empower people to act by providing them with appropriate training, support and resource capabilities as well as an open and transparent information system.

O’Grady and Akroyd’s (2016) findings indicate that branch managers should be given high levels of power and manage their branches as they would manage their own businesses. In other words, branch managers are not only empowered regarding decision-making, but also responsible for potential outcomes. Ostergren and Stensaker’s (2011) findings imply that beyond budgeting companies witness a shift in power balance. Top management gains power in terms of target setting, while division management, lower-level managers and employees are empowered regarding the operationalization of the strategic target.

Taking a different perspective, Bourmistrov and Kaarbøe (2013) indicate that beyond budgeting helps design a new information supply, which facilitates the change of decision-makers’ mind-set and behaviour from “comfort” to “stretch” zones. In “stretch zones”, decision-makers will be able to not only positively evaluate the business situation and the challenges in managerial work, but also utilize new managerial information for negotiating,

learning and having appropriate responses to changes to the internal and external business environment.

4.3.9. Evaluation of changes to management control systems when implementing beyond budgeting

It was shown that organizations' management control systems need to change regarding targets, motivations and rewards, planning and forecasting, motivation and controls, resources, coordination and culture. The empirical findings, however, do not always confirm what the conceptual beyond budgeting literature suggests and sometimes offer further research avenues. The conceptual beyond budgeting literature suggests that fixed targets should be replaced by relative performance goals. The empirical evidence on this is, however, mixed. Whereas some studies confirm the implementation of such dynamic targets (Ostergren and Stensaker, 2011; Bourmistrov and Kaarbøe, 2013), Sandalgaard and Bukh (2014) state that firms might have difficulties evaluating performance without fixed targets. It is therefore very important to gain a deeper understanding of the circumstances under which beyond budgeting's principles such as relative performance evaluation can be applied. It is not known whether companies can go beyond budgeting when only implementing a small subset of those beyond budgeting principles. Therefore, it would also be interesting to analyse whether companies can go beyond budgeting when they are either unable or unwilling to implement all beyond budgeting principles and what the effects of such a partial implementation would be. Furthermore, the empirical evidence (Henttu-Aho, 2016; Henttu-Aho and Järvinen, 2013; Ostergren and Stensaker, 2011) implies that the role of controllers in beyond budgeting firms will become more strategy-driven and that controllers will require a broader skill set. Therefore, more research on the changing requirements towards controllers in beyond budgeting firms is necessary.

4.4 Comparison between beyond budgeting and budgeting alternatives

Another main point of interest concerning beyond budgeting is if and how beyond budgeting is applicable compared with other budgeting alternatives. Table VI includes a summary of the main findings and shows that most of the 32 articles within this review's sample investigate this issue, at least partially.

Eleven conceptual articles (De Waal, 2005; Hope and Fraser, 1997, 2000, 2001, 2003a, 2003b; Hope *et al.*, 2003; Libby and Lindsay, 2003a, 2003b; Neely *et al.*, 2003; Player, 2003) suggest that traditional budgeting is responsible for dysfunctional game playing, misalignment with the company's strategy, time-consuming processes or low adaptability to dynamic environments. These papers suggest that organizations should go beyond budgeting to overcome these disadvantages.

Among these 11 conceptual articles, nine argue that different to beyond budgeting, amendments to traditional budgeting processes (i.e., better budgeting) are unable to solve its inherent problems (De Waal, 2005, Hope and Fraser, 1997, 2000, 2001, 2003a, 2003b; Hope *et al.*, 2003; Neely *et al.*, 2003; Player, 2003). Neely *et al.* (2003) state that among five principal approaches (value-based management, activity-based budgeting, zero-based budgeting, profit planning, rolling budgeting and forecasting) that support better budgeting, none of these approaches provides a complete solution to the problems related to traditional budgets. Especially the time- and effort-related disadvantages of traditional budgeting cannot be solved by using those approaches. Hope *et al.* (2003) and Player (2003) add that although organizations tend to implement strategic management accounting tools such as the balanced scorecard to shift their focus from budgets to strategy, the effectiveness of the balanced scorecard is still constrained by annual budgets.

However, the budgeting process might be more complex than the differentiation into the above-mentioned labels such as traditional budgeting and beyond budgeting suggests. Neely *et al.*'s (2003) *Scania* case could be considered to be a gradual change towards beyond budgeting,

although Neely *et al.* (2003) classify the company's processes as pure beyond budgeting. *Scania* has implemented a slimmed-down budgeting process that still uses high-level budget figures for the company's strategic planning, which is not in line with the idea of abandoning budgets altogether. However, Neely *et al.* (2003) report that *Scania* intended to decentralize control and give decision-making power to its operating companies, which is in line with the "delegation of power" principle of the beyond budgeting concept. This evidence suggests that some aspects of the traditional budgeting process may be suitable for a company, whereas the implementation of other aspects of the beyond budgeting process is beneficial.

In contrast to the above arguments, two conceptual papers propose that beyond budgeting is less useful than traditional budgeting and/or better budgeting (Hansen, 2011; Vazonienė and Stončiuvienė, 2012). Based on analytical modelling, Hansen (2011) concludes that elements of better budgeting such as adopting rolling forecasts are to be preferred to beyond budgeting. Vazonienė and Stončiuvienė (2012) suggest that instead of implementing a beyond budgeting approach, firms should use budgeting logical schema to eliminate budgeting problems, which means that firms should link activity-based budgeting to strategic management reflections of operational flexibility in the budgets.

In line with these arguments, seven quantitative-empirical papers show that traditional budgeting still has considerable benefits and most companies want to improve traditional budgeting processes rather than abandon them (Abogun and Fagbemi, 2011; De With and Dijkman, 2008; Ekholm and Wallin, 2000; Libby and Lindsay, 2007, 2010; Lidia, 2014; Sandalgaard, 2012). Libby and Lindsay (2007) state that companies continue to use budgets for performance evaluation and control purposes by finding ways to improve their budgets. These results can be confirmed for organizations in other countries such as Nigeria (Abogun and Fagbemi, 2011), the Netherlands (De With and Dijkman, 2008), Finland (Ekholm and Wallin, 2000), the US and Canada (Libby and Lindsay, 2010), Romania (Lidia, 2015) and Denmark

(Sandalgaard, 2012). These results are in line with the findings of the qualitative study by Sandalgaard and Bukh (2014).

Two conceptual articles state that neither beyond budgeting nor better budgeting or traditional budgeting is superior to one another (Weber and Linder, 2005, Rickards, 2006). Weber and Linder (2005) suggest that the effectiveness and efficiency of the methods depend on the degree of complexity and turbulence. Whereas traditional budgeting can cope with a high level of complexity but it is not suitable for a highly turbulent environment, beyond budgeting is effective and efficient in highly turbulent environments but it cannot handle high complexity. On the other hand, better budgeting is located between traditional budgeting and beyond budgeting, as it can only cope with a medium level of complexity and turbulence. Rickards (2006) indicates that budgeting and advanced budgeting projects have a lower possibility of failure than beyond budgeting ones. However, if the assumption of the budget-based coordination of activities is invalid, introducing beyond budgeting may be necessary to change standard operating procedures (Rickards, 2006).

To summarize, although proponents of beyond budgeting put considerable effort into developing and promoting the concept, numerous empirical studies demonstrate that using traditional budgeting has some significant benefits. Many organizations tend to prefer to improve their existing budgeting process instead of going beyond budgeting. The applicability of beyond budgeting and other budgeting alternatives thus depends on the assumptions and the degree of complexity and turbulence.

Table VI. Is beyond budgeting more useful than other budgeting alternatives?

Outcomes	Number	Supporting Studies Author(s), Year	
		Conceptual studies	Empirical Studies
Beyond budgeting is more useful than traditional budgeting	11	De Waal (2005); Hope and Fraser (1997, 2000, 2001, 2003a, 2003b); Hope <i>et al.</i> (2003); Libby and Lindsay (2003a, 2003b); Neely <i>et al.</i> (2003); Player (2003)	
Beyond budgeting is more useful than better budgeting	9	De Waal (2005); Hope and Fraser (1997, 2000, 2001, 2003a, 2003b); Hope <i>et al.</i> (2003); Neely <i>et al.</i> (2003); Player (2003)	
Beyond budgeting is less useful than traditional budgeting and/or better budgeting	10	Hansen (2011); Vazonienė and Stončiuvienė (2012)	Abogun and Fagbemi (2011); De With and Dijkman (2008); Ekholm and Wallin (2000); Libby and Lindsay (2007); Libby and Lindsay (2010); Lidia (2014); Sandalgaard (2012); Sandalgaard and Bukh (2014)
There are no dominant management models	2	Rickards (2006); Weber and Linder (2005)	

4.5 Factors that hinder the implementation of beyond budgeting

The articles were further analysed for factors that might hinder the implementation of beyond budgeting. As displayed in Table VII, eight such factors could be identified.

(1) Two conceptual studies (Rickards, 2006; Vazonienė and Stončiuvienė, 2012) and two quantitative-empirical studies (Libby and Lindsay, 2010; Sandalgaard and Bukh, 2014) imply that the beyond budgeting process is not equally suitable for every company and situation. Rickards (2006) argues that it is hardly possible to abandon traditional budgeting in the manufacturing and merchandising sectors as companies within these sectors must prepare a budget based on the average inventory turnover to avoid resource scarcity or overstock. In

addition, the suitability of beyond budgeting to organizations of different sizes seems to be unclear. On the one hand, Vazonienė and Stončiuvienė (2012) argue that implementing beyond budgeting is more expensive than upgrading existing budgeting approaches, meaning that it is only appropriate for large organizations that have sufficient resources. On the other hand, the research by Ostergren and Stensaker (2011) has shown a successful implementation of beyond budgeting in medium-sized firms. In addition, Sandalgaard and Bukh (2014) conclude that abandoning budgets is only suitable for companies that have a branch structure, as branch structures provide internal benchmarks for performance evaluation. Libby and Lindsay (2010) find that beyond budgeting can only be used in stable industries.

(2) Two conceptual papers propose that a fear of change can cause reluctance to abandon traditional budgeting (Rickards, 2006; Heupel and Schmitz, 2015). Rickards (2006) states that managers hesitate to empower subordinates to make decisions. On the other hand, subordinates are reluctant to accept the responsibility because they fear disappointing their supervisor. Rickards (2006) adds that another form of fear is related to know-how. People who know how to use the necessary budgeting tools can inspire fears of inadequacy in those persons who lack such skills. Heupel and Schmitz (2015) argue that the safety of comfort zones associated with traditional budgeting leads managers to refuse new business opportunities to minimize their risks.

(3) One conceptual paper (Rickards, 2006) indicates that difficulties managing firms without budgets is one of the reasons why beyond budgeting is rarely implemented in practice. This is empirically supported by Libby and Lindsay (2007). Rickards (2006) also claims that the absence of budgets induces production and sales numbers to be vague, which might increase throughput times or lead to uncontrollable increases in inventories. Further, abolishing budgets can affect the ability to evaluate an organization's credit risk, which could increase the risk of bankruptcy (Rickards, 2006). One reason for this relationship is that financial institutions need to make sure that the companies in which they invest are properly managed and many tools that

help companies do so are provided by traditional budgeting. If the companies no longer have access to those tools, they might not be able to guarantee proper management and therefore lose access to financial capital.

(4) Rickards (2006) also points out that implementing beyond budgeting may cause high costs, as beyond budgeting companies need to carry out fundamental changes to their management processes. Vazonienė and Stončiuvienė (2012) therefore argue that it is necessary to carefully analyse whether the benefits of going beyond budgeting increase the associated costs.

(5) Hansen *et al.* (2003) point out that the implementation of relative performance evaluations can lead to difficulties for many organizations, as most organizations lack relevant internal benchmarks. Sandalgaard and Bukh (2014) empirically support this notion by demonstrating that one of the hindrances to the implementation of beyond budgeting in their case firm was the lack of internal benchmarks for performance evaluation.

(6) Sandalgaard and Bukh (2014) add that shareholders' expectations of a predictable target could also contribute to the failure of beyond budgeting. This is especially true in situations in which the income that the owners receive from the organization is a major part of their total income. Therefore, it is believed that fixed targets appear as the best way to ensure that the owners' and suppliers' expectations would be met (Sandalgaard and Bukh, 2014).

(7) Becker's (2014) multi-case study indicates that remnants are one reason for the "re-emergence" of budgets in organizations that ultimately fail to abandon budgets. These remnants (e.g., control and fixed targets) can be interpreted as a proxy both for the previous institutionalization of budgets and for the difficulties encountered in their deinstitutionalization.

(8) Rickards (2006) argues that beyond budgeting is still in its early stages of development and only a small number of users are potential candidates for successfully implementing and benefiting from a beyond budgeting approach. Rickards (2006) also proposes that although proponents of beyond budgeting suggest replacing budgets with balanced

scorecards as the main control instrument, this might lead to some difficulties. For instance, the use of the balanced scorecard requires that a company has one or more detailed strategies, which is not always the case in reality, especially for small and medium-sized enterprises (SMEs).

Table VII. Factors that hinder the implementation of beyond budgeting

Factors	Number	Supporting Studies Author(s), Year	
		Conceptual Studies	Empirical Studies
Beyond budgeting is not equally suitable to all companies and situation	4	Rickards (2006); Vazonienė and Stončiuvienė (2012)	Libby and Lindsay (2010); Sandalgaard and Bukh (2014)
Fear of change	2	Rickards (2006); Heupel and Schmitz (2015)	
Difficulties managing without budgets	2	Rickards (2006)	Libby and Lindsay (2007)
High costs of going beyond budgeting	2	Rickards (2006); Vazonienė and Stončiuvienė (2012)	
Lack of internal benchmarks	2	Hansen <i>et al.</i> (2003)	Sandalgaard and Bukh (2014)
Pressure by shareholders to have predictable targets	1		Sandalgaard and Bukh (2014)
Role of remnants	1		Becker (2014)
Small number of potential users	1	Rickards (2006)	

5. Future research opportunities

Although beyond budgeting has received an increased amount of attention in recent years, many questions remain unanswered. In this section, future research avenues are identified and organized into three clusters (see Table VIII): (1) the scale of beyond budgeting, (2) changes in organizations under beyond budgeting, and (3) challenges of going beyond budgeting.

Table VIII. Future research opportunities

Cluster	Research Opportunities
The scale of beyond budgeting	<ul style="list-style-type: none">- Adaption of beyond budgeting in various sectors such as manufacturing and IT- Beyond budgeting in companies of different sizes- Implementation of beyond budgeting in emerging countries- Beyond budgeting in differing business strategy contexts- The conditions under which relative and subjective performance can work most effectively as one pillar of beyond budgeting- Implementing only a subset of beyond budgeting principles- Importance of employees' needs and their acceptance of beyond budgeting for the successful implementation of the concept
Changes in organizations under beyond budgeting	<ul style="list-style-type: none">- The changes in communication between organizations and stakeholders, creditors and rating agencies without the availability of detailed budgets- The effect of new management control systems on the mind-sets of managers and controllers- Possibility of employing a subset of the beyond budgeting concept instead of applying all beyond budgeting principles
Challenges of going beyond budgeting	<ul style="list-style-type: none">- Performance effects of going beyond budgeting- Risks and cost of implementing beyond budgeting- Lessons learned from unsuccessful attempts to implement beyond budgeting- Difficulties managing and controlling without detailed budgets- Long-term usage of beyond budgeting

5.1 The scale of beyond budgeting

Apart from the financial services industry, steel industry, forest industry and energy industry, there is still a lack of research on implementing beyond budgeting in other industries (e.g., manufacturing or information technology companies) as well as in SMEs. Furthermore, numerous articles have analysed the successful implementation of going beyond budgeting in European and North American companies. Yet, little is known about the findings' applicability in non-Western countries such as Asian and Middle Eastern countries. Research on the adoption of beyond budgeting in various industries, in SMEs and in emerging countries, however, is warranted since the literature has shown that industry sector (Messner, 2016), small firm size (Lavia López and Hiebl, 2015) and emerging-country settings (Hopper *et al.*, 2009)

significantly affect the design and applicability of management accounting practices. In line with these notions, meta-analytical evidence has shown that contextual factors are important for the success of the chosen budgeting process (Derfuss, 2015). Van der Stede (2001) explicitly names corporate diversity and business strategy as contextual factors that play an important role in the budgeting process.

Despite the importance of contextual factors for the suitability of management accounting practices in general and budgeting processes in particular, we still know very little about their impact on the beyond budgeting process. Although it was previously pointed out by Rickards (2006) that manufacturing and merchandising companies are not suitable for the implementation of beyond budgeting, no empirical evidence supports this argument. Even more so, we have little empirical evidence regarding the suitability of beyond budgeting for specific sectors in general. Although *Svenska Handelsbanken* is often portrayed as a successful example of beyond budgeting implementation in the financial sector (e.g., De Waal, 2005), other organizations from this sector have struggled with the implementation of beyond budgeting and decided to return to a more traditional budgeting process (Becker, 2014). Such contradictory results were also found for companies in the energy sector (e.g., Becker, 2014; Bourmistrov and Kaarbøe, 2013). Additionally, Vazonienė and Stončiuvienė (2012) state that beyond budgeting is only suitable for larger companies. However, beyond budgeting has been successfully implemented in both medium-sized (Ostergren and Stensaker, 2011) and rather large companies (e.g., Becker, 2014; Bourmistrov and Kaarbøe, 2013). Until now, there has been no research on the implementation of beyond budgeting in small firms.

Whereas previous research has not (yet) confirmed that firm size or industry sectors represent relevant contextual factors for beyond budgeting's success, internal factors such as reacting to employees' needs might be a key success factor. Going beyond budgeting is a drastic form of organizational change. Not engaging employees in this change has been witnessed in companies that failed when going beyond budgeting, whereas companies that successfully

decided to abandon budgets intensively trained their employees (Becker, 2014). De Waal *et al.* (2011) argue that even companies unsatisfied with the traditional budgeting process will face technical, human and organizational barriers when trying to change the budgeting process as employees feel threatened or challenged by this change. Further research on the circumstances under which beyond budgeting can be successfully implemented and what companies can do to increase the likelihood of successful implementation is thus needed.

Rickards (2006) also indicates that although the purpose of the beyond budgeting concept is to solve the problems associated with traditional budgeting, there is a lack of evidence on the degree to which beyond budgeting can fulfil this purpose. For instance, as argued by Hansen *et al.* (2003), numerous papers discuss the benefits and limitations of using relative and subjective performance evaluations (e.g., Janakiraman *et al.*, 1992). However, very few empirical studies analyse the conditions under which relative and subjective performance evaluations can work most effectively (Hansen *et al.*, 2003). Thus, a deeper understanding of the applicability of some of beyond budgeting's pillars such as relative performance evaluations will make it easier for organizations to judge whether they can adhere to such pillars and thus whether the consideration of going beyond budgeting is warranted in the first place. Conversely, it might also be the case that organizations already adhering to certain beyond budgeting principles might be better equipped to fully go beyond budgets. For example, it might be easier for companies with a comparably high level of delegation and inclusive leadership style and strategic processes to go beyond budgets as the organizational change needed is less radical than for organizations that do not yet adhere to any beyond budgeting principle. Likewise, firms already featuring highly participative budgeting processes might be more likely to successfully implement beyond budgeting.

To summarize, interesting research questions on the scale of beyond budgeting include:

- How do companies in various industries adopt beyond budgeting? Is the beyond budgeting process more or less suitable for certain industry sectors?

- How do SMEs adopt beyond budgeting?
- Is beyond budgeting more suitable for a specific business strategy?
- How can beyond budgeting be applied to emerging country settings? Is national culture an important factor that influences the successful implementation of beyond budgeting?
- To what extent does beyond budgeting solve traditional budgeting's problems such as missing relative performance evaluations? Under which conditions could relative and subjective performance evaluations work effectively in a beyond budgeting setting?
- To what extent are organizations adhering to some beyond budgeting principles more likely to (successfully) fully go beyond budgeting?
- What steps must be taken to foster employees' acceptance of beyond budgeting? What kind of training is needed to prepare employees for the changed demands after the abandonment of budgets?

5.2 Changes in organizations under beyond budgeting

In terms of organizational changes under beyond budgeting, it is argued in the conceptual literature (e.g., Rickards, 2006) that the absence of budgets can increase a company's liquidity risks, as financial institutions are no longer able to evaluate the risk of beyond budgeting companies. Similarly, Sandalgaard and Bukh's (2014) case study suggests that organizations face huge pressure to deliver detailed budgets to creditors and owners, which are, however, not available when applying beyond budgeting. Given the scarcity of the empirical literature on these issues, more empirical research on how companies could manage and communicate their financial situation and their risk profile without detailed budgets is needed, since such research could help managers decrease—or at least better foresee—the likelihood of losing access to financial capital when applying beyond budgeting.

Bourmistrov and Kaarbøe (2013) underline that beyond budgeting research should not only focus on changes in accounting techniques; it also needs to pay attention to the necessary changes in organizations' mind-sets. Thus, more studies of the requirements of beyond budgeting regarding the mind-sets of decision-makers, subordinates and controllers are needed. For instance, many organizations that change their management accounting system towards a beyond budgeting concept tend to maintain fixed budget targets (Sandalgaard and Bukh, 2014). However, there is no agreement on whether beyond budgeting requires the implementation of all beyond budgeting principles or whether organizations can adopt only a subset of them (Rickards, 2006).

Furthermore, meta-analytical evidence on traditional budgeting processes has shown that a high level of participation is positively linked to budgetary performance (Derfuss, 2009). However, there is no knowledge about the impacts of beyond budgeting on the performance. Thus, a deeper understanding of these issues could help organizations that intend or are attempting to abandon traditional budgets. If empirical evidence would show that beyond budgeting is positively associated with performance or growth, the acceptance of the concept among practitioners might increase, too, especially regarding the high investments that are likely to occur during the process of going beyond budgeting.

In summary, possible research questions on organizational changes under beyond budgeting include the following:

- How does risk management have to change under beyond budgeting?
- How do organizations communicate with their stakeholders, rating agencies and creditors without detailed budgets?
- How do new management control systems under beyond budgeting affect the mind-sets of managers/controllers?
- How will the accountability of subordinates change when organizations carry out beyond budgeting?

- How far can organizations implement beyond budgeting when only adopting subsets of the beyond budgeting principles? What are the effects of adopting such subsets?
- What performance effects can be observed when firms decide to go beyond budgeting?

5.3 Challenges of going beyond budgeting

As indicated above, conceptual research maintains that the high cost and uncertainty are hindrances that lead organizations to hesitate to abandon budgets (e.g., Rickards, 2006; Vazonienė and Stončiuvienė, 2012). However, we still know little about the actual costs that organizations may incur and potential risks that organizations may face when moving towards a beyond budgeting approach, which includes substantial organizational changes such as radical decentralization. Furthermore, proponents of beyond budgeting have spent considerable time and effort studying companies that have successfully implemented beyond budgeting (e.g., Hope *et al.*, 2003; Player, 2003), while there is a limited literature about companies who have failed to abandon budgets or reintroduced budgets. Thus, empirically investigating the challenges that organizations may face when going beyond budgeting may enable organizations, consultants and practitioners to consider the benefits and risks of abolishing budgets. At the same time, this review has shown that some organizations are unable to manage and control without budgets (Libby and Lindsay, 2007; Rickards, 2006). Nevertheless, knowledge of what difficulties or barriers organizations experience in managing and controlling without budgets and how organizations have overcome these barriers remains scarce and future research is needed to shed more light on this issue. Furthermore, there is little knowledge about the long-term usage of beyond budgeting. Future research might therefore analyse how beyond budgeting works out in the longer-term.

In summary, interesting research questions include:

- Which potential risks and costs do organizations face when implementing beyond budgeting?
- What lessons can be learned from organizations' failed attempts to abandon budgets?
- What difficulties or barriers do organizations experience in managing and controlling without budgets? How can these be overcome?
- How does beyond budgeting work out in the long-term?

6. Conclusions

This paper aimed to provide an overview and a synthesis of the existing literature on beyond budgeting. To do so, we addressed the question of how management control systems change under beyond budgeting, we compared the applicability of beyond budgeting and budgeting alternatives and analysed the factors that hinder the implementation of beyond budgeting. We conclude that although a number of conceptual and empirical papers have criticized traditional budgeting for being time-consuming and expensive, encouraging gaming behaviour, being not suitable in competitive environments, producing the misalignment of budgets with the company's strategy and strengthening vertical command-and-control cultures, several empirical papers argue that these points of criticism are not equally true for all organizations and/or generally overstated (Libby and Lindsay, 2007, 2010; Lidia, 2014). Nevertheless, these issues are present to some extent. Consequently, our review also shows that when implementing a beyond budgeting approach, organizations' management control systems must change regarding targets, motivation and rewards, planning and forecasting, measures and controls, the role of controllers, resources, coordination, and culture. At the same time, our review reveals that although proponents of beyond budgeting put enormous effort into developing and promoting the beyond budgeting concept, numerous organizations have chosen to improve budgets rather than abandon them. Our paper also highlights the reasons why this may be so and which factors may hinder the implementation of beyond budgeting. These reasons include

the fear of change, difficulties managing without budgets, high costs, the lack of internal benchmarks, the pressure to deliver payback to suppliers or owners, remnants of traditional budgets and a small number of potential users. Furthermore, it can be stated that beyond budgeting is not equally suitable for every company and situation.

Against the backdrop of these observations, our review delivers two contributions to the literature. First, our review is the first synthesis of the literature on beyond budgeting. We highlight that the arguments brought forward in conceptual papers on beyond budgeting do not all hold when looking at the empirical literature. In fact, the empirical literature suggests that many organizations *only* choose to improve traditional budgeting instead of going beyond budgeting, or when going beyond budgeting, some organizations reintroduce budgets after some time. Thus, our review should be useful for consultants and practitioners since we offer synthesized knowledge on the implementation of beyond budgeting and on the challenges that could appear within organizations that go beyond budgeting. Second, our paper proposes future research opportunities on beyond budgeting, which we believe is desperately needed.

However, the limitations of this review paper need to be considered. First, as usual in systematic literature reviews, this review only includes papers that could be found in electronic databases. Other types of sources such as books were not analysed, although they might include important contributions. Second, papers in languages other than English were not considered for the review, although they might contain valuable information. Finally, although three databases were searched for the keywords described in the methodology section of this paper, there is still the risk that not all relevant papers were included in those databases.

References

- Abogun, S. and Fagbemi, T.O. (2011), "The global debate on budgeting: empirical evidence from Nigeria", *International Business Research*, Vol. 4 No. 4, pp. 248-254.
- Becker, S. D. (2014), "When organizations deinstitutionalise control practices: a multiple-case study of budget abandonment", *European Accounting Review*, Vol. 23 No. 4, pp. 593-623.

- Bourmistrov, A. and Kaarbøe, K. (2013), "From comfort to stretch zones: a field study of two multinational companies applying 'beyond budgeting' ideas", *Management Accounting Research*, Vol. 24 No. 3, pp. 196-211.
- De Waal, A.A. (2005), "Is your organisation ready for beyond budgeting?", *Measuring Business Excellence*, Vol. 9 No. 2, pp. 56-67.
- De Waal, A.A., Hermkens-Janssen, M. and Van de Ven, A. (2011), "The evolutionary adoption framework: explaining the budgeting paradox", *Journal of Accounting & Organizational Change*, Vol. 7 No. 1, pp. 316-336.
- De With, E. and Dijkman, A. (2008), "Budgeting practices of listed companies in the Netherlands", *Management Accounting Quarterly*, Vol. 10 No. 1, pp. 26-36.
- Derfuss, K. (2009), "The relationship of budgetary participation and reliance on accounting performance measures with individual-level consequent variables: a meta-analysis", *European Accounting Review*, Vol. 18 No. 2, pp. 203-239.
- Derfuss, K. (2015), "Relating context variables to participative budgeting and evaluative use of performance measures: a meta-analysis", *Abacus*, Vol. 51 No. 2, pp. 238-278.
- Ekholm, B. and Wallin, J. (2000), "Is the annual budget really dead?", *European Accounting Review*, Vol. 9 No. 4, pp. 519-539.
- Hansen, S.C. (2011), "A theoretical analysis of the impact of adopting rolling budgets, activity-based budgeting, and beyond budgeting", *European Accounting Review*, Vol. 20 No. 2, pp. 289-319.
- Hansen, S.C., Otley, D.T. and Van der Stede, W.A. (2003), "Practice developments in budgeting: an overview and research perspective", *Journal of Management Accounting Research*, Vol. 15, pp. 95-116.
- Henttu-Aho, T. (2016), "Enabling characteristics of new budgeting practice and the role of controller", *Qualitative Research in Accounting & Management*, Vol. 13 No. 1, pp. 31-56.
- Henttu-Aho, T. and Järvinen, J. (2013), "A field study of the emerging practice of beyond budgeting in industrial companies: an institutional perspective", *European Accounting Review*, Vol. 22 No. 4, pp. 765-785.
- Heupel, T. and Schmitz, S. (2015), "Beyond budgeting – a high-hanging fruit. The impact of managers' mindset on the advantages of beyond budgeting", *Procedia Economics and Finance*, Vol. 26, pp. 729-736.
- Hope, J. and Fraser, R. (1997), "'Beyond budgeting': breaking through the barrier to 'the third wave'", *Management Accounting*, Vol. 75 No. 11, pp. 20-23.
- Hope, J. and Fraser, R. (2000), "Beyond budgeting", *Strategic Finance*, Vol. 82 No. 4, pp. 30-35.
- Hope, J. and Fraser, R. (2001), "Figures of hate", *Financial Management*, Vol. 2 No. 2, pp. 22-25.
- Hope, J. and Fraser, R. (2003a), "Who needs budgets", *Harvard Business Review*, Vol. 81 No. 2, pp. 108-115.
- Hope, J. and Fraser, R. (2003b), "New ways of setting rewards: the beyond budgeting model", *California Management Review*, Vol. 45 No. 4, pp. 104-119.
- Hope, J., Fraser, R. and Rosen, C. (2003), "Trash the budget", *Optimize*, Vol. 2 No. 2, pp. 24-31.
- Hopper, T., Tsamenyi, M., Uddin, S. and Wickramasinghe, D. (2009), "Management accounting in less developed countries: what is known and needs knowing", *Accounting, Auditing & Accountability Journal*, Vol. 22 No. 3, pp. 469-514.
- Janakiraman, S.N., Lambert, R.A. and Larcker, D.F. (1992), "An empirical investigation of the relative performance evaluation hypothesis", *Journal of Accounting Research*, Vol. 30 No. 1, pp. 53-69.

- Lavia López, O. and Hiebl, M.R.W. (2015), "Management accounting in small and medium-sized enterprises: current knowledge and avenues for further research", *Journal of Management Accounting Research*, Vol. 27 No. 1, pp. 81-119.
- Libby, T. and Lindsay, R.M. (2003a), "Budgeting—an unnecessary evil", *CMA Management*, Vol. 77 No. 1, pp. 30-33.
- Libby, T. and Lindsay, R.M. (2003b), "Budgeting—an unnecessary evil (part two)", *CMA Management*, Vol. 77 No. 2, pp. 28-31.
- Libby, T. and Lindsay, R.M. (2007), "Beyond budgeting or better budgeting", *Strategic Finance*, Vol. 89 No. 2, pp. 46-51.
- Libby, T. and Lindsay, R.M. (2010), "Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice", *Management Accounting Research*, Vol. 21 No. 1, pp. 56-75.
- Lidia, T. G. (2014), "Difficulties of the budgeting process and factors leading to the decision to implement this management tool", *Procedia Economics and Finance*, Vol. 15, pp. 466-473.
- Max, M. (2005), "Beyond budgeting: case studies in North American financial services", *Journal of Performance Management*, Vol. 18 No. 1, pp. 3-15.
- Messner, M. (2016), "Does industry matter? How industry context shapes management accounting practice", *Management Accounting Research*, Vol. 31, pp. 103-111.
- Neely, A., Bourne, M. and Adams, C. (2003), "Better budgeting or beyond budgeting", *Measuring Business Excellence*, Vol. 7 No. 3, pp. 22-28.
- O'Grady, W. and Akroyd, C. (2016), "The MCS package in a non-budgeting organisation: a case study of Mainfreight", *Qualitative Research in Accounting & Management*, Vol. 13 No. 1, pp. 2-30.
- Ostergren, K. and Stensaker, I. (2011), "Management control without budgets: a field study of 'beyond budgeting' in practice", *European Accounting Review*, Vol. 20 No. 1, pp. 149-181.
- Player, S. (2003), "Why some organizations go 'beyond budgeting'", *The Journal of Corporate Accounting & Finance*, Vol. 14 No. 3, pp. 3-9.
- Rickards, R.C. (2006), "Beyond budgeting: boon or boondoggle?", *Investment Management and Financial Innovations*, Vol. 3 No. 2, pp. 62-76.
- Sandalgaard, N. (2012), "Uncertainty and budgets: an empirical investigation", *Baltic Journal of Management*, Vol. 7 No. 4, pp. 397-415.
- Sandalgaard, N. and Bukh, P.N. (2014), "Beyond budgeting and change: a case study", *Journal of Accounting & Organizational Change*, Vol. 10 No. 3, pp. 409-423.
- Tranfield, D., Denyer, D. and Smart, P. (2003), "Toward a methodology for developing evidence-informed management knowledge by means of systematic review", *British Journal of Management*, Vol. 14 No. 3, pp. 207-222.
- Van der Stede, W.A. (2001), "The effect of corporate diversification and business unit strategy on the presence of slack in business unit budgets", *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 1, pp. 30-52.
- Vazonienė, M. and Stončiuvienė, N. (2012), "The formation of company budgeting system: importance, problems and solution". *Management Theory and Studies for Rural Business and Infrastructure Development*. Vol. 30 No. 1, pp. 157-170.
- Weber, J. and Linder, S. (2005), "Budgeting, better budgeting, or beyond budgeting", *Cost Management*, Vol. 19 No. 2, pp. 20-28.