Environmental, Social and Governance (ESG) metrics do not serve services customers: a missing link between sustainability metrics and customer perceptions of social innovation

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Abstract

Purpose – The purpose of this paper is to highlight challenges for service firms communicating Environmental, Social and Governance (ESG) efforts to customers. Specifically, it focuses on the relationship between ESG metrics and reporting and customer perceptions of social innovativeness.

Design/methodology/approach – The empirical material comprises three years of data (2018–2020) covering more than 100 firms from three sources: (1) Social Innovation Index (Sii), which is collected as part of the American Innovation Index (Aii), (2) Bloomberg Sustainability Accounting Standards Board (SASB) ESG and (3) Datamaran.

Findings – ESG metrics and reporting do not suffice to explain customer perceptions of social innovativeness. Rather, a firm's industry plays the prominent role in affecting these perceptions where service firms are at a disadvantage as customers perceive services as less socially innovative compared to goods.

Practical implications – While ESG metrics and reporting provide important information for investors and regulators, they are not reflected in customers' perceptions of firms' social innovativeness, and services are at a disadvantage relative to goods. Therefore, services researchers and managers must advance their knowledge regarding how to better link ESG metrics and report to customers' perceptions.

Originality/value – The paper offers a first large-scale, cross-industry investigation of how ESG metrics and reporting impact customer perceptions of social innovativeness, leading to a research agenda on communication of ESG.

Keywords Sustainability, Social innovation, ESG, CSR, Social responsibility

Paper type Research paper

Introduction

The world took notice when Larry Fink, chairman and the CEO of Blackrock – the world's largest asset management firm – wrote in his annual letter to CEOs that the firm will "place sustainability at the center of our investment approach" (Fink, 2020). The message was unambiguous; corporate sustainability would have financial consequences.

Not surprisingly, service firms are also increasingly focusing on sustainability. Such efforts can not only attract investors, but also lead to competitive benefits, including cost cutting and brand differentiation (Vadakkepatt *et al.*, 2021). In addition, many customers are looking for firms to offer more sustainable solutions (McClay, 2021). In this paper, customer perception of firms' sustainability is conceptualized in terms of perceptions of social innovation, defined as a firm's ability to create novel, scalable and sustainable market-based offerings that solve systemic societal problems (e.g. Aksoy *et al.*, 2019). Social innovation is, thus, a broad multifaceted concept including sustainable developments that serve society as a whole.

Whereas standards for ESG (environmental, social, and governance) reporting and metrics that provide objective information of sustainability performance have been developed to communicate to stakeholders (Fernandez-Feijoo *et al.*, 2014; Ioannou and Serafeim, 2017), they are often aimed at regulators and investors and, as a result, communicating sustainability efforts does not always translate into customer perceptions of social innovation (Peloza *et al.*, 2012). In fact, little research has investigated the impact of ESG metrics and reporting on customers' sustainability perceptions. This is surprising, given the importance of customer support for firms' sustainability efforts (Vitell, 2015). If firms' sustainability efforts are not aligned with customer demand, they are unlikely to have desired effects. Nonetheless, the reality is that customers are often unable to distinguish firms based on their objective sustainability performance (Peloza *et al.*, 2012). This challenge could be even greater for services firms due to their inherent intangibility and heterogeneity.

This paper focuses on the potential impact of ESG reporting and metrics on customer perceptions of social innovation. Using a unique dataset comprising the American Innovation Index's (Aii's) Social Innovation Index (Sii), Bloomberg Sustainability Accounting Standards Board (SASB) ESG and Datamaran for more than 100 firms, we offer a first empirical investigation of how ESG reporting and metrics impact customer perceptions of social innovativeness. Additionally, services and goods are tracked to identify unique differences in this relationship between industries. The results show that objective ESG (as reported via Bloomberg SASB ESG) and firm reported ESG (as reported via Datamaran) have limited impact on customers' perceptions of social innovativeness (as reported via the Sii). Rather, a firm's industry plays the prominent role in affecting these perceptions. The results also show that services are perceived as less socially innovative compared to goods. Based on these findings, this paper offers suggestions for how managers of services firms should communicate ESG efforts, and avenues for researchers to advance understanding on this important issue.

Challenges of communicating ESG efforts to customers

Working with social innovation and ESG is complex. First, firms need to identify the most important sustainability issues and develop innovative solutions to address them.

Second, firms need to set goals and identify metrics to follow the progress of efforts. Third, these efforts and their results need to be communicated to relevant stakeholders.

There are several frameworks available for the first and second challenge. A key feature of these frameworks is that they enable firms to develop and report metrics that help evaluate whether sustainability efforts progress toward desired outcomes. Typically, these frameworks focus on the combination of social, environmental and economic impact (often referred to as people, planet and profit, cf. Elkington, 1997). On a firm level, ESG metrics are the most widely used (Aksoy *et al.*, 2019), where environmental criteria (E) reports performance related to the environment, social criteria (S) reports performance related to social relationships with different stakeholders (e.g. employees, suppliers, customers and the communities where it operates) and governance criteria (G) reports performance related to leadership, executive pay, audits, internal controls and shareholder rights. These together form a holistic evaluation of firms' sustainability performance.

When it comes to the third challenge, firms' social innovation efforts and results are commonly communicated through sustainability reports, firm websites and marketing communications. While the information is accessible to all stakeholders, marketing communications tend to target customers whereas sustainability metrics and reports have primarily been developed to meet information demands by investors and regulators. Although they should enable an assessment of the overall performance of a firm, it is not clear how helpful these metrics and reports are for firms seeking to convey their efforts to customers. In fact, research shows that customer perceptions of firms' social innovativeness tend to differ from objective performance (Peloza *et al.*, 2012).

From a communicative perspective, this is expected. ESG efforts and their outcomes are often abstract, distant in time and have a weak connection to customers' daily lives which make them difficult to grasp (White *et al.*, 2019). Consequently, customers often lack the motivation and ability to make informed judgments about firms' social innovativeness (Peloza *et al.*, 2012). What is more, the marketing communication used to communicate ESG efforts to customers (such as advertisements, in-store signage or packaging) often do not allow for complex or complete reports of ESG metrics.

Services face additional hurdles. Because they are intangible and heterogeneous, ESG communication is often more challenging. It might be hard for customers to grasp which aspect of service operations have a negative ESG impact, and how this impact can be addressed. As a result, it is difficult for customers to assess social innovativeness. This could be considered an "industry liability" (Peloza *et al.*, 2012) making it more difficult for services to be recognized and rewarded by customers for social innovativeness.

Data
Data for the analysis are compiled from three sources over three years (i.e. 2018–2020): (1)Sii, which is collected as part of the Aii, (2) Bloomberg SASB ESG and (3) Datamaran. In short, the Sii measures customer perceptions (i.e. what people think), Bloomberg ESG captures objective ESG metrics (i.e. what firms do) and Datamaran captures firms' ESG reporting activities (i.e. what firms say that they do).

The final dataset is comprised of 343 cases, each representing a unique combination of firm and year: 2018 ($N = 123$), 2019 ($N = 120$) and 2020 ($N = 100$). The file is "stacked", meaning that a firm may appear up to three times in the file (once per year for the three years of data included in the study). 288 cases have complete data from Bloomberg ESG in 2018 ($N = 119$) and 2019 ($N = 114$), but at the time of this analysis, data was unavailable for almost half of firms in 2020 ($N = 55$). There is no missing data in the Datamaran file. Only the cases with Bloomberg ESG data are included in the final models. Descriptive statistics for numeric

variables and frequencies of categorical variables for all model variables are included in Tables 1 and 2.

Measures

As the primary direction of causality is that firms' ESG metrics and reporting would be expected to impact customers' perceptions of firms' social innovativeness, the *Sii* is the dependent variable in the analysis. The Sii is an index of three measures (see Table 1) reported on a 0 to 100 scale (Cronbach Alpha > 0.80, cf. Nunnally, 1978). In our sample, scores

Variable	Mean	Std Dev	Min	Max	Operationalization
Social Innovation Index (Sii)	59.36	5.71	40.70	74.90	Measures customers' responses to three questions covering issues related to sustainability: (1) the firm having innovative offerings that benefit society, (2) the firm prioritizing the social good and (3) the firm consistently creating socially innovative solutions (Woodall *et al.*, 2018). For more info please refer to: https://americaninnovationindex.com/about/the-social-innovation-index/
Bloomberg E	37.84	17.00	2.33	75.97	The Bloomberg SASB ESG dataset offers
Bloomberg S	39.89	13.24	3.51	71.88	Environmental, Social and Governance metrics
Bloomberg G	63.40	8.11	46.43	85.74	scores for over 10,000 publicly listed firms. Bloomberg evaluates firms on an annual basis using public information that firms disclose through reports and websites, other public sources, and direct communication. In total, Bloomberg ESG data covers 120 Environmental, Social and Governance indicators (Huber and Comstock, 2017) In this analysis we use Bloomberg SASB ESG overall Environmental, Social and Governance score for each firm. For more info please refer to: https://www.bloomberg.com/professional/product/indices/sasb/
Protection of natural land cover	22.0%	0.415	0	1	Datamaran compiles the reporting activity of firms on over 100 dimensions of ESG (e.g. air emissions, alternative fuels, children's rights, climate change
Transition to renewable energy	66.4%	0.473	0	1	risks and management, governance structure, labor rights, philanthropy and volunteering, and water pollution). The reporting does not reflect the quality of firm initiatives on these topics, but rather the level of reporting activity on these dimensions. Each dimension was categorized by Datamaran as none, low, medium or high activity. For this analysis, mandatory reports (e.g. required documents such as annual reports) and voluntary reports (e.g. firm discretionary reports such as corporate sustainability reports) were combined to represent total ESG reporting activity. For more info please refer to: https://www.datamaran.com/

Table 1.
Descriptive statistics and operationalization of model variables

Note(s): Social Innovation Index (Sii) is the dependent variable used in all models; Bloomberg E, S and G are metrics designed to reflect overall firm performance on Environmental, Social and Governance issues; Protection of natural land cover and Transition to renewable energy reflect the level of firm reporting on these ESG-related topics as measured by Datamaran

Industry	Sii	Environment	Social	Governance	Protection of natural land cover	Transition to renewable energy	Services/goods	Industry count
Automotive	*70.9*	*56.8*	48.0	63.8	22.2%	88.9%	Goods	17
Consumer durables and equipment	*68.0*	35.9	40.8	64.6	23.5%	82.4%	Goods	17
Investments	64.4	20.8	28.6	57.7	0.0%	33.3%	Services	6
Delivery/shipping	62.9	66.2	46.3	66.1	0.0%	*100.0%*	Services	5
Health insurance	60.6	32.5	48.6	62.5	0.0%	30.0%	Services	8
Specialty retailers	59.8	35.8	32.5	62.6	12.5%	62.5%	Services	23
Airlines/Amtrak	59.6	41.8	39.3	62.1	38.9%	27.8%	Services	15
Hotels	59.4	34.9	43.1	64.7	20.0%	40.0%	Services	12
Technology	59.0	35.3	30.6	59.4	12.5%	62.5%	Services	26
Restaurants	58.9	35.4	28.1	57.7	33.3%	33.3%	Services	14
General merchandise retailers/Etailers	58.8	27.7	34.6	57.6	29.7%	56.8%	Services	30
Life and disability	58.8	46.6	39.7	*73.6*	16.7%	*100.0%*	Services	5
Utilities	58.7	51.9	*52.9*	67.1	18.8%	*100.0%*	Services	16
Credit cards	58.5	27.1	31.8	64.1	0.0%	66.7%	Services	10
Auto/property and casualty	57.7	40.4	48.0	*73.9*	0.0%	66.7%	Services	5
Banks/credit unions	57.2	37.8	44.7	66.5	8.3%	88.9%	Services	30
Wireless	57.1	33.3	45.1	62.5	26.7%	80.0%	Services	11
Supermarkets	56.1	34.5	40.8	64.8	*46.7%*	53.3%	Services	14
Gasoline stations	54.8	53.0	*51.0*	67.6	*66.7%*	*100.0%*	Services	12
TV subscription/Isp	51.1	23.5	29.6	55.4	5.6%	27.8%	Services	10

Note(s): Italic indicates 1st or 2nd highest values within the category; Transition to Renewable Energy had four industries with 100% high/medium reporting for all years investigated. Values in Sii, Environment, Social and Governance are average values for all firms investigated by industry for the years 2018, 2019 and 2020. Values in Protection of Natural Land Cover and Transition to Renewable Energy are the percentage of firms with high/medium reporting on the topic for all firms investigated by industry for the years 2018, 2019 and 2020

Table 2.
Industry-level means for variables under investigation

ranged from approximately 40 to 75, with the mean across all firms and time periods being 59.4. Higher scores correspond to higher customer perceptions of social innovativeness. Sii scores vary for each firm by year; therefore, the Sii score for any combination of year and firm name is unique.

Industry Classification taken from the Sii data is assigned at the firm level and does not vary by year. Firms are classified into one of twenty service or goods categories (see Table 2). For the regression models, wireless is used as the reference category and only those categories that significantly differ from the reference are reported in the model tables.

In Bloomberg SASB, "E", "S" and "G" represent the three Bloomberg SASB ESG overall scores for ESG. In our sample, scores range from 2.3 to 85.7. The average Environmental score is 37.8, the average Social score is 39.5 and the average Governance score is 62.9.

The analysis examined over 100 Datamaran indicators but only two variables were identified as significant and robust over multiple models investigated: *Protection of natural land cover* and *Transition to renewable energy*. Both are dummy indicators from the Datamaran data, coded 1 if reporting for the firm in that year was recorded as "High" or "Medium" and coded 0 if reporting was recorded as "Low" or "None".

Method
Because the data are not strictly hierarchically nested, this investigation used an extension of multilevel modeling, hierarchical cross-classified modeling (HCM). HCM fits both fixed and random effects and accounts for the structure of the data by including random intercepts in the model for the two cross-classified identifiers (Singer, 1998), in this case, firm and year. Listwise deletion was used to handle missing data, all of which related to the Bloomberg ESG variables. Although not included in this paper, we did estimate models based on the larger sample of $N = 343$ where applicable and found our results to be consistent.

Findings
The results of the analysis are presented in Table 3.

Model 1 analyzes the impact of industry classification binarized as services vs goods. The effect of service is negative and significant (–10.93), indicating that service industries are at a disadvantage in terms of customer perceptions of social innovation. Model 2 expands the industry classification using Wireless as the reference category. Five industries differ significantly from the reference category, with automotive (14.32) and consumer durables (11.42) demonstrating the strongest positive effects. The overall fit of the model improves based on Akaike information criterion (AIC) and Bayesian information criterion (BIC) (in both cases, lower is better).

In Model 3, the Bloomberg ESG variables are added to the industry classification. None of the Bloomberg ESG variables are statistically significant, and the overall model fit as measured by AIC and BIC degrades because of their inclusion.

Model 4 includes Datamaran variables. Initially, all Datamaran categories were input into models that included the Bloomberg ESG metrics. Only two Datamaran variables, however, were consistently statistically significant: Protection of natural land cover (PNL) and Transition to renewable energy (TRE). As with Model 3, the ESG metrics were not statistically significant despite the inclusion of Datamaran variables. Therefore, Model 4 includes PNL and TRE with the variables in Model 2. PNL had a negative impact and TRE had a positive impact on customers' perceptions of social innovation. The observed effects are consistent with the bivariate relationships between the Sii and these variables. Industry classification, however, remains the most important predictor. Based on AIC and BIC, Model 4 is superior to all models tested [1].

	Model 1	Model 2	Model 3	Model 4
Fixed effects				
Intercept	69.46*** (1.72)	56.59** (2.06)	54.44** (3.18)	55.80** (2.09)
Industry classification				
Industry: service	−10.93*** (1.17)			
Industry: automotive		14.33*** (2.11)	14.44*** (2.20)	14.14*** (2.08)
Industry: consumer durables and equipment		11.42*** (2.11)	11.37*** (2.14)	11.31*** (2.08)
Industry: investments		8.34** (2.58)	8.45** (2.63)	8.66*** (2.55)
Industry: delivery/shipping		6.42* (2.92)	6.50* (3.03)	5.80* (2.88)
Industry: health insurance		5.07* (2.38)	5.06* (2.41)	5.49* (2.37)
Bloomberg variables				
Bloomberg E(nvironment)			−0.01 (0.03)	
Bloomberg G(overnance)			0.04 (0.04)	
Bloomberg S(ocial)			0.00 (0.03)	
Datamaran variables				
Protection of natural land cover				−1.22* (0.51)
Transition to renewable energy				1.41* (0.54)
Random effects				
Intercept, Firm	13.10*** (2.01)	10.13*** (1.77)	10.37*** (1.83)	9.83*** (1.73)
Intercept, Year	5.21 (5.29)	5.23 (5.31)	5.16 (5.23)	5.33 (5.41)
Residual	4.61*** (0.51)	4.61*** (0.51)	4.62*** (0.52)	4.48*** (0.50)
Fit statistics				
Pseudo *R*-square	33.0%	41.6%	41.1%	42.6%
AIC	1502.3	1406.8	1421.9	1396.3
BIC	1496.3	1400.8	1415.9	1390.3

Note(s): *** = 0.001 significance level, ** = 0.01 significance level and * = 0.05 significance level

Table 3.
Hierarchical cross-classified model results
of Sii regressed on
industry, Bloomberg
ESG and Datamaran
variables

Discussion and implications

These findings raise several important issues for service researchers and managers. The results align with the finding of Peloza *et al.* (2012) that firms' ESG efforts do not necessarily drive customers' social innovativeness perceptions. Rather, industry classification impacts customer perceptions of social innovativeness. Here, services are at a disadvantage to goods industries. While only two industries in our investigation were goods (i.e. automotive and consumer durables, and equipment), these industries ranked first and second in terms of customer perceptions of social innovation (see Table 3). It is important to note that this result differs significantly from the ESG metrics reported by Bloomberg, which are used by investors to gauge firms' commitment to ESG efforts. Of the top five industries in terms of average social innovativeness, only delivery/shipping and automotive were high on any of the Bloomberg ESG metrics (specifically Environment).

Hence, services appear to suffer from an industry liability of lower perceptions of social innovativeness (Peloza *et al.*, 2012). This may, in part, be due to the nature of services relative to goods. The intangibility of services may make the impact of ESG efforts hard to grasp. For example, the shift in the automotive industry from gasoline powered engines to hybrid and electric vehicles is obvious to customers, whereas a service firm's transition to being carbon neutral may not reflect directly in the delivery of the service. This aligns with the findings of Nickerson *et al.* (2021) showing that firms that are perceived as unsustainable reap larger benefits from ESG efforts. There seems to be a "contrast effect" on industry level as well; industries that have a salient negative ESG impact are more likely to be recognized by

customers when working to correct for this, compared to industries with a nonsalient negative impact.

Another issue that may negatively influence customers' perceptions of social innovativeness in services is heterogeneity. Murray and Schlacter (1990) find that services generate higher perceptions of perceived risk and product variability. It is possible that these higher perceptions of risk and variability negatively influence customers' perceptions of service firms' ability to consistently deliver innovative solutions to systemic ESG issues. However, research has shown that services can work with ESG in order to limit these risk perceptions (Bhattacharya et al., 2021).

In terms of firms' ESG reporting (as tracked by Datamaran), it appears likely that the two variables included in the model (i.e. PNL and TRE) are rather a reflection of general customer perceptions of the social innovativeness of the industry than a reflection of what is reported. This conclusion results from the negative relationship between PNL and customers' perceptions of social innovation for services firms. Two of the lowest scoring industries in the Sii – supermarkets and gasoline stations – are the top two industries in reporting PNL. By contrast, TRE is highly reported by the top two Sii industries (i.e. automotive and consumer durables, and equipment) which are classified as goods.

Finally, it is important to note that ESG metrics and reporting have primarily been developed for use by investors and regulators. While customers want transparency, it is unlikely that they desire or can process ESG communication at the same level of detail. Therefore, there is a need for managers to be skilled in (1) ESG reporting for communicating with investors and regulators, (2) understanding how working with ESG links to customers' concerns and (3) communicating this information to customers. The aim is to increase ESG communication quality to ensure that ESG efforts impact customer perceptions of social innovativeness while avoiding the risk of greenwashing.

Research agenda for communicating ESG in services

This initial investigation shows that ESG metrics and reporting has limited impact on customer perceptions of social innovation, but this does not mean that they are not of relevance. ESG metrics and reporting can be a helpful internal tool for firms to track progress and improve ESG performance (e.g. Li and Wu, 2021). Previous research has also shown that ESG reporting and metrics impact financial performance and attract investors (Rodgers et al., 2013; Cordeiro and Tewari, 2015). However, given the challenges of translating ESG metrics and reporting into perceptions of social innovativeness among customers, there is a clear need to investigate how ESG efforts can enhance customers' perception of social innovativeness. Research is needed to better understand what, when and how to communicate about ESG metrics to enhance customers' perceptions of social innovativeness. This is especially important for services, given that they tend to be viewed as less socially innovative.

As a result, there are numerous opportunities for service researchers to advance understanding and provide meaningful guidance to managers. Table 4 summaries the broad themes and associated research questions that need further investigation.

The role of social innovation in service firms

The findings of this investigation indicate that services are perceived as less socially innovative compared to goods. Throughout the text, it is proposed that intangibility and heterogeneity put services at a disadvantage regarding perceptions of social innovation. Previous research has also shown that the heightened risk perceptions of services enables services firms working with ESG to be more effective in mitigating perceived risk compared

Themes	Research questions
The role of social innovation in service firms	How does the nature of services influence customer perceptions of social innovativeness?
	What characterizes socially innovative service firms?
	What drives perceptions of social innovativeness in different industries?
	How is the "halo effect" of innovation impacting perceived social innovation?
What to communicate?	What should an industry-standard for ESG metrics and reporting targeting customers look like?
	What aspects of E, S and G are most important in impacting customer perceptions of social innovativeness?
	What is the impact of communicating ESG liabilities on customer perceptions of accountability?
When to communicate?	When in the service encounter purchase process should service firms communicate what ESG metric?
	When are customers more likely to be impacted by long-term ESG benefits?
How to communicate?	How does (in)tangibility affects the way service firms should communicate ESG?
	How does numerical bias impact customer perceptions of communicated ESG metrics?
	How does voluntary versus mandatory reporting impact customer perceptions of social innovativeness?
	How can ESG metrics and reports be adapted on a local (versus global) scale?

Table 4.
Research agenda

to goods (Bhattacharya *et al.*, 2021). Future research should investigate whether intangibility, heterogeneity or some other factors put services at a disadvantage and how services firm can work to mitigate this.

It is also important to note that while industry plays a significant role in customers' perceptions of social innovation, forty-five percent of firms in the top 20 Sii firms for the years 2018, 2019 and 2020 were services. For example, Ikea, Aflac and Jet Blue consistently rank among the top firms in social innovation. Therefore, there are other factors beyond industry that customers use to evaluate the social innovativeness of individual firms that are not captured in the Bloomberg and Datamaran data. Moreover, as customers typically choose between firms within the same industry, within-sector comparisons of what drives customer perceptions of social innovation are important. Future research should, thus, investigate the distinguishing characteristics of well-performing firms and what set firms apart in terms of what makes customers perceive them as socially innovative in different industries. This could also help delineate firm-specific, industry-specific and more general attributes that drive customer perceptions.

Further, the Social Innovation Index is a combined measure of innovation and sustainability in terms of societal benefits. The relationship between societal benefits and innovation in shaping customer perceptions needs further investigation. Previous research has found that less innovative firms that engage in corporate social responsibility (CSR) decrease customer satisfaction levels and the firm's financial returns (Luo and Bhattacharya, 2006); it is possible that customers' perceptions of social innovation are also lower for less innovative firms, even if their actual ESG performance is high. Further research should explore the presence of a potential (positive or negative) "halo effect" between customer perceptions of societal benefits and innovativeness.

What to communicate?
Research finds that more ESG communication is not necessarily better; too much ESG information can lead to numbness among customers (Gifford, 2011). Hence, it is of essence to determine what should be communicated to customers. Customers are inundated with information about ESG with well over 100 organizations measuring, monitoring and communicating about firms' ESG performance. Although the aim is to create meaningful distinctions, they instead create confusion among customers (Peloza *et al.*, 2012). Going forward, researchers should work together with the industry and policymakers to create an industry-standard for how to measure and communicate social innovation to customers based on research-derived insights. Such a standard must strike the balance between too simple and too complex to be meaningful to customers.

More specifically, research is needed to outline what aspects of E, S and G are most relevant to communicate to impact customer perceptions. Whereas our empirical study did not uncover any impact of these dimensions, the reason for a missing effect can be many, ranging from lack of communication to firms communicating the wrong ESG metrics to customers. Research suggests that communicating environmental rather than social sustainability has a bigger impact on customers (Nickerson *et al.*, 2021), but this needs further exploration within a service context. Furthermore, the impact of governance communication in comparison to environmental and social communication on customer perceptions is yet to be established empirically.

Prior research has also shown that ESG efforts that signal accountability are more effective (Nickerson *et al.*, 2021). Signaling accountability, however, requires that customers understand what part of the firm's operations have a negative impact. As a result, service managers may need to highlight firm-related liabilities of which customers are unaware so that they can be addressed and thereby demonstrate accountability. Hence, research should investigate the effects of communicating ESG liabilities on perceived brand accountability.

When to communicate?
Customer concerns are likely to differ depending on the stage of the purchase process. For example, negative ethical information is prominent when forming consideration sets, while positive ethical information can drive decision-making in the choice phase (Schamp *et al.*, 2019). This means that the timing and placement of ESG communication matters. Marketers must understand concerns and communicate ESG efforts that are relevant at each step of the purchase process to make them salient to customers. Research has shown that the closer the customer is to the purchase, the more concrete communication is desired (Tangari *et al.*, 2015). This suggests that ESG communication at the point of purchase should be more concrete, whereas communication in mass media should be more abstract. More research is, however, needed to identify the customer relevant ESG metrics to communicate at the prepurchase, purchase and postpurchase phases of the customer journey.

Another aspect to consider is temporality. To make the benefits of ESG efforts appear closer in time, research finds that firms should communicate about how it leads to benefits today (Paswan *et al.*, 2017). However, more research is needed on how to best communicate customer benefits that are important but take a longer time to be realized.

How to communicate?
To increase customers' ability to process ESG messages, previous research suggests that firms should leverage what is already salient to customers. For example, when a firm engages in a cause, customers perceive to be appropriate for the firm (i.e. high firm-cause fit); this increases the effectiveness of ESG communications (Kuo and Rice, 2015). Similarly, ESG

efforts with a clear connection to firm operations lead to positive customer outcomes (Nickerson *et al.*, 2021). An examination of the research to date suggests that communicating ESG efforts in ways that make them appear tangible to customers is key (e.g. White *et al.*, 2019). Yet services are inherently intangible, and therefore the ESG efforts of service firms would, by extension, be more intangible (relative to goods). Therefore, it is important to explore the role of tangibility in ESG communications within services.

On this note, ESG metrics are often communicated in terms of specific numeric targets, achievements or Key Performance Indicators (KPIs), even when they have been adapted to a customer audience. For example, H&M is using the Higg Index Sustainability Profile to communicate an overall sustainability score for their products based on water usage, carbon emissions and the use of fossil fuels (Pinnock, 2021). However, people are subject to numerical biases impacting how they perceive numerical information. Specifically, customers will perceive the same information differently depending on the unit used to present numerical information. For example, research has shown that customers are more sensitive to differences in cars' fuel consumption when using a default unit (liters per 100 km) versus nondefault units (kWh and gallons per 100 km) (Herberz *et al.*, 2020). Further research should investigate how such numerical biases may impact customer perceptions of communicated ESG metrics.

Moreover, ESG efforts that are perceived to have a sincere motive are perceived more favorably (Yoon *et al.*, 2006). This might also be the case for ESG reporting. Datamaran distinguishes between voluntary and mandatory ESG reporting. Further research is needed to investigate how voluntary ESG reporting versus mandatory ESG reporting impacts perceived motive and social innovativeness among customers.

It should be noted that ESG metrics and reports encompass all firm activities which often comprise large national or international operations. Communicating ESG outcomes on a local rather than global scale, however, is more likely to impact customers (Scannell and Gifford, 2013). This suggests that ESG metrics and reports need to be adapted to and communicated on a local level. Additional research is needed to investigate how this should be done.

Conclusion

ESG metrics and reporting provide important information for investors to reward and for regulators to monitor firms based on their ESG efforts. However, for ESG efforts to positively impact firm sales, customers must know how firms are performing on these issues. This research clearly demonstrates that customers' perceptions of social innovation are not aligned with firms' ESG efforts. Moreover, services – which represent the majority of GDP for developed economies – have a clear disadvantage in terms of customers' perceptions of social innovativeness, regardless of their ESG performance.

This investigation serves as a call to action for service researchers and managers to: (1) identify aspects of ESG that are important to customers, (2) create relevant ESG metrics that can be tracked by all stakeholders that link to customers' perceptions of firms' social innovativeness and (3) develop ESG-related communications that inform and resonate with customers. As the world faces enormous environmental and social challenges, service researchers and managers can meaningfully contribute by advancing our understanding of how to make ESG efforts salient to customers and therefore more successful for firms, and in extension for people and the planet we all share.

Note

1. Models were also tested that allowed for random slopes. Here too, all Bloomberg ESG metrics were not statistically significant.

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