

To what extent are balanced scorecards used to manage sustainability? Survey evidence from Norway

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To what extent are balanced scorecards used to manage sustainability? Survey evidence from Norway

Abstract

It has been suggested that a balanced scorecard (BSC) can be a useful tool for measuring and managing sustainability performance. Therefore, researchers have advanced the related concept of a sustainability balanced scorecard (SBSC). However, little is known about the extent to which SBSCs are used in practice. This research paper aims to use a survey-based approach to map the extent to which BSCs are used to manage sustainability in Norway. The survey shows that awareness and adoption of SBSCs are low among Norwegian organizations. This finding is surprising given that Norwegian organizations have considerable experience using the standard BSC, and the socio-political context has favored ideas such as sustainability and corporate responsibility. The findings are also relevant to debates concerning the diffusion of management accounting innovations since the study provides insight into patterns of how a global management accounting innovation is adapted and received in a local institutional context.

Keywords: Balanced scorecard, Sustainability, Sustainable Development, Management Accounting Innovation, Management Fashion

1 Introduction

Nearly three decades ago, the balanced scorecard (BSC) was introduced as a new multi-dimensional performance measurement system that could view the performance of an organization through four perspectives: financial, customer, business processes, and learning and growth (Kaplan & Norton, 1992). Over time, the BSC has become one of the most widely used tools to manage and measure organizations' performance (Hoque, 2014; Rigby & Bilodeau, 2018; Sharma & Sharma, 2020). Since the early 2000s, it has been suggested that this concept can also measure and manage sustainability performance (Epstein & Wisner, 2001), and some authors have advanced the concept of sustainability balanced scorecards (Figge, Hahn, Schaltegger, & Wagner, 2002; Hansen & Schaltegger, 2016; Möller & Schaltegger, 2005).

However, to the best of our knowledge, relatively few studies document the actual diffusion and use of BSCs for managing and measuring sustainability performance. This is particularly the case in Norway, where several studies have documented widespread use of BSCs (Fallan, Olsen, Daleq, & Hobbel, 2015; Johanson & Madsen, 2017; Johanson, Madsen, & Stenheim, 2020; Olsen, 2012), but little is known about the extent to which these BSCs are used to measure and manage sustainability performance.

Norway is an interesting case because it is a country in which the sociopolitical environment historically has placed considerable emphasis on sustainability and corporate social responsibility (Ditlev-Simonsen, von Weltzien Hoivik, & Ihlen, 2015; Gjølberg, 2010; Ihlen & von Weltzien Hoivik, 2013; Vormedal & Ruud, 2009; Willums, 2005). As Strand, Freeman, and Hockerts (2015) point out, the Scandinavian countries are held up as global leaders in corporate social responsibility and sustainability. Additionally, the stakeholder-oriented model of governance makes organizations more likely to adopt management ideas that emphasize a broader and long-term view of firm performance (Heinzelmann, 2019; Johanson, 2013). Therefore, it is not unreasonable to expect that Norwegian organizations would be inclined to utilize sustainability-oriented BSCs since previous research has shown that the BSC concept often is adapted to fit with the institutional environment and the preferences of the local adopter market (Ax & Bjørnenak, 2005).

With this as a backdrop, this paper aims to explore the diffusion and use of BSCs to manage sustainability among Norwegian firms. A survey is conducted for this purpose. The study is guided by the following overall research question: *To what extent has sustainability become part of the balanced scorecard in Norwegian firms?* By answering this question, we shed light on and discuss possible reasons for the inclusion of sustainability into firms' management control systems through BSC. More fundamentally, the purpose is to increase the understanding of the alleged gap between practice and research in accounting and control (Lucas & Rafferty, 2008). In the context of the BSC, this gap is claimed to be rooted in the BSC's lack of realistic scholarly characteristics (Nørreklit, Nørreklit, Mitchell, & Bjørnenak, 2012). Hence, the contribution of this paper is three-fold: 1) It describes the current status of the BSC in terms of use, 2) it indicates that practitioners are not aware of or do not care about researchers' advice concerning the shortcomings of contemporary management accounting and control systems, and 3) we find that the main motive for going green is related to pressure from stakeholders, hence providing input to the debate raised by Guenther, Endrikat, and Guenther (2016) about whether it pays to be green.

The rest of the paper is structured as follows. Section 2 provides a brief review of previous research on the relationship between sustainability and BSCs. Section 3 outlines the methods and data. In Section 4, the findings are presented, followed by a discussion in Section 5. This paper concludes in

Section 6 by highlighting the paper's key findings and contributions. The final section also contains a discussion of the limitations and makes several recommendations for future research.

2 Balanced scorecard and sustainability

2.1 Sustainability and sustainable development

Sustainability has received much attention in recent years both by policymakers, organizations, and society at large. Commentators have noted that it has become a catchword in the business community (Zorn & Collins, 2007). The notion of sustainability is not new; rather, it can be traced to the Brundtland Commission of 1987, which defined sustainable development as a type of development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 43). It has been pointed out that the terms sustainable development and sustainability are used interchangeably in practice (Ihlen & Roper, 2014). Henceforth, we will utilize the term sustainability.

The concept of sustainability is somewhat fuzzy and can be hard to define (Salas-Zapata & Ortiz-Muñoz, 2019). As a result, it is not surprising that sustainability has multiple definitions (Lackey, 1995). The common denominator running through the various approaches to the concept is the view that there is an equilibrium between human activity and the environment, also referred to as homeostasis. Another common way of looking at the term sustainability is to distinguish between different dimensions or pillars of sustainability. It is common to distinguish between financial, social, and environmental sustainability (Lozano, 2008). However, more recently, researchers have talked about sustainability comprising five or even seven dimensions (Seghezze, 2009; Vogt & Weber, 2019), and the COVID-19 pandemic has led to discussions about the need for a human health dimension (Hakovirta & Denuwara, 2020).

2.2 Management control systems and sustainability

Sustainability has had a considerable impact on the field of accounting and control (Burritt & Schaltegger, 2010). In the last 10-20 years, there has been an increased focus on the management, measurement, and reporting of sustainability performance (Schaltegger & Wagner, 2006; Searcy, 2012) as well as research on how organizations can use management control systems (MCSs) to manage sustainable development (Gulbrandsen, Jørgensen, Kaarbøe, & Pedersen, 2015; Lueg & Radlach, 2016). However, sustainability MCSs also suffer from ambiguity in terms of definition, theory, and performance outcomes (Johnstone, 2019). The general purpose of management control systems is to achieve overall organizational goals. In this respect, an environmental MCS in general, and hence the sustainability balanced scorecard, in particular, aims to foster environmental and financial performance simultaneously by translating environmental objectives and activities into competitive advantages and, ultimately, superior financial performance (Guenther et al., 2016).

In the next subsection, our focus turns to the BSC, which is an example of a management tool that is often used as part of an organization's management control system (Merchant & Van der Stede, 2017).

2.3 Balanced scorecard and sustainability

The introduction pointed out that the BSC has been around for nearly three decades. The BSC was initially presented as a multi-dimensional performance measurement system that would enable managers to manage and monitor the performance via four standard perspectives: finance, customers, internal business processes, and learning and growth (Kaplan & Norton, 1992). Since the early 2000s, the BSC has

been adapted to sustainability management and the evaluation of environmental and social performance (Dias-Sardinha & Reijnders, 2005; Epstein & Roy, 2001; Epstein & Wisner, 2001). Similarly, the term sustainability balanced scorecard (SBSC) has been around for nearly two decades and has become established in the literature (Figge et al., 2002; Hansen & Schaltegger, 2016; Möller & Schaltegger, 2005; Nikolaou & Tsalis, 2013). The SBSC can be considered an adaptation of the standard BSC model with an explicit focus on sustainability issues. More precisely, Hansen and Schaltegger (2016, p. 194) define an SBSC as a scorecard that explicitly integrates “strategically relevant environmental, social and ethical goals.” Figge et al. (2002, p. 272) argue that “sustainability management with the BSC seeks to address the problem of corporate contributions to sustainability in an integrative way.” In order for companies to contribute to sustainable development, it is important that they focus on simultaneously improving all three dimensions of sustainability.

Sands, Rae, Gadenne, Chapple, and Sands (2016) investigated by means of a survey the association between the human component of the learning and growth perspective and the three other generic perspectives within the context of sustainability. They departed from an understanding that human capital plays the most important role in sustainability and environmental management effectiveness within organizations’ internal processes. They conclude that social, environmental, and financial measures should be integrated into an SBSC.

In this paper, we want to determine whether sustainability is integrated into the four generic perspectives, or whether it is introduced as a separate fifth perspective. Jassem, Azmi, and Zakaria (2018) distinguished between a standard four-perspective BSC and two types of SBSC architectures: four-perspective SBSCs and five-perspective SBSCs. A four-perspective SBSC is one where sustainability data are integrated within the standard four perspectives, while a five-perspective SBSC adds sustainability as an additional fifth perspective. Huang, Pepper, and Bowrey (2014) studied the content of one company’s annual reports and found that sustainability reporting is deeply rooted in stakeholders’ expectations and legitimizing purposes, which will also be considered in our survey. Zhao and Li (2015), using a fuzzy-set analysis, found that sustainability and learning and growth are the top two perspectives that may significantly improve performance for thermal power companies in China.

The SBSC also has been criticized. Hristov, Chirico, and Appolloni (2019) aim at dealing with this by developing an adjusted sustainable balanced scorecard (ASBSC). They claim that this will balance economic success and sustainability. Hahn and Figge (2016, p. 931) conclude that, irrespective of the different architectures of SBSC, it has turned out “as a major fallacy for the endeavor of moving the corporate sector towards more sustainability.” Nevertheless, it may still be an important tool for obtaining legitimacy.

Hence, the literature on the SBSC ranges from studies suggesting that SBSC is a suitable means to enable a sustainable business model, where sustainable is understood as providing a balance between financial, social, and environmental performance, to research casting doubt on the suitability of BSC for managing sustainability.

3 Method

3.1 Data sample and data collection

In this study, we employ a survey-based approach since we aim to explore and map the diffusion of SBSCs among Norwegian firms. As pointed out in the research methods literature, a survey is considered appropriate when the goal is to gather data from a large number of organizations (Saunders, Lewis, & Thornhill, 2016). Furthermore, the study can be characterized as being descriptive in nature.

Based on Rigby's (2011) finding that the BSC is seldom used in small firms, we excluded firms defined as small according to the NGAAP.¹ Based on the database Proff Forvalt (www.Proff.no) the theoretical population then was 4006 firms. Hereof there were 2664 with contact information given. Adjusting for firms being part of the same group, we ended up with an actual population of 1109 unique e-mail addresses. In advance of the study, each firm was contacted with a request about the most relevant respondent in the firm. Because of the nature of the study, departing from a management accounting and control perspective, we exemplified the respondent to be either CEO, CFO, or sustainability manager. This endorsement strategy can help to increase the response rate (Saunders et al., 2016; Van der Stede, Young, & Chen, 2005).

We ended up with 187 unique responses and hereof 182 complete questionnaires. This equals a response rate of 16.4%. This response is generally lower than what is considered acceptable in the research methods literature (Ghuri & Grønhaug, 2002; Saunders et al., 2016), but low response rates are typical in electronic surveys (Cook, Heath, & Thompson, 2000; Shih & Fan, 2008). According to Van der Stede et al. (2005), the average response rate within management accounting research is 55%. However, Hiebl and Richter (2018) report 38% and a declining trend. Hence, response rates for surveys are falling (Porter, Whitcomb, & Weitzer, 2004), and the timing for this study, March 2020, coincided with the lock-down of the Norwegian society due to the outbreak of COVID-19.

A comparison of the actual population and the respondents indicate differences, however, not significant ones, for firm size (based on annual revenues) or branch. For branches, this counts only for retailing and consulting. We find that the smaller firms (less than 2 bill. NOK, app. 200 mill. Euros) tend to have not taken part in the survey. Still, the results indicate that non-response bias is not a major problem in this study. Even though this restricts the reliability of this study's findings, they should nevertheless contribute to drawing a preliminary map of the diffusion and adoption of the SBSC among Norwegian firms.

3.2 Survey instrument development

A three-step approach similar to that taken by Cao and Zhang (2011) was followed in the development of survey instruments and data collection, by conducting: a) item generation, b) structured interviews, and c) sample design and large-scale data collection. Items were generated through a literature review. Searches of Web of Science and Scopus for "Sustainability" within the area of "Business," "Sustainability and Balanced and Scorecard" returned 161 relevant articles (SBSC is also a protein). Survey items about

¹ Two out of three of the following criteria not met: 1) Revenues exceeding 70 mill. NOK (app. 7 mill. Euros), 2) balance sheet exceeding 35 mill. NOK (app. 3.5 mill. Euros), or 3) an average of 50 man-years through the fiscal year.

SBSC practices were adopted from Cao, Vonderembse, Zhang, and Ragu-Nathan (2010) and Cao and Zhang (2011). Table 1 provides an overview of the survey items. Most of the questions were based on a five-point Likert scale to indicate the degree to which the respondent agreed/disagreed with each statement. Here, 1=strongly disagree, 3=neither agree or disagree, and 5=strongly agree. There were also some multiple-choice questions. The questionnaire was dynamic in the sense that the respondents' answers on certain questions routed them to different follow-up questions. For instance, if the respondent did not use the BSC, the questionnaire asked only about sustainability reporting in general. None of the respondents answered more than 20 questions, and the length was not reported to influence the response rate.

The reliability and validity of the survey items were assessed through structured interviews (Brown, 2015). Two practitioners from different firms and three academics pre-assessed the reliability and validity of the survey. The web survey asked for target respondents with knowledge about the firm's management accounting and control system. One respondent was asked to answer the survey for each firm. All key latent variables were measured through self-reporting. The response rate was improved through three waves of e-mails, which were sent one week apart. The data collection period ended after two weeks from the initial survey invitation e-mail. No significant difference was found for firm size, firm age, number of employees, or employment title. The results indicate that non-response bias is not a major problem in this study.

Table 1. The survey items

Question	Purpose	Source
1 and 2	Organizational name and ID.	
3-11	Map sustainability reporting in general, among others, the possible inclination to adopt SBSC	(Agostino & Arnaboldi, 2017; Madsen, Azizi, Rushiti, & Stenheim, 2019a)
12-16	The awareness of, knowledge about, and implementation of SBSC. In addition, track the sources of awareness of SBSC.	(Kaplan & Norton, 1992; Madsen et al., 2019a)
17-20	Motif for implementation and experiences with use of SBSC.	(Figge et al., 2002; Hansen & Schaltegger, 2016; Madsen et al., 2019a)

4 Empirical findings

As noted in the introduction, this article aims to map the use of the BSC as a tool for managing sustainability. In this section, we, therefore, present the main findings from the survey relevant for this purpose. The survey questions about sustainability reporting were excluded as they are beyond the scope of this paper.

4.1 Use of BSCs

Figure 1 indicates that less than 20% of the respondents make use of the BSC in general. Hence, a majority of the respondents (52%) seem not to emphasize the use of the BSC. This usage rate is slightly lower than what has been found in other studies carried out in Norway in recent years (Johanson & Madsen, 2017; Johanson et al., 2020; Madsen & Slåtten, 2015) and could indicate that the use of the BSC is in decline.

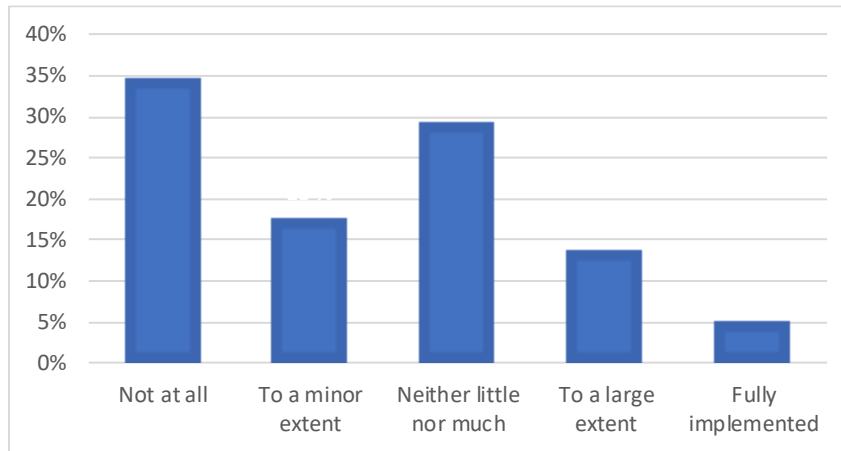


Figure 1. To what extent do the firms use the BSC (N=182)

4.2 Awareness of SBSCs and initial contact points

Figure 2 indicates a very low level of awareness about the SBSC concept; only 10% agree or strongly agree with the claim. The low level of awareness is not surprising; the topic of SBSC has never been treated by, for instance, Norwegian practitioner journals focusing on business and economics. Moreover, SBSC has been written about mostly in international research journals, and Norwegian academics have not actively contributed to this literature.

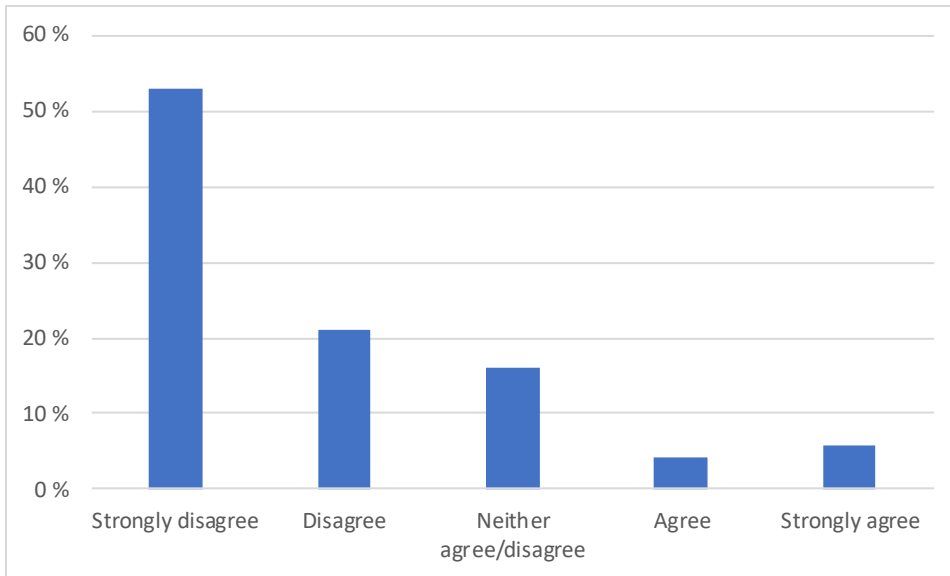


Figure 2. Awareness about sustainability balanced scorecard (SBSC) (N=119)

The respondents who indicated 2–5 on the Likert scale on the previous question (awareness about SBSC) were asked how they first got in touch with the concept of SBSC. As Figure 3 shows, there is an even distribution; none of the alternatives stands out as *the* contact point. Nevertheless, seminars/conferences and the Internet represent approximately half of the contact points, and seminars/conferences slightly more than the Internet (26% vs. 24%). Notably, relatively few respondents report having encountered the concept through consultants. This finding is a bit surprising since it has well-documented that consultants play a key role in the diffusion and dissemination of management concepts and ideas (Heusinkveld & Benders, 2012). Specifically, it has been shown that consultants have been leading propagators of the BSC in Norway (Madsen & Slåtten, 2015).

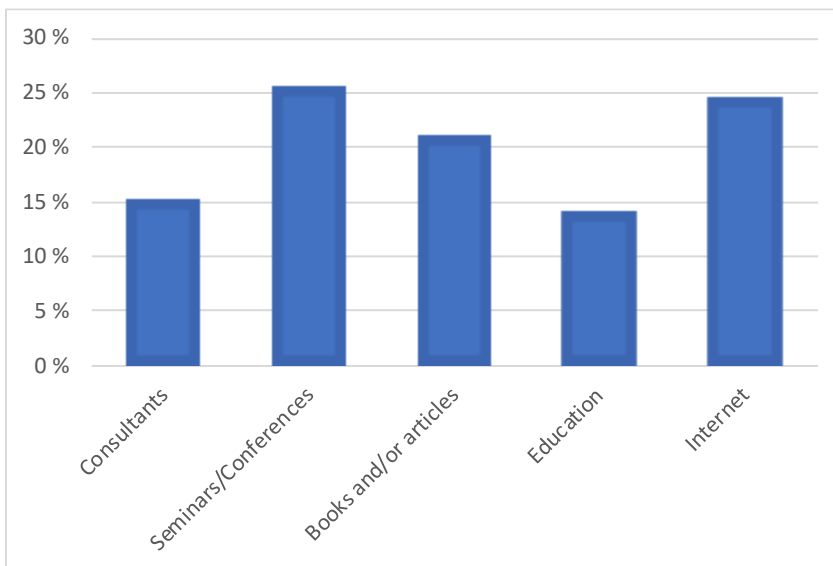


Figure 3. Initial contact points with SBSC (N=56; more than one option possible).

4.3 Adoption and implementation of sustainability as part of BSCs

The respondents who indicated that they have some awareness of SBSC, were also asked to indicate the degree the extent to which sustainability is implemented in the BSC. Figure 4 presents the results. Approximately half of the respondents indicate that sustainability is not part of their BSC; 46% indicate partial implementation, and only 5% report full implementation. This low implementation level is not surprising insofar as the awareness of SBSC is quite low and two-thirds of the 182 respondents reported that their sustainability reporting is strictly according to the financial accounting regulation.

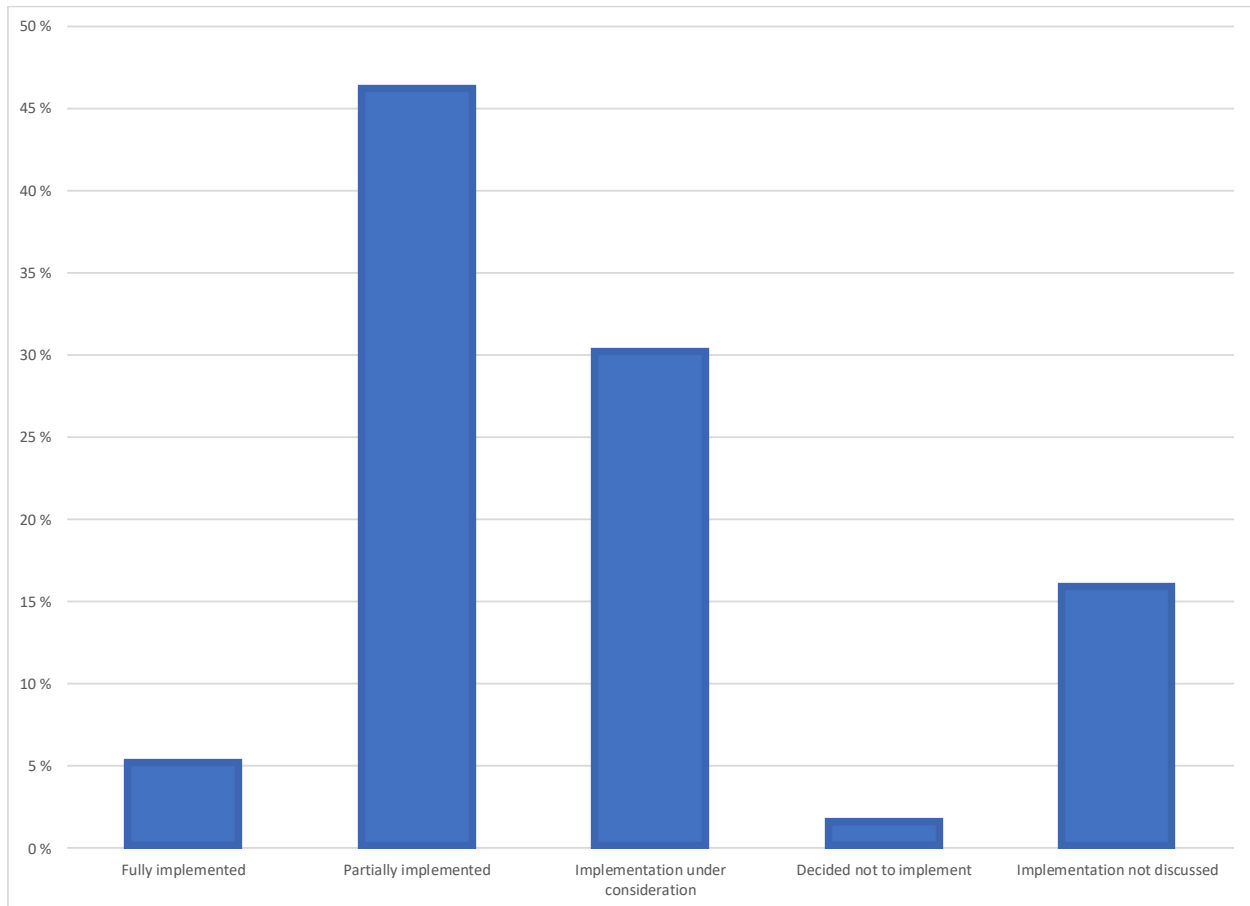


Figure 4. The extent to which sustainability is implemented in the balanced scorecard (N=56)

Table 2 indicates that sustainability runs through the entire causality chain within the BSC. Critical success factors score lower than the other items, and this may indicate the absence of causality, something that for a long time has been raised as a criticism against the BSC in general (Hoque, 2014).

Table 2. Level of sustainability implementation

	Average score	Standard deviation
Vision and strategy	3.18	1.38
Strategy map	3.13	1.36
Strategic goals or targets	3.14	1.26
Critical success factors	2.86	1.23

Action plans	3.26	1.26
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Next, we asked respondents how sustainability is included in the BSC. This question was directed only to respondents who indicated a full or partial implementation of sustainability in the BSC (see Figure 4). As Figure 5 shows, 45% report that sustainability is integrated into the existing perspectives and is not included as an additional perspective. Moreover, approximately 35% report sustainability to be a fifth (or sixth) perspective. In the Scandinavian tradition, it is not unusual to include perspectives alongside the generic ones, for instance, employees and intellectual capital (Ax & Bjørnenak, 2005). Finally, six of the respondents (21%) report that sustainability is not part of the BSC as of today.

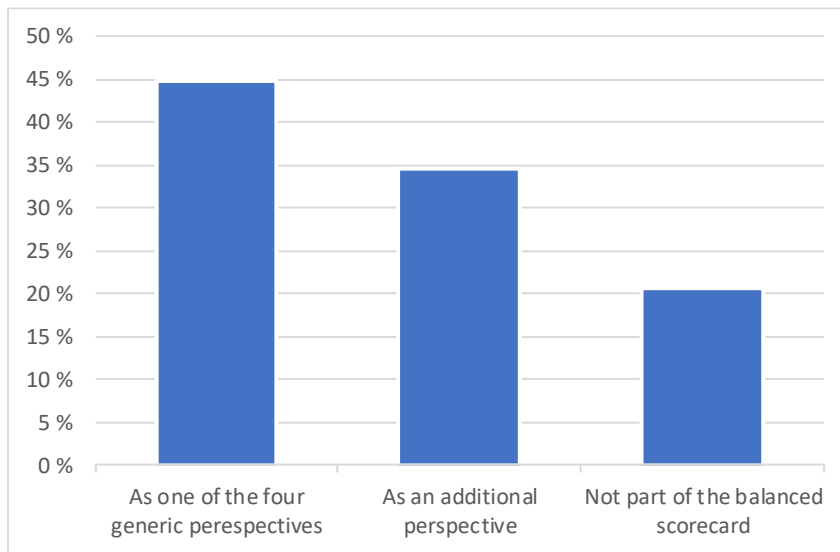


Figure 5. How sustainability is included in the balanced scorecard (N=29)

4.4 Implementation process

The question behind participation in the implementation of sustainability in the BSC was also directed only to respondents indicating full or partial implementation of sustainability in the BSC (see Figure 4). Figure 6 indicates that implementation is most often driven by top management. Relatively few respondents report that extra-organizational actors such as consultants have been driving the process. This indicates that supply-side actors have not played a key role in the implementation process.

We also wanted to explore the justifications for the implementation of sustainability in the BSC. Table 3 indicates several reasons behind a focus on sustainability, and these appear to be of relatively equal importance. Respondents report pressure from stakeholders to be most influential, followed by ethical considerations, and to increase profitability.

The first two are not surprising given the stakeholder-orientation (Johanson, 2013) and a strong focus on corporate social responsibility and ethics (Ditlev-Simonsen et al., 2015; Madsen & Stenheim, 2014a) in Norway. It is interesting that respondents report increased profitability as a reason why they

implement sustainability as part of the BSC. The recent discourse in Norway about the potential related to sustainable business models could explain this finding (Jørgensen & Pedersen, 2013; Jørgensen & Pedersen, 2018).

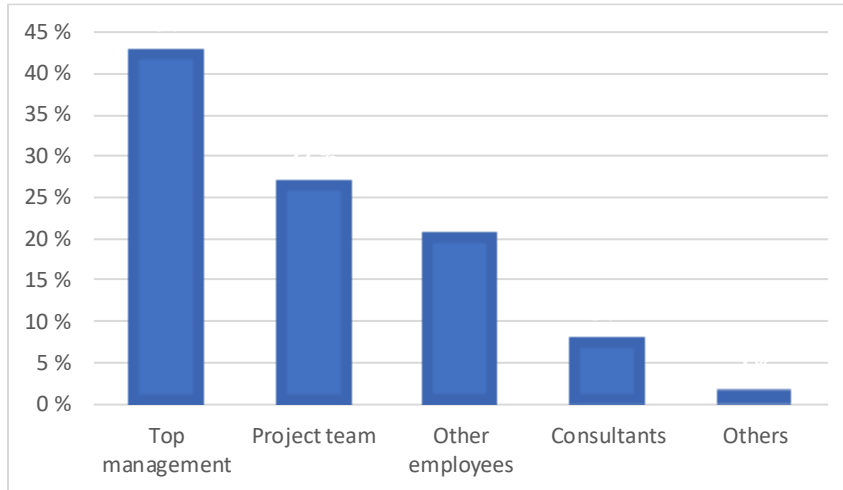


Figure 6. Participation in implementation of sustainability in the balanced scorecard (N=29); more than one option possible

Table 3. Justifications for implementation of sustainability in the balanced scorecard (N=29)

	Average score	Standard deviation
Pressure from stakeholders	3.76	1.0
Ethically substantiated	3.69	0.9
Increase profitability	3.48	1.0

4.5 Effects and impact

The next issue we wanted to investigate was the impact of incorporating sustainability in the BSC. Table 4 provides an overview of what impact the respondents claim from applying an SBSC. The respondents report that integrating sustainability into the BSC has its main effect on customer satisfaction. This is also the only item that the respondents strongly agree that sustainability in the BSC has contributed. Interestingly, the lowest effect is reported for customer acquisition. The first one may indicate that customers are the main stakeholders putting pressure on the sustainable thinking of organizations. Even though, this probably counts only for existing customers; sustainability does not attract new customers. This is a somewhat surprising finding since one could expect that focusing on sustainability would be integrated into market plans and actions. More particularly, it is claimed that businesses can benefit from branding activities that emphasize the firm’s sustainability practices and what impact these have on stakeholders (Kumar & Christodoulou, 2014).

Table 4. Reported impact of SBSC

	Average score	Standard deviation
Customer satisfaction	3.45	0.91

Employee satisfaction	3.00	0.76
Better resource allocation	3.00	0.85
Increased profitability	2.90	1.01
Customer acquisition	2.86	0.88

Finally, we asked the respondents about challenges associated with the implementation of sustainability as part of the BSC. As Table 5 shows, the key challenge seems to be that it is time-consuming. Time as a challenge is a common finding in studies of BSC implementation (Madsen & Stenheim, 2014b). However, even though more than 50% of the respondents score top management's commitment as the least important obstacle to implementation, we must note that the respondents most likely are part of the top management group. It may also be related to our finding that top management is driving the implementation process in many cases. Hence, this statement should be interpreted with caution.

Table 5. Challenges associated with the implementation of sustainability as part of the BSC

	Average score	Standard deviation
Time-consuming	3.38	1.01
Lack of understanding among employees	2.59	1.18
No one facilitating the implementation process	2.55	1.09
Lack of top management commitment	2.52	1.27

5 Discussion

5.1 Awareness and adoption

Even though the BSC, in general, seems to have a strong foothold in Norwegian business practice, our findings indicate that few respondents are aware of the SBSC concept. This is a bit surprising since there is a high level of awareness of the generic BSC concept in Norway (Johanson et al., 2020; Kj ode, 2003), and the concept has been used in Norwegian business practice since the mid-1990s (Madsen & Sl tten, 2015). The low level of awareness is also puzzling since, historically, there has been a heavy emphasis on social responsibility and sustainability-related issues in Norway (Ditlev-Simonsen et al., 2015; Ihlen & von Weltzien Hoivik, 2013; J rgensen & Pedersen, 2015; Madsen & Stenheim, 2014a; Strand et al., 2015). Moreover, there has also been an increased focus on sustainability issues in Norwegian business discourse in recent years, evidenced by, for instance, several books on how these ideas can be applied and integrated into business models (J rgensen & Pedersen, 2013; J rgensen & Pedersen, 2015).

Our findings also indicate that the adoption of SBSCs is low. This finding is also quite surprising. For example, Sveen, Gresaker, H ehre, Madsen, and Stenheim (2020) report that more than 50% of their respondents, Norwegian SMEs, have an increasing awareness of and are engaging with sustainability. There are also other studies indicating that organizations are using sustainability-focused BSCs. For example, one study of the use of the BSC among large Norwegian hospitality chains finds that sustainability is measured and integrated into BSC (Heldal & Gr nnesby, 2019). A case study of the use of the BSC within a Norwegian municipality revealed similar findings (Markussen & Markussen, 2019).

One explanation for the low level of awareness and adoption of SBSCs may be the lack of an active supply-side propagating these new ideas. Management accounting innovations are regularly backed by supply-side actors, such as consultants (Ax & Bjørnenak, 2005; Johanson & Madsen, 2019). The role of suppliers, in particular consultants, has also been noted in the context of ideas such as sustainability and CSR (Furusten, Werr, Ardenfors, & Walter, 2013; Zorn & Collins, 2007). For example, suppliers have highlighted the “business case” for adopting and implementing these ideas (Breitbarth, Schaltegger, & Mahon, 2018).

However, even though the Norwegian consulting industry seems to have jumped on the sustainability bandwagon, the focus of consultancies is on strategy in general, standards based on ISO or ESG and particularly integrated reporting and GRI-4. Hence, one of the traditional propagators of management innovations seems not to have any interest in marketing the SBSC. This is also true, to some extent, for the BSC in general, which seems to have fallen off the consultancy radar in Norway after having been the hottest thing during the early 2000s (Madsen & Slåtten, 2013). In this respect, this important supply-side actor has not contributed to the formation of a critical mass of adopters, and the bandwagon effect (Benders, 1999; Kieser, 1997) has not kicked in yet. Norwegian consultancies’ focus on sustainability reporting for external purposes may also resonate with financial accounting dominating managerial accounting, even though some researchers point out that it should be the other way around (Bloomfield, 2015). Our study indicates that external sustainability reporting is prioritized over internal sustainability reporting for managerial control purposes.

Another explanation may be found in the multiple motives and rationales which appear to be driving Norwegian organizations’ decision to implement SBSCs. This study indicates that the main rationale for implementing sustainability into the BSC is mainly to adapt to external expectations, and, hence, secure legitimacy. These findings can be seen in light of the emphasis on external sustainability reporting. A normative approach (moral duties) to implementation is reported as more important than an instrumental approach, that is, conventional corporate objectives such as profitability. Even though there are no significant differences among these approaches, it leaves room for speculation that satisfying external stakeholders is more influential than genuine beliefs in developing a sustainable business model supported by a holistic control system such as the BSC.

5.2 Implementation

Even though the awareness and adoption of SBSC are rather low, the implementation takes multiple forms across organizations. However, not many of the adopters develop a separate sustainability perspective. This may be due to the firms having faith in the original model with four generic perspectives. It may also indicate that sustainability is an integrated part of the strategy and daily operations. On the other side, sustainability as a separate and explicit perspective may increase its importance. Yet, it may also indicate a legitimizing purpose, aiming to show that a firm is acting in a sustainable way. Adding perspectives to the four generic ones identified by Kaplan and Norton is also found in a study by Alsaker and Andersen (2015). Among their respondents, 20% had added either health, safety, and environment (HSE) or sustainability as a fifth perspective. Highlighting sustainability as a separate perspective may also be due to awareness of a lack of causality within the scorecard. Notwithstanding, the purpose of the scorecard may be attention-directing purposes (Simon, Guetzkow, Kozmetsky, & Tyndall, 1954). Hence, the chain of causality is not as important for practitioners as researchers.

5.3 Effects

Relatively few respondents are overly optimistic about the effects. This could indicate that the adoption of SBSC is less driven by fashion. For example, a study of Lean in Norway found that the adopters were exuberant about the potential effects of the concept (Madsen et al., 2019b), but this does not seem to be the case here. The main effect reported is customer satisfaction, but it does not seem to influence the acquisition of new customers. Comparing this finding with the primary motive for implementation, satisfying external stakeholders, indicates that the firms rationalize their reason for implementation. Of course, it may indicate that a sustainability-focused control system enhances customer experiences. However, it may also indicate that the customers are satisfied with the decision to implement sustainability into the scorecard.

Employee satisfaction and resource allocation, in general, are also reported as being positively affected by the SBSC. The first one may be due to employees acknowledging their employer responding to external pressure, while the latter may be a justification of using a specific management control system.

As with all kinds of use of MCSs, presumably, cost-benefit thinking lays the foundation (Merchant & Van der Stede, 2017); what is the opportunity cost of a specific MCS. In such a context, it is not surprising that the main obstacle to adoption and implementation is reported to be (expected) time spent on these processes. The use of SBSCs is often driven by top management, and, in general, top managers report busy days and juggle a wide variety of tasks and responsibilities (Bruch & Ghoshal, 2002; Mintzberg, 1971). Developing a complete scorecard is a process that could potentially take several years. Sustainability reporting, on the other hand, is decreed by accounting laws and regulations. While complying with these regulations, the firms may consider that the stakeholders' expectations are satisfactorily dealt with. Hence, a complete SBSC is discarded. Such an approach implies the SBSC faces external pressure or profitability issues, something this study also indicates is the case.

6 Conclusion

6.1 Theoretical implications

In this paper, we have provided a picture of the organizational implementation of sustainability-oriented BSCs in Norway. Our mapping study provides insights into patterns in terms of how the sustainability-oriented BSC is diffused and used in Norway. The paper thus answers calls for more insight into the international variations in BSC practice (Hoque, 2014).

Studying the use of SBSCs in Norway is interesting from a theoretical standpoint due to the characteristics of this institutional context. Norway has historically placed emphasis on corporate responsibility and sustainability thinking (Ditlev-Simonsen et al., 2015; Ihlen & von Weltzien Hoivik, 2013; Willums, 2005) as well had a stakeholder-oriented model of governance (Heinzelmann, 2019; Johanson, 2013).

However, despite these conditions, which should provide a receptive environment for the SBSC concept, our findings suggest that the awareness and adoption of SBSC are low. While our findings suggest that the supply-side has had some influence on the diffusion process, it is quite notable that consultants have been more or less absent in terms of propagating the SBSC. Usually, consultants play a central and driving role in the diffusion and dissemination of management concepts and ideas

(Heusinkveld, 2013; Jung & Kieser, 2012), and in the recent past has also been pointed to as a factor driving the diffusion of the generic BSC (Ax & Bjørnenak, 2005; Madsen & Slåtten, 2015; Malmi, 2001). Therefore, the low level of diffusion of SBSCs can be attributed to an inactive supply-side that has not been able to generate enough interest in the concept (Benders, 1999; Kieser, 1997). As Perkmann and Spicer (2008) point out, for management concepts to be anchored in organizational practices, it is essential that supply-side actors carry out different activities such as educating and training organizations on the demand-side. In the case of Norway, we find relatively few instances of such activities.

The low level of diffusion can also be attributed to demand-side factors. Our findings suggest that the adoption and implementation of SBSCs seem to be driven by external pressures from stakeholders rather than departing from an ethically substantiated sustainable thinking.

6.2 Practical implications

For practitioners, our mapping study provides useful information about how BSCs are used to manage sustainability. Hence, our article provides new knowledge about the possible effects and challenges of adopting and implementing the sustainability-oriented BSCs. This could be useful for potential and current users of (S)BSCs and enable them to adjust their expectations better and put them in a position to avoid the most common pitfalls associated with the BSC (Banchieri, Campa-Planas, & Sanchez-Rebull, 2016; Madsen & Stenheim, 2014b; Nørreklit, Jacobsen, & Mitchell, 2008).

6.3 Limitations and future research

The usual limitations also apply to this study. Our study is cross-sectional in nature and is able only to provide a snapshot of the status during the initial COVID-19 (March 2020). The timing of the study may have affected the response rate, and hence our findings must be interpreted with caution. Additionally, while surveys are useful for mapping broader patterns, they do not allow for much insight when it comes to how management concepts are interpreted, understood, and applied by demand-side organizations (Benders & Van Veen, 2001; Strang & Wittrock, 2019).

The next step, therefore, could be to carry out in-depth case studies to find out more about what the actual SBSCs look like in different contexts. For example, researchers could utilize qualitative methods such as interviews with employees and other stakeholders to reveal underlying factors that influence the adoption, implementation, and effects of using SBSCs.

Finally, related to this, it could be interesting to study management control packages considering sustainability in general (Bouten & Hoozée, 2016; Lueg & Radlach, 2016). Also, our study indicates lower adoption rates of BSC than previous studies. Then, it may be interesting to find out whether “holistic” control systems such as SBSCs are facing a downturn in popularity and “different systems for different purposes” are emerging as the next big thing? That is, for instance, customer satisfaction, employee satisfaction, quality, sustainability, and profitability integrated into one large formal control system. Or are they dealt with separately for the purpose of reaching overarching organizational goals and strategy? In these veins, sustainability control studies could also benefit from drawing on Abrahamson’s (1996) framework for management fashions in order to explore businesses’ sustainable *raison d’être*: Do sustainability and profitability walk hand-in-hand, or is profitability always one step ahead?

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