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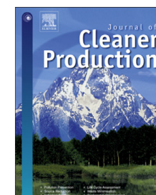
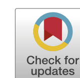


Integrating stakeholder theory and sustainability accounting: A conceptual synthesis



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ABSTRACT

This paper aims at integrating the bodies of literature on stakeholder theory and sustainability accounting. Using the conceptual methodological approach of theory synthesis, stakeholder theory is employed as a method theory to advance sustainability accounting as a domain theory. On this basis the concept of 'Accounting for Sustainability and Stakeholders' is developed. This concept highlights which sustainability topics and which stakeholders to consider in accounting for a given organization and how the inclusion of additional stakeholders and topics can contribute to creating value for stakeholders. In conclusion, this paper highlights that an overly broad inclusion of stakeholder groups and sustainability topics can be replaced by a purposeful selection of stakeholders and topics of particular relevance for the specific organization. As an additional advantage, the concept prevents disconnecting sustainability accounting from conventional accounting.

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1. Introduction

Stakeholder theory has been an influential approach in many areas of business studies (e.g. Chowdhury et al., 2020; Fassin et al., 2017; Tran et al., 2020). However, many authors highlight that compared to other fields, the field of accounting has been surprisingly unaffected by stakeholder theory (Freeman et al., 2010; Miles, 2019; Mitchell et al., 2015). Although stakeholders are often addressed in accounting publications and the necessity for and potential benefits of considering stakeholders in accounting have been picked up broadly in accounting research (e.g. Boiral and Heras-Saizarbitoria, 2020; Pulselli et al., 2019) only few papers exist taking a stakeholder *theory* perspective on accounting (e.g. Orij, 2010; Roberts, 1992; van der Laan et al., 2008).

In contrast, the concept of sustainability has experienced a growing interest in accounting for several decades, which has led to the emergence of the field of accounting for sustainability, often called 'sustainability accounting' (e.g. Ng, 2018; Schaltegger and Zvezdov, 2015; Tiwari and Khan, 2020). Sustainability accounting deals with tracking, tracing, aggregating and reporting environmental and social information, often linked to economic information, with regard to reducing problems of unsustainability or contributing to sustainable development (e.g. Schaltegger and Burritt, 2010). However, like conventional accounting, the debate on sustainability accounting is largely uninformed by stakeholder *theory*.

This article addresses this research gap by *integrating the bodies of literature on stakeholder theory and sustainability accounting*. While the debate on accounting for stakeholders primarily asks *who* needs to be accounted for (e.g. Hall et al., 2015; Harrison and van der Laan Smith, 2015; Mitchell et al., 2015), sustainability accounting primarily raises the question of *what* topics are relevant for accounting (e.g. Battaglia et al., 2015; Schaltegger and Wagner, 2006; Schaltegger, 2018). By connecting the debates on sustainability accounting and accounting for stakeholders, this paper responds to the various calls for more theorizing in the field of accounting, which informs stakeholder theory as well as accounting practices (e.g. Freeman et al., 2010; Kaur and Lodhia, 2018;

Abbreviations: GRI, Global Reporting Initiative; NGO, Non-governmental organization; UN, United Nations.

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Mitchell et al., 2015). In so doing, the paper addresses the research question *how stakeholder theory and sustainability accounting can be integrated to incorporate the key ideas of stakeholder theory to sustainability accounting.*

To address this research question, this conceptual paper elaborates a stakeholder theory perspective on sustainability accounting. It applies the framework for theory synthesis suggested by Jaakkola (2020), which aims at conceptual integration of different theoretical perspectives and literature fields. Thereby, this paper uses stakeholder theory as a method theory to inform sustainability accounting as a domain theory. In so doing, the concept of *'Accounting for Sustainability and Stakeholders'* is developed.

The innovativeness and contributions of this article are rooted in three areas: First, the newly developed concept of 'Accounting for Sustainability and Stakeholders' provides guidance on how to select relevant topics and stakeholders in accounting and by that addresses the research gap to elaborate a process for selecting stakeholders to engage in sustainability accounting (Kaur and Lodhia, 2018). It is the first to use the criteria for stakeholder selection brought forward by Mitchell et al. (2015) and Harrison and van der Laan Smith (2015) in the context of sustainability accounting. Second, the concept applies stakeholder theory, not the mere notion of stakeholders, in the domain of sustainability accounting. In considering the integration thesis, a core element of stakeholder theory (Freeman et al., 2010), in sustainability accounting, it prevents disconnecting sustainability accounting from conventional accounting. Third, as a result of the above, 'Accounting for Sustainability and Stakeholders' facilitates the generation of accounting information which enhances value creation for stakeholders.

The remainder of this article is structured as follows: The next section summarizes the streams of literature on sustainability accounting, accounting and stakeholders as well as on stakeholder theory and accounting. Section 3 introduces the conceptual methodological approach on which basis the concept of 'Accounting for Sustainability and Stakeholders' is developed. The final Section 4 discusses the findings of this paper against earlier work and provides conclusions for research and practice.

2. Literature review

2.1. Sustainability accounting

Research on accounting for social and environmental topics has developed over the last decades as a distinct area of business studies (e.g. Mata et al., 2018; Schaltegger and Burritt, 2000). One focus of this research is on sustainability reporting. Generally, different kinds of reporting on sustainability can be distinguished (e.g. Eccles and Serafeim, 2013; Solomon et al., 2013), such as reports specifically focused on one dimension of sustainability (e.g. financial reports; social reports; environmental reports) (e.g. Jones, 2010) and more or less integrated reports (e.g. Wulf et al., 2014). Here, one main approach is developing standards to provide companies guidance on which topics to consider and to make reports comparable (e.g. de Colle et al., 2014). Most prominently, the Global Reporting Initiative (GRI) has issued a set of sustainability reporting guidelines, which are now widely applied by corporations all over the world (GRI, 2013; GRI, 2016).

Conceptually, research on sustainability accounting is characterized by attempts to extend conventional accounting to a broader range of social and environmental topics (e.g. Burritt and Schaltegger, 2010; Schaltegger and Wagner, 2006). Such topics may include, amongst others, energy efficiency, greenhouse gas emissions, biodiversity, waste or workers' health and safety (e.g. Koehler, 2001; Omoloso et al., 2020; cf. Adejuyigbe et al., 2019). Fig. 1 displays this extension of accounting to additional topics.

Despite this extension of accounting to additional sustainability related topics, Whiteman et al. (2013, p. 311) argue that "'accounts of sustainability' (mainly in the form of corporate environmental and social reports) have little if anything to do with sustainability". Their main concern is that the environmental and social topics considered in accounting are unrelated to the material challenges and the societal vision of sustainable development. Thus, despite a plethora of studies on sustainability accounting, research is needed to increase the practical contribution of accounting to sustainable development.

2.2. Accounting and stakeholders

Apart from not capturing environmental and social topics sufficiently, one key critique of conventional accounting is that it is mono-focused on financial stakeholders (e.g. Brown and Dillard, 2015; Harrison and van der Laan Smith, 2015; Mitchell et al., 2015). Brown and Dillard (2015) as well as Smith and Ronnegrad (2018) add that this focus is also recorded in international accounting standards (e.g. International Accounting Standards Board, 2010) and implicitly reinforced in the structure of corporate law (e.g. through sole voting rights of shareholders). Based on various surveys (e.g. Lacy et al., 2012), which reveal that many stakeholders deem current sustainability performance measurement and assessment approaches insufficient for their needs, Silva et al. (2019) find in their review of the existing performance measurement literature that stakeholder expectations are mostly not considered and that this may be a key reason for the dissatisfaction of stakeholders with current accounting approaches.

Many authors highlight that considering additional stakeholders in accounting creates benefits for stakeholders and companies alike. Greenwood and Kamoche (2013) for example stress the importance of stakeholders in accounting, as they hold knowledge valuable to the firm. Based on the information that the firm provides to stakeholders and their involvement in the accounting process, stakeholders thus decide on whether to contribute knowledge, resources and labor, or whether to withdraw their contribution. Similarly, Kaur and Lodhia (2018, p. 338) highlight that "[T]he involvement of stakeholders in the accounting and reporting process enables organizations to identify and incorporate their material concerns, issues, perceptions, needs and expectations". Schneider (2015) even argues that in order to enable firms to successfully deal with issues of corporate sustainability, stakeholders necessarily need to participate in sustainability accounting and management. Likewise, Adams and Larrinaga-Gonzalez (2007) as well as Fernandez-Feijoo et al. (2014) recommend taking the views of different stakeholders into account, as this improves completeness and credibility of reporting or respectively the transparency of reporting and Roshani et al. (2018) report for the context of construction projects that the accountability of stakeholders can be a key success factor. Based on these advantages, the consideration of additional stakeholders in accounting has gained importance in corporate practice as well as in research. Fig. 2 schematically displays this approach to extend the range of stakeholders addressed by accounting from financiers (shareholders, investors, credit lenders, etc.) to a larger range of stakeholders.

Alike the discourse on sustainability accounting, one focus of the discourse on stakeholders and accounting is reporting. Different ways to report to stakeholders can be distinguished, such as integrated reporting and sustainability reporting (e.g. Eccles and Serafeim, 2013; Solomon et al., 2013). While these reports differ with regard to content, they do not necessarily distinguish different possible audiences. Maybe because of a lack of differentiation, the

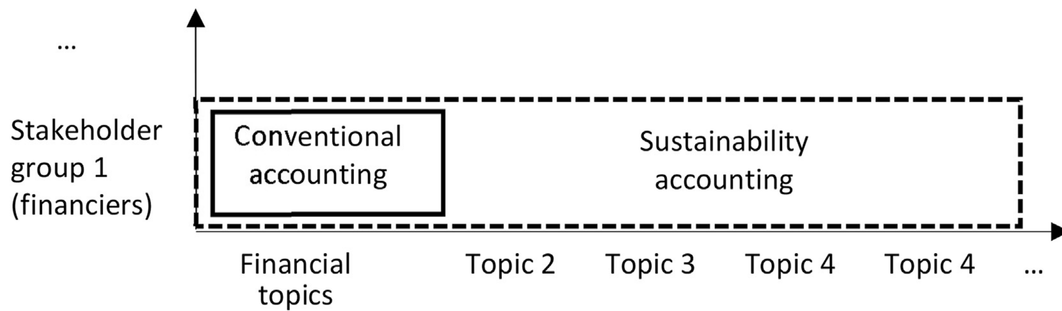

Fig. 1. Extending the range of topics from conventional accounting to sustainability accounting.

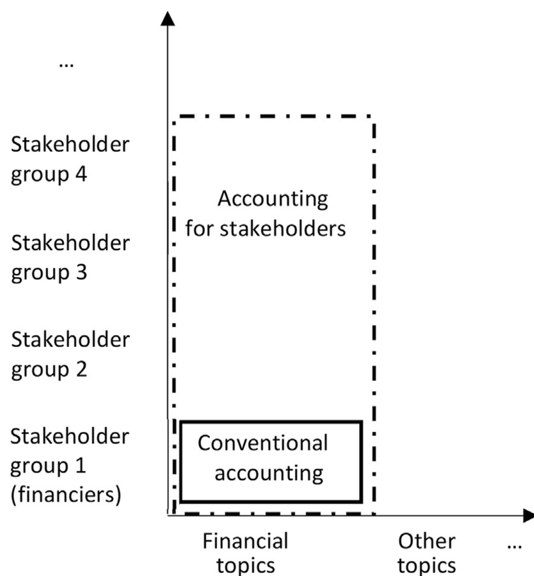

Fig. 2. Extending the range of stakeholders addressed by conventional accounting.

information provided in such reports is often not found to be useful for most stakeholder groups (Bradford et al., 2017; O'Dwyer, 2005).

As an alternative to reports that address all stakeholder groups simultaneously with one single report, Azzone et al. (1997) discuss the idea of providing different stakeholders with specific reports. They distinguish two separate reporting strategies: (1) 'generic reports' concentrating on the key points which all target groups accept as being of primary importance; and (2) 'specialized' reports which address all requirements of a specific target group.

2.3. Stakeholder theory and accounting

The above review highlights that the notion of stakeholders has been picked up broadly in accounting research and practice, as for instance stakeholders are reported to. In contrast, only rarely have the core ideas of stakeholder *theory*, as opposed to the mere notion of stakeholders, been applied in the research field of accounting.

Stakeholder theory, as brought forward by Freeman (1984) and Freeman et al. (2010), is characterized by the following key ideas: First, *companies consist of networks of relationships between different stakeholders,* which constitute the organization. Thereby, stakeholders are defined as "any group or individual who can affect or be affected by an organization" (Freeman, 1984, p. 46). Second, the key task of managers is to *create value for stakeholders*. This is aimed at by aligning the interests of different stakeholders in pursuit of creating mutual interests between these stakeholders, instead of primarily weighting conflicting interests. The third key idea of stakeholder theory is the *integration thesis,* which implies that most business decisions also have an ethical content and vice versa. Thus, it is argued for not dealing with ethical and business decisions as if they were two separate constructs, but to view these as integrated aspects of the business as a value creating activity. The fourth and last core idea is that companies are built around a *specific purpose* based on which stakeholders cooperate, which goes beyond profit-making. From these four core ideas of stakeholder theory, the following questions can be deducted to inspire the discourses on sustainability accounting and accounting for stakeholders:

1) Which stakeholders should be considered in sustainability accounting?
2) How can sustainability accounting support both value creation for different stakeholders as well as the creation of mutual interests between stakeholders?
3) What kind of value is accounted and reported for and should financial value be accounted for separately from other kinds of value (such as contributions to the solution of environmental or social problems)?
4) How can sustainability accounting support the creation of contributions to sustainable development based on the company's purpose?

Interestingly, most of the questions derived from the core ideas of stakeholder theory have gained surprisingly little interest in accounting research. Only the first question as to which stakeholders should be considered in accounting has so far achieved extensive attention. For example, previous research has suggested criteria to decide which stakeholders should be accounted for. Among these criteria are power, urgency and legitimacy, which together constitute the criterion of stakeholder salience (e.g. Crilly and Sloan, 2012; Kaur and Lodhia, 2018; Mitchell et al., 1997). Sometimes proximity is considered as an additional criterion for stakeholder selection (e.g. Driscoll and Starik, 2004). Harrison and van der Laan Smith (2015) suggest the alternative criterion that (at least implied) contracts exist between the firm and its stakeholders. Mitchell et al. (2015) additionally introduce the idea of risk as a further criterion for 'stakeholderness'. They argue that all stakeholders are relevant for accounting that take risks in order to act as stakeholders for a company and that taking these groups of stakeholders into account also allows increasing the value created by accounting.

The second question on how accounting can support value creation for stakeholders has recently started to gain attention in research. Mitchell et al. (2015) build their concept of accounting on *value creation stakeholder theory* (Freeman et al., 2007; Freeman et al., 2010) and the idea of stakeholder risk sharing. The kind of value their approach creates is to mitigate stakeholder risk. Meek

and Gray (1988) introduce the idea of value added statements, which document the wealth created by companies for a wide range of stakeholders. Hall et al. (2015) argue that if a company fails to include information on how its activities create value for stakeholders in its reporting activities, these stakeholders might withdraw their stakes and contributions. Based on these first attempts to address the question as to how companies can facilitate value creation for stakeholders through accounting, Hall et al. (2015, p. 907) identify a research need on "how managers incorporate stakeholders' voices into organizational practices in order to facilitate value creation". Similarly, Mitchell et al. (2015, p. 874) point out that "[m]ore theory related to how value-creation stakeholder accounting brings about superior value creation would [thus] be highly valuable in this conversation".

Likewise, the third core question, i.e. what kind of value is considered in accounting, has received only little attention in the debate on accounting for stakeholders. Traditionally accounting serves as a means to transfer different kinds of information into comparable, financial terms (Chiapello, 2015), thus de-emphasizing the role of non-financial forms of value creation as only those aspects of such information are considered, which can be monetized. Harrison and van der Laan Smith (2015) therefore call for considering non-financial forms of value creation in reporting, while Brown and Dillard (2015) emphasize that different stakeholders might have different demands regarding what kinds of values need to be considered in reporting.

The other key questions, which can be derived from stakeholder theory, have so far been neglected in the research on sustainability accounting, i.e. the fourth question as to how sustainability accounting can take the purpose of the company into account and aspects of the second question, i.e. how accounting can support the creation of mutual interests between stakeholders. Consequently, numerous stakeholder theorists agree that more and quite basic research and theorizing are needed on how stakeholder theory can inform accounting in general and sustainability accounting in particular (e.g. Freeman et al., 2010; Kaur and Lodhia, 2018; Miles, 2019).

3. Accounting for Sustainability and Stakeholders

Based on the methodological design for conceptual analyses suggested by Jaakkola (2020), this paper develops the concept of 'A*ccounting for Sustainability and Stakeholders*'. In so doing, the framework of theory synthesis is applied, which allows conceptually integrating different theoretical perspectives and literature fields (Jaakkola, 2020). Thereby, this paper builds on the distinction between domain theories and methods theories, brought forward by Lukka and Vinnari (2014). Domain theories describe "a particular set of knowledge on a substantive topic" (Lukka and Vinnari, 2014, p. 1309) and can thus also be seen as the research field of interest for a particular analysis. In contrast, method theories provide "a meta-level conceptual system for studying the substantive issue(s) of the domain theory at hand" (Lukka and Vinnari, 2014, p. 1309), with the aim of providing new insights concerning the domain theory. This paper uses stakeholder theory as a method theory to inform sustainability accounting as a domain theory, as summarized in Fig. 3.

3.1. Selectively including more stakeholders in accounting for sustainability

At first sight, the conclusion could be drawn that 'Accounting for Sustainability and Stakeholders' requires simply adding both extensions proposed in the two research streams on sustainability accounting (Fig. 1) and accounting for stakeholders (Fig. 2). Fig. 4 illustrates the result of a simple addition of both perspectives. Conventional accounting is represented by the box with a full line focusing on one group of stakeholders and one topical area. Sustainability accounting extends the range of topics (horizontal box with broken line) and accounting for stakeholders widens the range of stakeholders (vertical box with dashed line). The maximum range for 'Accounting for Sustainability and Stakeholders' is represented by the outer box with the dotted line.

It is easy to imagine that such adding of both perspectives to cover the maximum range of topics and stakeholders is likely to lead to a myriad of topics addressed and overly large reports that lack overview and maybe even relevance. The maximum range for 'Accounting for Sustainability and Stakeholders' represented by the outer, dotted box in Fig. 4 thus illustrates a practice Elkington criticized as 'carpet-bombing' (e.g. Elkington, 2002), i.e. aiming to cover all possible sustainability topics and all possible actors. Carpet-bombing is characterized by the fact that so many environmental, economic and social topics are reported on that stakeholders are unable to find relevant bits of information.

To avoid such carpet-bombing, the concept of 'Accounting for Sustainability and Stakeholders' suggests a purposeful, selective focus regarding the range of stakeholders included in 'Accounting for Sustainability and Stakeholders'. In Section 2.1 it was noted that in the broader debate on sustainability accounting a research stream emerged which analyzes how accounting can assist companies in improving their sustainability performance (e.g. Bebbington and Larrinaga, 2014; Herzig et al., 2012; Schaltegger and Burritt, 2010). From a stakeholder theory perspective, it is important to extend this research stream by asking who benefits (and who loses) from such improvements in sustainability performance and to which stakeholders a company should be accountable concerning such improvements (or losses) (e.g. Brown and Dillard, 2015; Schaltegger et al., 2017; Smith and Ronnegrad, 2018).

To address the question which stakeholders are relevant for 'Accounting for Sustainability and Stakeholders' and should benefit from sustainability improvements, one could build on the criteria developed in the context of stakeholder theory and accounting (see Section 2.3), such as the salience criteria of power, urgency and legitimacy (Buysse and Verbeke, 2003; Crilly and Sloan, 2012; Mitchell et al., 1997). However, these criteria leave it open for further discussion what specifically makes a stakeholder legitimate, who defines which stakes are urgent, and what to do about stakeholders that do not have the power to exert (direct) pressure on companies. Indeed, previous studies highlight that important but powerless stakeholders are only insufficiently and ineffectively engaged in corporate accounting and reporting activities related to sustainability (Barone et al., 2013; Kaur and Lodhia, 2018). Similarly, the criterion of proximity suggested by Driscoll and Starik (2004) will be likely to include relevant stakeholders, but most likely also leave relevant stakeholders aside and runs the risk of including groups of individuals who are proximate to the respective organization but still not affecting nor being affected by the value creation of that organization.

Keeping in mind the UN Sustainable Development Goals (United Nations, 2015; primarily Goals 1 and 8: eradicating poverty, and decent work and economic growth), the issue of powerless and vulnerable stakeholders, such as employees of suppliers in less developed countries calls for considering different stakeholder selection criteria. 'Accounting for Sustainability and Stakeholders' therefore builds on the suggestions by Harrison and van der Laan Smith (2015) as well as Mitchell et al. (2015) relating to implied contracts and (financial) risk and interpret them with regard to sustainable development. Stakeholders for who at least implied contracts exist between the company and the stakeholders should be taken into account, to be able to consider aspects such as

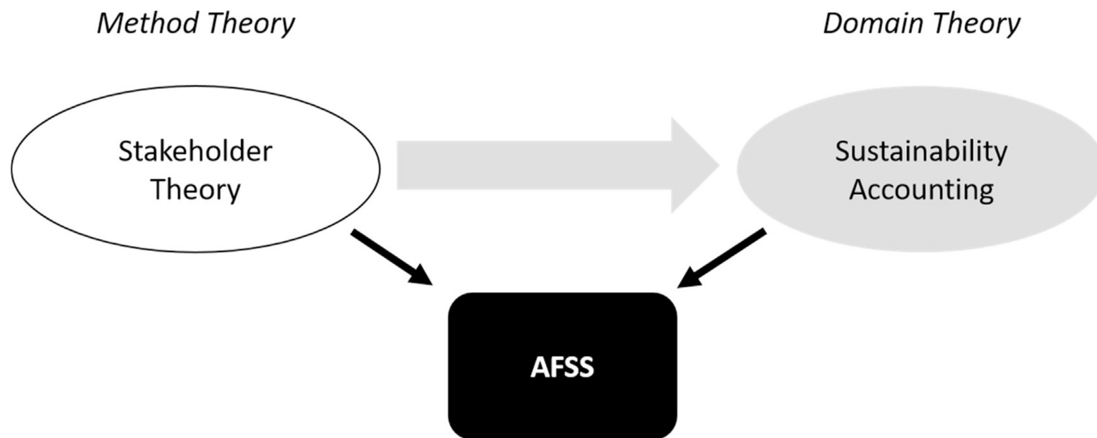

Fig. 3. Graphical representation of the conceptual methodological approach.

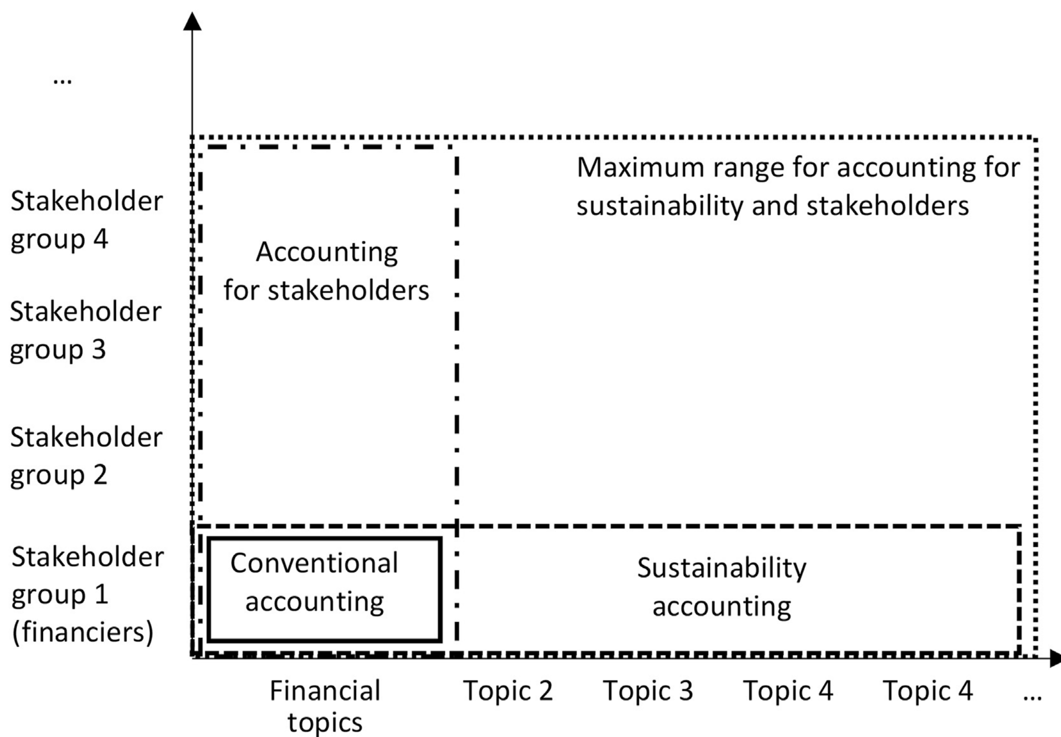

Fig. 4. Graphical representation of unselectively extending accounting to all possible sustainability topics and stakeholder groups.

working conditions along supply chains (United Nations, 2015). Furthermore, corporate unsustainability comes along with numerous kinds of risks for various stakeholders, including social and environmental impacts. Corporate environmental impacts, for example, create the risk of reputational as well as financial damage to the company, which can result in severe consequences for multiple stakeholders such as employees, suppliers or financiers. 'Dieselgate', the manipulation of emission test software for cars by Volkswagen (e.g. Held et al., 2018; Nunes and Park, 2016) can serve as an example where societal and legal issues where neglected. The detection of the fraud lead to reputational damage, stock value loss, legal cases, etc. Involving a large range of stakeholders, even purely financially oriented groups like investors.

Transferring the criterion of shared risk to the context of sustainability comes along with further kinds of risk to consider besides direct financial risk when selecting stakeholders (e.g. the risk of violating human rights, or causing environmental catastrophes). The concept of 'Accounting for Sustainability and Stakeholders' thus suggests to qualify the commonly used criteria of stakeholderness (i.e. power, urgency and legitimacy) with the aspects of risks related to or shared with a stakeholder group and the aspect of implied contracts. Consequently, 'Accounting for Sustainability and Stakeholders' should aim at including all stakeholders which share substantial risks with that specific company. Likewise, stakeholders should be considered legitimate in 'Accounting for Sustainability and Stakeholders', if (implied) contracts with the company exist. Based on these criteria for stakeholder selection, different companies will include (and exclude) different

actors in 'Accounting for Sustainability and Stakeholders' as relevant stakeholders. *Consequently, in 'Accounting for Sustainability and Stakeholders', the addressees of accounting are broadened from a shareholder focus to additional stakeholders. However, this is not done in a not-reflected and unlimited manner, but rather with a selective, purposeful approach specific to the respective company, using the criteria of shared risk and (implied) contracts.*

3.2. Including additional sustainability topics and kinds of value creation in accounting for stakeholders

Stakeholder theory postulates that value creation is at the heart of doing business (e.g. Freeman et al., 2010). Mitchell et al. (2015, p. 851) build on this idea and propose a theory of "value-creation stakeholder accounting". However, the kind of value creation Mitchell et al. (2015) describe is relatively restricted. They propose that all facts should be counted in value-creation stakeholder accounting, which are "relevant price and cost activities (relating to stakeholders)" (Mitchell et al., 2015, p. 867). From a sustainability perspective, this raises the question as to whether including financially relevant types of value creation, is sufficient to capture all relevant kinds of value creation and destruction, including the destruction of environmental or social value or the creation of solutions to sustainability problems.

Thus, the concept of 'Accounting for Sustainability and Stakeholders' argues for including forms of non-financial value creation in accounting, related to environmental and social topics. However, such inclusion runs the risk that ever larger sustainability reporting and accounting activities impede stakeholders to find exactly that kind of information, which they consider relevant for the specific business and useful for themselves (Brown and Dillard, 2014; Freeman et al., 2010; Mitchell et al., 2015). Alike the previous attempts to consider additional stakeholders (Section 3.1), also sustainability accounting has faced the critique of carpet-bombing, as it faces the risk to account for and report on a myriad of unselected environmental, social and economic topics, so the relevant among these topics are hidden (Elkington, 2002).

As a consequence, the concept of 'Accounting for Sustainability and Stakeholders' draws on the theory of "value-creation stakeholder accounting" brought forward by Mitchell et al. (2015, p. 851) and transfers this idea of creating value for stakeholders through accounting to the context of sustainability accounting. Going beyond Mitchell et al. (2015), additional kinds of value creation (i.e. environmental and social value creation) are considered. However, to overcome the weakness of previous concepts prone to the criticism of carpet-bombing, the concept of 'Accounting for Sustainability and Stakeholders' draws on the needs of stakeholders as a starting point when selecting topics that should be included in accounting. By that, the focus of accounting is guided to value creation for stakeholders and hence, the topics considered in accounting are not arbitrary, but based on real stakeholder demands connected to the core business of the respective company. Thus, stakeholder theory can provide a rationale for deciding which environmental, social and economic topics a company should account and report for. By introducing the materiality matrix, which is based on stakeholder evaluations of the importance of specific sustainability topics, the GRI has already taken a step in this direction in its newest GRI 4 guidelines (GRI, 2016).

Besides building on the needs of stakeholders, with planetary boundaries, another meaningful reference and starting point for accounting a company's environmental activities has been suggested by Whiteman et al. (2013). Linking corporate activities to planetary boundaries provides stakeholders with a benchmark that allows assessing the relevance and significance of corporate contributions to (un)sustainable development (Whiteman et al., 2013). Similarly, the UNs SDGs can be used as a starting point for selecting relevant social and environmental topics (Bebbington and Unerman, 2018). Receiving an assessment from stakeholders of what planetary boundaries- and SDGs-related information is useful to them may help companies to select specific information to be included in accounting in a way that it creates value for stakeholders.

Stakeholder theory can help capturing such company and stakeholder-specific requirements, as it provides (i) a perspective to assess and prioritize planetary boundaries and SDGs for a given company as well as (ii) an additional reference point for accounting for social as well as environmental sustainability aspects, which are not directly related to the planetary boundaries or the SDGs, but still matter for stakeholders with regard to a given firm's activities. The dual focus on the firm and on the earth, which Whiteman et al. (2013) suggest, thus becomes enlarged to a multiple focus on the firm, its stakeholders and the earth. While this clearly enlarges the focus of conventional accounting, the resulting selection of stakeholders and topics relevant for accounting is by no means arbitrary, as it is directly linked to material stakeholder needs. As a consequence, this approach avoids selecting an overly broad range of sustainability topics (e.g. including all SDGs and planetary boundaries) even though some topics might not be related to the key impacts of a specific firm's activities. As an example, Deutsche Bank reports on paper-less client communication and in-house ecology (Deutsche Bank, 2020), even though the key sustainability challenges of Deutsche Bank can be expected to be in other areas, more closely connected to its core business of lending and investing money. *In conclusion, 'Accounting for Sustainability and Stakeholders' recommends to include those sustainability-related topics in accounting, concerning which value can be created for the companies' stakeholders.*

Consequently, the concept of 'Accounting for Sustainability and Stakeholders' suggests a focused extension of accounting to a systematic choice of additional stakeholders and additional sustainability topics. In combining specific stakeholder demands with accounting for sustainability, 'Accounting for Sustainability and Stakeholders' allows addressing all sustainability topics relevant for a specific company and its stakeholders and simultaneously avoids addressing an arbitrary, broad and unspecific range of sustainability topics. An example of such a selective extension as proposed by 'Accounting for Sustainability and Stakeholders' is displayed in Fig. 5. While the horizontal axis presents a range of possible topics for accounting (e.g. biodiversity; climate change; forced labor), the vertical axis displays potential stakeholder groups (such as financiers, employees, suppliers, communities, etc.). As a first step, 'Accounting for Sustainability and Stakeholders' thus requires selecting relevant stakeholders based on the criteria described in Section 3.1. This also includes purposefully excluding certain groups (labeled as other actors without stakeholder status in Fig. 5). In a second step, based on the actual demands of the relevant stakeholders, sustainability related topics are identified within the scope of 'Accounting for Sustainability and Stakeholders'. Again, this does not only include a purposeful selection of sustainability topics (e.g. topics 1 to 5 in the example displayed in Fig. 5), but also the purposeful exclusion of sustainability topics not of relevance for a specific company and its stakeholders (e.g. topic 6). The grey area in Fig. 5 thus marks an exemplary content of 'Accounting for Sustainability and Stakeholders' for a hypothetical company. The approach visualized in Fig. 4 also helps to identify topics of common interest between different stakeholders (such as Topic 3 in Fig. 5) and particular information needs for a specific stakeholder group.

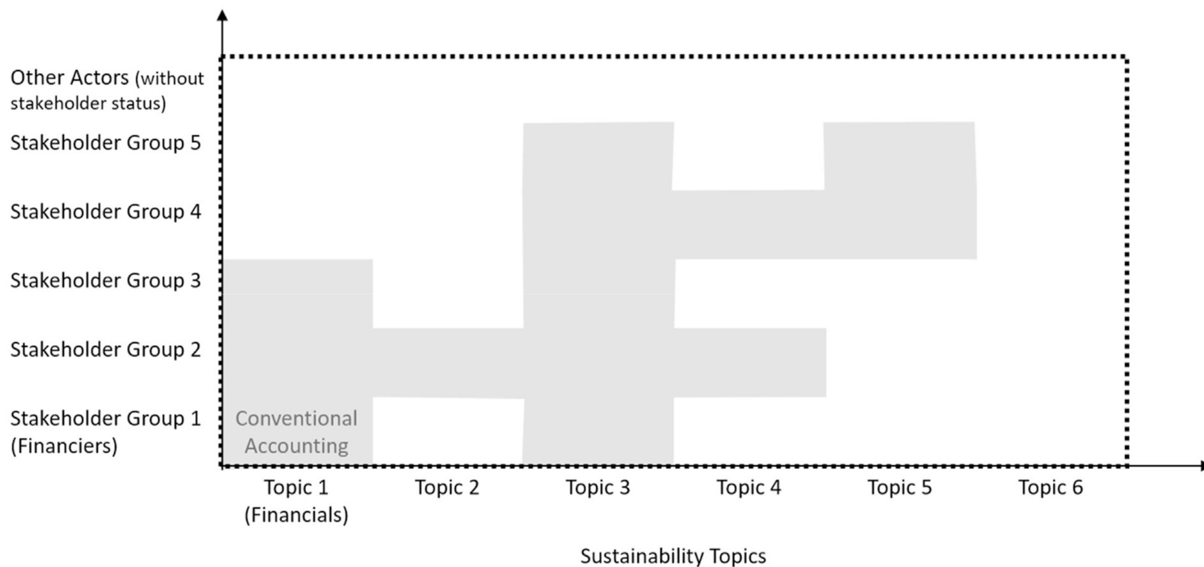

Fig. 5. Exemplary selection of topics and stakeholders in AFSS.

3.3. How can 'Accounting for Sustainability and Stakeholders' be implemented?

Realizing 'Accounting for Sustainability and Stakeholders' can be supported by the following steps. *First*, it requires that companies *sensitize and activate their stakeholders*, as 'Accounting for Sustainability and Stakeholders' goes beyond passive forms of accounting. To do so, companies can use their influence by a mechanism Sulkowski et al. (2018) termed as 'shaking stakeholders'. This mechanism, which has previously not been discussed in the context of accounting, aims at a disruption of the status quo, in order to initiate new co-operations with and between stakeholders to jointly create value through contributions to sustainable development. The concept of shaking stakeholders can furthermore be useful for 'Accounting for Sustainability and Stakeholders', as it helps to sensitize stakeholders for sustainability in general as well as their connections to specific aspects of sustainability in particular. This may imply the development of non-manipulative, participatory arrangements, which *activate* and support previously inactive, vulnerable and less well organized stakeholders, to become part of the collaborative process of developing solutions to key sustainability problems.

A second important step in implementing 'Accounting for Sustainability and Stakeholders' is to *report sustainability related information* to the relevant stakeholders, focusing on those sustainability topics relevant for the specific firm. Considering the integration thesis of stakeholder theory (Freeman et al., 2010), 'Accounting for Sustainability and Stakeholders' calls for not separating financial, environmental and social reports, thus creating a separate account for each different kind of value, but for issuing value creation reports, which include all types of value creation relevant for the company and each respective stakeholder. The idea of value-creation reports resembles that of value added statements, developed by Meek and Gray (1988), which document the wealth created for a diverse range of stakeholders. Simultaneously reporting about financial and other types of value creation comes along with the benefit that financial stakeholders, who are typically the most frequent readers of corporate reports, are sensitized for the company specific sustainability aspects. Current integrated reports, however, are sometimes criticized for not providing information specific to the needs of specific stakeholder groups other than financiers (Brown and Dillard, 2014). Indeed, the interests of different stakeholders and their information needs certainly differ (cf. Brown and Dillard, 2015). Still, stakeholders also share central interests with regard to corporate reporting. All stakeholders can be expected to be interested in whether and how a company is able to create value, which types of value it chooses to create, for whom it creates value and whether it has the ability to prevent the destruction of value. Generic value creation reports can build on these common interests and inform stakeholders along these lines.

As a complement to generic value creation reports, stakeholder specific channels of informing stakeholders are suggested for implementing 'Accounting for Sustainability and Stakeholders'. Due to the above-mentioned diverse range of interests of different stakeholders, such stakeholder specific channels are required for meeting information needs of stakeholders. While stakeholder-specific communication can involve a report, it needs to be expanded to participatory forms of communicative interaction, including online formats (e.g. Andon et al., 2015; Manetti and Bellucci, 2016; Unerman and Bennett, 2004). Unilever, a multinational food company, for example, reports on its websites how it aims to engage and exchange information with various stakeholders, including governments, NGOs, suppliers, customers, consumers, scientists, communities, etc. (Unilever, 2020). Here Unilever provides diverse reports on various sustainability topics, including greenhouse gases, water use, waste and packaging or sustainable sourcing. Such a specified reporting of sustainability issues provides stakeholders and the company alike with a better basis for making informed and transparent decisions and thus enhances value creation.

With reference to Andon et al. (2015), it can be expected that it is insufficient to provide stakeholders with information, as stakeholders are frequently unable to interpret and deal with such information. Based on this insight, 'Accounting for Sustainability and Stakeholders' should also make the information provided useful for stakeholders. Thus, the information needs to be put in context, informing stakeholders of its consequences for them, the natural environment, society and the company. The concept of planetary boundaries can for example be a good reference point for allowing stakeholders to quantify the relevance of a firm's environmental sustainability consequences as well as inter-linked social and economic effects.

As a third step in implementing 'Accounting for Sustainability and Stakeholders', the concept can be supported by regulators and standard setters, if these actors set incentives for companies to focus on enhancing value creation in a broader sense that goes beyond monetary value creation for shareholders. Brown and Dillard (2015) problematize that conventional accounting primarily accounts for and reports to financial stakeholders, and that this primacy is also recorded in international accounting standards (e.g. International Accounting Standards Board, 2010). Consequently, managers trying to improve corporate performance as defined by such accounting standards have little incentive to take a broader perspective on value creation and corporate performance. Thus, regulation and international standard setters can support 'Accounting for Sustainability and Stakeholders' by building new standards which focus on value creation, are not restricted to financial value and directly relate to stakeholder needs. One example of such attempt to set regulatory incentives for the consideration of a broader perspective on value creation and to set new standards is the initiative "Economy for the Common Good" (Felber, 2015). This initiative mainly operates in German speaking countries and is currently followed for example by the outdoor company Vaude. The "Economy for the Common Good" initiative lobbies governments to set incentives for companies to create a broader kind of value, not restricted to financial value. One key demand of the "Economy for the Common Good" is to reduce taxes on fair-trade and organic products or even exempt these products from value-added tax. Additionally, to make non-financial value creation visible, the movement has suggested a standard of reporting on such broader value creation.

As a fourth step of implementing 'Accounting for Sustainability and Stakeholders', the new responsibilities of stakeholders in 'Accounting for Sustainability and Stakeholders' can also help in implementing the concept, as accountants can build on the information provided by stakeholders and on their competencies. However, these new responsibilities of stakeholders in 'Accounting for Sustainability and Stakeholders' can also be a challenge when implementing the concept, as some stakeholders might be reluctant to accept new responsibilities coming along with the concept. Thus, starting the process of 'Accounting for Sustainability and Stakeholders' requires convincing stakeholders and accountants alike of the benefits of this concept.

Additionally, the concept of 'Accounting for Sustainability and Stakeholders' requires that accountants are trained for the challenges coming along with broadening the perspective of accounting to additional stakeholders and a new set of topics. Thus, as a final step to foster the implementation of 'Accounting for Sustainability and Stakeholders', educational bodies such as universities can help to nudge managers to move from conventional accounting towards 'Accounting for Sustainability and Stakeholders'.

In conclusion, the implementation of 'Accounting for Sustainability and Stakeholders' requires that companies sensitize and activate their stakeholders, report sustainability related information in value-creation reports and discuss this information with specific stakeholders. Additionally, the concepts implementation benefits from the support of regulators and standard setters, which set incentives for companies to create value for stakeholders in a broader sense as well as from the support of educational bodies.

3.4. How can 'Accounting for Sustainability and Stakeholders' contribute to value creation for stakeholders?

One key benefit of 'Accounting for Sustainability and Stakeholders' is its ability to contribute to value creation. Thus, the above-described steps are not only important components in implementing the concept. Additionally, they can also help in *creating value for stakeholders* in the following ways. First, sensitizing stakeholders for sustainability, activating them and providing them with information empowers stakeholders. Such empowerment can support value creation, as it creates new streams of information towards the company. Thus, 'Accounting for Sustainability and Stakeholders' opens the opportunity for companies to interact with their stakeholders more strongly and allows for proactive forms of engagement. While existing sustainability accounting research has so far mainly dealt with the question of how companies can react to stakeholder pressure and expectations (labeled as outside-in perspective by Schaltegger and Burritt, 2010, or as listening function by Mitchell et al., 2015), 'Accounting for Sustainability and Stakeholders' adds an inside-out approach (Crilly and Sloan, 2012; Schaltegger and Burritt, 2010) or talking function (Mitchell et al., 2015), which allows companies to engage more proactively in accounting and reporting for sustainability.

A stronger active involvement of stakeholders in 'Accounting for Sustainability and Stakeholders' does not only come along with additional rights for stakeholders, but also with *new responsibilities of stakeholders* (cf. Brown and Dillard, 2015). Such higher levels of responsibility can be an important opportunity for creating innovations and additional value for the company and stakeholders alike, as they sensitize stakeholders for how they can contribute to value creation, which opens up unused potentials. Unilever and the WWF, for example, jointly created value by founding the Marine Stewardship Council (MSC), a non-for profit organization to develop solutions regarding the overfishing of seas, which created multiple kinds of financial and non-financial value for the company, many of its stakeholders and for sustainable development (Constance and Bonanno, 2000; Cummins, 2004; Tröster and Hiete, 2018).

The empowerment of stakeholders can furthermore be used in 'Accounting for Sustainability and Stakeholders' to address another key idea of stakeholder theory, i.e. the idea that *companies follow a specific purpose* that goes beyond increasing profits. Freeman et al. (2010) postulate that companies interact with stakeholders around this purpose, which drives value creation. In exchange with (activated) stakeholders, companies can (re-)define the purpose of the company and of its stakeholder interactions. 'Accounting for Sustainability and Stakeholders' can serve to elaborate together with stakeholders which kind of value creation is expected by stakeholders, i.e. what environmental, economic and social topics are considered relevant and to be potential sources of value creation for stakeholders, and for whom such value should be created. Thus, (re)defining the purpose of a given company together with stakeholders provides a sound basis for selecting those sustainability topics which are relevant in accounting, given the specific purpose defined, and allows going beyond the frequently arbitrary and very large set of topics currently used in triple-bottom-line accounting and reporting, criticized for instance by Freeman et al. (2010) or Mitchell et al. (2015) as they can be unrelated to the purpose of the respective company.

Another source for value creation coming along with the concept of 'Accounting for Sustainability and Stakeholders' can be *identifying and strengthening mutual interests among stakeholders*. Focusing accounting on the actual needs of stakeholders, sensitizing stakeholders for these interests, activating them and interacting with them can be a productive source for identifying overlapping interests of different stakeholders and the company, which otherwise could remain undetected. In Fig. 5 for example, topic 3 can be identified as a mutual interest between numerous stakeholders. Besides using matrices similarly to that in Fig. 5, the value creation report, which provides information on the common interests of stakeholders, can be a good starting point for this endeavor. It documents whether and how a company is able to

create value, which types of value it can create for whom and whether it is able to prevent the destruction of value. Thus, 'Accounting for Sustainability and Stakeholders' can substantially increase transparency. In this vein, Aras and Crowther (2009) as well as Adams and Whelan (2009) identify that increased transparency benefits all stakeholders engaged and can act as an additional source for value creation.

However, stakeholders are unlikely to show mutual interests with regard to all sustainability topics selected within the scope of 'Accounting for Sustainability and Stakeholders'. The concept thus suggests that one task for accountants is to identify the motives underlying these diverging interests and to create information, which highlights and strengthens the existing overlaps in underlying motives.

Related to identifying and strengthening mutual interests among stakeholders, 'Accounting for Sustainability and Stakeholders' can assist value creation as including additional stakeholders helps to *recognize and prevent additional types of risks*. Thereby, the concept goes beyond earlier applications of the concept of risk in stakeholder accounting (Harrison and van der Laan Smith, 2015; Mitchell et al., 2015). First, in 'Accounting for Sustainability and Stakeholders' 'risk' as a notion is enlarged from a financial view to a more encompassing perspective considering social and environmental risks, too. Social and environmental risks may also be linked to future, potential or current economic risks. Second, from a business management perspective sustainability is strongly related to risks of internalization of external costs caused by environmental and social damage. For example, some sustainability issues involve deep moral values and can provoke societal stakeholders to scandalize products or a company, which implies huge risks for the respective company and numerous of its stakeholders. Here conventional accounting is structurally overtaxed to capture the potential costs coming along with the scandalizing of an environmental or social risk and damage. 'Accounting for Sustainability and Stakeholders', in contrast, enables companies to take such risks into account, as stakeholder with different perspectives and powers related to environmental and social risks are considered and can help to prevent such risks.

Lastly, the *application of sustainability accounting tools* constitutes another potential source of value creation through 'Accounting for Sustainability and Stakeholders'. Drawing on the example of the wholesaler Marks & Spencer, Wilson (2015) demonstrate how such tools can be used to create value through sustainability solutions with and for stakeholders. Marks & Spencer introduced whole life accounting and thus set high standards for its own products with regard to the reuse of materials. These standards were also or even primarily relevant for suppliers and thus provided incentives for innovation in product development along the entire supply chain. This new constellation enabled value creation with environmental activities and was achieved by raising awareness in the supply chain through the dissemination of specific, relevant information, cooperating with stakeholders (primarily suppliers) and acquiring external information by including additional stakeholders (in this case the Environment Research Council).

4. Discussion and conclusions

4.1. Contribution to and differentiation from existing concepts

The 'Accounting for Sustainability and Stakeholders' concept contributes to the discourse on stakeholder accounting, as it links this discourse back to the core ideas of stakeholder theory. Building on the idea of value creation stakeholder accounting, brought forward by Harrison and van der Laan Smith (2015) and Mitchell et al. (2015), this article applies their criteria for selecting stakeholders (based on the criteria of shared risks and applied contracts) for the first time to sustainability accounting. 'Accounting for Sustainability and Stakeholders' formulates a justification for using these criteria from a sustainability perspective and for the specific context of accounting for sustainable development. The concept highlights that such criteria are more likely to enhance sustainability oriented value creation for stakeholders, than an exclusive application of the more commonly used criteria of legitimacy, urgency and power (Buysse and Verbeke, 2003; Crilly and Sloan, 2012; Mitchell et al., 1997).

'Accounting for Sustainability and Stakeholders' goes beyond existing concepts in sustainability accounting as well as stakeholder accounting. As criticized by Brown and Dillard (2014) existing accounting concepts that extend the range of topics in accounting to further sustainability related topics retain a focus on information needs of financial stakeholders. In contrast, 'Accounting for Sustainability and Stakeholders' purposefully and selectively extends this range. Likewise, unlike the concept of value-creation stakeholder accounting suggested by Mitchell et al. (2015) it explicitly extends its focus to non-financial forms of value-creation. 'Accounting for Sustainability and Stakeholders' is also distinct from earlier concepts drawing on and integrating both research streams on sustainability accounting and stakeholder accounting. Compared to Kaur and Lodhia's recent (2018, p. 338) model of "stakeholder engagement in sustainability accounting and reporting", 'Accounting for Sustainability and Stakeholders' shares the component of engaging stakeholders in sustainability accounting but is based on value creation stakeholder theory (Freeman, 1984; Freeman et al., 2010) rather than managerial stakeholder theory. As Kaur and Lodhia (2018) take a different focus in their research, they do not analyze the connections of value creation stakeholder theory to accounting as highlighted by Mitchell et al. (2015) and Harrison and van der Laan Smith (2015), which relate to the core questions derived from stakeholder theory.

As 'Accounting for Sustainability and Stakeholders' goes beyond existing academic concepts in the realm of accounting, sustainability and stakeholders, it does not surprise that it differs from existing concepts commonly used in practice. 'Accounting for Sustainability and Stakeholders' can be distinguished from the materiality matrix suggested by the GRI 4 guidelines, as it is guided by sustainability science with the concept of planetary boundaries. Likewise, although frameworks as those proposed by GRI 4, AccountAbility or Integrated Reporting also highlight the importance of engaging stakeholders, they are not guided by the key principles of stakeholder *theory*. As a difference, inspired by stakeholder theory, 'Accounting for Sustainability and Stakeholders' puts an emphasis on sustainability oriented value creation for stakeholders, which is not separate from, but connected to the respective companies' core business. Building on, but going beyond the materiality matrix, 'Accounting for Sustainability and Stakeholders' is furthermore not restricted to sustainability reporting, but informs sustainability accounting in its entirety, including company internal use, and not only provides a rationale for selecting sustainability topics, but also for the selection of relevant stakeholders. Likewise, while the concept shares some commonalities with the principles suggested by the 'Economy for the common good' (Felber, 2015), it goes beyond these principles, by ascribing the company's stakeholders a more active part, resulting in a company-specific approach, rather than in a one size fits all approach, as the common good matrix.

4.2. Conclusions

Two independent streams of research on (i) accounting for

stakeholders and (ii) sustainability accounting have recently raised fundamental questions of (i) *who* needs to be accounted for (e.g. Hall et al., 2015; Harrison and van der Laan Smith, 2015; Mitchell et al., 2015) and (ii) *what* topics are relevant for corporate accounting (e.g. Battaglia et al., 2015; Schaltegger and Zvezdov, 2015). This article synthesizes both streams of research, by developing the concept of 'Accounting for Sustainability and Stakeholders'. The innovativeness and contributions of this concept are manifold: First, 'Accounting for Sustainability and Stakeholders' provides guidance on selecting relevant topics and stakeholders in accounting. By that, it addresses the need for a process of selecting stakeholders to engage in sustainability accounting identified by Kaur and Lodhia (2018). In so doing, the concept is the first to use the criteria for stakeholder selection brought forward by Mitchell et al. (2015) and Harrison and van der Laan Smith (2015) in the context of sustainability accounting. Second, 'Accounting for Sustainability and Stakeholders' applies stakeholder theory, not the mere notion of stakeholders, in the domain of sustainability accounting. In considering the integration thesis, a core element of stakeholder theory (Freeman et al., 2010), in sustainability accounting, it prevents disconnecting sustainability accounting from conventional accounting. Ethical issues and business issues are not considered separately in 'Accounting for Sustainability and Stakeholders'. Instead, the concept considers and accounts for value creation in a broader, probably more literal sense, as all kinds of values created for all relevant stakeholders are accounted for, including environmental and social value creation. Taking such a perspective can also help overcome ethical dilemmas in conventional accounting which can be caused by the fact that conventional accounting is unable to meaningfully capture and describe all kinds of value creation with its restricted terms and perspective (Chiapello, 2015; Hopwood, 1992). Third, as a result of the above, 'Accounting for Sustainability and Stakeholders' facilitates the generation of accounting information which enhances value creation for stakeholders.

However, the approach presented in this paper also comes along with limitations. As Mitchell et al. (2015, p. 875) point out, "accounting for stakeholders is an undertaking with deeply normative roots". This judgement clearly also applies to 'Accounting for Sustainability and Stakeholders', which normatively assumes sustainable development and value creation for stakeholders to be desirable outcomes of corporate activities. Additionally, it needs to be mentioned that the concept is rooted in the version of stakeholder theory brought forward by Freeman (1984) and coauthors (e.g. Freeman et al., 2010). However, different versions of stakeholder theory exist (Donaldson and Preston, 1995) and the use of these as theoretical bases would certainly have led to a concept different from 'Accounting for Sustainability and Stakeholders', asking different core questions and resulting in different insights, which cannot be provided by this paper. As another limitation of the proposed concept, its realization is not only dependent on decisions of accountants within a respective organization, but can and needs to be supported by external actors, such as standard setters, educators and regulators. This analysis is thus in line with the findings by Prado-Lorenzo et al. (2009) that regulators are one of the most important drivers to change current sustainability disclosure and reporting practices. As a last limitation, the proposed approach is obviously no 'one size fits all accounting framework' but it needs to be adjusted to specific company contexts and stakeholder settings. There will not always be an easy way (or even any way) to create sustainability solutions with the support of accounting that are purely based on mutual interests and benefits for all stakeholders. However, for many companies the framework presented can still be of help to address relevant sustainability topics in a more systematic manner and to create mutual interests in many cases.

The concept of 'Accounting for Sustainability and Stakeholders' provides the basis for new avenues of research: First, the materiality matrix in the GRI4 guidelines can be viewed as a first attempt to take stakeholder needs as a starting point in accounting. Future research could empirically test whether the application of the materiality matrix indeed has the effect that the topics reported on have become less arbitrary since the introduction of the guideline and how the matrix can be developed further in light of the suggestions brought forward by 'Accounting for Sustainability and Stakeholders'. Second, further research could address the question as to how the sustainability impact can be assessed for stakeholders, as the evaluation of outcomes is an important function of accounting which has so far not been sufficiently considered in the context of sustainability accounting and accounting for stakeholders (cf. Molecke and Pinkse, 2017). Third, further research could investigate what accounting tools address certain sustainability topics in a way that they support value creation for stakeholders. Bringing value creation for stakeholders into focus may also help further developing accounting methods, which receive more support by stakeholders and dissemination among companies. Fourth, and maybe most importantly, future research should collaboratively with companies experiment on implementing the concept of 'Accounting for Sustainability and Stakeholders'. In preparation for such field experiment, behavioral lab-experiments should be conducted, where participants are provided with information as managers are in 'Accounting for Sustainability and Stakeholders' to be able to evaluate the consequences of the concept on managerial decision making.

CRediT authorship contribution statement

Jacob Hörisch: Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Visualization. **Stefan Schaltegger:** Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Visualization. **R. Edward Freeman:** Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Visualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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