#### ORIGINAL PAPER



# Sustainability Marketing Commitment: Empirical Insights About Its Drivers at the Corporate and Functional Level of Marketing

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**Abstract** Corporate sustainability is an important strategy and value orientation for marketing, but scarce research addresses the organizational drivers and barriers to including it in companies' marketing strategies and processes. The purpose of this study is to determine levels of commitment to corporate sustainability in marketing, processes associated with sustainability marketing commitment, drivers of sustainability marketing at the functional level of marketing, and its organizational context. Using survey data from 269 managers in marketing, covering a broad range of industries in Sweden and Denmark, we took a structural modelling approach to examine construct relationships, mediation, and moderation effects. Overall, the findings show that marketing capabilities associated with the innovation of new products, services, and business models constitute a strong driver to leverage sustainability marketing commitment. In conjunction with insights into processes related to the enactment of sustainability marketing, this result indicates that companies' marketing departments have a propensity to drive corporate sustainability. The study provides substance to the idea of aligning substantive marketing capabilities closer to dynamic capabilities. Accordingly, the study reveals that reliance on market orientation alone does not lead to greater sustainability commitment.

 $\label{lem:words} \textbf{Keywords} \ \ \text{Corporate sustainability} \ \ \text{marketing} \cdot \ \text{Marketing capabilities} \cdot \ \text{Marketing's influence} \cdot \ \text{Strategic orientations}$ 

#### Introduction

Research has addressed the increasing interest in the drivers of and barriers to enacting corporate sustainability and in marketing's role in this regard (Crittenden et al. 2011; Kumar and Christodoulopoulou 2014; Leonidou et al. 2013). Corporate sustainability refers to policies and actions oriented towards realizing sustainable development of the natural environment, society, and economy. We acknowledge a common approach in the literature (Bansal 2005; Engert and Baumgartner 2016; Schaltegger et al. 2016), namely, to let the extensively recognized concept of sustainable development and its interrelated principles (World Commission on Environmental Development [WCED] 1987) act as the basis in defining corporate sustainability. In the marketing literature, a recurrent theme is that the marketing discipline and its cornerstone, market orientation, are associated with corporate sustainability. The arguments for this association are that (1) market orientation fosters and promotes a company's interaction with and learning from its customers and other constituencies in its market and that (2) corporate sustainability is to regard as a viable path in the building of important market assets like brand equity, customer loyalty, and competitive advantage corporate sustainability (Chabowski et al. 2011; Crittenden et al. 2011; Kiron et al. 2013, 2015).

However, for a market orientation to truly influence corporate sustainability goals, some radical changes may be required, to ensure that it includes sensing ideas and

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issues associated with sustainability-led development, involves various stakeholders in value-creation processes, and produces sustainability-oriented innovation projects (Crittenden et al. 2011; Linnenluecke and Griffiths 2013; Polonsky 2011). Unfortunately, empirical insights into drivers that may enhance the integration of corporate sustainability into marketing strategies and processes are lacking (Engert and Baumgartner 2016; Kumar et al. 2013; Leonidou et al. 2013). To clarify these forces in the pursuit of corporate sustainability in marketing, this study aims to analyse the impact of potential drivers at the corporate and functional level of marketing.

When researchers address the impact of marketing on company performance, the resource-based view is prominent (Kozlenkova et al. 2014; Krasnikov and Jayachandran 2008), and this theory also informs many discussions of the antecedents of companies' corporate sustainability endeavours (Chabowski et al. 2011; Connelly et al. 2011). We leverage these common theoretical foundations to investigate which marketing capabilities managers engaged with marketing management issues and processes believe are important. Following management literature that takes a cognitive perspective (Gavetti and Rivkin 2007; Kaplan 2011), our effort is to understand managers' cognitions of the content, framing, and arrangement of the marketing capabilities required to enact sustainability marketing. Thus, our central research question is: What does corporate sustainability entail at the functional level of marketing in terms of the processes to be enacted, capabilities to be developed, and performance effects to be expected? With our work we do not attempt to diminish the contribution of other organizational functions and business processes in implementing sustainability marketing; rather, we focus on the functional level of marketing because we regard marketing's engagement with sustainability marketing as being pivotal of companies' abilities to implement corporate sustainability and of "marketers [abilities] to maintain their relevancy and become an agent of change" (Polonsky 2011, p. 1315).

During the last decade an increasing number of companies show signs of moving beyond ethical normative standards. These companies are busy with integrating the principle of sustainable development into processes and levels across the organization, and with preparing various units to enact a wide range of initiatives, not only environmental, but also of social and economic responsible kind (Eccles et al. 2012; Hart and Dowell 2011; Martin et al. 2011). The argument of proceeding on the sustainability path towards higher commitment levels relates to the organizational culture, to competitors strategies, to revised or reformulated firm values, and to the changing expectations among key stakeholder groups and in society as a whole. Notwithstanding the motivators, the intent or

vision of abandoning a conformity strategy implies that a wide spectrum of activities in marketing (i.e. product and brand management, new product development, pricing, sales, marketing communication) may need to become engaged and transformed to enable the company to deliver environmental, social, and economic responsible market offerings. This is the ethical implication of our study and its core construct, sustainability marketing commitment. Our study provides empirical support of a recurrent proposition in conceptual discussions and frameworks in the literature; that market orientation as a central facet of organizational culture needs to be aligned with a strategic orientation on innovativeness and on brand image and with a leadership expressing an adherence to the principle of sustainable development. Furthermore, our study provides support of the significance of a learning and innovation orientation on exploration in pursuing a further commitment on the corporate sustainability path. While previous studies have detected this link at the company level (Dangelico et al. 2016; Gjerdrum Pedersen et al. 2016), our study reveals the link and its significance at the functional level of marketing. The particular contribution of our study lies in the last remark. Our study shows that emphasis given to marketing capabilities oriented on exploration (i.e. dynamic capabilities) at the functional level of marketing is a strong driver of sustainability marketing commitment and that its strength is not impacted by company orientation on innovativeness or on brand image orientation. Hence, from a managerial perspective, when engaged with deciding on initiatives and investments associated with exceeding ethical normative standards or with responding on evolving or new ethical issues and expectations associated with marketing activities—the study discloses the role of marketing and its prerequisites at both the company and the functional level of marketing.

# Research About Corporate Sustainability in Marketing

Research on companies' engagement with environmental and social issues has been conducted for decades, with different lines of inquiry (Aguinis and Glavas 2012; Linnenluecke and Griffiths 2013; Taneja et al. 2011). Case studies suggest the importance of internal organizational resources and mechanisms, but knowledge gaps remain about the processes and resources required to enact corporate sustainability (Engert and Baumgartner 2016; Grewatsch and Kleindienst 2015; Kumar et al. 2013; Linnenluecke and Griffiths 2013). In turn, literature reviews consistently identify a wide array of conceptual frameworks, but significantly few empirical studies undertake validation and testing (Chabowski et al. 2011;



Taneja et al. 2011). To our knowledge, Leonidou et al. (2013) offer the only marketing study that empirically addresses environmental integrity from a marketing management perspective. Klettner et al. (2014) review sustainability literature and find a similar dearth of empirical investigations on strategies and practices.

### **Sustainability Marketing Commitment**

A wide collection of frameworks describe how corporate sustainability strategies evolve and develop over time (Baumgartner and Ebner 2010; Hart and Dowell 2011). However, all these frameworks are based on a similar presumption—that organizations follow a predictable pattern in developing the required skills and capabilities to reach some optimal level of conduct. Ultimately, a strong commitment should entail three main features (in line with the conceptualization of Basu and Palazzo 2008; see also Baumgartner 2014; Baumgartner and Ebner 2010; Holton et al. 2010):

- 1. It is a central, visible, profound component of the firm's marketing strategy.
- 2. It is manifested throughout the marketing mix, embracing both exploitation- and exploration-oriented learning and innovation processes.
- Initiatives to enact corporate sustainability in marketing are associated with issues and processes involving other departments and domains of a company and its value chain.

We use these criteria to define the central construct in our model, sustainability marketing commitment. As implied by these features and the preceding discussion of corporate sustainability as a sequential process, different commitment levels and corporate sustainability strategies likely exist in a geographical region, industry, or group of companies. This idea is well anchored in the literature (Baumgartner 2014; Engert and Baumgartner 2016; Schaltegger et al. 2012). However, as noted previously, empirical research addressing the nature and implementation of corporate sustainability strategies is scarce.

Corporate sustainability strategies inherently involve transformational elements, so exploration capabilities likely are central to innovation strategies (Borland et al. 2016; Tidd and Bessant 2014). Exploration and exploitation are central constructs in our research model (Fig. 1). "Exploration" refers to search, discovery, experimentation, and risk taking in the pursuit of new value experiences with customer groups (He and Wong 2004; Lavie et al. 2010). Conversely, "exploitation" denotes incremental innovation, variety reduction, and improvements to existing products/services, brands, or market-related processes

(Atuahene-Gima 2005). We anticipate that an association exists between the innovative character of managers' cognitive frames (i.e. exploitation or exploration orientation) and sustainability marketing commitment.

# Managers' Cognitive Frames About Marketing Capabilities

Implementing corporate sustainability is a challenge, not only because the three principles are inseparably interrelated but also because the sustainability issues of importance to companies and various stakeholders can change over time, more or less continuously (Bansal 2005). Managers thus may perceive that they face an array of contradictory and ever-changing claims (Scherer et al. 2013) and try to impose a particular cognitive lens to develop a mental representation of the nature and significance of sustainability issues that will enable them to reduce ambiguity and enact sustainability marketing. Such a process is well established in the literature that addresses decision-making in complex situations (Basu and Palazzo 2008; Eggers and Kaplan 2013; Gavetti and Rivkin 2007).

We anticipate that managers' cognitive frames about important marketing capabilities feature both diagnostic and prognostic dimensions. Therefore, we predict that a progression along the sustainability marketing commitment continuum relies on not only managers' interpretations of customers' and other stakeholders' views and claims but also their own ideas about the company's important marketing capabilities. We predict that sustainability marketing commitment is made manifest in marketing managers' cognitive frames about which marketing capabilities are important (Fig. 1).

Capabilities enable an organization to use its physical, organizational, financial, and human resources efficiently to achieve favourable results (Kozlenkova et al. 2014). The literature presents different categories of this intangible, evolving, and changeable resource (Morgan 2012; Morgan and Slotegraaf 2011; Vorhies et al. 2011). We integrate these categories to distinguish substantive and dynamic marketing capabilities and, with support from the literature, propose that they enable implementation of company strategies (e.g. corporate sustainability and innovativeness) and exert a significant impact on company performance (Kozlenkova et al. 2014; Vorhies et al. 2011).

Specifically, substantive marketing capabilities are core, distinct business-level processes and activity systems in a company. In contrast, dynamic marketing capabilities refer to the abilities to create, extend, and purposefully implement new strategies in response to changing external conditions by combining or transforming available organizational resources and capabilities in new and different



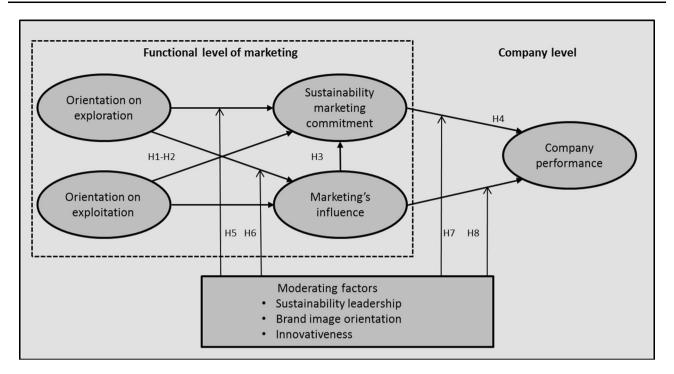


Fig. 1 Overall research model

ways (Kozlenkova et al. 2014; Morgan et al. 2009; Wang and Ahmed 2007). Thus, the manifestation of dynamic abilities depends on the substantial capabilities with which they are associated (Ali et al. 2010; Wilden and Gudergan 2015). In our research model (Fig. 1), dynamic capabilities are inherent qualities of marketing capabilities oriented towards exploration.

As conceptual and empirical studies show, exploitation and exploration represent two central dimensions of companies' competitive strategies, innovation orientations, and marketing capabilities (Vorhies et al. 2011), as well as of managers' mental representations of the essential issues and resources in marketing (Atuahene-Gima 2005; Tollin and Jones 2009). Despite this theoretical support, we know of no empirical assessment of the association between marketing capabilities oriented towards exploration and commitment to corporate sustainability, at the organizational, group, or individual level.

#### **Research Model and Hypotheses**

We propose that investigating managers' cognitive frames about important marketing capabilities is important when aiming to understand the integration of corporate sustainability into marketing strategies and processes. In addition, we acknowledge that neither the nature nor the impact of managers' cognitive frames is independent of the organizational context. Accordingly, in our research model we

include top executive managers' engagement with sustainable development issues and challenges (i.e. sustainability leadership) and core organizational values, as revealed in corporate communications and strategic orientations (Aguinis and Glavas 2012; Crittenden et al. 2011; Eccles et al. 2012; Hart and Dowell 2011). Overall, we predict that sustainability leadership and company strategic orientation (market orientation, innovativeness, and brand image orientation) are associated with sustainability marketing commitment. However, we posit that neither of these drivers reinforces the link between marketing capabilities oriented towards exploration and sustainability marketing commitment. This prediction relates to the notion that managers' cognitive frames about the internal and external environment can shape the strategic direction of a company (Eggers and Kaplan 2013; Gavetti and Rivkin 2007).

Research broadly recognizes the critical role of top executives in driving corporate sustainability (Edelman 2015; Lubin and Esty 2010; Smith and Sharicz 2011). In our model, sustainability leadership represents this impact by denoting a company's top management emphasis on environmental, social, and economic challenges and on cooperating with both nongovernmental organizations and national and international networks in handling sustainability challenges and pursuing innovation strategies. This definition of leadership in relation to sustainable development corresponds to portrayals in the literature of top managers' enactment of sustainability leadership (Eccles



et al. 2012; Metcalf and Benn 2013), as well as with findings from empirical analyses of significant qualities of top managers in implementing sustainable development (Engert and Baumgartner 2016; Katsikeas et al. 2016).

If market orientation represents not only a capacity to handle market intelligence but also an overall learning orientation, such that the company is attentive to developments and trends in the external environment, it follows that the interplay of market orientation with other strategic orientations, such as corporate sustainability or innovativeness, is likely to be pertinent. The magnitude of the interplay comes from market orientation qualifying as an important organizational capability by "its philosophical underpinnings and the strategic behaviours that it promotes" (Theodosiou et al. 2012, p. 1060). Prior studies suggest that an influential marketing function acts as a driving force of market orientation by diffusing market-related values and norms (Homburg et al. 2015; Krush et al. 2015; Verhoef and Leeflang 2009). In turn, we predict that marketing's influence in the company is a driver of sustainability marketing commitment, through its association with market orientation.

Innovativeness signifies a persistent, strong preoccupation with exploration-oriented learning and innovation activities, in an effort to create new value experiences for and with existing and potential customer groups (He and Wong 2004; Lavie et al. 2010). Support from the literature for including a strategic orientation, of which exploration is a central facet, comes from several empirical studies examining the drivers of company commitment to corporate sustainability. Mariadoss et al. (2011) and Hofman et al. (2012) find that innovativeness drives companies' inclination to make sustainable development of the natural environment an inherent dimension of their product development and marketing strategies. From conceiving dynamic capabilities as a core dimension of a company's DNA (Crittenden et al. 2011), follows that dynamic capabilities presumably is associated with companies' capability to integrate the environmental dimension into their NPD processes. Empirical support of this is provided by Dangelico et al. (2016), in their study of how Italian manufacturing firms benchmark their overall dynamic capabilities and functional-level environmental NPD capabilities. Additional support of the presence of an association between innovativeness and corporate sustainability is provided in the studies by Gjerdrum Pedersen et al. (2016) and Brower and Mahajan (2013). In the former study, a link is detected between level of business model innovation and company orientation on corporate sustainability. Brower and Mahajan (2013) identified an association between R&D intensity levels and companies' commitment to corporate sustainability.

We adopt Urde et al.'s (2013) brand orientation definition with an important modification: they define brand orientation as "an approach in which the process of the

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organization revolves around the creation, development, and protection of brand identity in an ongoing interaction with target customers [and other stakeholders of the company] with the aim of achieving lasting competitive advantages in the form of brands" (p. 15). We refer to the construct as "brand image orientation" (Fig. 1), which signifies "the capability to recognize and respond to stakeholder demands" (Brower and Mahajan 2013, p. 316).

# **Marketing Capabilities Oriented Towards Exploration**

We concur and posit that a progression along the sustainability marketing commitment path presupposes efforts to "upgrade and reconstruct [marketing's] core capabilities in response to the changing environment to attain and sustain competitive advantage" (Wang and Ahmed 2007, p. 35). In our research model, marketing capabilities oriented towards exploration include sensing technological and market trends; integrating knowledge about the market and technology into development projects; developing new products, services, and business models; and managing development projects that involve partners both inside and outside the organization (company and function). These broad categories comprise the most critical capabilities highlighted in the literature investigating how to enact both innovativeness and corporate sustainability (Tidd and Bessant 2014; Van Kleef and Roome 2007). The categories also cover the essential processes in Teece's (2007) dynamic capability framework namely, sensing, seizing, and transforming. In our first hypothesis, we propose that exploration capabilities are a stronger driver of sustainability marketing commitment than exploitation capabilities.

**H1** Importance given to marketing capabilities oriented towards exploration is a stronger driver of sustainability marketing commitment than importance given to marketing capabilities oriented towards exploitation.

### Marketing's Influence in the Company

Marketing's influence reflects a composite measurement of its image of influence, decisional influence, and respect from the top in an organization. Verhoef and Leeflang (2009) measure general perceptions of marketing's influence among companies' top managers [including chief marketing officers (CMOs)] and top managers' perceptions of how marketing performs compared with other functions on some predefined capabilities. They find that accountability (i.e. ability to link marketing actions to financial performance) and innovativeness (i.e. ability to contribute to new product/service development) are key features of an



influential marketing department. Tollin and Schmidt (2012) similarly find that when CMOs show equal preoccupation with exploration- and exploitation-oriented marketing issues, marketing's influence is greater. In contrast with Verhoef and Leeflang (2009) and Tollin and Schmidt (2012), however, we recognize that managers can affect marketing's influence by enacting a particular cognitive frame, namely, one that denotes marketing capabilities oriented towards exploration as pivotal. To our knowledge, a cognitive view on marketing management in relation to marketing's influence in a company is absent in the literature. Considering the widely cited need for greater consideration of exploration in marketing, rather than a sole focus on exploitation (Atuahene-Gima 2005; Vorhies et al. 2011), we hypothesize the following:

**H2** Importance given to marketing capabilities oriented towards exploration is a stronger driver of marketing's influence than importance given to marketing capabilities oriented towards exploitation.

We conceptualize market orientation as a resource at the organizational level. The prominence of this resource rests on the idea that market orientation signifies and provides important values, capabilities, and processes in pursuing sustainability marketing towards higher commitment levels, by manifesting an organization-wide, sense-making process to address external developments and trends in the market and in society, as well as a structural mechanism or value foundation for collaboration, learning, and innovation. A market-oriented organizational culture requires collaboration and knowledge transfers across functions and processes, which are also pivotal issues in frameworks that detail how to achieve innovation and business development in general or corporate sustainability in particular (Griffin and Hauser 1996; Kiron et al. 2015). In our research model, marketing's influence is a driver of sustainability marketing commitment, through its association with level of market orientation. Thus, marketing's influence represents a driver for a set of core values that "encourages behaviours that affect organizational learning, which can instil sustainability into the fabric of a firm, yielding a resource advantage" (Crittenden et al. 2011. p. 74).

**H3** Marketing's influence in the company is associated with sustainability marketing commitment.

# **Performance Effects of Sustainability Marketing Commitment**

The performance effects of corporate sustainability require careful consideration, especially in light of the conflicting findings about its impact on customers' choices and overall brand perceptions. Some of these inconsistencies might be due to the use of varied measures (Taneja et al. 2011). Another explanation may be found in a preoccupation in research with the issue of whether rather than when it pays to be good (Grewatsch and Kleindienst 2015), which neglects identifying the conditions that affect the link between corporate sustainability and company performance and can lead to inconsistent or false conclusions. Furthermore, the scarcity of empirical studies addressing corporate sustainability from a marketing strategy or performance perspective offers another reason for caution (Leonidou et al. 2013). However, other studies that address integrating environmental issues in the design of product and distribution programmes (e.g. Leonidou et al. 2013) support our prediction that integrating corporate sustainability issues into marketing strategies and processes exerts a positive impact on intangible market performance metrics (e.g. brand image, customer satisfaction, customer retention). Furthermore, Aguinis and Glavas's (2012, p. 940) extensive review comes to the overall conclusion that corporate sustainability results in "favourable evaluations of the company and its products, as well as ... increased loyalty".

**H4** Sustainability marketing commitment is associated with the performance of intangible market assets.

# **Moderators of the Impact of Marketing Capabilities Oriented Towards Exploration**

An essential requirement for exploration to transform into a continuous orientation is the presence of dynamic capabilities associated with various specialized and cross-functional capabilities (Ali et al. 2010; Day 2011; Easterby-Smith and Prieto 2007). Furthermore it is the requirement of a strategic orientation (e.g. corporate sustainability, innovativeness) being aligned with substantive capabilities associated with the particular tasks to be implemented (Morgan et al. 2009; Theodosiou et al. 2012). We propose that the strength of marketing sustainability commitment depends on the set of marketing capabilities that are defined, devised, and enacted at the functional level of marketing. Accordingly, we propose that the association between an orientation on exploration (which occurs at the functional level of marketing) and sustainability marketing commitment is independent of sustainability leadership, or the strategic orientation on innovativeness or brand image (which occurs at the organizational level).

**H5** The impact of marketing capabilities oriented towards exploration on sustainability marketing is independent of organizational resources of sustainability leadership, innovativeness, and brand image orientation.



Regarding antecedents of marketing's influence in a company, Verhoef and Leeflang (2009) show that indicators of capabilities in marketing that contribute to innovativeness are important. As research indicates, a brand image orientation implies exploitation-oriented learning approaches, which ensure that brands are continuously updated (Vorhies et al. 2011). Our proposition is that the organizational context plays a role and, in particular, puts the nature of the present and dominating strategic orientations into focus. Specifically, we conjecture that an emphasis in marketing on exploration-oriented capabilities will have a significant effect when brand image orientation is a central dimension of organizational culture—that is, when exploitation rather than exploration is a central facet of organizational culture.

Our thesis is that when sustainability leadership or innovativeness (i.e. exploration) is a central value, a preoccupation with developing dynamic capabilities is likely shared with other organizational functions (e.g. supply chain, manufacturing, sales, human resource management). Although marketing's concern with providing dynamic capabilities may enhance its overall legitimacy in these contexts, other functions must still perceive "the actions of the marketing entity [as] desirable and appropriate" (Park et al. 2012, p. 1576). Therefore, we propose that the strength of the impact on marketing's influence is uncertain. We acknowledge that as some distinctive and desirable dynamic capabilities (i.e. sensing, seizing, and transformation-oriented capabilities) develop in companies' marketing functions, the effect may become apparent, but this notion is beyond the scope of our study.

**H6** The impact of marketing capabilities oriented towards exploration on marketing's influence depends on brand image orientation, not sustainability leadership or innovativeness.

## Moderators of the Impact of Sustainability Marketing on Intangible Market Assets

Sustainability marketing commitment represents a unique strategic orientation that is dependent on its value foundation (i.e. sustainable development). In line with various studies that identify the positive association between corporate sustainability and brand performance (Aguinis and Glavas 2012; Kiron et al. 2013, 2015; Kumar and Christodoulopoulou 2014), we propose that sustainability marketing commitment drives brand performance and that an emphasis by top management on ideas and values related to the sustainable development construct (i.e. sustainability leadership) plays a decisive role by influencing strategies and practices across levels and functions, thereby

increasing the importance and influence of sustainability marketing on brand performance levels (Edelman 2015; Lubin and Esty 2010; Smith and Sharicz 2011). Our next hypothesis H7 concerns this role of sustainability leadership by assessing its impact on the link between sustainability marketing commitment and intangible marketing assets. The thesis is that the strength of the link is dependent on sustainability leadership, and not on innovativeness or on brand image orientation. The core argument is that sustainability marketing rests upon an organization-wide understanding and valuation of sustainable development and its premises. Empirically, sustainability leadership has been found to be decisive in establishing the needed integration of resources, processes, and capabilities in order to successfully implement green marketing strategies, an ecofriendly supply chain or new product development strategy (Katsikeas et al. 2016). However, until now the impact of sustainability leadership on the implementation and the performance effect of sustainability marketing commitment have been overlooked in the literature.

Thus, although sustainability marketing is associated with a company orientation focused on reputation/image and innovativeness, we contend that the two orientations do not strengthen the link between sustainability marketing commitment and company performance of intangible marketing assets.

**H7** The impact of sustainability marketing on intangible market assets is dependent on sustainability leadership, not innovativeness or brand image orientation.

# Moderators of the Impact of Marketing's Influence on Company Performance

Previous research has established the association among innovativeness, market orientation, and company performance (Menguc and Auh 2006; Theodosiou et al. 2012), as well as the positive effect of pursuing a brand orientation (Baumgarth 2010). These orientations signify a pivotal capability of integrating corporate sustainability into marketing strategies and processes. Demonstrating sensitivity to various stakeholders' ideas and claims is required to capture and understand environmental, social, and economic issues (Brower and Mahajan 2013; Crittenden et al. 2011). A capacity to read and respond innovatively to new developments is necessary for a sustainability-oriented innovation strategy (Hart and Dowell 2011; Tidd and Bessant 2014). However, these two orientations also represent a shortcoming of the market orientation construct, in corporate sustainability terms. Therefore, further increases of marketing's influence and the level of market orientation in the company depend on brand image orientation and



innovativeness being strong dimensions of the organizational culture. Accordingly, the strength of the impact of marketing's influence on company performance should not be moderated positively by sustainability leadership, unless innovativeness and brand image orientation exist in the organizational culture already.

**H8** The impact of marketing's influence on company performance depends on brand image orientation and innovativeness, not on sustainability leadership.

### Methodology

### Sample and Data Collection

The Scandinavian countries rank at the top in international lists of sustainability endowments (e.g. RobecoSam's Country Sustainability Ranking 2017). Therefore, we presumed that corporate sustainability should have been on Swedish and Danish companies' agendas for some time, and their commitment levels likely are clearer at both organizational and functional (marketing) levels. From databases owned by three independent Scandinavian marketing organizations, we obtained email addresses for 5000 marketing or strategy managers in Danish or Swedish companies. These managers received a link to our questionnaire addressing issues covering the constructs in our research model. On the basis of prior sustainability studies (Kiron et al. 2013), we estimated the target population to be around 2000 managers engaged with marketing issues and decisions related to corporate sustainability. After two follow-up emails over a one-month period, we received approximately 500 responses and closed the survey. Careful data cleaning led to 269 valid responses. Most of the excluded responses failed to provide factual information about the company and the respondent in the last part of the survey. The sample was almost equally distributed between the two countries.

To check for nonresponse bias (Armstrong and Overton 1977), we examined the characteristics of early and late survey respondents in each of the three survey waves (initial and two follow-ups); later respondents should be more similar to nonrespondents. We found no significant differences in company size, but the sample could be biased towards companies in business-to-business markets, because the later responses featured more business-to-consumer companies. Table 1 contains an overview of the sample characteristics.

#### Measures

The main part of the questionnaire consists of statements related to the research model components. Respondents

 Table 1
 Sample characteristics

	Count	Percent
Primary industry classification		
Manufacturing	64	23.8
Financial services	25	9.3
Nonprofit organizations	6	2.2
Public sector	12	4.5
Industrial and other services	108	40.1
Retail services	44	16.4
Other	10	3.7
Total	269	100.0
Position in company		
CEO	59	21.9
CMO	62	23.0
Mid-level manager (e.g. sales, brand manager, key account manager, staff manager, business unit)	60	22.3
Project manager	29	10.8
Other marketing position	59	21.9
Total	269	100.0

indicated the extent to which they agreed with statements about important capabilities in marketing, the influence of the marketing department in the company, and commitments to corporate sustainability in marketing. Furthermore, respondents characterized their company in terms of its beliefs, values, and principles, as espoused by top management and in corporate behaviour, principles, and processes. Finally, the survey detailed several comparative firm performance measures, referring to the previous 12 months. Table 2 contains descriptions of these constructs, the final items in our measurement model, and measurement scales used; in the following sections, we detail the bases for each construct measured.

#### Sustainability Marketing Commitment

In line with Basu and Palazzo's (2008) conceptualization of commitment, the questionnaire asked about whether corporate sustainability is manifested in strategic documents and processes at the functional level (e.g. "Sustainability is a central component in our marketing strategy", "Sustainability is an integrated dimension in all our products and brands"), in decisions and processes related to managing the marketing mix (e.g. "Sustainability is an important aspect when we plan and implement advertising programs", "It is our responsibility to come up with suggestions in making our packing systems more ecology friendly"), and in initiatives and processes beyond marketing mix programme management (e.g. "We are very focused on promoting sustainability within the company", "It is marketing's responsibility to create and maintain



#### Table 2 Constructs and measurement model results

Marketing capabilities oriented on exploitation (importance of marketing capabilities evaluated on a 7-point scale: very low importance-very high importance)	CR = .83 AVE = .50	
	Sqrt $AVE = .71$	
To ensure consistency and integration between the different company functions (R&D, purchase, sales, etc.) in relation to the company's brands		.62
To develop new CRM concepts and systems that improve the company's customer relations		.61
To measure the effect of our marketing investments and processes		.78
To link the effect of marketing activities to overall company performance		.86
Development of creative advertising concepts and strategies		.64
Marketing capabilities oriented on exploration (importance of marketing capabilities evaluated on a 7-point scale: very low	CR = .93	
importance-very high importance)	AVE = .61 $Sqrt$ $AVE = .78$	
Integrating knowledge of consumer values and processes into innovative projects		.73
Being the driving force behind business development projects in the company		.82
Developing alternative (new or modified) business models		.82
Assessing the investments needed for new product and service concepts		.80
Assessing how new products and services contribute to company performance		.84
Managing projects concerned with radical product and service innovation		.78
Integrating strategic value chain partners into innovative projects		.74
Developing new products and services in conjunction with our customers		.71
Marketing's influence in the company (5-pt agree/disagree)	CR = .91	
	AVE = .59	
	$\begin{array}{c} \text{sqrt} \\ \text{AVE} = .77 \end{array}$	
Marketing is considered to be more influential than other parts of the company		.83
Marketing is perceived as dominant when it comes to decision-making		.77
Marketing is considered to be the driving force behind learning and innovation in the company		.80
Top management is aware of the strategic importance of marketing		.63
Compared to other company functions marketing has great influence on product portfolio decision-making		.80
Compared to other company functions marketing has great influence on business strategy decision-making		.85
Compared to other company functions marketing has great influence on company sustainability strategy decision-making		.66
Sustainability marketing commitment (5-pt agree/disagree)	CR = .89	
	AVE = .53	
	sqrt  AVE = .73	
One of the marketing's most important tasks is to disseminate information about customers' attitudes towards sustainability to other parts of the company (R&D, top management, value chain, etc.)		.70
The marketing function is very focused on promoting sustainability within the company		.80
Marketing is very focused on educating our customers (and their customers) about sustainability and sustainable solutions		.73
A central task for marketing is to initiate and manage the development of new products and services with a sustainability focus		.76
Sustainability is an important aspect when we plan and implement advertising campaigns (e.g. using electronic rather than print channels)		.75
We allocate significant resources to the process of finding possible sustainable brand line extensions		.67
It is the responsibility of the marketing department to create and maintain relations with public and private organizations and networks with a focus on sustainability		.69
Company performance: profitability (7-pt scale: performed better or worse than competitors within a 12-month period)	CR = .93	
	AVE = .87	
	sqrt  AVE = .93	



### Table 2 continued

Company return on investment Company performance: market effectiveness 7-pt scale: performed better or worse than competitors within a 12-month period)	CR = .93 $AVE = .71$ $sqrt$ $AVE = .85$	.93
	AVE = .71 sqrt	
	sqrt	
Sales volume		.76
Market share		.79
Change in market share		.92
Sales growth		.95
Customer acquisition		.80
Company performance: intangible market assets (7-pt scale: performed better or worse than competitors within a 12-month period)	CR = .83 $AVE = .62$ $sqrt$	
	AVE = .79	
Customer satisfaction		.85
Customer loyalty/retention		.87
Brand image		.62
Company performance: NPD performance (7-pt scale: performed better or worse than competitors within a 12-month period)	CR = .86 $AVE = .67$ $sqrt$ $AVE = .82$	
Number of new products and services		.80
New product/service sales		.92
New product/service profitability		.73
Sustainability leadership (5-pt scale: to what extent does the statement fit the company's top management?)	CR = .80	
	AVE = .50	
	sqrt $AVE = .71$	
Global challenges (economic, political, social, environmental) are recurring issues in top management communication	AVL = ./1	.67
Company association with NGOs and sustainability networks is underlined when top management communicates strategy		.65
When top management speaks about innovation, focus is often put on the importance of cooperating with national as well as international partners/network		.71
Top management often underlines the importance of putting day-to-day decisions and actions into a long-term sustainability perspective		.78
Brand image orientation (5-pt scale: to what an extent does the statement fit your company's values and principles)	CR = .77 $AVE = .53$	
	$\begin{array}{c} \text{sqrt} \\ \text{AVE} = .73 \end{array}$	
Stakeholders' perception of company image is a recurring topic at all levels of management		.71
We regularly (at least biannually) monitor stakeholders' perception of the company on a number of dimensions, including sustainability		.75
Business unit managers meet regularly (at least annually) to discuss how the company is perceived by stakeholders and this aligns with company vision and strategy		.72
nnovativeness (5-pt scale: to what an extent does the statement fit your company's values and principles)	CR = .89	
	AVE = .67	
	$\begin{array}{c} \text{sqrt} \\ \text{AVE} = .82 \end{array}$	
We are often the first to introduce new products/services to the market		.78
We often introduce radical (innovative) products/services		.82
Compared to our competitors, we introduce more radical (innovative) products/services		.87
nnovation and R&D are elements deeply rooted in company culture		.79
Company size (number of employees)		n.a.



relationships with public and private organizations engaged with sustainability issues").

The selection of key issues was supported by exploratory analyses by Holton et al. (2010) and Mariadoss et al. (2011), who address the evolution of companies' sustainability visions, strategies, and practices, as well as a conceptual analysis by Van Kleef and Roome (2007) of the processes associated with corporate sustainability and innovativeness. The 20 items in the questionnaire covered all three dimensions, though our measurement model only relies on statements related to the second and third dimensions (see Table 2), because we found a high correlation (>.80) between emphasis on corporate sustainability in strategic documents and processes and the enactment of corporate sustainability in marketing.

# Marketing Capabilities Oriented Towards Exploration and Exploitation

The questionnaire contained 30 items that covered a broad array of substantive marketing and dynamic capabilities. We followed Vorhies and Morgan (2005) to create the scale for substantive marketing capabilities, but with additions. First, we included marketing capabilities to manage online communication processes on blogs and social media sites. Second, following Verhoef and Leeflang (2009), we also included accountability as a distinct, important marketing capability associated with implementation. Finally, our scale includes marketing capabilities oriented towards the innovation of not only products but also other areas, such as pricing, selling, customer relationship management, and branding.

No comprehensive scale exists for measuring dynamic capabilities; thus, we developed items reflecting categories and types of dynamic capabilities derived from Teece's (2007) theoretical framework. As a basis in formulating and selecting items, we made an extensive review of frameworks and studies assessing the dynamic capabilities construct and how to better align substantive capabilities with developments and trends in the external environment (Day 2011; Morgan 2012; Teece 2007). We selected particular items dealing with sensing, seizing, and transforming capabilities with support from Wilden et al. (2013) and Wilden and Gudergan (2015), which is, to our knowledge, the only empirical study that empirically examines the association between dynamic and substantive marketing capabilities.

Ultimately, the final set of marketing capabilities in our measurement model (Table 2) comprises approximately half the number of items in our questionnaire. We uncovered a high association (correlation = .85) between dynamic capabilities and substantive capabilities for designing new pricing strategies, developing radically new

product/service concepts, and designing new or radically new brand concepts. According to the literature, a fundamental condition for exploration to become a continuous strategic orientation is this high association (Ali et al. 2010; Day 2011; Easterby-Smith and Prieto 2007). Therefore, dynamic capabilities are signified by exploration capabilities in our measurement model. As we detail in Table 2, five statements—pertaining to customer relationship management (CRM), branding, and performance—signify exploitation capabilities. Exploitation is the most prevalent path for developing CRM and brand management capabilities (Vorhies et al. 2011). Our definition of exploitation follows March's (1991), which includes refinement, choice, production, efficiency, selection, implementation, and execution.

#### Marketing's Influence in the Company

We measure perceived influence using statements involving three dimensions: marketing's overall image of being influential, marketing's respect at the corporate strategic level, and marketing's decisional influence. The questionnaire contained 10 items covering the three dimensions. We measured the first and second dimensions with the scales from Verhoef and Leeflang (2009). With support from Tollin and Schmidt's (2012) analysis, we measured decisional influence with statements covering a wide array of issues and decision situations, including corporate sustainability. As we show in Table 2, the final set of items measuring the marketing influence construct consists of seven highly associated statements.

#### Company Performance

The scale for evaluating company performance, relative to competitors', builds on previously validated scales developed and applied by Moorman and Rust (1999) and Vorhies and Morgan (2005). The questionnaire contained 16 items, covering the dimensions of customer satisfaction, customer loyalty, market effectiveness, new product development performance, brand performance, and profitability. Table 2 shows the final four dimensions used in our measurement model.

#### Sustainability Leadership

With support from the literature (Metcalf and Benn 2013), we developed a six-item scale intended to reveal top managers' enactment of sustainability leadership. As we show in Table 2, the final set of statements incorporates the triple-bottom-line construct, a short- and a long-term time perspective, and micro- and macroperspectives. The only existing scale that captures sustainability leadership was



developed by Menguc et al. (2010). However, this scale only addresses sustainability leadership engagements of environmental issues.

#### Innovativeness

To capture the behavioural orientation of the prospector type from Miles and Snow's (1978) typology, we developed a scale with eight items. The prospector type features an innovation orientation, focused on radical, rather than incremental, innovation, as well as values in support of learning and an entrepreneurial culture. We adopted the principal ideas contained in Atuahene-Gima's (2005) scale to measure the strength of an orientation towards radical innovation (frequency of launching radical new products or services). With inspiration from Menguc et al. (2010), we also captured entrepreneurial orientation with four statements that signalled proactive, bold, and innovative culture forms. The set of items in our measurement model denoting innovativeness consists of four statements, three pertaining to the behavioural layer and one related to the cultural layer.

### Brand Image Orientation

Our research model emphasizes companies' inclination to be sensitive to stakeholders' views. Following Hatch and Schultz (2008) and Schmidt and Baumgarth (2015), who provide frameworks of managerial processes and routines to assess alignment between internal and external layers, we formulate four items for the brand image orientation construct. Three of them were closely associated (Table 2).

#### **Measure Assessments**

The measurement model with eight main constructs, three moderators, and control variables resulted in acceptable fit: confirmatory fit index (CFI) = .93, CMIN/df = 1.53, rootmean-square error of approximation (RMSEA) = .044, and standardized root mean residual (SRMR) = .059. The item scores, construct reliability scores, and construct validity for each construct are reported in Table 2. All items score above .60, all average variance extracted (AVE) values are at or above .50 in support of construct validity, and all composite reliabilities are at or above .77. Table 3 shows the interconstruct correlations. The square roots of the AVEs are all greater than any interconstruct correlation, indicating discriminant validity. The item reliabilities for each individual item also were sufficiently high. Bagozzi and Yi (2012) suggest that standardized loadings should be at least .70 to ensure reliabilities greater than .50. However, in large models with many indicators, a few loadings can be as low as .50, and the model still might perform satisfactorily (Bagozzi and Yi 2012).

' statistics
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Interconstruct
Table 3

Interconstruct correlations (sqrt CR Exploitation Exploration AVE in bold) capabilities capabilities	CR	Exploitation capabilities	Exploration capabilities	Marketing influence	Marketing sustainability commitment	ROI	Sales	Brand	NPD	ROI Sales Brand NPD Sustainability leadership	Brand image orientation	Company innovativeness
Exploitation capabilities	.83	.83 .71										
Exploration capabilities	.92	.54	.78									
Marketing's influence	.91	.39	.58	71.								
Marketing sustainability commitment	68.	.34	.40	.31	.73							
Performance: ROI	.93	.29	.07	.19	.13	.93						
Performance: sales	.93	.34	.19	.13	.17	.59	.85					
Performance: brand	.83	.24	.24	.20	.21	.45	.58	.79				
Performance: new prod development	98.	.26	.15	.17	.18	.37	.52	.54	.82			
Sustainability leadership	.80	.80 .39	.34	.22	.67	.25	.19	.27	.13	.71		
Brand image orientation	77.	.42	.30	.19	.52	.31	.26	.29	.20	.55	.73	
Company innovativeness	68.	.27	.38	.21	.29	.19	.32	.42	.46	.40	.22	.82



To check the validity of the sustainability marketing commitment measure, we compared individual item scores for companies that were more versus less committed to sustainability in marketing, according to our commitment construct and scale. Table 4 contains the mean scores for more and less committed companies. As expected, the correlation between these constructs was high (Pearson's correlation coefficient = .785, p < .001). Furthermore, we assessed relationships between our commitment construct and performance measures, and company country of origin, as well as primary market (B-to-B or B-to-C), and found no indications of significant dependences or biases in our sample of companies. Larger companies on average have more resources to allocate towards sustainability issues. Considering that corporate sustainability is associated with transformation of various tasks and processes, and consequently with investments in new knowledge and capabilities, we believe that size exerts an impact on commitment levels. Support of this is provided by (Haanaes et al. 2011). They found that company size is positively associated with commitment, i.e. with pursuing a sustainability embracer strategy. Consequently, company size was included as a control variable in all model estimations.

#### Common Method Variance

Various methods are available to check for the presence of common method bias in social science and behavioural research (Podsakoff et al. 2003). Harman's single-factor test indicated that only 25.1% of the variance could be explained by a single factor, according to a principal component exploratory factor analysis without rotation. A confirmatory factor analysis (CFA) of a model that consisted of only one common factor, formed by all indicators, revealed poor fit with the data (CMIN/df = 5.503, CFI = .349, RMSEA = .13, SRMR = .1426). When we included a common factor in the measurement model CFA and then compared the indicator regression weights with those obtained when we excluded that common factor, we found only small changes in the standardized regression weights. Finally, we fixed the variance of the common factor to 1, setting all paths from the common factor to the

Table 4 Commitment item mean scores for low and high committed companies

Sustainability marketing (items)	Low commitment	High commitment
(All mean score differences sig. $p < .05$ )	Mean score	Mean score
One of our most essential tasks is to disseminate information about customers' attitudes towards sustainability to other parts of the company (R&D, top management, value chain, etc.)	1.93	2.78
We are very focused on promoting sustainability within the company	2.22	3.61
We are very focused on educating our customers (and their customers) about sustainability and sustainable solutions	1.81	3.03
A central task for us is to initiate and manage the development of new products and services with a sustainability focus	1.94	3.09
Corporate sustainability is an important perspective when we plan and implement advertising campaigns (e.g. using electronic rather than print channels)	2.08	3.32
We allocate significant resources to the process of finding possible sustainable brand line extensions	1.73	2.72
It is our responsibility to create and maintain relations with public and private organizations and networks with focus on sustainability	2.14	3.22
It is marketing's responsibility to identify third world social innovation projects that the company should be involved in	1.45	1.98
We offer our business-to-business customers LCA analyses and other tools to help them implement sustainability	1.60	2.41
It is our responsibility to come up with suggestions in making the company's packing systems more ecology friendly	2.20	2.53
We are very much engaged with projects aimed to reduce waste throughout a product's lifecycle	2.56	3.27
The impact of our products on our customers' health and safety is something that we are very much engaged with	2.89	3.51
We allocate significant resources on securing improved emission levels on our products	1.87	2.59
We are very much involved with deciding on new price strategies in support of corporate sustainability	1.70	2.53

Bold values indicate that are part of the final measurement construct

Italic denotes items that were originally included in the questionnaire, but were eliminated from the measurement construct in the scale validation process



indicators to be equal. This model estimation resulted in path coefficients of .583, corresponding to a common variance estimate of 34.0%, well below the 50% threshold. Therefore, common method bias was not a concern for this study.

#### **Analysis and Results**

We estimated the main structural equation model using IBM SPSS and AMOS 22 software packages. With this estimate, we tested H1–H4, regarding the main effects and the existence of general relationships across three groups of constructs: (1) marketing capabilities, (2) marketing's influence and sustainability marketing commitment, and (3) company performance. In addition, we tested for direct effects of marketing capabilities on company performance; we detail the results for the mediation and moderation effects in our proposed model.

#### **Main Effects**

The model fit indices confirm that the measurement model is appropriate:  $\gamma^2/df = 1.598$ , CFI = .94, RMSEA = .047, and SRMR = .06. As expected, we found a positive effect of company size on sustainability commitment marketing  $(\beta = .18, p < .01)$  and return on investment performance  $(\beta = .18, p < .01)$ . Company size did not show a significant effect on either marketing's influence in the organization or on company sales performance or NPD performance. However, company size did exert a significant negative effect on company brand performance  $(\beta = -.15, p < .05)$ . With regard to marketing capabilities (exploration and exploitation), the standardized path coefficient for the relationship between exploration and sustainability marketing commitment was .37 (p < .001), and the path coefficient from exploitation to sustainability marketing commitment was nonsignificant ( $\beta = .10$ , p < .241). Thus, consistent with H1, our empirical analysis shows that exploration is a stronger driver of sustainability marketing commitment than exploitation. Furthermore, regarding marketing's influence in the organization, the impacts of both exploration ( $\beta = .49$ , p < .001) and exploitation ( $\beta = .14$ , p < .067) are significant, though a comparison of the strength of these drivers indicates that exploration is a stronger driver of marketing's influence than exploitation (z test score = 2.32; p < .02), in support of H2.

In terms of the predicted positive relationship between marketing's influence in the company and its sustainability marketing commitment, the findings from our main model do not strictly provide support for H3 ( $\beta = .13$ , p < .102). The statistical significance of this relationship is close to 10%, implying a potentially weak but significant (positive)

driving effect of marketing's influence on sustainability marketing commitment. We therefore conducted additional analyses, in which we divided the sample of responses according to their indicated level of marketing influence and then compared the highest influence subsample with the lowest influence subsample. Among low influence companies, we found a significant and positive relationship to sustainability commitment ( $\beta = .26$ , p < .029), whereas no significant relationship emerged for high influence companies ( $\beta = -.06$ ; p < .597). The difference between the two segments indicates a significant change in the relationship (z test score: -2.08; p < .037). Therefore, when marketing influence is relatively low, a marginal increase in influence seems to have a positive effect on sustainability marketing commitment, in partial support of H3.

Finally, our analysis finds support for a positive and significant effect of sustainability marketing commitment and company performance on intangible marketing assets (i.e. customer satisfaction, customer loyalty, and brand image) ( $\beta=.16,\ p<.025$ ), whereas the effect on new product development performance is only borderline significant ( $\beta=.11;\ p<.100$ ). The associations with both sales and return on investments (ROI) were nonsignificant. Thus, considering that the data indicate a positive and significant association for intangible marketing assets, we conclude that H4 is supported. Figure 2 presents an overview of these main effects.

In addition to these performance-related associations, our model includes several main effects (i.e. drivers of company performance) that are not the focus of this study. It is worth noting that the main model indicates a significant effect of marketing's influence on ROI ( $\beta = .22$ , p < .01) but not on the other three company performance indicators. Marketing capability also has multiple significant, direct effects on company performance, such as the negative impact of exploration capability on ROI ( $\beta = -.17$ , p < .03) and the positive influence of exploitation capability on all four performance indicators, with path values ranging from .21 to .31 (p < .01).

#### **Mediation Effects**

We examined whether sustainability marketing commitment and marketing's influence mediate the relationship between marketing capability and company performance. Mediation requires significant relationships between both the predictor and the mediator, as well as between the mediator and the dependent variable (Baron and Kenny 1986). Therefore, we conducted mediation analyses only for the relationships for which the possibility of mediation exists. We calculated the mediation effect of a sustainability marketing commitment on the relationship between



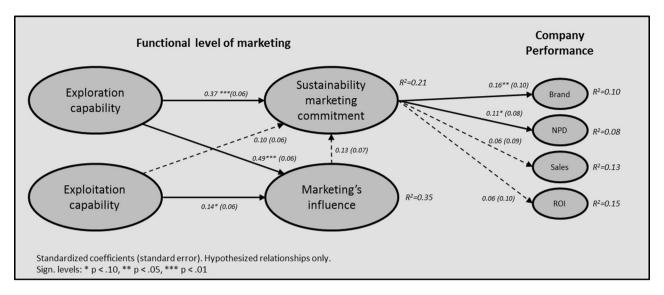


Fig. 2 Main model estimations

exploration capability and brand performance as the product of the path coefficients, with the significance determined according to Baron and Kenny's (1986) method, using the standard error terms of each coefficient. The mediation was nonsignificant ( $\beta = .06, p < .12$ ). However, another mediation effect arose—namely, the mediating role of marketing's influence on the relationship between marketing capability and company performance. Marketing's influence was a strong mediator of exploration capability on ROI performance ( $\beta = .11, p < .02$ ), though we found no significant mediation by marketing's influence for the relationship between exploitation and company performance. In summary, marketing's influence partially mediates the relationship between capability and performance, and specifically the impact of exploration capability focus, on ROI performance. The main effect is negative, though marketing's influence in the company makes up for this effect by positively mediating the relationship.

#### **Moderating Effects**

Our research agenda includes several hypotheses related to the moderating effects of company resources (i.e. top managers' ideas and beliefs and company strategic orientations). Moderating effects indicate that a relationship between a predictor and the dependent variable changes significantly for different levels of the moderating variable. Such an effect can be estimated in several ways, and one commonly accepted method of testing for significant moderating effects is to evaluate the significance of the interaction term between the predictor and the moderator on the dependent variable (Homburg et al. 2013). To test this in the structural equation framework, we formed latent interaction constructs between predictors and moderators

and introduced them to the model. Several possibilities for forming latent interaction constructs have been applied over the years. One common challenge when entering latent interaction constructs into structural equation models is the often-dramatic increase in relationships to be estimated, due to sometimes high numbers of product term indicators of interaction constructs. Marsh et al. (2004) examine this phenomenon and conclude that careful selection of product indicators can ensure that all the most important information is carried over into the interaction construct while limiting the number of additional relationships to be estimated in the structural model. This is done by ensuring that all predictor and moderator indicators are used at least once when computing the product indicators. To keep the number of additional relationships to be estimated at a reasonable level, we applied a method in which latent interaction effects were estimated one at a time; in addition, we developed the product indicators of each latent interaction construct following Marsh et al.'s (2006) recommendations (also successfully applied by Homburg et al. 2010).

The fit indices for all the models indicated their appropriateness, and we controlled all these models for company size. Company size showed a significant, positive effect on sustainability marketing commitment in the model moderated by innovativeness ( $\beta = .22$ , p < .001). All other effects of the control were nonsignificant. Table 5 presents an overview of the hypotheses tests. The first test assessed the impact of organizational resources on the association between exploration and sustainability marketing commitment, according to the prediction that none of the resources (sustainability leadership, innovativeness, and brand image orientation) exert moderating effects. In support of H5, none of the interaction effects were significant



**Table 5** Overview of tests of moderation effects

Moderator	Hypothesis	Predictor → dependent	Predictor		Moderator	Interaction	Support
Sustainability leadership	Н5	Exploration capability → marketing sustainability commitment		.17**	.60***	.05	<b>v</b>
Brand image orientation	Н5	Exploration capability → marketing sustainability commitment		.27***	.35***	.03	•
Innovativeness	H5	Exploration capability → marketing sustainability		.32***	.15**	.01	~
Sustainability leadership	Н6	Exploration capability → marketing influence		.49***	.02	.02	•
Brand image orientation	Н6	Exploration capability → marketing influence		.50***	.02	.12**	•
Innovativeness	Н6	Exploration capability → marketing influence		.50***	03	02	~
Sustainability	H7	Marketing sustainability commitment → brand	Brand:	.07	.18**	.15**	~
leadership		performance	Sales:	.02	.06	06	
			ROI:	.04	.18	08	
			Newprod:	.13*	02	12*	
Brand image	H7	Marketing sustainability commitment → brand	Brand:	.08	.20***	08	<b>~</b>
orientation		performance	Sales:	.01	.09	05	
			ROI:	02	.18***	05	
			Newprod:	.09	.05	11*	
Innovativeness	H7	Marketing sustainability commitment → brand	Brand:	.10	.34***	09	~
		performance	Sales:	.00	.26***	03	
			ROI:	.01	.17***	.08	
			Newprod:	.04	.40***	12*	
Sustainability	Н8	Marketing influence → company performance	Brand:	.08	.19*	.08	~
leadership			Sales:	.01	.05	01	
			ROI:	.24***	.19**	.02	
			Newprod:	.09	04	.01	
Brand image	H8	Marketing influence → company performance	Brand:	.05	.34***	.07	$(\mathbf{V})$
orientation			Sales:	.00	.15	.13**	
			ROI:	.23***	.31***	.22***	
			Newprod:	.09	.08	04	
Innovativeness	H8	Marketing influence → company performance	Brand:	.05	.33***	01	$(\mathbf{V})$
			Sales:	.00	.27***	.06	
			ROI:	.22***	.19***	.13**	
			Newprod:	.08	.44***	04	

Significance \* p < .10; \*\* p < .05; \*\*\* p < .01

(paths between .01 and .05, nonsignificant); all moderators exerted significant, positive main effects on the dependent variable.

In terms of the moderating effects of organizational resources on the association between exploration and marketing's influence (H6), we found support for our predictions. The strength of the effect of exploration on marketing's influence depended on brand image orientation, as indicated by the significant interaction effect of exploration  $\times$  brand image orientation ( $\beta = .12, p < .05$ ), but it did not depend on sustainability leadership and innovativeness, which showed no moderating effects. Thus, we confirm H6.

We also predicted that no organizational resources would affect the association between sustainability marketing commitment and company performance (customer satisfaction, customer loyalty, brand image). All three moderators showed significant, negative effects on new product development (p < .1), and sustainability leadership negatively moderated the relationship to brand performance ( $\beta = -.15$ , p < .05). All other relationships were nonsignificant, providing support for H7. The control variable company size showed a positive effect on both sustainability marketing commitment (brand image orientation:  $\beta = .18$ , p < .01; innovativeness:  $\beta = .18$ , p < .01; sustainability leadership:  $\beta = .17$ , p < .01) and ROI



performance (brand image orientation:  $\beta=.13,\ p<.05$ ; innovativeness:  $\beta=.21,\ p<.001$ ; sustainability leadership:  $\beta=.17,\ p<.01$ ) in all three models, as well as a negative effect on brand performance in the models moderated by brand image orientation ( $\beta=-.21,\ p<.01$ ) and sustainability leadership ( $\beta=-.17,\ p<.01$ ). Furthermore, company size was found to have a positive effect on sales performance in the model moderated by innovativeness ( $\beta=.14,\ p<.05$ ).

Finally, we investigated the moderating effects of sustainability leadership, innovativeness, and brand image orientation on the association between marketing's influence and company performance. In support of H8, and as we show in Table 5, we detected no effects of sustainability leadership but significant and positive moderation effects of both innovativeness and brand image orientation on the relationship between marketing influence and ROI performance ( $\beta = .13$  and  $\beta = .22$ , p < .05). Furthermore, brand image orientation moderates the relationship to company sales ( $\beta = .13$ , p < .05). The control variable company size was not found to have an effect on marketing's influence, but had a positive effect on ROI performance ( $\beta = .20$ , p < .01), sales performance ( $\beta = .14$ , p < .05), and new product development performance  $(\beta = .16, p < .05)$  in the model moderated by innovativeness. Also, company size exerted a significant, negative effect on brand performance when sustainability leadership  $(\beta = -.16, p < .05)$  and brand image orientation  $(\beta = -.22, p < .01)$  were moderators. Finally, company size showed a positive effect on ROI performance  $(\beta = .18, p < .01)$  in the model moderated by sustainability leadership.

### **Research Implications**

In accordance with conceptual models of the evolution of corporate sustainability (Baumgartner and Ebner 2010; Hart and Dowell 2011), we identify a range of commitment levels (Table 4). Considering the end points of this continuum, we note that a higher commitment features three key traits: a propensity to enact a championship role for corporate sustainability in the company, engagement in driving and managing sustainability-led new product development projects, and efforts to foster relationships with various organizations that actively promote sustainability-led development in business and society. Thus, sustainability marketing entails marketing mix management that adopts a triple-bottom-line approach, but it also is a process that presupposes initiatives beyond the marketing management domain. Sustainability marketing signifies an alignment of marketing with other perspectives and disciplines. In conceptual discussions about the implications of corporate sustainability from a marketing perspective, we find similar propositions; our study confirms that it exists in practice too.

If marketing capabilities evolve as decisions are being enacted, evaluated, and appreciated, the pivotal role of managers is to resolve which marketing capabilities are important. In contrast with studies that examine organizational capabilities, within and outside the marketing field (Eggers and Kaplan 2013), we emphasize this managerial role and identify a strong association between managers' cognitions about important marketing capabilities and sustainability marketing commitment. To our knowledge, this study is the first to detail the nature and character of important marketing capabilities from a cognitive standpoint, investigating its impact on sustainability marketing and marketing's influence in the company. Whereas most research on dynamic capabilities also has been conceptual, we offer a novel approach to assess the representation and significance of dynamic capabilities in marketing on marketing strategy and processes, as well as on marketing's influence in the company.

The strength of the impact of marketing capabilities oriented towards exploration on sustainability marketing commitment does not depend on the organizational context. Thus, further progression along the sustainability marketing continuum does not require general management to pledge the importance of corporate sustainability or the organizational culture to signify values that resonate with the triple-bottom-line concept. Rather, the decisive factor appears within the marketing function and its management, with notable weight assigned to marketing capabilities oriented towards exploration. Previous studies have unpacked the presence of an association between marketing capabilities oriented towards exploration and company pursuit of market orientation or innovativeness (Menguc and Auh 2006; Theodosiou et al. 2012). This association arises because a strategic orientation drives the development of marketing capabilities, through reliance on their existence and development. With this study, we detect the association for the first time at the functional level of marketing and in relation to corporate sustainability.

We expected an association between innovativeness and sustainability marketing commitment, or between brand image orientation and sustainability marketing, in that sustainability marketing from a company perspective represents a strategic orientation and a marketing capability. With this study, we reveal that the this capability's potential to develop and strengthen largely depends on the capacity within companies' marketing departments to attain, develop, and capture new insights constantly, thereby integrating knowledge of consumer values and processes into innovation projects. Combining this finding with evidence that the cognitive frames of managers can explain differences in companies' responses to changes in



the external environment (Kaplan 2011), we suggest that managers' ideas about important marketing capabilities are pivotal with respect to this capacity.

According to the literature (Homburg et al. 2015; Krush et al. 2015; Verhoef and Leeflang 2009), a perceived image of being influential, a recognized respect at the top management level, and a substantial decisional influence on a broad range of issues are qualities of a marketing department that are associated with an organizational culture and conduct that signals a high responsiveness to customers' needs and values. This association can be explained by the propensity of an influential marketing department to be a driving force behind a market orientation. In our research model, marketing's influence drives sustainability marketing commitment. The argument rests on the association between marketing's influence and market orientation and is concurrent with the notion in the literature of a viable interplay between market orientation and corporate sustainability. However, our findings suggest that marketing's influence does not act as a substantial driver. A complementary analysis implies that an increase in marketing's influence in companies in which the influence is low may be positively associated with sustainability marketing commitment. That is, marketing's influence and the level of market orientation appear to act as conditions for, not drivers of, sustainability marketing commitment.

Regarding antecedents to marketing's influence in the company, the study revealed that the importance managers give to marketing capabilities oriented towards exploration plays a significant role. However, when we incorporate the organizational context for marketing into the analysis, brand image orientation emerges as a strong and positive moderator, whereas innovativeness does not. That is, for companies pursuing innovativeness, additional marketing initiatives to strengthen their exploration capabilities do not pay off in terms of marketing's influence. In our view, this result challenges the idea that antecedents of marketing's influence are determined depending on which resources (e.g. knowledge, relationships, capabilities) are perceived as pivotal or rare at a certain point in time. Marketing's influence has long been central to marketing literature, but without a clear delineation of its antecedents. The contribution of our study lies in presenting results that offer more nuanced substance to the idea that a focus on marketing capabilities oriented towards exploration benefits this influence.

Finally, in addition to confirming the widely established positive effect of corporate sustainability on brand image and brand reputation, our study shows that the link is apparent at a lower level of analysis, namely, at the functional marketing level. Our analysis of the moderators of the sustainability marketing–performance link affirms that the capacity of sustainability marketing to make a

difference with respect to companies' corporate sustainability endeavours depends on the domains in which it is enacted and supported. The findings from this study highlight the role and importance of the corporate top management level and the functional level of marketing. However, we note that other domains (i.e. levels and functions) are likely involved as well in enacting and supporting an implementation of sustainability marketing.

#### **Managerial Implications**

Managers responsible for marketing need to promote marketing capabilities related to initiating, driving, and managing new development projects, because they offer viable paths to success for not only the marketing function but the company as a whole. Considering the importance of innovativeness and corporate sustainability in business, the strong association between marketing capabilities oriented towards exploration and marketing's influence, as detailed in this study, should help support managers' efforts to establish innovativeness as a central dimension of their marketing logic. The association between sustainability marketing commitment and brand performance offers an additional argument for putting innovativeness and marketing capabilities oriented towards exploration at the top of the management agenda.

From a company perspective, this study shows that a reliance on market orientation, as the sole foundational premise for corporate sustainability, does not prompt a shift to improved sustainability levels, such as those associated with product stewardship, clean technology, or the base of the pyramid (Hart and Dowell 2011). That is, corporate-level management needs to promote and secure simultaneous orientations towards innovativeness and brand orientation.

#### Limitations and Directions for Further Research

The strong association between managers' inclination to emphasize capabilities oriented towards exploration and sustainability marketing commitment highlights the need for continued studies. In particular, Scandinavian countries appear at the top of international rankings of countries with sustainability endowments (RobecoSam 2017) and country-level innovativeness (global innovation index, Bloomberg 2015). Therefore, further research should consider whether exploration, as a driver of sustainability marketing commitment and marketing's influence in a company, has similar significance in other countries or regions. In uncovering the association between marketing management and capability orientations, additional studies could expand our findings. Similar to previous literature (Eggers



and Kaplan 2013; Tollin and Jones 2009), we recognize the importance of continuing to conduct research from a cognitive perspective on marketing management, as well as supporting this research orientation with thorough inquiries into the external and internal environments of marketing. As to the internal environment, our findings confirm the literature's framework regarding the impact of company core values (e.g. top management's values, company orientation towards innovativeness, and brand image) on sustainability marketing commitment. However, as discussed in the literature (Engert and Baumgartner 2016; Linnenluecke and Griffiths 2010), other important organizational issues, levels, and processes may be involved in defining the association between company core values and corporate sustainability.

A concurrent conclusion in the literature reviews is that there is a dearth of empirical research on the drivers and barriers to an association between dynamic capabilities and important areas of marketing capabilities, in addition to new product development (Vorhies et al. 2011; Wilden and Gudergan 2015). By addressing this gap, we also recognize the importance of conducting research that can verify our measurement scale of managers' perceptions of generic dynamic capabilities, across different markets and organizational contexts. Our study results, which suggest that an orientation towards a set of generic dynamic capabilities is a stronger drive of marketing's influence in brand image oriented company contexts than in companies driven by innovativeness, also lead us to call for more studies on the role of marketing and its contribution in other types of contexts.

#### Conclusion

The resource-based view and related studies identify marketing capabilities as an important factor for driving corporate sustainability (Chabowski et al. 2011; Crittenden et al. 2011; Kumar et al. 2013). However, insufficient empirical studies have clarified the composition, character, and location of these capabilities. To close this gap, the current study investigates the commitment, conduct, and capacity of companies' marketing departments to integrate corporate sustainability into their marketing strategies and processes. The study findings advance research on corporate sustainability by specifying a continuum of levels of commitment to corporate sustainability in marketing; the processes associated with sustainability marketing commitment, both within and beyond the marketing management domain; and the drivers of sustainability marketing that exist at the functional level of marketing and its organizational context.

#### **Compliance with Ethical Standards**

Conflict of interest The authors declare that they have no conflict of interest.

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