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## What we know and what we don't know about participative budgeting: a systematic literature review

Thales Engelfried

*Leuphana University Lüneburg,  
Universitätsallee 1, 21335 Lüneburg, Germany; [thales.v.engelfried@stud.leuphana.de](mailto:thales.v.engelfried@stud.leuphana.de)*

Lara Hirdina

*Leuphana University Lüneburg,  
Universitätsallee 1, 21335 Lüneburg, Germany; [lara.hirdina@stud.leuphana.de](mailto:lara.hirdina@stud.leuphana.de)*

Finja Rauschenberger

*Leuphana University Lüneburg,  
Universitätsallee 1, 21335 Lüneburg, Germany; [finja.rauschenberger@stud.leuphana.de](mailto:finja.rauschenberger@stud.leuphana.de)*

Lauritz Schulz

*Leuphana University Lüneburg,  
Universitätsallee 1, 21335 Lüneburg, Germany; [lauritz.schulz@stud.leuphana.de](mailto:lauritz.schulz@stud.leuphana.de)*

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### Abstract

This literature review sought to assess the theory of participative budgeting in order to provide a review of the underlying theories and to give practitioners grounds to evaluate current organizational situations. To achieve these objectives, 65 articles from 48 journals, published between 1975 and 2019, were analyzed, of which 22 were closer examined.

Our research suggests that participative budgeting cannot be seen as generally beneficial regarding job satisfaction, overall performance, and the creation of budget slack. Instead, its practicability is strongly dependent on multiple variables, such as distance in power, information asymmetries and personality types, which should be considered when implementing the budgeting method.

This study presents an overview of the existing literature and offers an agenda for future research containing recommendations that highlight yet unexplored questions about the budgeting process.

Keywords: Participative budgeting, cooperative budget, budget participation, principal-agent theory

### 1 Introduction

Budgeting is one of the most important decision-making processes in a company across all industries and influences whether a company can reach its strategic goals. The planning process of resource allocation is expanded by coordinating actions and communication techniques within the company. Besides that, budgeting is used for performance assessment to understand the effects, different decisions in the budgeting process may cause. Alongside the possible inefficiency of allocating resources, budgeting decisions can influence the motivation, performance, and the employee's effort to reach the company's organizational goals. Therefore, one of the significant challenges in participative budgeting is the acquisition of reliable information as a basis of the allocation of resources (Douglas & Wier, 2000).

According to the agency theory, there are information asymmetries between the owner and the manager as well as their subordinates. The more specific the manager's area, the more accurate and detailed information available. The idea of participative budgeting or "bottom-up budgeting" (Heinle et al., 2014, p. 1025) is aiming for a more specific information usage by including subordinates in the budgeting process. Brink et al. (2018)

define participative budgeting “[...] as a process in which subordinates’ involvement influences the determination of their budgets” (p. 45).

Our findings suggest that the inclusion of the subordinates does not always positively influence the budgeting process. There are some strengths and weaknesses occurring while using participative budgeting and the reviewed literature is not entirely united on the general impact of participation. Especially the effect of participatory budgeting on the employees and consequently also on the company’s performance and the creation of budget slack varies. The deviations described above are caused by the situational effectiveness of participative budgeting. There are many moderating variables, which influence motivation, performance or budgetary slack and need to be considered while using the depicted budgeting method.

This paper discusses what we know and what we do not know about participative budgeting, especially regarding the variables, which influence the success of this cooperative budgeting method. Based on the complex progress of defining the budget and the existence of information asymmetries, we explore the situational appropriateness of this approach.

Given these facts, we structured the literature review as follows: First, the theoretical background and the general methodology of our research will be presented. Secondly, the findings from processing the literature will be illustrated and discussed, including weaknesses and strengths, situational appropriateness, and gaps in the current scientific discussion about participative budgeting. In the end, we present a summary of the findings and will suggest topics for future research which may help to close existing gaps in current research.

## **2 Literature Review**

### ***2.1 Participative budgeting and its critics***

Over the past four decades, management accounting researchers focused their attention on understanding the effects of participative budgeting (Argyris, 1952; Brownell, 1982; Young, 1985). Given previous literature, participative budgeting is a crucial accounting-based planning and control process which motivates managers to set their goals personally. Participation in budgeting is undeniably an essential variable for enhancing favorable job-related outcomes such as organizational commitment (Quirin et al., 2000). However, a closer review of prior studies suggests that it is necessary to not only understand the consequences of participative budgeting but also the antecedents of this budgeting technique (Shields & Shields, 1998). Superior-subordinate information asymmetry or uncertainty are frequently mentioned antecedents of participative budgeting, but there is no empirical evidence for a causal relationship between participative budgeting and information asymmetry. Empirically this relationship can only be proved to be a correlation and not a causal relationship (Douglas & Wier, 2000). The discussion on the applicability of the participatory budgeting method was driven by the anticipated positive effects on employee satisfaction, performance, and information communication (Frucot, 1991; Pope, 1984). The outcomes resulting from the application of the cooperative budgeting method are in most cases moderated by individual, operational and external factors, such as the ratcheting effect (Leone & Rock, 2002), different types of supervisors (Brink et al., 2018), locus of control (Heinle et al., 2014) and the managers and workers risk aversion (Kim, 1992).

Besides, the participative budgeting approach has also received criticism over the years. This includes the creation of budget slack because subordinates have opportunities to misreport their performance capabilities through their right of participation. Therefore, as Maiga and Jacobs (2007) point out, the organization needs to select “the appropriate level of budgetary participation that is associated with the enhancement of fairness which leads to trust and lower propensity to create slack through budget goal commitment” (p. 51). Other critics state that the process of participative budgeting entails the risk of being inefficient caused by high costs of communication between superiors and subordinates (Chen, 2003) and the superiors’ loss of control (Heinle et al., 2014).

### ***2.2 Participative budget-setting process in comparison with the top-down budget-setting process***

A widely used approach to a chronological budgetary target-setting process is the typology introduced by Anthony and Govindarajan (2007; Kramer & Hartmann, 2014), which includes three sequential stages: (1) issuance of guidelines; (2) the development of an initial budget proposal; (3) budget negotiation and approval (Kramer & Hartmann, 2014).

In the first stage, guidelines and expected target levels are steered down the hierarchy by higher-level management. A top-down orientation (TD) in this stage is characterized by a high specificity of guidelines and expected target levels. In contrast, a participative, or “bottom-up” (BU), budgeting process (Heinle et al., 2014, p. 1025) often shows no clear and specific planning assumptions or expected target levels for budgeting (Kramer & Hartmann, 2014).

In the second stage of the budgeting process, the development of an initial budget proposal is performed by the lower-level management. Institutions with the TD orientation are strictly enforcing compliance with the issued directives and specifications and do not leave any discretion to the lower-level managers. Conversely, a BU orientation tolerates budget proposals from lower-level management that deviate from the guidelines and targeted levels (Kramer & Hartmann, 2014).

In the final stage, upper- and lower-level management negotiate the final budget. A TD orientation implements procedural rigidity to influence upper-level units to make fewer concessions to lower-level units in the negotiation process. A BU orientation encourages lower-level units to present their final budget draft based on operational data (Kramer & Hartmann, 2014).

To summarize, the TD- or BU-orientation mainly differ in their specificity of given directives, strictness of compliance, and enforcement of budget proposals (Kramer & Hartmann, 2014).

### **2.3 The importance of agency theory in understanding participative budgeting**

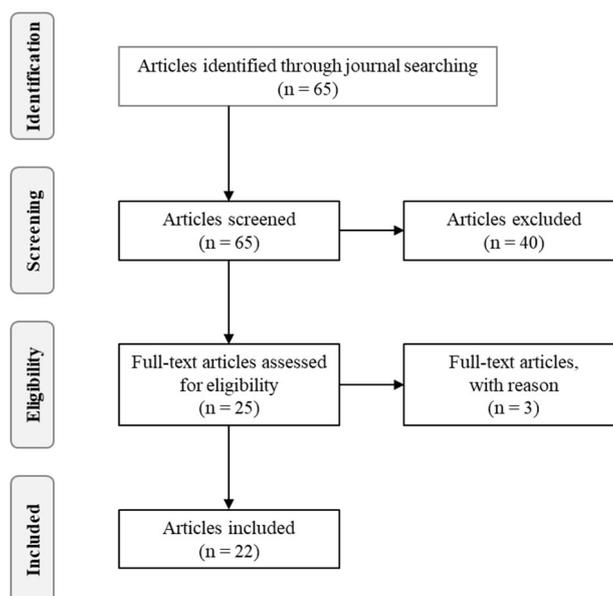
The agency theory is a “widely accepted and applied theory of human behaviour” (Brown & Moser, 2009, p. 338). In an agency relationship, one party (the agent) acts on behalf of the other (the principal) (Shapiro, 2005). Participation in the context of budgeting is described as the involvement of lower-level managers in setting profit targets and the associated direct payments (Heinle et al., 2014). By combining these two theories, the lower-level managers are agents, and the higher-level managers represent the principal. Especially, information asymmetry between subordinates and superiors has gained importance in agency theory (Young, 1985). The theory makes several predictions that are of high importance for participative budgeting and can help understand the circumstances under which information asymmetry leads to budget slack (Brown & Moser, 2009). For instance, the theory predicts that participants will create slack in order to maximize their expected utility (Brown & Moser, 2009). Studies have shown that the amount of slack can be reduced if the principal knows the production capability of the agent because of the associated social pressure (Brown et al., 2009).

## **3 Methodology**

The research is split when it comes to participative budgeting. We conduct a systematic review to provide a comprehensive picture of participative budgeting and different aspects of the theory (Denyer & Tranfield, 2009). To reduce bias, we applied the guidelines of Winchester and Salji (2016). Justifying our selection of journals, we used the SJR-Ranking, identifying the most suitable articles for our research topic. Furthermore, we used a whole series of journals and articles to obtain a more comprehensive collection of information, reducing bias.

In the first step, we chose the journals that were suitable for our research. Therefore, we based our selection on the SJR-Ranking from August 2020 and only included journals ranked between A+ and B to ensure high-quality research. To generate the most appropriate articles, we searched for respected journals in the fields of Business, Management & Accounting, which we abstracted from the subcategories Accounting, Business & International Management, and Management & Accounting (miscellaneous) to extract the most suitable 15 journals of each category. Furthermore, we scanned the category Economics, Econometrics & Finance, where we focused on the subcategory Finance and included journals with more than 5000 points in SJR. After this systematic journal selection, we gained 48 suitable journals.

To detect possible terminologies describing the cooperation of subordinates and superiors in the budgeting process, we used different search strings within the title, abstract and keyword searches in the selected journals. The search strings were: participative budgeting/ budget, budget/budgeting participation, budgetary participation, participatory budget/budgeting, participatory budget/budgeting and cooperative budgeting/budget. The journal search resulted in 65 identified articles.

**Figure 1:** Flow diagram of the selection process

Following the process depicted in Figure 1 (aligned with Moher et al., 2009), we screened the identified articles and excluded 40 articles. Since 32 of these set a different focus or deal with another topic, we excluded those from our study. Besides that, eight articles were inaccessible. The remaining 25 were assessed for eligibility by screening the full text and three of them were excluded due to their limited focus. As a result, we continued working with the remaining 22 articles.

## 4 Findings

### 4.1 Bibliometric Analysis

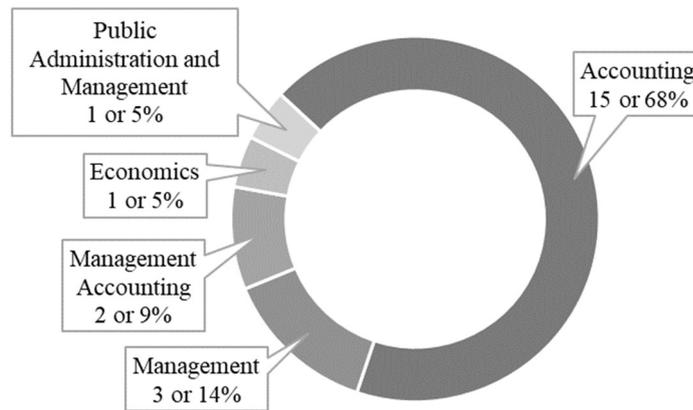
Following the approach determined in the methodology, we systematically analyzed the 22 articles. The results of the bibliometric analysis will be presented in the following.

Even though we included a multitude of synonyms for participative budgeting in the literature search, 21 results are related to a combination of the terms “participation” and “budgeting” and one article by Chen (2003) could be identified by using the search term “cooperative budget”. Although the article by Chen (2003) is the exception in terminology, it explains the same interactions between subordinates and superiors during the budgeting process. This contribution indicates that the widely agreed terminology is a combination of participation and budgeting. Referring to the complete search terms, eleven results were found using a combination of “budget” as the first term and “participation” as the second one, whereas ten resulted from the reversed order.

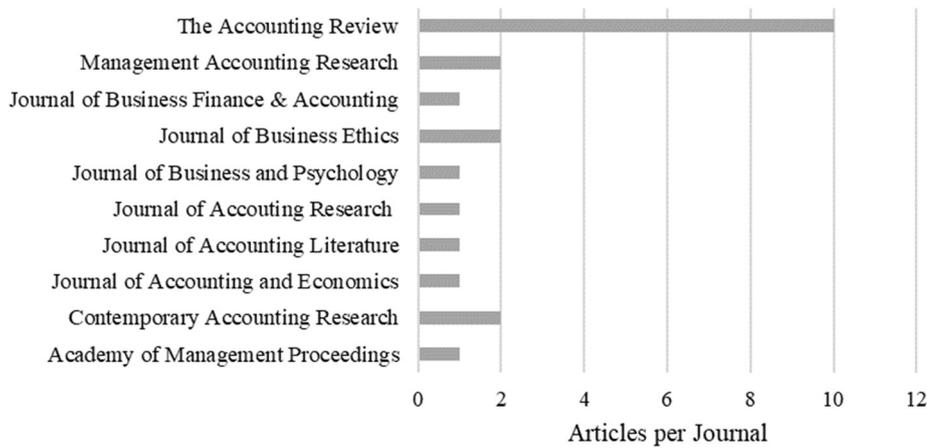
The majority of articles were published in journals associated with accounting, management, or management accounting. Notably, there is a field of studies determined to understand the effects of participative budgeting in public administration. Since we mainly searched in business-related journals and the overall objective of this work is to find business-related implications and future research areas, the application of participative budgeting in public administration is underrepresented in our study. The exact partition of articles by discipline is illustrated in Figure 2. Figure 3 shows the distribution of the articles among the analyzed journals. Most journals published one or two articles that align with our topic only distorted by “The Accounting Review” publishing ten articles.

Seminal work on participation in the budgeting process was conducted by Argyris (1952), as he was the first to mention this concept. However, the topic was not further explored until the 1970s. As depicted in Figure 4, the research output thereafter is mostly consistent, although, in the past 15 years, it was not as pervasive. Other notable findings (included in Figure 4) were accomplished by Brownell in the years 1981 and 1982. He found evidence that participative budgeting can positively affect a company's performance.

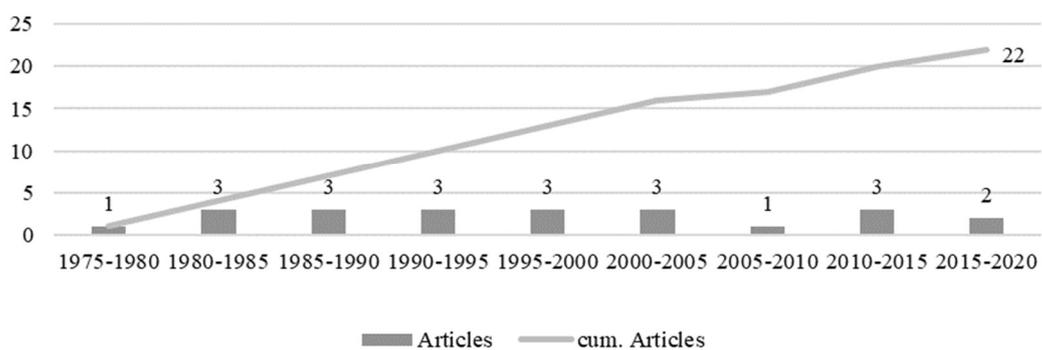
**Figure 2:** Articles by discipline of journal



**Figure 3:** Articles published by journal



**Figure 4:** Published articles per five years and accumulated



The methodology used in the analyzed studies was predominantly quantitative (14 articles) with either an experimental setup (seven articles), inclusion of surveys (five articles), or an analysis of organizational data sets (two articles). Seven studies followed a qualitative approach with a systematic literature review (one article), a case study (one article), or theoretical works about underlying principles of budgeting (five articles). Moreover, there was one mixed methodology approach.

Due to the small scope of this research, we did not differentiate between geographical aspects of the publications or the sector of origin. In the following, the result of the content analysis will be discussed.

## 4.2 Content Analysis

The 22 included articles were closely examined and compared along the following categories.

### 4.2.1 Definition and Objectives of Participative Budgeting

When defining participative budgeting, it becomes evident that only a few researchers deliver a general definition concurring in their main statements. Brink et al. (2018) define participative budgeting as a “[...] process in which subordinates’ involvement influences the determination of their budgets.” (p. 89). This represents the quintessence of all definitions, while other authors describe similar relationships with different emphases or specify the explanation. For example, Penno (1990) described participative budgeting as communication over budget. In contrast, Heinle et al. (2014) specified participative budgeting as “[...] lower-level managers are involved in setting profit targets and the associated direct payments.” (p. 1035).

Liverpool (1990) linked his definition to the content of decisions. According to him: “[...] meaningful participation in decision making is not simply a function of the amount of participation but is also linked to the domain of decision making, which refers to the content of the decisions or the range of issues that employees can influence.” (Liverpool, 1990, p. 413).

The main objective to be achieved through participative budgeting is an increase in profit. Higher performance of employees and optimization of processes are regarded as a sub-objective of participatory budgeting (Milani, 1975). Next to increasing profit, Milani (1975) first mentioned the possible impact of participative budgeting on the attitude towards the job, i.e., job satisfaction, which Almasi et al. (2015) later found to be positive.

One of the impulses for participatory budgeting is the asymmetry of information between superiors and their subordinates. The theory behind information asymmetry implies that the subordinate knows more about the task and task environment than the superior.

Therefore, participatory budgeting can contribute private information to a dynamic process of establishing a balanced budget (Pope, 1984). Furthermore, a superior can gain information and reduce uncertainty (Douglas & Wier, 2000).

### 4.2.2 Effects of participative budgeting and influential factors

Many of the selected journals address, discuss and try to prove the effects of participative budgeting. A cooperative budgeting approach is often implemented with the economic objective to increase profits and therefore to improve the worker’s productivity, performance, job satisfaction, and commitment. Budget-based studies, including Brownell (1981, 1982) and Kren (1992), report significant positive relationships between budget participation and performance, an earlier study found a neutral relationship (Milani, 1975).

Brownell (1982) also confirmed the effect of participation on job satisfaction, whereas other researchers like Frucot and Shearon (1991) can only prove this effect for higher-level managers.

To explain these deviations, various researchers have suggested that the relationship between participative budgeting and performance might be caused by other involved moderating factors (Frucot & Shearon, 1991). The findings of the literature research show that many researchers refer to locus of control (Brownell, 1981; Frucot & Shearon, 1991; Licata et al., 1986), the perception of fairness (Brink et al., 2018), and employees risk aversion (Young, 1985) as moderating variables between participation and job satisfaction or performance.

Locus of control can be defined as “[...] a personality variable which classifies individuals as internals or externals depending on the extent that they feel they exercise control over their reinforcements that occur relative to their behavior.” (Licata et al., 1986, p. 112). For a positive effect on employee performance, there must be no conflict between locus of control and the degree of participation in the budgeting process (Frucot & Shearon, 1991). Brownell (1982) confirmed this effect of locus of control for job satisfaction.

Despite the locus of control, researchers identify especially the lower-level manager’s perception of fairness as a variable that affects the subordinate’s willingness to misrepresent private information during the process of participative budgeting. Untruthful communication is one of the most common causes of deviations in the participatory determination of budgets (Pope, 1984). The perception of fairness is often induced by the subordinate’s wages and the perception of workload (Brink et al., 2018).

Another factor influencing the process is risk aversion. Young (1985) treated risk aversion as an attribute of personality and indicated that risk-averse employees would prefer a safe budget, whereas risk-seeking employees would prefer tight budgets. Kim (1992) agrees on the influential character of risk preferences on participative budgeting under situational and domain-specific factors. He specifically argues that subordinates set their reference point to the average performance of other workers. They will prefer safe budgets if they perform better than the average fellow worker and tight budgets if they perform worse than the average.

Chenhall (1986) claimed that authoritarianism has been the most widely studied personality trait in economic research. To understand the effects of participative budgeting, it is important to include the authoritarianism of superiors and subordinates as a moderating variable (Chenhall, 1986).

The ratcheting effect, mentioned as an influencing variable by Leone and Rock (2002), implies that positive performance has a higher impact on budgeting than negative performance of the same amount because positive innovations are expected to last longer, whereas negative innovations are considered short time. This effect influences the manager's performance and budgeting activities and can cause the creation of slack (Leone & Rock, 2002).

The factors described in this paragraph are the most frequently mentioned moderators included in the literature.

### **4.3 Challenges of participative budgeting**

As shown before, the practicality of participative budgeting depends on several requirements. Some challenges occur in its implementation, which will be presented in the following part.

#### **4.3.1 Personal characteristics**

One of the most important aspects is often forgotten in practical terms. The success of any new implementation depends on the people who are involved. In the early stages of the research towards participative budgeting, some researchers observed a connection between the degree of locus of control and managers' performance while using the budgeting method (Brownell, 1981; Frucot & Shearon, 1991; Licata et al., 1986). External managers who believe that a force they can not control, is responsible for the outcome, do not trust their employees and will not allow participative budgeting or will perform worse in such a setup (Licata et al., 1986).

#### **4.3.2 Information asymmetries and control loss**

The practicability also depends on the degree of information asymmetries and environmental uncertainty. Douglas and Wier (2000) and Heinle et al. (2014) have consistently noticed a change towards the usage of a participative budget setup when the information asymmetries between the subordinates and superiors increase. Based on a high possibility of information asymmetries, an advanced level of communication can be necessary to define the final budgets. Chen (2003) claims that participative budgeting is not feasible for every situation. If the incentives for the subordinates are not suitable to motivate them to share private information, the process will be more costly and quality circles will be more time consuming (Liverpool, 1990). A worse possible outcome caused by the informational advantage of the subordinates is dishonesty. Participative budgeting can lead to misreporting by the subordinates to create a strategic advantage for themselves, for example through creating budgetary slack (Douglas & Wier, 2000; Heinle et al., 2014; Pope, 1984). Since the subordinate controls reporting and effort decisions, the superior suffers significant control loss (Heinle et al., 2014).

#### **4.3.3 Creating a low distance culture**

To increase performance in a participative setup, there are general requirements for the company like a low distance culture, as Douglas and Wier (2005) have pointed out. According to Guo et al. (2019), this general rule arises from the underlying assumption that a low dispersion of vertical pay is beneficial for the success of participative budgeting. When the distance to the superior is significant, either in pay or in power, the situation is perceived as unfair, which drives people to be less motivated and more willing to misreport information and create budgetary slack. In addition, Guo et al. (2019) observed that a low distance culture with low dispersion of vertical pay works best with an open information culture. Creating peer observability reduces dishonesty in such a setup because employees orientate their own work based on other honest reports.

In summary, the usage of the participative budgeting method includes challenges in many parts of the company, which must be considered beforehand.

## **5 Discussion and future research agenda**

### **5.1 Contributions to the domain theory and research**

Following our selection of literature and the subsequent analysis of the contents, we have created an initial overview of the thematic composition of participatory budgeting for researchers. Our paper combines the different definitions, effects, moderating variables, and challenges of the cooperative budgeting process. Thus, by supplementing the general theory of participative budgeting with situational and empirically tested, generalizable findings, we have been able to provide the first overview of this research topic.

Based upon similar definitions of participative budgeting, the literature studies implications of the budgeting process with initially neutral (Milani, 1975), then positive relationships between the use of participative budgeting and performance (Brownell, 1981, 1982; Kren, 1992). Focusing on more refined aspects of the process with different moderating factors and outcomes, e.g. job satisfaction, researchers began to understand necessary circumstances for participative budgeting to have positive impacts (Frucot & Shearon, 1991). Following this trend, personnel aspects of study participants were studied (Heinle et al., 2014; Wier, 2000). The newest findings see culture as a significant influence on the participative budgeting success (Guo et al., 2019; Heinle et al., 2014). The field, overtime was able to develop a more nuanced understanding of the budgeting approach as more aspects of the process and circumstances were studied.

In the following, this review presents limitations of the participatory budgeting approach. Furthermore, we provide recommendations for the applicability as well as a future research agenda to complement the findings of previous studies and expand our understanding of the participatory budgeting process.

## **5.2 Contributions to practice**

The success of participative budgeting is influenced by several variables, which we explained in our content analysis. In practice, a suitable setup for the method is an uncertain environment with a high degree of information asymmetry between the subordinate and the superior (Douglas & Wier, 2000). The actual performance is determined by the culture of the company, the personal characteristics of the people involved in the process, and the incentive systems for the subordinates. The literature suggests a low distance in power as well as in pay between the hierarchies to influence the perception of fairness and therefore motivate the employees to take responsible actions (Brink et al., 2018; Guo et al., 2019). Further, the incentives for employees to strive for improvement should be long-term relevant and distorted when favorable information is withheld by the subordinate (Heinle et al., 2014). How such incentives could look like is not presented in the literature. In addition to these incentives, Hannan et al. (2006) suggest a coarse information system in a participative setup. The most challenging variable to influence is the personality of the subordinates and the superiors. As shown before, internal managers are more willing to trust their employees' decisions and therefore be successful in a participative setup (Licata et al., 1986). Participative budgeting can influence satisfaction, overall performance, and budget slack in a positive or in a negative way, depending on the general setup.

In summary, participative budgeting cannot be seen as a general beneficial or useless method. The practicality is strongly dependent on several variables, which should be considered before implementing a budgeting method.

## **5.3 Future research agenda**

Our findings suggest that the effectiveness and impact of participative budgeting are dependent on the organizational situation, the internal culture and control systems as well as the behavioral aspects of the acting parties. Since the studies in our included literature often focus on case studies, there is a need to explore a broader range of situations. Hong (2015) challenges such an increase of the underlying empirical data to ensure its applicability and generalizability.

The research around participative budgeting takes individuals and their behavior, controlled by contracts and incentives, into account. Although there has been a great emphasis on locus of control (Brownell, 1981; Frucot & Shearon, 1991), the research lacks evidence on other behavioral aspects, personality types, and the impact of the subordinate's attitude or organizational culture. Therefore, an expansion of research into these subjects and the effects of contracts would improve the understanding of the budgeting process.

Articles in this field of participative budgeting research started in the late 1970s. Since then, an omnipresent inclusion of information systems into organizational life has occurred. In the analyzed studies, only Hannan et al. (2006) took information systems into account. Considering the importance of information systems, the body of research would benefit from a further expansion around this subtopic.

## **5.4 Limitations**

This review is limited by the amount of journals and articles as described in the methodology. The focus is set on internationally acknowledged journals in the scientific community. We cannot guarantee a truly objective approach, as it is impossible to eliminate all subliminal biases, though we utilized a multi-person procedure to ensure a highly objective view. Furthermore, some papers and journals were not available to us and only English-written papers were considered in the process, which limited our selection of literature.

Furthermore, our analyzed articles focus on short or intermediate time frames of study (Perez and Robson conducted the longest study in 1999 over four years). Therefore, no long-term effect of participative budgeting on the companies' performance can be determined. Moreover, only nine analyzed studies were published after 2000,

since then, trends in information systems, managerial styles, and company cultures have changed and are underrepresented in this review.

## 5.5 Conclusion

This paper developed a systematic literature review, sighting 65 articles on search terms related to participative budgeting. The effectiveness of participative budgeting appears to be dependent on company culture, information asymmetries, personality factors of the actors, such as locus of control and risk aversion, and can influence job satisfaction and performance. To further deepen the understanding of this budgeting method, future research with a broader range of situations, more empirical work over longer time frames is necessary. Additionally, other aspects such as behavioral or influences of information systems for budgeting and monitoring can benefit the field of research.

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