The importance of sustainability engagement in small businesses supplier collaboration

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Abstract
Sustainability engagement is suggested to increase future company value. Collaboration between companies can assist them to become more sustainable. Even though collaboration can be seen as instrumental in developing more sustainable companies, the rise of e-business has changed the game in terms of attaining high performance. Thus, this study investigates the relations among supplier collaboration, sustainability, and market performance in the context of e-business. Specifically, the aim of this study is to determine how supplier collaboration leads small e-businesses to develop e-business sustainability and, in turn, deliver enhanced market performance. The data were collected with a cross-sectional random sampling of small online store operators in Finland. Supplier collaboration was found to influence market performance via e-business sustainability. The results offer implications for firms operating in e-business by supporting collaboration with suppliers and sustainability values while maintaining high market performance.

KEYWORDS
E-business, market performance, online operator, stakeholder engagement, supplier collaboration, supply chain, sustainability, sustainability engagement, sustainable development

1 | INTRODUCTION

The rapid expansion of information and communication technologies and an increase in digitalization has changed businesses and affected companies’ collaboration and corporate sustainability activities in many industries (Pinelli & Maiolini, 2017; Zhang et al., 2019; Shang et al., 2020; Ulucak & Khan, 2020; Lozano et al., 2021). Due to the increase in digitalization, the growth of e-business has resulted in major changes in how firms operate in various markets. Supplier collaboration has been specifically affected (Y. Yang et al., 2017). Amazon, Dell, and Lenovo can be named practical evidence of e-businesses that have improved collaborative benefits in the supply chains, leading to both economic and non-economic advantages by enhancing borderless collaboration (Zhu et al., 2020). E-business, defined as a concept that covers aspects relating to the selling of goods or services online, has enabled information sharing throughout the supply chain, which has made wider integration possible among supply chain members. Thus, supplier collaboration is seen as a way for firms throughout the supply chain to distribute knowledge, network to enhance performance, and decrease total costs (Soyslu et al., 2006). For this reason, the literature often refers to supplier collaboration as an essential facilitator of firm performance (Bals et al., 2018; Z. Cao & Lumineau, 2015).

Also, the rise of e-business has put the role of sustainability in the spotlight. In the context of e-business, it is often perceived that the traditional goal of firms, defined as providing profits for owners, has been complemented by more socially and environmentally sustainable goals (T. Oliveira & Martins, 2010; Ukko et al., 2019). Companies are paying more attention to the business perspective of corporate sustainability, as it is indicated that if companies better...
pursue sustainability development goals, it can increase their future value (de Castro Sobrosa Neto et al., 2020). While collaboration plays an important role in helping companies to become more sustainable (Govindan et al., 2016; Lozano et al., 2021; Seuring & Gold, 2013), firms must focus on managing both internal and external relations to become more socially and environmentally responsible while retaining economic sustainability (Luzzini et al., 2015; Shang et al., 2020). Even though collaboration can be seen as instrumental in developing more sustainable companies (Govindan et al., 2016; Lozano et al., 2021; Wassmer et al., 2014), and although recent literature has investigated the important role of supplier collaboration in firm performance (Bals et al., 2018; Z. Cao & Lumineau, 2015; Liu et al., 2009) and has acknowledged the significance of supplier collaboration in attaining sustainability in the business field (Lozano et al., 2021; Soosay & Hyland, 2015; Witjes & Lozano, 2016), in-depth comprehension of the influence of embedded sustainability and supplier collaboration on firm performance is limited (Blome et al., 2014). Further, even though evidence exists that a company's corporate sustainability performance is positively associated with its financial performance, especially in digitizing business (Jung et al., 2017), the influence of supplier collaboration on sustainability in the e-business context, as well as the impact of such commitment on performance, is empirically under-researched (Beckman et al., 2012).

To provide an understanding of the role of sustainability in the context of e-business, the aim of this study is to explore the relations among sustainability, supplier collaboration, and market performance. The research is guided through two research questions:

**RQ1. Are there connections between supplier collaboration and market performance?**

**RQ2. Does e-business sustainability mediate the connection?**

This study contributes to the literature by emphasizing that in the context of e-business, applying supplier collaboration alone is not sufficient to achieve higher market performance; e-businesses also need to concentrate on sustainable initiatives and how to utilize them in the context of e-business. Therefore, there is a need to further examine how supplier collaboration leads e-businesses to develop e-business sustainability and, in turn, delivers enhanced market performance. The results offer implications for firms operating in e-business by supporting collaboration with suppliers and sustainability values while maintaining high market performance.

This paper begins with a theoretical background of supplier collaboration in the e-business domain. Next, the theoretical model is presented, and its hypotheses are discussed. The methodology adopted for the study is then explained, and the results are presented and discussed. Finally, contributions to research and managerial practice are proposed, accompanied by future research directions.

## 2 THEORETICAL BACKGROUND

In today's digitalizing business environment, society's expectations of business are increasing, and stakeholders are asking companies to become more mindful in their sustainability interests (Pinelli & Maiolini, 2017). According to the authors, companies are responding to these expectations by becoming involved in the resolution of sustainability challenges. In particular, companies using e-business applications are increasingly applying sustainability principles as a part of their corporate responsible behavior (Kucharčíková et al., 2018), and they are also sensitive and responsive to their environment and are more aware of the role of e-business applications in gaining sustainability and long-term competitiveness (Al Omoush et al., 2018). Many studies have presented the concept of sustainability in terms of environmental, economic, and social aspects (e.g., Pålsson et al., 2017; Rantala et al., 2018). In e-businesses, this concept may describe the extent to which the e-business application allows the firm to operate in economically, socially, and environmentally sustainable ways. This definition is used as a definition of e-business sustainability in this study. The economic sustainability of e-business refers to an increase in the operational and innovation performance of companies, which can be achieved through improvements in asset utilization, reduced time to get products to markets, and quick responses to customer demands (Paštiu et al., 2020). For example, when focusing on e-business sustainability from an economic perspective, the evolution of digital distribution channels such as software platforms, operating systems, web services, or online shops (Nylen & Holmström, 2015) may increase the sales and market shares of the firms. From the perspective of the social sustainability of e-businesses, Paštiu et al. (2020) argue that the capability of e-business can, for example, improve social innovation and further improve the life conditions for individuals and for society as a whole. Notably, in many parts of the world, an online store may be the only way to obtain a particular product or service; therefore, it can affect social sustainability. On the other hand, from the social aspect of e-sustainability, e-service recovery is an example that can be defined as the process of electronically handling customer problems and turning them from a negative into a positive experience (P. Oliveira & Roth, 2012). Regarding the environmental aspect of e-business, information richness, which refers to the quality of information about environmental impacts presented in the e-business portal, can be essential (cf. P. Oliveira & Roth, 2012). It can be argued that when firms seek more competitive advantages in the marketplace, relationship building with buyers or suppliers becomes increasingly critical (Liu et al., 2009). For example, Liu et al. (2009) concluded that superior relationships create a stable and fostering environment for the firm to grow in a dynamic market, solidify the group's collective power against competing groups, and generate greater returns through resource sharing.

This has led many firms to collaborate with their suppliers and customers (Blome et al., 2014) to manage increasing sustainability requirements. Supplier collaboration refers to a critical business process for developing closer relationships with key suppliers to create relationship value (Autry & Golcic, 2010; Bals et al., 2018). Furthermore, collaboration between e-businesses and suppliers represents a critical component of service delivery processes through which e-businesses have direct input in the development of e-services (Ngo & O'Cass, 2009). Blome et al. (2014) suggested that this
approach advances joint initiatives and partnerships with supply chain partners to develop strategies that improve overall efficiency throughout the supply chain while still meeting organizational and environmental objectives. Blome and colleagues also noted that through such improvements, firms also aim at improving their performance—not only to alter customer perception but also to influence their market position. Furthermore, many studies suggest that adoption and use of e-business applications are indispensable in gaining a sustainable competitive advantage to raise firms above the threshold of sustainability (Al Omoush et al., 2018; T. Oliveira & Martins, 2010).

3 | THEORETICAL MODEL

Based on the theoretical background presented above and leaning on the theories in supplier collaboration and e-business sustainability, the hypothesized model of the study is demonstrated in Figure 1. The model indicates that supplier collaboration in managing e-business provides the potential to increase market performance. However, the hypothesized model suggests that such potential is realized only when attention is given to e-business sustainability. While supplier collaboration (Bals et al., 2018) is crucial in making e-business work, sustainability engagement offers the channel through which suppliers and focal firms can enhance e-business sustainability and further pave the way for the focal firm to succeed in the markets. Therefore, a firm that does not embrace e-business sustainability may not necessarily attain enhanced market performance, even though their suppliers had “properly” informed them concerning e-business. Thus, the model proposes that e-business sustainability acts as a mediating mechanism that connects supplier collaboration practices and market performance. The scientific justification of the research model is presented in the following, while two hypotheses of the research model are developed simultaneously, building on prior research.

The position of a firm in the market resides in the firm’s competencies, routines, and practices, which enable it to perform more effectively in different marketing activities, including customer service, business brand, and sales promotion (Ho & Lu, 2015). Given that the development of a firm’s competencies is executed through learning procedures, there is a need for cumulative experiences and complementary resources that can be achieved through supplier collaboration (Ho & Lu, 2015). Furthermore, research on supply chains has revealed that suppliers could learn much from service experiences created by suppliers and different practices (Cheung et al., 2010; Najafi-Tavani et al., 2020). Moreover, gaining external knowledge and higher firm performance can be achieved by the firms’ ability to leverage partners, including supplier collaboration (Krause et al., 2007). Accordingly, supplier collaboration provides multiple benefits, such as new product development, operational performance, and knowledge creation for the firms, which contributes to market performance (M. Cao & Zhang, 2011; Mahmood et al., 2011). However, according to Wei et al. (2021), despite the importance of supplier collaboration on superior performance, there are many mixed and confusing results that show the need for more research on supplier collaboration and integration in changing environments and different contexts.

In supplier collaboration, continued relationships, interactive activities, and working together help partners deepen their understanding of their restrictions and strengths, as well as enhance opportunities for collaborative activities, resulting in improved customer services and offerings as well as market performance through quick responses (M. Cao & Zhang, 2011; Zhou et al., 2017). Ho and Lu (2015) referred to supplier collaboration as a double-edged weapon that improves exploration and hinders exploitation of market performance. Ho and Lu (2015) noted that growth in firms’ performance, achieved by supplier collaboration, decreases the firms’ willingness to enhance their internal resources, learning, and competencies to improve marketing. Consequently, the effectiveness of exploitation to create customer value and enhance market performance will diminish. Regarding the complexity and importance of supplier collaboration in terms of building and promoting close relationships with key suppliers (Bals et al., 2018; Y. Yang et al., 2017) and the importance of exploiting the full potential of supplier collaboration in changing environments like e-businesses (Ngo & O’Cass, 2009; Wei et al., 2021) for the achievement of market performance, the first hypothesis is formed as follows:

**Hypothesis 1.** Supplier collaboration is positively associated with market performance.

With the growing number of possibilities for product and service offerings, firms taking advantage of e-business today are increasingly demanding sustainability engagement (Aras & Crowther, 2009; Oláh et al., 2019). As such, the practice has become more important to develop e-business operations that pay attention to economic, social, and environmental sustainability, not only to attract but, more importantly, to keep customers (Pålsson et al., 2017). The development and

![FIGURE 1 Hypothesized model](image-url)
implementation of e-business sustainability will enable operators to build long-lasting relationships with their customers and consequently improve market performance. For example, the economic sustainability of e-business requires that firms should not only focus on short-term transactions and deliveries but also on long-term customer relationships. Firms should also ensure that customers can see value in their purchases and be satisfied with them (Oláh et al., 2019).

The social sustainability of e-business and its intersection with social media provide a wider audience through the rise of social commerce (X. Wang et al., 2019). For instance, the social sustainability of e-business can provide opportunities through social media and digital platforms for both parties—customers and suppliers—in a way that explains their needs in both working and living places to enhance well-being and for supplies in a way that better understands customer needs; accordingly, suppliers can consider those aspects in their products or services, and thereby achieve market performance. By combining e-business with social media solutions as part of e-business operations, social commerce creates new ways to develop social sustainability, thus giving firms new mechanisms to develop customer channels for customers to improve their purchase decisions, for example, through interactions and user-generated content (X. Wang et al., 2019). As such, social commerce provides solutions for firms to enhance the social sustainability of their e-business and increase their market performance through customer engagement (Zheng et al., 2015).

Many of the environmental disadvantages in contemporary e-businesses are related to the transportation and logistics of delivered products and services. Thus, giving attention to logistics is an important part of environmental sustainability development. For example, Al Omoush et al. (2018) noted that manufacturing firms have a wide range of business partners, including suppliers, distributors, and logistics firms, that must share information concerning orders, production, inventory, and delivery of products and services. Sharing this information, from the aspect of environmental impacts on e-business platforms (e.g., online shops), may affect market performance. E-business platforms should be flexible and time-reliable, and both firms and their customers should be able to monitor processes to reduce carbon emissions by decreasing customer returns (Oláh et al., 2019; Z. Yang et al., 2016).

Based on the considerations presented above, it can be said that e-business sustainability plays a crucial role in transforming supplier collaboration to gain higher market performance. As such, the second hypothesis is presented as follows:

**Hypothesis 2.** E-business sustainability fully mediates the relationship between supplier collaboration and market performance.

## 4 | RESEARCH METHODOLOGY

### 4.1 | Data collection

Data were collected from a survey of small- and medium-sized firms in Finland. The sample consisted of firms that have an online store. The respondents held management positions, which enabled them to provide good information when answering items related to online store operators’ supplier collaboration, e-business sustainability, and market performance. The study followed a random sampling procedure. Initially, the survey was sent to 2312 online store operators, which is about 31% of the total number of online stores in Finland. Of the 2312 surveys sent, 109 responses were returned, which satisfied the suggested minimum number of responses (83 responses) with a specific population size (2000–4000 population) proposed by Barlett et al. (2001). Of the surveys returned, 75% had five or fewer employees and 25% had more than five employees. About half of the online stores had been established for less than 5 years, and half had been established for more than 5 years. The survey results showed a diverse range of products, including clothing, athletics, decoration, construction, information technology, and management consulting.

### 4.2 | Measures

Prior scales informed all the scales used in the survey. A focus group formed by the researchers was used to identify a variety of supplier collaborations and e-business sustainability practices. Then, the results of the studies listed in Table 1 were used as a reference to formulate new items suitable for this study. Several iterative sessions were held with researchers who knew the topic. The objects thus measured were constructed on the basis of the theoretical lens provided by previous studies. These views were incorporated into the survey items presented below.

#### 4.2.1 | Supplier collaboration

A two-item scale ranging from 1 (“poor”) to 4 (“excellent”) was used to measure supplier collaboration. Respondents were asked to estimate their experiences with the services provided by the supplier and their relationship with the supplier.

#### 4.2.2 | E-business sustainability

This study examined e-business sustainability utilizing a three-item scale, ranging from 1 (“poor”) to 4 (“excellent”). Respondents were asked about the extent to which their online store allows them to operate in an economically, socially, and environmentally sustainable way.

#### 4.2.3 | Market performance

Market outcomes were measured with a one-item, four-point scale, ranging from 1 (“totally disagree”) to 4 (“totally agree”). Respondents were asked to estimate their firm’s position in the markets.
Questionnaire design

In this study, the respondents were encouraged to provide truthful responses. In recipients that responses would be handled in confidentiality, and types was used in this study. The introductory letter assured the tify exogenous and endogenous variables and used different scale (40.13% of variance explained) did not explain the greatest portion of results reveal that more than one factor emerged, and the prior factor common method variance. This prospective puzzle was controlled via the two sets. Therefore, non-response bias is not likely to exist. Utiliz- on demonstrate statistically significant differences in the variables between the respondents who did and did not fully complete the survey (Whitehead et al., 1993). This test did not dem- onstrate statistically significant differences in the variables between the two sets. Therefore, non-response bias is not likely to exist. Utilizing only a single respondent from one firm may pose puzzles about the possibilities of competing in the markets. On the other hand, high competition may affect market performance by reducing the possibilities of competing in the markets.

| Construct | Definition | Items | References |
|-----------|------------|-------|------------|
| Supplier collaboration | A critical business process for developing closer relationships with key suppliers | Experience about the service of the online store supplier. Cooperation with the online store supplier. | Autry & Golicic, 2010; Bals et al., 2018 |
| E-business sustainability | The e-business application's economically, socially, and environmentally sustainable way of operation | The online store makes it possible for us to operate in an economically sustainable way. The online store makes it possible for us to operate in a socially sustainable way. The online store makes it possible for us to operate in an environmentally sustainable way. | Al Omoush et al., 2018 |
| Market performance | Achievements reflected in sales, market share, and customer satisfaction | Our market performance has improved as a result of the introduction of the online store. | G. Wang et al., 2015; Pino et al., 2016 |

4.2.4 | Control variables

Firm size (measured by number of employees), firm age (measured by the number of years since firm establishment), and competitive intensity (measured on a scale of 1 (‘minimal competition’) to 3 (‘much competition’)) were controlled. Increased firm size and age may create better possibilities when competing in the markets. On the other hand, high competition may affect market performance by reducing the possibilities of competing in the markets.

5 | STATISTICAL ANALYSIS

5.1 | Common method and non-response bias

Non-response bias was checked with an analysis of the variance test. Early respondents were compared with later respondents on several items (Armstrong & Overton, 1977). The findings demonstrated no statistically significant differences in the variables between the two sets. To be sure, another test for non-response bias was made by testing for differences between the respondents who did and did not fully complete the survey (Whitehead et al., 1993). This test did not demonstrate statistically significant differences in the variables between the two sets. Therefore, non-response bias is not likely to exist. Utilizing only a single respondent from one firm may pose puzzles about common method variance. This prospective puzzle was controlled via the Harman single-factor test (Podsakoff et al., 2003). Factor analysis results reveal that more than one factor emerged, and the prior factor (40.13% of variance explained) did not explain the greatest portion of the variance. In the survey design, clear and brief items as well as different response forms were used, as recommended by Podsakoff et al. (2003). A survey structure where the respondent could not identify exogenous and endogenous variables and used different scale types was used in this study. The introductory letter assured the recipients that responses would be handled in confidentiality, and the respondents were encouraged to provide truthful responses. In sum, common method variance is not likely due to the multiple remedies.

5.2 | Measurement model

Prior to testing the hypotheses, different statistical tests were conducted and different indices were calculated to check the reliability and validity of the research. First, the data were tested to ensure unidimensionality, validity, and reliability. Item validation was made by confirmatory factor analysis (CFA) with the maximum likelihood method. Aside from the results of reliability and construct validity, Table 2 shows the loadings and error terms of the variables in relation to the corresponding factor. The values of the average variance extracted (AVE) were greater than 0.50, which is the suggested minimum (Hair et al., 2010) for convergent validity. Internal consistency was also supported since composite reliability (CR) measures were above the threshold of 0.70 (Fornell & Larcker, 1981). The results were also in favor of discriminant validity since the square root of the AVE (bold in Table 3) was higher than the correlations between factor pairs. Also, reliability was checked with Cronbach’s α values (Nunnally, 1967), and the values exceeded the threshold of 0.70. Since all the measures were supportive, the structural model test results are presented next.

5.3 | Testing of structural model and mediation

Covariance-based SEM with StataSE 16 was used because the purpose was to explain the relationships between the constructs and to confirm the theoretical rationale that was specified by the model. The first model that tested a direct relationship between supplier collaboration and market performance demonstrated a poor fit. The results of the hypothesized model are demonstrated in Figure 2. Following the model fit criteria suggested by Schreiber et al. (2006) (TLI ≥0.95, CFI ≥0.95, RMSEA = 0.06–0.08 and SRMR ≤0.08), goodness-of-fit
measures show a good fit: TLI = 0.950, CFI = 0.978, RMSEA = 0.077, and SRMR = 0.050. The path between supplier collaboration and e-business sustainability was significant (p ≤ .001) and strong (B = 0.55). Thus, supplier collaboration leads to an increased level of sustainability. E-business sustainability was also significantly (p ≤ .001) and strongly (B = 0.64) related to market performance. Firm age was proven to have a significant (B = 0.27, p ≤ .001) effect on market performance, but firm size (B = −0.039, ns) or competitive intensity (path coefficient = −0.09, ns) was not significantly related to market performance. These results indicate that the relationship between supplier collaboration and market performance is mediated by e-business sustainability.

A competing model was tested to confirm this finding. A rival relationship linking supplier collaboration to market performance was tested in this model. The results reveal that a direct path from supplier collaboration to market performance is non-significant (B = 0.14, ns), whereas the paths between supplier collaboration and e-business sustainability (p ≤ .001, B = 0.55) and e-business sustainability and market performance (p ≤ .001, B = 0.56) are significant and strong.

Based on the above results, this study found no support for hypothesis 1; thus, supplier collaboration is not directly associated with market performance. This study found support for hypothesis 2, which means that e-business sustainability mediates the influence of supplier collaboration on market performance, as predicted.

6 | DISCUSSION

This study tested the relations among supplier collaboration, sustainability, and market performance in the context of e-business. In terms of structural relationships, the results reveal significant backing for the relations between supplier collaboration and e-business sustainability and between e-business sustainability and market performance. Contrarily, the results did not promote the hypothesized direct link between supplier collaboration and market performance. These findings suggest that this relationship is fully mediated by e-business sustainability. Firm size and competitive intensity were not shown to affect market performance, but firm age was significantly related. These findings are discussed next.

Thus, this study contributes to sustainable development literature in the following way. While there is evidence that if companies better pursue sustainability development goals, it can increase their value in the future (de Castro Sobrosa Neto et al., 2020), there is no clear understanding of whether or how it actually affects company performance. Prior research has suggested that taking advantage of e-business today is increasingly demanding sustainability engagement (Aras & Crowther, 2009; Oláh et al., 2019; Pålsson et al., 2017), but the actual validation of the relationship has been ambiguous. The results of this study show that e-business sustainability mediates

![Figure 2](#)
the relationship between supplier collaboration and market performance. As mentioned above, the critical point in supplier collaboration is a closer relationship with key suppliers (Autry & Golicic, 2010), but finding key suppliers and building close relationships with the aim of more competitive advantages in the marketplace is challenging (Liu et al., 2009). Consequently, enhancing market performance with supplier collaboration alone is not effective since there is a need to pay attention to e-business sustainability, that is, the extent to which the e-business application allows the firm to operate in economically, socially, and environmentally sustainable ways. This result strongly supports Pålsson et al. (2017), who highlighted sustainability engagement as an important issue when developing e-business operations in a way that not only attracts but, more importantly, keeps customers. The results are also in line with the findings of Al Omoush et al. (2018), who argued that to achieve market performance, companies must share information from the aspect of environmental impacts on e-business platforms (e.g., online shops) concerning orders, production, inventory, and delivery of products and services. This can mean, for example, that both firms and their customers should be able to monitor processes to reduce carbon emissions in e-business platforms, as suggested by Oláh et al. (2019) and Z. Yang et al. (2016). Thus, this research is in line with previous studies showing that it is necessary to manage the increasing sustainability requirements of stakeholders throughout the whole supply chain to benefit from supplier collaboration (Blome et al., 2014).

This study adds to the preceding understanding by indicating that market performance is affected by supplier collaboration, though not directly. This finding also adds to the current understanding of sustainable supplier collaboration (Govindan et al., 2016; Seuring & Gold, 2013; Lozano et al., 2021). As the results indicate that supplier collaboration does not directly affect market performance, the link is likely to demand a sustainability aspect in between. There is prior evidence that although supplier collaboration is crucial in building relationship value (Bals et al., 2018), it is not the sole basis for high market performance. The reason might be the double-edge nature of supplier collaboration (Ho & Lu, 2015), which reduces firms’ willingness to enhance their internal resources, learning, and competencies to improve marketing (Ho & Lu, 2015), leading to eradication of the supplier collaboration’s effect on market performance in the e-business context. This type of emphasis on the role of sustainability engagement in market performance could also facilitate the shift in the literature from a focus on purely environmental aspects to holistic sustainability (Lozano et al., 2021; Ulubeyli & Kazanci, 2018). Also, e-business operations could be contemplated more from a sustainability approach, in that e-business management may be handled as the result of interplay with sustainable values.

7 | CONCLUSION

This study examines the mediating influence of e-business sustainability on the connection between supplier collaboration and market performance. The findings propose that supplier collaboration has a positive effect on e-business sustainability, which mediates the connection between supplier collaboration and market performance.

7.1 | Theoretical implications

The present study contributes to research on sustainable supplier relationship management in the following ways. First, the study diverges from previous research by investigating the relations among supplier collaboration, sustainability, and market performance in the context of e-business. The results provide clarification on the role of sustainability as a fundamental enabling factor in determining the market performance of e-businesses. The results do not mean that supplier collaboration does not have an important value in improving market performance but highlight the fact that its effect on market performance is realized through a commitment to sustainability. Second, through a survey of e-businesses, the research empirically tests the implications of integrating sustainability commitment into supplier collaboration and provides a novel contribution to existing theoretical and conceptual studies on the adoption of cleaner technologies. This study contributes to the literature by emphasizing that in the context of e-business, applying supplier collaboration alone is not sufficient to achieve higher market performance; e-businesses also need to concentrate on sustainable initiatives and how to utilize them in the context of e-business.

7.2 | Managerial implications

This study provides guidance to managers of SMEs working with sustainability-oriented technologies. In the e-business context, the results reveal that managers can enhance their companies’ market performance with the support of e-business sustainability and supplier collaboration. Managers of SMEs should make sure that their e-business operates in a sustainable manner, as it is the key to attaining higher market performance. Thus, while supplier collaboration is crucial in making e-business work, its benefits are realized only when the online shop operator also pays attention to how it uses the online store in an environmentally, socially, and economically sustainable way. Also, the results reveal that in the e-business context, firms with more experience could achieve higher market performance through e-business sustainability.

7.3 | Limitations and future research

Certain limitations should be acknowledged in this study. The present study was conducted in Finland, which might limit the generalization of the findings to other countries with different cultures in the e-business context. The studied e-businesses were small firms, which limits the applicability of the findings. Also, the cross-sectional nature of the data may limit an in-depth understanding of how e-business sustainability mediates the relationship between supplier collaboration and market performance.
collaboration and market performance. Thus, further research with longitudinal data might help enhance understanding of this topic.

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