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### **Conveying the sustainability message through CEO letters: an investigation on selected transportation companies**

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## **Conveying the sustainability message through CEO letters: an investigation on selected transportation companies**

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**Abstract:** This study aims to evaluate message strength of sustainability communication within transportation companies using the message content criteria of corporate social responsibility (CSR) communication framework developed by Du et al. (2010). The authors collected CEO letters (published in between 2020 and the first quarter of 2022) of transportation companies listed in NASDAQ and/or NYSE. Majority of the CEO letters reviewed are superficial in accordance with the information included in the report and contain abstract statements on the sustainability approach of the company. Also, examined CEO letters were deemed successful in terms of message strength, openness and how they narrow the room for skepticism. However, findings show that reviewed CEO letters rarely adopted all the aforementioned content elements. This study is one of the limited available studies in management communication literature of transportation industry and it suggests message content criteria of CSR communication framework for evaluating message strength of CEO letters.

**Keywords:** leadership communication; LC; CEO letters; CEOL; sustainability reporting; SR; transportation; COVID-19; stakeholder communication; SC; corporate social responsibility; CSR.

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## 1 Introduction

The role of CEOs has always been beyond just developing competitive strategies and running the operational activities of businesses in line with organisational goals. However, the need for CEOs to be the main actors of organisational communication in the healthy conduct of society-business relations is becoming more evident with each passing day (Men, 2014). CEO messages are recognised as a method to convey the strategic objectives employed by the organisation. They provide insights for stakeholders about the organisations' values, priorities, and stances on social/environmental issues. Thus, CEO messages offer the opportunity to convey the right message in a convincing and even inspiring way. Although this significance, this particular role of CEOs is getting harder in many ways, considering the diversification of corporate communication channels (Men, 2015), the pressure on reporting and transparency on businesses (Marais, 2012), and the complexity of environmental and social issues (Iannuzzi, 2000; Ferns et al., 2008). All these hardships mean that communication strategies followed by CEOs must be well thought out in order to achieve successful results in managerial and financial performance (Segars and Kohut, 2001), and avoid any misunderstanding which might lead to reputation loss both for the CEOs and their organisations (Love et al., 2017).

Consistent with this significance, there is now a plethora of research in corporate communication literature on this particular issue, providing insights on how these messages can be well conveyed taking various content related criteria into account such

as their linguistics (Wang et al., 2021), tone (Liu and Nguyen, 2020), ideological standpoints (Mäkelä and Laine, 2011) and timing (Ben Youssef and Khan, 2018). However, despite this emphasis, it is observed that studies focusing on CEO letters in the sustainability/ate social responsibility (CSR) reports of organisations are rather limited but they are becoming more prominent. These reports are critical as they are tangible resources where organisations can evaluate their impacts on social and environmental issues, and transparently share the risks and opportunities they face with all their stakeholders. The CEO letters included in these reports are of particular interest as they are on the first pages of the report and summarise the current status and future of the business in the field of sustainability (Na et al., 2020). More importantly, the CEO letters can be seen as an image building tool if it is well structured (Sethi et al., 2016). With all these aspects, CEO letters are often described as the heart and soul of corporate reports. From the perspective of signalling theory, which is useful to describe the behaviour when two parties (individuals or organisations) have access to different information (Connelly et al., 2011), a good CEO letter provides a signal that transportation companies have high standards and practices in their CSR activities. This study aims to support the signalling theory by examining the actual commitment, impact, and motive for CSR reporting.

Specifically, transportation companies need to further their scope of corporate responsibility to include sustainability issues and to gain competitive advantage in such a dynamic and competitive environment. Accordingly, although, the narrative of adopting sustainability practices is elevated in the context of the transportation industry, it is unclear whether they truly are effectively internalising such practices. CSR reports provide integration in sustainable practices and communicating their results and meet stakeholders' accountability and transparency requirements (Karaman et al., 2020). Thus, this paper aims to reveal the communication effectiveness of transportation companies by conducting content analysis on CEO messages conveyed in the mentioned companies' sustainability/CSR reports. The content analysis is rooted on message content criteria of CSR communication framework developed by Du et al. (2010). Out of the four components in the framework (commitment, impact, motive, and CSR fit), the component of 'CSR fit' was decided not to be involved in the content analysis. This decision is based on the evidence in the related literature revealing that low CSR fit may result in favourable stakeholder reactions (see Bloom et al., 2006). Thus, our analysis got use of the components of commitment, impact, and motive. Commitment as a component of message content is present when the content provides solid information on the amount of input, durability of the practices/initiatives and consistency of support. Therefore, the component of commitment deals with the input side of corporate actions. Different from commitment, the component of impact is present when the content involves solid information on the outcome of the practices/initiatives. Motive, on the other hand, is present when the content involves solid information on motivation of the corporate behind their practices/initiatives (whether it is altruistic or intrinsic). These components of message content help understand whether the CEO letter presents solid evidence of the organisations' sustainability mindset and actions or not. Applying the concept in transportation industry, this study intends to answer the following specific research questions (RQs):

- 1 Commitment: does the CEO letter convey the commitment of the organisation to the sustainable practices/CSR initiatives by providing solid information on the amount of input, durability, and consistency of mentioned practices?

- 2 Impact: does the CEO letter convey the impact of organisation's sustainability practices/CSR initiatives by providing solid information?
- 3 Motive: does the CEO letter convey the motives of the organisation in performing sustainability practices/CSR initiatives by providing solid information?

To put it differently, our analysis does not aim at receiving a result on the success of researched transport companies in terms of their sustainable practices, as our focus is solely on revealing the success of CEO communication by taking their letters as units of analysis. It is believed that tracing said constructs on message content would help revealing the levels of informativeness, clarity and transparency of investigated CEO letters. In other words, findings derived from the analysis can only show if the message strength of CEO letters really serves for transparency or if they remain abstract leaving more room for stakeholder skepticism.

Another significance of this research is that the transportation industry has faced practical problems such as border closures and increased supply chain disruptions due to the impact of COVID-19, as well as being an industry with intense expectations regarding decarbonisation. Therefore, it is possible to argue that the interest in CEO letters, which are the unit of analysis of the research, has increased their importance in the process in question. Liu et al.'s (2022) study on multinational enterprises which had been affected by said supply chain disruptions and Im et al.'s (2021) study on hospitality industry which had been affected by said border closures at the time, also place a similar emphasis on CEO letters, given that the time period required CEOs to take an active role with their duty of being the 'corporate communicator'. Although the effects of COVID-19 on the transportation industry have been investigated from many different perspectives, the number of studies addressing this period in terms of corporate communication is quite limited. For this reason, the current research is expected to contribute to the transportation literature as well as the communication literature.

In the following section, the paper presents a review of literature on CEO letters in corporate communication and how it is addressed in transportation industry in terms of sustainability. Then, Section 3 outlines the methodology of this research by highlighting the process of content analysis employed. Section 4 reports our results. And finally, conclusions section provides discussions and identifies avenues for further research.

## 2 Literature review

### 2.1 *CEO letters as a source of sustainability communication*

New era in business that is rooted in accountability and sustainability urges CEOs to show presence in sustainability communication and not leave this important duty only to the board room. Attention given to the CEOs in evaluating sustainability communication due to their role as being the main 'corporate communicator' and being the 'corporate leader' with the responsibility of implementing sustainability actions (Epstein, 2008). Based on these increasing expectations from CEOs, publications seeking practical guidelines for CEOs to well manage their companies' sustainability journey are expanding rapidly. CEO letters, which are considered as a narrative reflecting the soul of the CSR reports and giving the stakeholders (reader of the message) a shortcut in

evaluating the performance of the CEO and the company, are frequently preferred as source material for evaluating the communication quality of companies.

However, CEO letters function as an impression management tool rather than reflecting actual sustainability performance due to the immaturity of sustainability reporting (Barkemeyer et al., 2014). Companies with poor sustainability performance are more likely to be focused on using their reports as a manipulation tool for legitimacy, rather than accountability (Cho and Patten, 2007). Unfortunately, companies use these reports for overdrawing their success stories in sustainability and hide the negative environmental/social impact (Diouf and Boiral, 2017). Therefore, while the interest of the stakeholders in these reports rises due to the increasing importance of the sustainability field, the fact that the possibility of manipulation in the sustainability communication cannot be underestimated triggers these stakeholders' skepticism (Elving, 2013). To eliminate the skepticism that stakeholders may have towards businesses, CEOs are expected to demonstrate their integrity to sustainability strategies in a clear and convincing manner (Pham and Tran, 2020). This emphasis on the role of CEOs leads us to a question about how CEO letters can function as effective communication tools in sustainability reports in order to reduce stakeholder skepticism and increase business reputation.

Since the significance of rhetoric in CEO letters is well understood in terms of corporate impression management, the literature regarding the sustainability communication also provides insights on the elements of successful rhetoric. For the evaluation of successful rhetoric, the use of DICTION language factors, which is a text analysis software that enables researchers to analyse the verbal tone in a given set of texts based on their level of certainty, activity, realism, optimism and commonality (Hart, 2001), is quite common in literature as demonstrated in Table 1.

So far, studies have reported some communications tactics as Geppert and Lawrence (2008) showed that CEOs of the companies with higher reputation prefer a more relaxed writing style (with less variety of words, shorter words and concrete words) whereas the CEOs of lower reputation companies do the opposite (Geppert and Lawrence, 2008). Craig and Brennan (2012) revealed that the language choice of the CEOs is linked with size and the visibility of their companies. Boudt and Thewissen (2019) stressed out negative and positive words are strategically positioned in a way to create positive perceptions. Conaway and Wardrope (2010) found that CEO letters are aligned with the culture. Existing literature already makes a certain contribution with both computer aided discourse analysis studies and interpretive studies that examine these discourses in depth. However, there is still a lack of research to explore the sustainability communication between CEOs and stakeholders in effectively conveying sustainability practices.

## *2.2 CEO letters as a communication driver in transportation companies*

Sustainability and sustainable supply chain management (SCM) is an evolving and one of the most popular fields of SCM (Fang et al., 2022). The extant literature has already focused on the sustainability from the manufacturing industry perspective, but very little investigated service industry (Haleem et al., 2022) such as transportation industry. Even though transportation is an inherent part of supply chains (Shekarian et al., 2022) and popularity of the sustainability, transportation companies and their sustainability initiatives have received relatively less interest with respect to the supply chain (Stekelorum et al., 2020).

**Table 1** Evaluation criteria of content analysis studies on CEO letters

<i>Author(s)</i>	<i>Source of CEO letters</i>	<i>Evaluation criteria</i>	<i>Sample</i>
Geppert and Lawrence (2008)	Annual reports	DICTION language factors (certainty, activity, realism, optimism and commonality)	Fortune's Most Admired Companies, Harris Interactive Corporate Reputation Survey and Business Ethics Corporate Responsibility Report
Conaway and Wardrope (2010)	Annual reports	Stylistic (writing) features, embedded cultural attributes	US and Latin American-based companies listed on the New York Stock Exchange
Prasad and Mir (2002)	Annual reports	Hermeneutics	US Oil Industry companies
Im et al. (2021)	Corporate websites	Aristotelian persuasive rhetoric (ethos, pathos, logos)	Hospitality companies listed in Fortune 500
Craig and Brennan (2012)	Annual reports	DICTION language factors (certainty, activity, realism, optimism, and commonality)	Companies listed in Fortune 500
Jonäll and Rimmel (2010)	Annual reports	Action, fact and interest, accountability	Swedish companies nominated in 'Best Annual Report' contest.
Craig and Amernic (2018)	Annual reports	DICTION language factors (certainty, activity, realism, optimism, and commonality)	Companies allegedly having hubristic CEOs
Boudt and Thewissen (2019)	Annual reports	DICTION (positive and negative words)	Companies included in Dow Jones Industrial Average (DJIA)
De-Miguel-Molina et al. (2019)	Sustainability and annual reports	Community involvement and social license to operate	Top 40 mining companies
Yan et al. (2019)	Annual reports	Linguistic style	US companies
Seo et al. (2021)	Annual reports, CSR, sustainability reports and websites	Credibility, efficacy, commitment, and responsibility for the work	Airline companies

Transportation literature addressed sustainability issues such as occupational health and safety, air emissions, energy management, innovative technologies and security systems (Karagiannis et al., 2022), sustainability practices (Stekelorum et al., 2020; Michalska-Szajer et al., 2021; Fulzele and Shankar, 2022), energy efficiency (Liimatainen et al., 2014; Yan et al., 2021), human element (Kitada and Ölçer, 2015), gender diversity (Kuzey et al., 2022; Činčalová and Hedija, 2020), transportation infrastructure (Chen et al., 2021), strategy (Hargett and Williams, 2009; Kuzey et al., 2022; Chang et al., 2015; Chang and Yeh, 2016), performance (Rao, 2021; Luo et al.,

2021; Kuo et al., 2022), firm characteristics (Činčalová and Hedija, 2020; Yuen et al., 2018), urban mass transportation and modal integration (Shrivastava and O'Mahony, 2010), innovation and sustainable transport (Arnaud and Williams, 2010; Wiegmans and Geerlings, 2010; Vural 2019).

Although, past research has emphasised the importance of communicating the sustainability efforts in order to establish a stronger bond with the stakeholders for transportation companies (e.g., Lam and Lai, 2015; Seo et al., 2021). Therefore, the strands about the communication in transportation companies still run in parallel, not yet producing research under the problem of the effective communication on sustainable transportation practices. The current literature has not adequately pointed out sustainability communication practised by transportation companies (Lam and Lai, 2015; Bitiktas and Tuna, 2020). Recently, Zieba and Johansson (2022) specified the requirement of promoting transparent corporate reporting and how the sustainability claims are constructed and communicated to stakeholders.

Companies should be conveying their sustainability messages through communication channels to reinforce and communicate their commitment towards sustainability (Yuen et al., 2018). Few scholars have analysed the communication channels as Facebook messages (Bitiktas and Tuna, 2020), Twitter posts (Altuntaş Vural, 2021), non-financial reports (Górecka and Strojek-Filus (2022) and CEO letters (Seo et al., 2021). Bitiktas and Tuna (2020) examined the Facebook messages of container shipping companies and emphasised that many of them ignore social media and do not convey clear messages to stakeholders. Altuntaş Vural et al. (2021) contributed to how the shipping companies position their brands within the scope of sustainability. Seo et al. (2021) conducted content analysis to assess the differences in quality of strategic communication between the three leading alliance groups and a non-alliance group. They claimed that the non-alliance group has more ideal CEO letters than the alliance groups. These scholars have shown that sustainability communication literature for transportation industry needs to be extended.

Finally, our study contributes to the transportation literature that examines sustainability communication by providing evidence of whether narrative disclosures included in the CEO letters provide transparent information or not through analysing CEO letters following the framework of Du et al. (2010) in the transportation industry.

### **3 Methodology**

#### *3.1 Data collection*

It is highlighted in the existing literature that there is a need for embracing qualitative techniques to gain a deeper understanding on functioning of CEO letters in sustainability communication (Craig and Brennan, 2012). Based on that approach, this study employs directive qualitative content analysis on CEO letters of transportation companies with the aim of revealing communication effectiveness of the CEOs in sustainability reporting. Using directive content analysis, the communication framework of Du et al. (2010) was used to focus the RQs and identify key concepts or variables as initial coding.

The most recent CEO letters (published in between 2020 and the first quarter of 2022) of transportation companies which are listed in NASDAQ and/or NYSE with mega, large, and medium market cap (above 2 billion dollars), were collected as units of

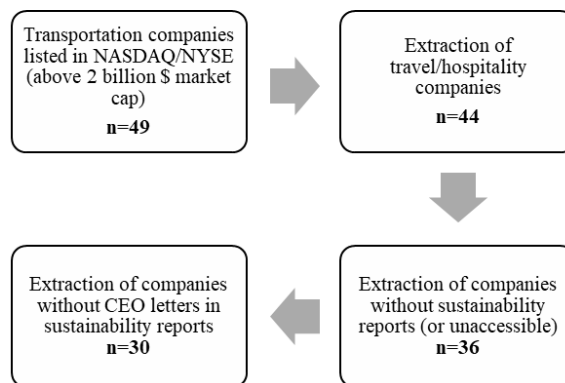


analysis in this study. Three market cap categories were selected, as higher capitalisation tends to lead to higher quantity and quality of disclosure (Lee, 2017). Selected time period has a particular importance since transportation industry has played a crucial role in combating with global challenges caused by COVID-19 pandemic. Therefore, it can be expected that a greater meaning was attributed to the corporate communication at this time period by the stakeholders.

The list of companies to be focused on was generated by using ‘stock screener’ of NASDAQ (2022). According to this criterion, there are forty-nine companies that need to be considered. Among these forty-nine companies, five of them namely Booking Holdings, AirBnB Inc., Travel Leisure Co., Expedia Group and MakeMyTrip Limited were decided not to be included in the analysis as these are considered as companies belonging to travel and hospitality sectors. This decision allowed authors to go on with a more homogeneous list of companies involving airline/airfreight, maritime, road and rail transportation companies.

Since the focus of this study is on sustainability communication of CEOs, the authors searched for CEO letters from non-financial reports presented in corporate websites of remaining forty-four companies. The titles of said reports varies based on companies’ preferences and reports with the titles of sustainability report, CSR report, social impact report, global impact report and environmental, social and governance (ESG) report were collected. However, there had to be an extraction of eight more companies, as three of the companies’ websites were not accessible due to bad gateway error and five of the companies did not publish any sustainability related reports within the investigated timeframe. Once the collection of reports was completed, the authors looked for availability of CEO letters inside of these reports. Finally, six more companies were extracted since either these reports did not contain any CEO statements at all or had noticeably short statements presented as quotations which cannot be considered as a CEO letter. Consequently, the sample size consisted of 30 CEO letters as shown in Figure 1.

**Figure 1** Data collection process



### 3.2 Data analysis

Data analysis process started with coding the CEO letters with the aid of MAXQDA (2018) software. Initially, pilot phase was implemented in four steps, consisting of creating a codebook, trial coding, reliability checking, and revisiting the code book. The

codebook consisted of three components of ‘commitment’, ‘impact’ and ‘motive’ which was adapted from Du et al.’s (2010) communication framework on message content. Based on the codebook, the coders (all three of the authors) assigned to code the sentences in seven CEO letters (consisting of 23% of the sample) which manifest at least one of these components for trial coding. After completing trial coding, inter-rater reliability of this trial was tested by the percentage of agreement for multiple raters to improve reliability. Total number of units of coding that each pair of agreed divided by total number of units of coding and number of coders (Schreier, 2012). Inter-rater reliability was calculated according to percent agreement with following steps:

- Three coders’ ratings were tabularised.
- Additional columns were added for the combinations (pairs) of ratings. There were three possible pairs.
- ‘1’ and ‘0’ was placed for agreement and disagreement, respectively for each pair.
- They (‘1’ and ‘0’) were added up in an agreement column.
- The mean of the fractions was calculated at the end of the agreement column.
- Inter-rater reliability was found as 0.71 for commitment and motive, 0.80 for impact.

Percent agreement level closer to 75% would be acceptable (Graham et al., 2012). Then, coders discussed mismatches occurred at the trial phase to avoid inconsistencies that might occur during the main coding phase. Mismatches mostly arose regarding the code of ‘commitment’ due to the multidimensional definition (as it involves input, duration, and consistency of practices) of commitment. The coders have decided to code ‘commitment’ on narratives in which at least one of those dimensions exist. For the main coding, one of the coders was attained as the primary coder and was in charge of coding the data. After completing the main coding, other two coders evaluated each other’s codes as a secondary coder.

#### **4 Findings**

As a result of data analysis, it is found that five of the CEO letters did not include any of the investigated message content components. These CEO letters were rather designed in a way to function as an introduction to the whole report, welcoming the readers and allowing them to know that detailed information is provided in the following sections. These CEOs provide no detail either on the sustainability mindset or the actions of their organisations. Therefore, these letters are to be evaluated as poorly performing means of communication. Hereby, we can conclude that signalling theory is neglected in these letters which proposes that stakeholders seek out signals (observable actions) to provide information on unobservable attributes and outcomes (Bergh et al., 2014).

A remarkably similar conclusion can be drawn for the CEO letters which only convey the ‘motive’. Seven letters underline the motivation behind their sustainability efforts but do not convey any solid evidence either on their commitment or impact. Therefore, these letters are only designed to make a connection between the business and its sustainability approach in the minds of the readers, but do not present the results of this approach or how it was managed.

Although remaining letters had at least two of the message content components, only two of the letters had all the mentioned components. Four letters had the components of ‘commitment’ and ‘impact’. While the organisational effort and outputs related to sustainability are well presented in these letters, it is seen that the narrative about motivation is incomplete. It is possible to see the reason for this incompleteness as the CEOs who wrote the texts think that the motivation in the sustainability approach of the company is obvious or already well-known by the stakeholders. Four letters included narrative about ‘motive’ and ‘impact’. Typically, these letters well conveyed the motive of the sustainability efforts and provided information on achievements and/or expected outcomes while they lacked in giving details about the input aspect of their sustainability efforts. Finally, four letters had the components of ‘motive’ and ‘impact’. Although these letters perform well in terms of conveying details on organisations’ sustainability mindset and evidence for their commitment, they poorly perform in giving solid information either on organisations’ sustainability achievements or expected outcomes. Therefore, it can be argued that these letters are also open to skepticism, since they do not let the reader know whether the organisational efforts lead to solid outcomes or not.

The results of the data analysis also provide insights on how commitment, motive and impact were managed in the investigated letter in the following subsections.

#### *4.1 Conveying ‘commitment’ in CEO letters*

Among 30 letters only ten of them conveyed the ‘commitment’ of organisations. It is useful to remember that in the conceptual foundations of this research, commitment is handled through the organisation’s ability to transparently explain the inputs in sustainability practices. In this sense, although many statements expressing the organisation’s commitment to sustainability goals are included in the letters, the findings showed that letters were wrapped up in verbiage and commitment is rarely embodied. Therefore, the statements in question carry the risk of arousing skepticism for stakeholders and are insufficient in terms of persuasion.

For the ones, in which the ‘commitment’ was well conveyed, it was concluded that both environmental and social sustainability issues were addressed. Organisational commitment to environmental sustainability practices were found to be conveyed mostly through statements explaining their offsetting practices and fuel efficiency improvements. The following two excerpts exemplify the narratives of these activities:

“Delta has committed more than \$30 million to offset 13 million tons of our airline’s carbon emissions from March through December 2020.” – DeltaAir

“Since October 2018, China Southern Airlines invested 516 million yuan to promote energy utilization of fuel vehicles in the airport control area; vigorously promoted the replacement of APU with bridge power supplies to save 116,000 tons of aviation jet fuel while being an innovator of information technology.” – China Southern

Addressing social sustainability issues are not limited with health and safety issues, organisational commitments to philanthropic efforts with varying objectives such as eradicating racial injustice, supporting natural disaster victims, and empowering low-income communities are also found in the letters:

“Following the historic 2020 hurricane season, Kirby’s employees, including the Company match, raised a record \$325,000 for our Kirby Disaster Relief Fund to assist their fellow employees in times of need.” – Kirby

“Building upon our unwavering commitment to equity and justice, we pledged one million employee volunteer service hours to support underserved Black communities.” – FedEx

“Despite a challenging financial outlook, Delta and The Delta Air Lines Foundation contributed approximately \$32 million to our communities in 2020.” – Delta Airlines

#### 4.2 *Conveying ‘impact’ in CEO letters*

Data analysis showed that 14 letters out of 30 conveyed the ‘impact’ of organisations’ sustainability efforts to the stakeholders. Particularly, it is difficult to grasp whether the sustainability practices of organisations turn into concrete outputs or whether there are output targets expected to be achieved in a certain time period. On the other hand, these 14 letters have a more transparent narrative, as they set measurable goals and convey the position of the organisation to the stakeholders in line with these goals. In these letters, the impacts organisations achieved or targeted were mostly within the framework of environmental sustainability. Since the transportation industry has a significant negative impact on the environment with prominent levels CO<sub>2</sub> emissions, providing sound information on eco-friendly practices of organisations is crucial for reducing stakeholder skepticism and increasing their trust. Therefore, such transparency and informativeness can also be considered as a booster of an ecofriendly corporate image. The following quotations form examples to this, as they narrate organisations’ achievements or targets in improving fuel efficiencies.

“It was also the year we began flying regularly on sustainable aviation fuel (SAF) from San Francisco International Airport – allowing us to reduce lifecycle emissions up to 80% per gallon of delivered neat fuel.” – JetBlue

“Through the adoption of new technology systems and operating practices, we increased our sustainability advantage over our competitors, setting records for fuel efficiency and exceeding our emissions-reduction targets.” – CSG-ESG

“We intend to cut our CO<sub>2</sub> emissions per passenger/km by 10% over the next decade and we have committed to be plastic-free on board our aircraft within the next 4 years.” – Ryanair

At this point, it is worth to note that social sustainability elements are less suitable for measurability due to their nature. Therefore, narratives reflecting the outputs of concrete steps taken in relation to social issues such as ensuring gender equality in organisations, reducing health and safety hazards, and tackling poverty could be identified in a few letters. The excerpts below are statements that convey the outputs of the organisations regarding the aforementioned issues, respectively:

“In the past 12 months, more than 60% of promotions to middle and senior management roles within the Ryanair Group were female.” – Ryanair

“Over the course of the year, CSX employees achieved a 10 percent reduction in the company’s personal injury rate” – CSG-ESG

“In total, China Southern Airlines dispatched 83 poverty alleviation staff to temporary posts and villages with the mission to help all areas out of poverty” – China Southern Airlines

### *4.3 Conveying ‘motive’ in CEO letters*

Twenty-one letters conveyed the ‘motive’ of the organisations in their sustainability approach. However, there are various aspects in conveying motive. One common theme was the narrative on the need of taking an action in the year 2020 mostly related with COVID-19 pandemic. Especially for the organisations in the USA, racial injustice came forth as another common theme, which was highlighted as another significant factor in these organisations’ motive. Following quotations are examples of statements linking motive of the organisation more with the sustainability issues mentioned above:

“...While we have focused on efforts to foster diversity and inclusion, the murder of George Floyd in May 2020, just miles from our headquarters in Minnesota, reinforced the need for us to take a stand to help dismantle the systemic racism that impacts so many...” – CH Robinson

“...2020 was a year of undue tragedy and hardship for individuals, families, and businesses. We were faced with both an extraordinary global health emergency and ongoing attacks on equality and basic human rights...” – CSG-ESG

A greater portion of the letters had a focus on how their mission and values matched with their sustainability mindset while conveying motive in their narratives. Following quotation is an example:

“...Our company’s purpose is creating an airline people love, and our values are to own safety, do the right thing, be kind-hearted, deliver performance, and be remarkable. This purpose and these values guide our culture and business to deliver value for all those who depend on us – employees, guests, communities, and owners...” – Alaska Airlines

While stressing on how their sustainability approach is aligned with the organisational values, some of the CEO letters also included statements which openly declare their awareness of business opportunities that might emerge from their sustainability efforts. Following statements are examples of said narratives:

“...We also believe that doing right things right is good for business. Our intense focus on safety and security, our commitment to our employees and our communities, and our investments in improving our environmental footprint are not only the right things to do – they also provide opportunities to enhance our business and create greater value for our stakeholders...” – Old Dominion

“...Sustainability remains of utmost importance, not only because it is the right thing to do, but because it enables us to make good business decisions...” – Expeditors

Although it is not possible to say that it is common, it has also been found that in some letters, CEOs associate the sustainability motivation of their businesses with their awareness of the environmental damage caused by the transportation industry:

“...Since our aircraft run on fossil fuels, we recognize our role in contributing to climate change as well as our responsibility to solve it...” – United

## 5 Conclusions

Sustainable development has become a significant policy target for transportation industry which has specifically recognised with disrepute in terms of its environmental impact. One way for transportation companies to show they care about the sustainability is CEO letters which have an important potential to convey the sustainability approach of top management towards the reader in a short and striking way. This study began with questions whether CEO letters contain elements that will reduce stakeholder skepticism and increase trust in transportation companies. Anchored in the research of Du et al. (2010), in harmony with the three elements (commitment, impact and motive) related to the content of the message, this study analysed 30 CEO letters published by transportation companies. The study found that there were particular letters in which the CEO only conveys the general content of the report or the CEO only defines the organisation's approach to sustainability through abstract sentences. Although in limited numbers, there are also examples of letters that fully integrated the message content elements of Du et al. (2010) into the narrative. It is possible to say that these letters are much more successful in terms of transparency and openness, thus narrowing the room for skepticism. As a result of the data analysis, transportation companies rarely adopted all of these components. Specifically, 'impact' and 'commitment' components were not pointed out explicitly in the letters, which means they fail to touch on the output of the sustainability efforts of the transportation companies and their commitment to these efforts. 'Motive' component was covered in the majority of the letters. However, CEO letters covering motivation and overlooking the other two components may create the perception that the sustainability efforts of these companies are only an image building tool due to the inefficient sustainability communication. This result is in alignment with the Barkemeyer et al. (2014) that CEO letters function as an impression management tool rather than reflecting the actual sustainability performance due to the immaturity of sustainability reporting. Considering that most of the CEO letters examined cannot convey the sustainability message strongly, it will be easier to achieve positive differentiation by applying the message content principles framed by Du et al. (2010). Since the CEO letters were written during the COVID-19 period (that is, a period when the need for stakeholders to be 'in the know' was high), it can be argued that the low strength of these messages has the potential to create a weakness in the CEO's 'corporate communicator' role.

### 5.1 *Practical implications*

Findings of this study offer practical implications for CEOs and public relations teams in terms of improving the quality of corporate narratives in sustainability communication. The increase in the importance of the sustainability concept in today's market has led to an increase in the skepticism of the organisation's sustainability performance from the viewpoint of the stakeholders. Stakeholders now push the organisational activities within this framework while evaluating the legitimacy of businesses and CEOs. First, the results showed the sustainability communication deficiency that may cause stakeholder skepticism and decrease trust in the organisation. These companies might be missing the chance to persuade the stakeholders on the transparency and trust for the company and maintain their relationship with them even if they do their best in the pursuit of sustainability.

Moreover, as addressed by Im et al. (2021) for the hospitality organisations, transportation companies also need to accept the value of CEO letters as an essential persuasion tool to improve the companies' image while diminishing negative perceptions from stakeholders. Thus, they could benefit from signals which help close the gap between what stakeholders know about the company and what they want to know (Bergh et al., 2014) in consistency with the signalling theory. Therefore, the sustainability approach of organisations should be conveyed to the stakeholders in an open and transparent manner. Also, CEOs consider that the remaining part of the reports cover sustainability in detail, and they might overlook the necessary elements for sustainability communication in the letters. A CEO letter should convey the feeling that the CEO of the company embraces the idea of sustainability for both internal and external stakeholders.

To summarise in a more concrete way, CEOs in transportation industry can utilise results of this research by:

- Designing the CEO letters as a document to reflect their companies' sustainability mindset, rather than using the letter as a brief introduction to the rest of the report (even if the report has a rich content).
- Underlining the commitment of their company by providing necessary information on what the company has done so far, so that the readers' potential skepticism would decrease.
- Underlining the motivation of their company by illustrating concrete actions, so that the readers would not doubt whether it is not more than an image building effort.
- Underlining the impact of their already in practice sustainability efforts, so that the readers can understand whether said efforts were on target.

## *5.2 Theoretical implications*

Sustainability practices are essential to increase competitive advantage and benefit, by communicating their sustainability efforts in order to establish a stronger bond with their stakeholders who care about protecting the environment (Lam and Lai, 2015). This study is of particularly theoretical significance due to providing an emphasis to effective sustainability communication established by transportation companies. Considering the sample period of the study covering COVID-19 period, transportation companies have reflected especially health and safety issues as increasing social sustainability in the narratives of the letter. Thus, social sustainability issues such as eradicating racial injustice, supporting natural disaster victims, and empowering low-income communities have supported the increase of social sustainability issues.

Furthermore, this study offers message content elements of Du et al. (2010) as an evaluation tool for effective sustainable communication. 'Commitment', 'impact' and 'motive' components of message content might be employed to form or evaluate the transparency of CEO letters in the future studies as well.

Management communication in transportation area is still in its infancy and there are many questions that need to be explored in order to help understand the right use of mediums and the efficient ways to convey messages that would enhance corporate legitimacy and lower stakeholder skepticism. One of the limited available studies suggested that transportation companies do not convey clear messages to stakeholders in social media (Bitiktas and Tuna, 2020). In parallel with that, this study revealed

transportation companies do not develop transparent sustainable communication through CEO letters. Although these are different communication channels, results supporting each other have been presented.

### 5.3 Limitation and directions for future research

Findings of this study cannot be generalised beyond the study context. This study includes 30 company cases. Thus, this study design allows transferability within the transportation industry, however not beyond this industry and not beyond these companies' cases. Further studies should consider expanding it to other industry contexts. Although shipping, trucking and airline companies have similar characteristics, there are differences in terms of the stakeholders they are in contact with and analysing them into sub-segments would yield more meaningful results. However, since the sample size considered in this study is not sufficient, such a disaggregation could not be made. This can be considered as another limitation of the study. This study used limited time period covering COVID-19 and future researchers might collect longitudinal data and test the message strength of sustainability communication in parallel with the global dynamics such as inflationary environment, financial crises, territorial wars, etc. With regard to the limited data used in this study, studies evaluating the CEO letters together with rest of the parts in sustainability reports can generate a more comprehensive understanding of this communication. Furthermore, three dimensions of sustainability could be investigated separately in this context in order to obtain more detailed results. Current study could be considered as a preliminary effort to evaluate transparency of sustainability communication. Integrating CEO profiles such as professional background, gender, age, region, leadership styles and elements of the CEO letters other than the text such as graphic elements, (e.g., photos, logos) would be helpful to examine the nature of the sustainability communication in depth.

## References

- Altuntaş Vural, C. (2019) 'Innovation in container shipping organizations: impact of intra-and inter-organizational connectedness', *World Review of Intermodal Transportation Research*, Vol. 8, No. 2, pp.123–146, <https://dx.doi.org/10.1504/WRITR.2019.099134>.
- Altuntaş Vural, C., Baştuğ, S. and Gülmez, S. (2021) 'Sustainable brand positioning by container shipping firms: evidence from social media communications', *Transportation Research Part D: Transport and Environment*, Vol. 97, p.102938, <https://doi.org/10.1016/j.trd.2021.102938>.
- Arnaud, A. and Williams, M.J. (2010) 'Innovation for sustainability: the transformation of the transportation system', *World Review of Intermodal Transportation Research*, Vol. 3, No. 3, pp.215–229, <https://dx.doi.org/10.1504/WRITR.2010.034663>.
- Barkemeyer, R., Comyns, B., Figge, F. and Napolitano, G. (2014) 'CEO statements in sustainability reports: substantive information or background noise?', *Accounting Forum*, Vol. 38, No. 4, pp.241–257, <https://doi.org/10.1016/j.accfor.2014.07.002>.
- Ben Youssef, N. and Khan, S. (2018) 'Timing of earnings restatements: CEO equity compensation and market reaction', *Accounting & Finance*, Vol. 58, No. 2, pp.341–365, <https://doi.org/10.1111/acfi.12220>.
- Bergh, D.D., Connelly, B.L., Ketchen Jr, D.J. and Shannon, L.M. (2014) 'Signaling theory and equilibrium in strategic management research: an assessment and a research agenda', *Journal of Management Studies*, Vol. 51, No. 8, pp.1334–1360, <https://doi.org/10.1111/joms.12097>.



- Bitiktas, F. and Tuna, O. (2020) 'Social media usage in container shipping companies: analysis of Facebook messages', *Research in Transportation Business & Management*, Vol. 34, p.100454, <https://doi.org/10.1016/j.rtbm.2020.100454>.
- Bloom, P.N., Hoeffler, S., Keller, K.L. and Meza, C.E.B. (2006) 'How social-cause marketing affects consumer perceptions', *MIT Sloan Management Review*, Vol. 47, No. 2, pp.49–55.
- Boudt, K. and Thewissen, J. (2019) 'Jockeying for position in CEO letters: impression management and sentiment analytics', *Financial Management*, Vol. 48, No. 1, pp.77–115, <https://doi.org/10.1111/fima.12219>.
- Chang, D.S., Chen, S.H., Hsu, C.W. and Hu, A.H. (2015) 'Identifying strategic factors of the implantation CSR in the airline industry: the case of Asia-Pacific airlines', *Sustainability*, Vol. 7, No. 6, pp.7762–7783, <https://doi.org/10.3390/su7067762>.
- Chang, Y.H. and Yeh, C.H. (2016) 'Managing corporate social responsibility strategies of airports: the case of Taiwan's Taoyuan International Airport Corporation', *Transportation Research Part A: Policy and Practice*, Vol. 92, pp.338–348, <https://doi.org/10.1016/j.tra.2016.06.015>.
- Chen, Y., Gu, X., Gao, Y. and Lan, T. (2021) 'Sustainability with high-speed rails: the effects of transportation infrastructure development on firms' CSR performance', *Journal of Contemporary Accounting & Economics*, Vol. 17, No. 2, p.100261, <https://doi.org/10.1016/j.jcae.2021.100261>.
- Cho, C.H. and Patten, D.M. (2007) 'The role of environmental disclosures as tools of legitimacy: a research note', *Accounting, Organizations and Society*, Vol. 32, Nos. 7–8, pp.639–647, <https://doi.org/10.1016/j.aos.2006.09.009>.
- Činčalová, S. and Hedija, V. (2020) 'Firm characteristics and corporate social responsibility: the case of Czech transportation and storage industry', *Sustainability*, Vol. 12, No. 5, p.1992, <https://doi.org/10.3390/su12051992>.
- Conaway, R.N. and Wardrope, W.J. (2010) 'Do their words really matter? Thematic analysis of US and Latin American CEO letters', *The Journal of Business Communication*, Vol. 47, No. 2, pp.141–168, <https://doi.org/10.1177/0021943610364523>.
- Connelly, B.L., Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011) 'Signaling theory: a review and assessment', *Journal of Management*, Vol. 37, No. 1, pp.39–67, <https://doi.org/10.1177/0149206310388419>.
- Craig, R. and Amernic, J. (2018) 'Are there language markers of hubris in CEO letters to shareholders?', *Journal of Business Ethics*, Vol. 149, No. 4, pp.973–986, <https://doi.org/10.1007/s10551-016-3100-3>.
- Craig, R.J. and Brennan, N.M. (2012) 'An exploration of the relationship between language choice in CEO letters to shareholders and corporate reputation', *Accounting Forum*, Vol. 36, No. 3, pp.166–177, <https://doi.org/10.1016/j.accfor.2012.02.004>.
- De-Miguel-Molina, B., Chirivella-González, V. and García-Ortega, B. (2019) 'CEO letters: social license to operate and community involvement in the mining industry', *Business Ethics: A European Review*, Vol. 28, No. 1, pp.36–55, <https://doi.org/10.1111/beer.12205>.
- Diouf, D. and Boiral, O. (2017) 'The quality of sustainability reports and impression management: a stakeholder perspective', *Accounting, Auditing & Accountability Journal*, Vol. 30, No. 3, pp.643–667, <https://doi.org/10.1108/AAAJ-04-2015-2044>.
- Du, S., Bhattacharya, C.B. and Sen, S. (2010) 'Maximizing business returns to corporate social responsibility (CSR): the role of CSR communication', *International Journal of Management Reviews*, Vol. 12, No. 1, pp.8–19, <https://doi.org/10.1111/j.1468-2370.2009.00276.x>.
- Elving, W.J. (2013) 'Scepticism and corporate social responsibility communications: the influence of fit and reputation', *Journal of Marketing Communications*, Vol. 19, No. 4, pp.277–292, <https://doi.org/10.1080/13527266.2011.631569>.
- Fang, H., Fang, F., Hu, Q. and Wan, Y. (2022) 'Supply chain management: a review and bibliometric analysis', *Processes*, Vol. 10, No. 9, p.1681, <https://doi.org/10.3390/pr10091681>.
- Ferns, B., Emelianova, O. and Sethi, S.P. (2008) 'In his own words: the effectiveness of CEO as spokesperson on CSR-sustainability issues – analysis of data from the Sethi CSR Monitor©',

- Corporate Reputation Review*, Vol. 11, No. 2, pp.116–129, <https://doi.org/10.1057/crr.2008.11>.
- Fulzele, V. and Shankar, R. (2022) ‘Improving freight transportation performance through sustainability best practices’, *Transportation Research Part A: Policy and Practice*, Vol. 165, pp.285–299, <https://doi.org/10.1016/j.tra.2022.09.009>.
- Geppert, J. and Lawrence, J.E. (2008) ‘Predicting firm reputation through content analysis of shareholders’ letter’, *Corporate Reputation Review*, Vol. 11, No. 4, pp.285–307, <https://doi.org/10.1057/crr.2008.32>.
- Graham, M., Milanowski, A. and Miller, J. (2012) *Measuring and Promoting Inter-Rater Agreement of Teacher and Principal Performance Ratings* [online] <https://files.eric.ed.gov/fulltext/ED532068.pdf> (accessed 5 November 2023).
- Haleem, F., Farooq, S., Cheng, Y. and Waehrens, B.V. (2022) ‘Sustainable management practices and stakeholder pressure: a systematic literature review’, *Sustainability*, Vol. 14, No. 4, p.1967, <https://doi.org/10.3390/su14041967>.
- Hargett, T.R. and Williams, M.F. (2009) ‘Wilh. Wilhelmsen shipping company: moving from CSR tradition to CSR leadership’, *Corporate Governance*, Vol. 9, No. 1, pp.73–82, <https://doi.org/10.1108/14720700910936074>.
- Hart, R.P. (2001) ‘Redeveloping DICTION: theoretical considerations’, in West, W.D. (Ed.): *Theory, Method and Practice in Computer Content Analysis*, pp.43–60, Ablex Publishing, Westport.
- Iannuzzi, A. (2000) ‘Stakeholder trust: how do I get it?’, *Environmental Quality Management*, Vol. 10, No. 1, pp.69–73, [https://doi.org/10.1002/1520-6483\(200023\)10:1%3C69::AID-TQEM8%3E3.0.CO;2-D](https://doi.org/10.1002/1520-6483(200023)10:1%3C69::AID-TQEM8%3E3.0.CO;2-D).
- Im, J., Kim, H. and Miao, L. (2021) ‘CEO letters: hospitality corporate narratives during the COVID-19 pandemic’, *International Journal of Hospitality Management*, Vol. 92, p.102701, <https://doi.org/10.1016/j.ijhm.2020.102701>.
- Jonäll, K. and Rimmel, G. (2010) ‘CEO letters as legitimacy builders: coupling text to numbers’, *Journal of Human Resource Costing & Accounting*, Vol. 14, No. 4, pp.307–328, <https://doi.org/10.1108/14013381011105975>.
- Karagiannis, I., Vouros, P., Sioutas, N. and Evangelinos, K. (2022) ‘Mapping the maritime CSR agenda: a cross-sectoral materiality analysis of sustainability reporting’, *Journal of Cleaner Production*, Vol.338, p.130139, <https://doi.org/10.1016/j.jclepro.2021.130139>.
- Karaman, A.S., Kilic, M. and Uyar, A. (2020) ‘Green logistics performance and sustainability reporting practices of the logistics sector: the moderating effect of corporate governance’, *Journal of Cleaner Production*, Vol. 258, p.120718, <https://doi.org/10.1016/j.jclepro.2020.120718>.
- Kitada, M. and Ölçer, A. (2015) ‘Managing people and technology: the challenges in CSR and energy efficient shipping’, *Research in Transportation Business & Management*, Vol. 17, pp.36–40, <https://doi.org/10.1016/j.rtbm.2015.10.002>.
- Kuo, K.C., Yu, H.Y., Lu, W.M. and Le, T.T. (2022) ‘Sustainability and corporate performance: moderating role of environmental, social and governance investments in the transportation sector’, *Sustainability*, Vol. 14, No. 7, p.4095, <https://doi.org/10.3390/su14074095>.
- Kuzey, C., Fritz, M.M., Uyar, A. and Karaman, A.S. (2022) ‘Board gender diversity, CSR strategy and eco-friendly initiatives in the transportation and logistics sector’, *International Journal of Production Economics*, Vol. 247, p.108436, <https://doi.org/10.1016/j.ijpe.2022.108436>.
- Lam, J.S.L. and Lai, K-H. (2015) ‘Developing environmental sustainability by ANP-QFD approach: the case of shipping operations’, *Journal of Cleaner Production*, Vol. 105, pp.275–284, <https://doi.org/10.1016/j.jclepro.2014.09.070>.
- Lee, K.H. (2017) ‘Does size matter? Evaluating corporate environmental disclosure in the Australian mining and metal industry: a combined approach of quantity and quality measurement’, *Business Strategy and the Environment*, Vol. 26, No. 2, pp.209–223, <https://doi.org/10.1002/bse.1910>.

- Liimatainen, H., Stenholm, P., Tapio, P. and McKinnon, A. (2012) 'Energy efficiency practices among road freight hauliers', *Energy Policy*, Vol. 50, pp.833–842, <https://doi.org/10.1016/j.enpol.2012.08.049>.
- Liu, J., Hong, C. and Yook, B. (2022) 'CEO as 'chief crisis officer' under COVID-19: a content analysis of CEO open letters using structural topic modeling', *International Journal of Strategic Communication*, Vol. 16, No. 3, pp.444–468, <https://doi.org/10.1080/1553118X.2022.2045297>.
- Liu, P. and Nguyen, H.T. (2020) 'CEO characteristics and tone at the top inconsistency', *Journal of Economics and Business*, Vol. 108, p.105887, <https://doi.org/10.1016/j.jeconbus.2019.105887>.
- Love, E.G., Lim, J. and Bednar, M.K. (2017) 'The face of the firm: the influence of CEOs on corporate reputation', *Academy of Management Journal*, Vol. 60, No. 4, pp.1462–1481, <https://doi.org/10.5465/amj.2014.0862>.
- Luo, J., Bi, M. and Kuang, H. (2021) 'Design of evaluation scheme for social responsibility of China's transportation enterprises from the perspective of green supply chain management', *Sustainability*, Vol. 13, No. 6, p.3390, <https://doi.org/10.3390/su13063390>.
- Mäkelä, H. and Laine, M. (2011) 'A CEO with many messages: comparing the ideological representations provided by different corporate reports', *Accounting Forum*, Vol. 35, No. 4, pp.217–231, <https://doi.org/10.1016/j.accfor.2011.06.008>.
- Marais, M. (2012) 'CEO rhetorical strategies for corporate social responsibility (CSR)', *Society and Business Review*, Vol. 7, No. 3, pp.223–243, <https://doi.org/10.1108/17465681211271314>.
- Men, L.R. (2014) *Chief Engagement Officer: The Role of CEOs in Internal Communication* [online] <https://instituteforpr.org/chief-engagement-officer-role-ceos-internal-communication/> (accessed 15 April 2022).
- Men, L.R. (2015) 'The internal communication role of the chief executive officer: communication channels, style and effectiveness', *Public Relations Review*, Vol. 41, No. 4, pp.461–471, <https://doi.org/10.1016/j.pubrev.2015.06.021>.
- Michalska-Szajer, A., Klimek, H. and Dabrowski, J. (2021) 'A comparative analysis of CSR disclosure of Polish and selected foreign seaports', *Case Studies on Transport Policy*, Vol. 9, No. 3, pp.1112–1121, <https://doi.org/10.1016/j.cstp.2021.05.012>.
- Na, H.J., Lee, K.C., Choi, S.U. and Kim, S.T. (2020) 'Exploring CEO messages in sustainability management reports: applying sentiment mining and sustainability balanced scorecard methods', *Sustainability*, Vol. 12, No. 2, p.590, <https://doi.org/10.3390/su12020590>.
- NASDAQ (2022) *Stock Screener* [online] <https://www.nasdaq.com/market-activity/stocks/screener> (accessed 20 January 2022).
- Pham, H.S.T. and Tran, H.T. (2020) 'CSR disclosure and firm performance: the mediating role of corporate reputation and moderating role of CEO integrity', *Journal of Business Research*, Vol. 120, pp.127–136, <https://doi.org/10.1016/j.jbusres.2020.08.002>.
- Prasad, A. and Mir, R. (2002) 'Digging deep for meaning: a critical hermeneutic analysis of CEO letters to shareholders in the oil industry', *The Journal of Business Communication*, Vol. 39, No. 1, pp.92–116, <https://doi.org/10.1177/002194360203900105>.
- Rao, S.H. (2021) 'A hybrid MCDM model based on DEMATEL and ANP for improving the measurement of corporate sustainability indicators: a study of Taiwan high speed rail', *Research in Transportation Business & Management*, Vol. 41, p.100657, <https://doi.org/10.1016/j.rtbm.2021.100657>.
- Schreier, M. (2012) *Qualitative Content Analysis in Practice*, Sage, Croydon.
- Segars, A.H. and Kohut, G.F. (2001) 'Strategic communication through the World Wide Web: an empirical model of effectiveness in the CEO's letter to shareholders', *Journal of Management Studies*, Vol. 38, No. 4, pp.535–556, <https://doi.org/10.1111/1467-6486.00248>.
- Seo, G.H., Itoh, M. and Li, Z. (2021) 'Strategic communication and competitive advantage: assessing CEO letters of global airline alliances', *Foundations of Management*, Vol. 13, No. 1, pp.57–72, <https://doi.org/10.2478/fman-2021-0005>.

- Sethi, S.P., Martell, T.F. and Demir, M. (2016) 'Building corporate reputation through corporate social responsibility (CSR) reports: the case of extractive industries', *Corporate Reputation Review*, Vol. 19, No. 3, pp.219–243, <https://doi.org/10.1057/s41299-016-0004-1>.
- Shekarian, E., Ijadi, B., Zare, A. and Majava, J. (2022) 'Sustainable supply chain management: a comprehensive systematic review of industrial practices', *Sustainability*, Vol. 14, No. 13, p.7892, <https://doi.org/10.3390/su14137892>.
- Shrivastava, P. and O'Mahony, M. (2010) 'Integrated approach towards sustainable development', *World Review of Intermodal Transportation Research*, Vol. 3, Nos. 1/2, pp.26–45, <https://dx.doi.org/10.1504/WRITR.2010.031578>.
- Stekelorum, R., Laguir, I. and Elbaz, J. (2020) 'Cooperation with international NGOs and supplier assessment: investigating the multiple mediating role of CSR activities in SMEs', *Industrial Marketing Management*, Vol. 84, pp.50–62, <https://doi.org/10.1016/j.indmarman.2019.04.001>.
- Wang, Q., Ngai, C.S.B. and Singh, R.G. (2021) 'A discursive analysis of crisis response strategies in CEO apologies – drawing on linguistic insights from the appraisal framework', *Management Communication Quarterly*, Vol. 35, No. 4, pp.602–622, <https://doi.org/10.1177/08933189211012009>.
- Wiegmans, B.W. and Geerlings, H. (2010) 'Sustainable port innovations: barriers and enablers for successful implementation', *World Review of Intermodal Transportation Research*, Vol. 3, No. 3, pp.230–250, <https://dx.doi.org/10.1504/WRITR.2010.034664>.
- Yan, B., Aerts, W. and Thewissen, J. (2019) 'The informativeness of impression management – financial analysts and rhetorical style of CEO letters', *Pacific Accounting Review*, Vol. 31, No. 3, pp.462–496, <https://doi.org/10.1108/PAR-09-2017-0063>.
- Yan, R., Wang, S. and Psaraftis, H.N. (2021) 'Data analytics for fuel consumption management in maritime transportation: status and perspectives', *Transportation Research Part E: Logistics and Transportation Review*, Vol. 155, p.102489, <https://doi.org/10.1016/j.tre.2021.102489>.
- Yuen, K.F., Thai, V.V. and Wong, Y.D. (2018) 'An investigation of shippers' satisfaction and behaviour towards corporate social responsibility in maritime transport', *Transportation Research Part A: Policy and Practice*, Vol. 116, pp.275–289, <https://doi.org/10.1016/j.tra.2018.06.027>.
- Zieba, M. and Johansson, E. (2022) 'Sustainability reporting in the airline industry: current literature and future research avenues', *Transportation Research Part D: Transport and Environment*, Vol. 102, p.103133, <https://doi.org/10.1016/j.trd.2021.103133>.