



macromedia university
of applied sciences

Addressing the United Nations SDGs in Large German and US Listed Companies

Analysis of Formal and Informal Corporate
Communication Activities Referring to SDGs

Macromedia Study
Report sr-2020-02
September 2020

Agenda

- Rationale, Theoretical Framework, and State of Research
- Research Question, Research Design, Concretization of Methodology
- Findings, Conclusions, and Outlook on Further Research
- Bibliography

Rationale

- Companies nowadays are exposed to increasing environmental and social challenges such as climate change, air pollution and immense amounts of waste material. Further ongoing crisis such as worldwide poverty, hunger, unequal distributions of human rights, dissimilar wealth and well-being, as well as the current Corona Virus pandemic strengthen the requirements towards companies to act responsible and disclosure their contribution towards sustainability in appropriate ways.
- This study at Macromedia University of Applied Sciences shall shed light on the occurrence of the 17 United Nations Sustainable Development Goals which were signed by 193 United Nations members in 2015. The goals were introduced as the framework called the Agenda 2030 for Sustainable Development.
- The study is based on a quantitative content analysis examining formal reporting of 30 companies belonging to the German stock market DAX Performance Index (“DAX” in the following) and the 30 US companies listed in Dow Jones Industrial Average Index (“DJ” in the following). Thus, 314 financial and non-financial documents and 230 website sections among 60 German and US top listed stock companies were analyzed to figure out, which top listed stock companies deal with SDGs, how such companies articulate their concerns for the SDGs and if the SDG communication has an influence on the company's profitability.
- Given the societal and practical relevance and the exclusivity of this study, this approach could serve as a trigger for further investigations concerning companies' representation of the SDGs within corporate communication activities.

United Nations. (2019), United Nations. (2018).

CSR, Sustainability Development, and SDGs

Three existing strands of reasoning constitute the theoretical and conceptual basis for this study

CSR

- America and GB loose social balance in 1800, productivity and legitimacy of companies
- First definition of CED, 1971: Higher responsibilities of businesses towards society
- “Activities making companies good citizens who contribute to society's welfare beyond their own self interests” (Khang et al., 2009, p. 73)
- Management Teaching Theory by Henri Fayol (1994) [1916] as the first theory explaining why management is important and why it has to be taught

Sustainability Development

- Concept introduced by WCED, 1987
- Human needs and the support system of the planet, interaction of society and nature
- GRIs Sustainability Reporting Standards as the most used guideline standards applied by companies worldwide
- Studies emphasizing companies committing to CSR/ sustainability have higher profitability, especially when they mention specific stakeholder

SDGs

- Followers of eight Millennium Development Goals 2000-2015
- Development firstly announced at Rio+ in 2012
- Signed by 193 UN member states in 2015
- Agenda 2030 for Sustainable Development, 17 SDGs with 169 sub targets

Carroll, A. B. (2009), Khang et al., (2009), Henry, F. (1994), Kates et al., (2001), Sachs, J. (2012), United Nations. (2018).

Research Questions

The analysis concentrates on three main research questions.

(1) Which DAX and DJ companies deal with SDGs?

- Are there differences among sectors?
- Which SDGs are in the general focus? Which SDGs are in the focus of certain sectors?
- Do companies mention SDGs in mandatory or voluntary chapters of their annual reports?
- Is there any reference to the Corona Crisis?

(2) How do such companies articulate their concerns for SDGs?

- Where do they publish their activities? Are there differences among types of media?
- Do companies take action when it comes to SDGs?
- Do they mention stakeholders and with which stakeholder do they particularly share their concerns?

(3) Do companies referring to SDGs in their corporate communication perform better?

- Are there differences among companies mentioning or not mentioning SDGs regarding their EBITDA-margin in percent from 2018 to 2019?

Research Design

The analysis comprises 314 financial/ non-financial documents and 230 website sections.

Analyzed Data

- **Financials:**
 1. Annual Reports 2018 and 2019
- **Non-Financials:**
 1. CSR- and/ or Sustainability Reports and accompanying documents, 2. Internal value-oriented documents and 3. Further non-financial documents
- **Website Sections:** Including certain key words in the title, focusing on company's
 1. Values/ mission,
 2. Contribution to sustainability,
 3. Contribution to CSR,
 4. Contribution to the SDGs,
 5. Statements about the Corona virus pandemic

Sampling Method

- Selection by DAX and DJ companies
 - Companies ranked by market capitalization state April 27, 2020
- All statements and website sections are written in English
- No documents older than January 1, 2018, published by the company itself
- Selection CSR- and Sustainability Reports and accompanying documents: Accuracy (most accurate one in the timeframe from 2018 to 2020)
- Selection website sections: 1 corporate website section per company per topic: Certain key words in its title

Quantitative Content Analysis

- 314 coded reports, 170 website sections, 60 Covid-19 statement, n = 563
- n = DAX = 264, DJ = 299
- Data collection process from May 1, 2020 to May 15, 2020
- Period of analysis: June 2020
- Descriptive and comparative analyses of absolute frequencies and valid percentages with the help of the statistical program SPSS

Specification of Methodology

The research is divided into a general and an in-depth level of investigation with one codebook including 69 variables.

	First Level Investigation	Second (in-depth) Level Investigation
Goal	<ul style="list-style-type: none"> If and in what extend SDGs are mentioned in documents/ websites 	<ul style="list-style-type: none"> Key word-related research Action-, internal and external stakeholder-related key words, timeline and writing style
Codebook	<ul style="list-style-type: none"> Identification-, company information-, formal and content-related categories with 33 variables Content = General reference to SDG/ Specific SDGs/ Reference to Covid-19 etc. Identification = Sector/ EBITDA-Margin 2018-2019 	<ul style="list-style-type: none"> Action-, stakeholder- and timeline- categories with 36 variables Action category including e.g. the key words: contribution/ plan/ portfolio/ balanced scorecard/ strategy etc.
Unit of Analysis	<ul style="list-style-type: none"> Documents/ website sections as a whole n = 563, DAX = 264, DJ = 299 	<ul style="list-style-type: none"> Chapters of Annual Reports 2019 and most accurate Non-Financial Reports including either a CSR- or Sustainability Report or a further Non-Financial Report with the key words “SDG/ Sustainable Development Goal/ SDG and number/ name of SDG” or visualization of SDG in the chapter n = 57, DAX = 25, DJ = 32

Overview on General Findings

Listed companies differ strongly in how they address SDGs and whether they mention them at all

DAX

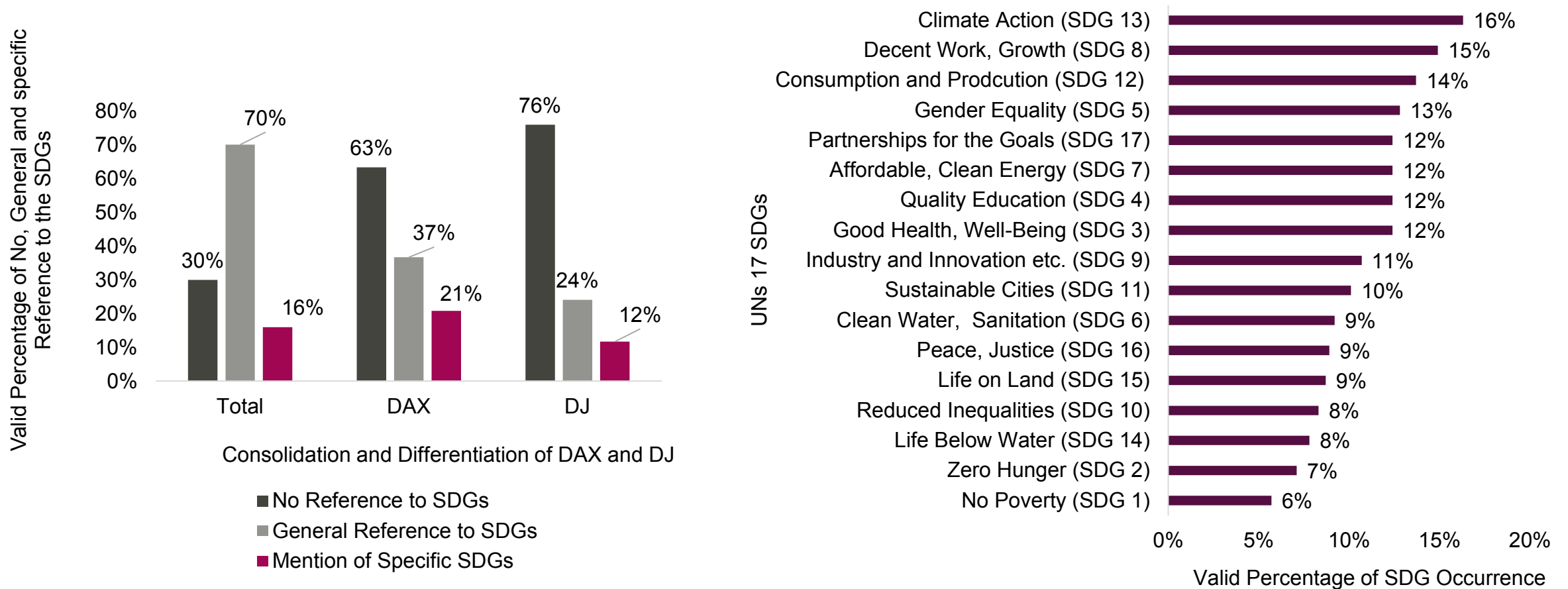
- **SAP, BMW St, Deutsche Telekom and Merck AG can be regarded as pioneers mentioning the SDGs in every document available and taken into the account of the research**
- Delivery Hero, Wirecard, Siemens Healthineers and Fresenius don't reference the SDGs in any written document, whereas Infineon, RWE St, Siemens Healthineers, Fresenius, Hannover Rück, Linde PLC, Adidas, Vonovia and Volkswagen Vz don't mention the SDGs on any of their analyzed website sections
- Delivery Hero and Wirecard take reference to the SDGs on their Sustainability website section, whereas the companies don't mention the SDGs in any of their financial and non-financial documents
- Beiersdorf, Hannover Rück and Vonovia take reference to the SDGs in their Annual Reports 2019, while they don't mention the SDGs in their Annual Reports 2018

DJ

- **Intel can be regarded as a pioneer mentioning the SDGs in four of five statements available, followed by JP Morgan Chase and Pfizer who take reference to the goals in two of four documents available**
- JP Morgan Chase and Pfizer do not mention the SDG in their Annual Reports of 2018, but in their Annual Reports of 2019, whereas Verizon takes reference to the SDGs in its Annual Report 2018, but not in its Annual Report 2019
- United Health Group, United Technologies, Boeing and Travelers don't take reference to the SDGs in any written document taken into the account of this analysis
- McDonald's is considered as the pioneer naming the SDGs on their CSR-, Sustainability- and SDG-related website sections, whereas Home Depot, Merck & Co, Goldman Sachs, United Health Group, United Technologies, Walt Disney, Cisco, Apple, Boeing, Travelers and Pfizer don't mention the SDGs on any of the website sections which are taken into account of the analysis

Mentioning SDGs

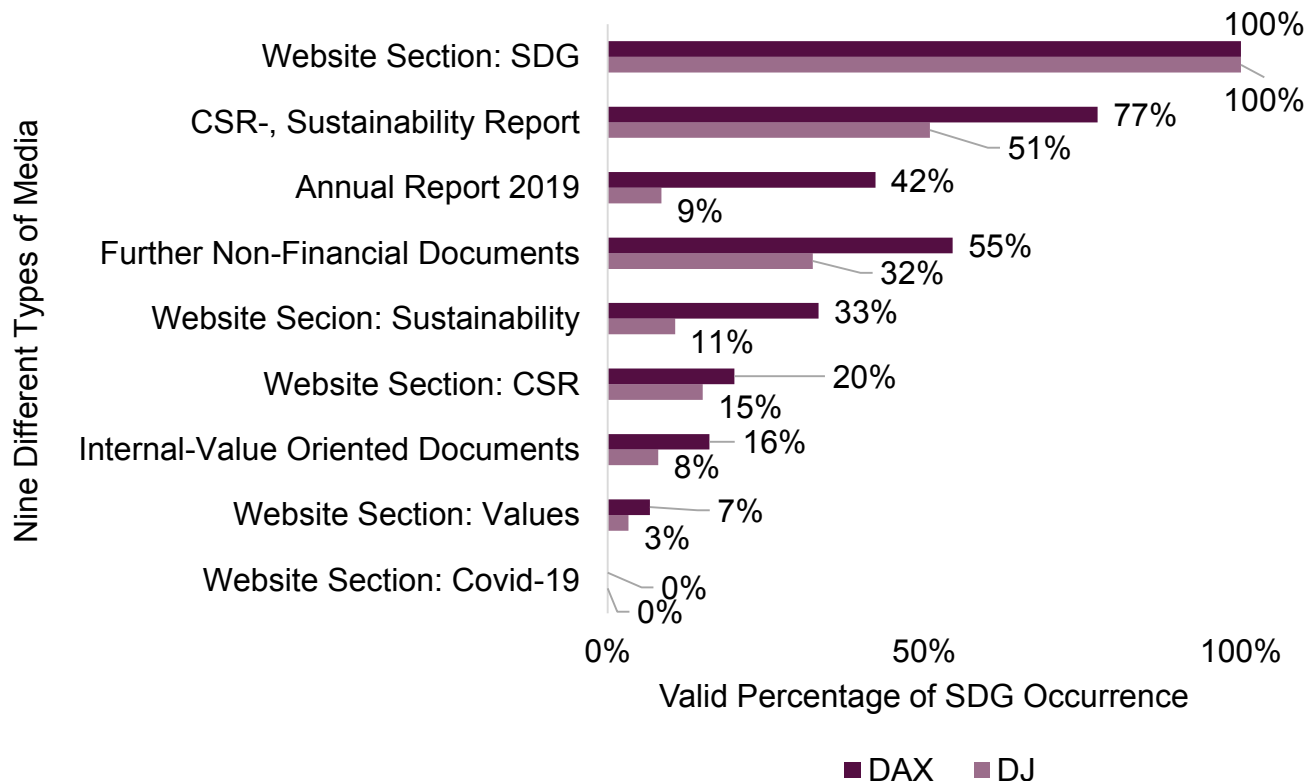
More DAX companies refer to SDGs than DJ companies, whereas SDG 13 (Climate Action) is the most frequent one in both



Own presentation: Amount percentage including all kind of documents/ website sections of DAX and DJ-listed companies, n = 563.

References to SDGs by Document Type

Almost half of the DAX companies refer in their annual reports to SDGs while less than ten percent of DJ companies do so



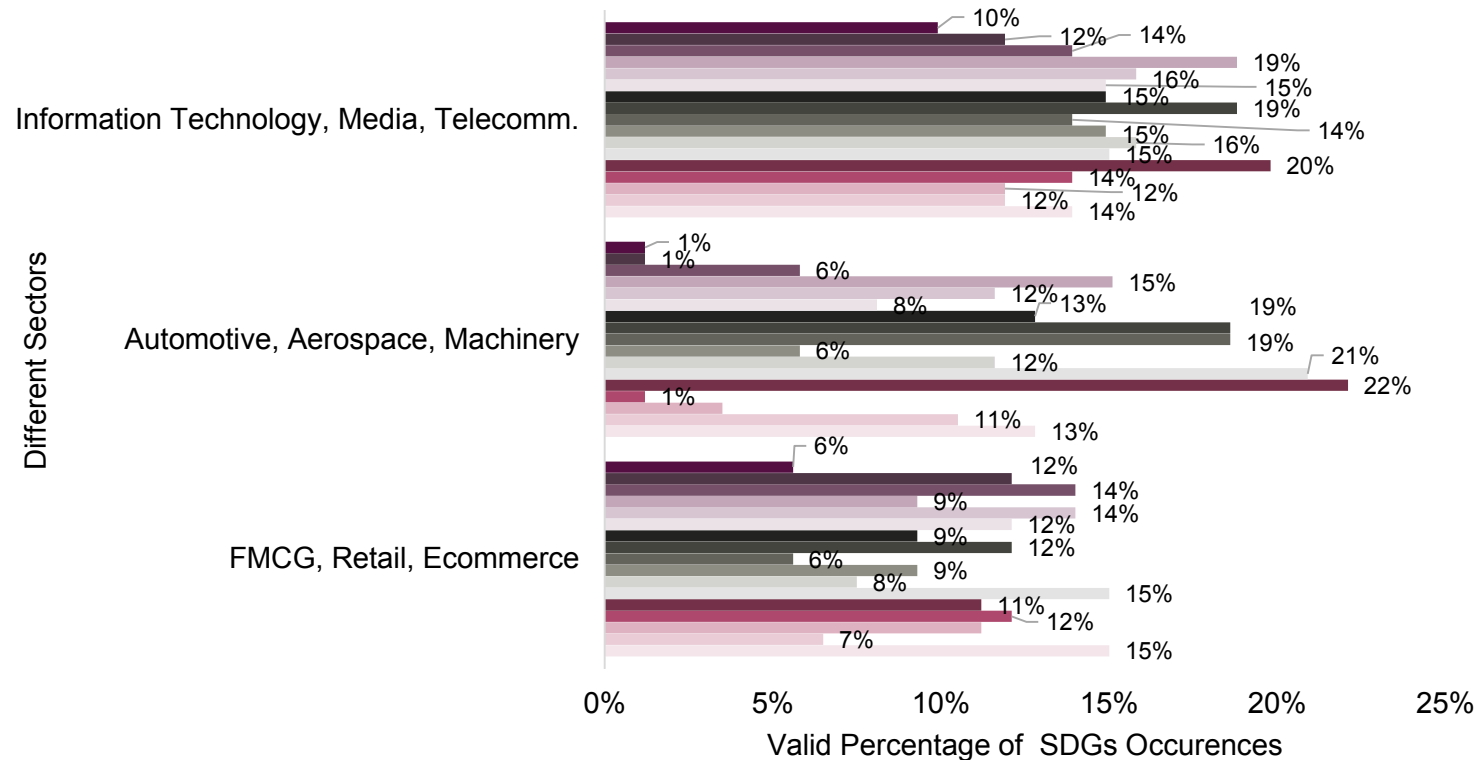
Mandatory/ Voluntary Parts of Annual Reports 2018-2019

- DAX: SDGs are mentioned in 53 chapters among 13 companies > **6 of 53 chapters can be considered as mandatory** (published by Deutsche Telekom and BASF) based on the § 289 of the German Commercial Code and the § 286 of the Stock Corporation Act
- DJ: SDGs are mentioned in 10 chapters among 4 companies > **3 of 10 chapters can be considered as mandatory** (published by JP Morgan Chase, Intel, Pfizer) based on the guidelines of the U.S. Securities and Exchange Commission

Own presentation: Valid percentage for all kind of documents/ website sections of DAX and DJ-listed companies, n = 563, box on the right: investigation approach two, n = 57.

References to SDGs per Business Sector (1/2)

Different Business Sectors emphasize different SDGs within their corporate communication activities



Different Sectors focusing on different SDGs

- The Information Technology, Media and Telecommunication Sector, as well as the Automotive, Aerospace and Machinery Sector mainly focus on SDG 13 Climate Action
- The FMCG, Retail and Ecommerce Sector mainly focuses on SDG 12 Responsible Consumption and Production, as well as SDG 17 Partnership for the Goals

- No Poverty (SDG 1)
- Gender Equality (SDG 5)
- Industry and Innovation etc. (SDG 9)
- Climate Action (SDG 13)
- Partnerships for the Goals (SDG 17)

- Zero Hunger (SDG 2)
- Clean Water, Sanitation (SDG 6)
- Reduced Inequalities (SDG 10)
- Life Below Water (SDG 14)

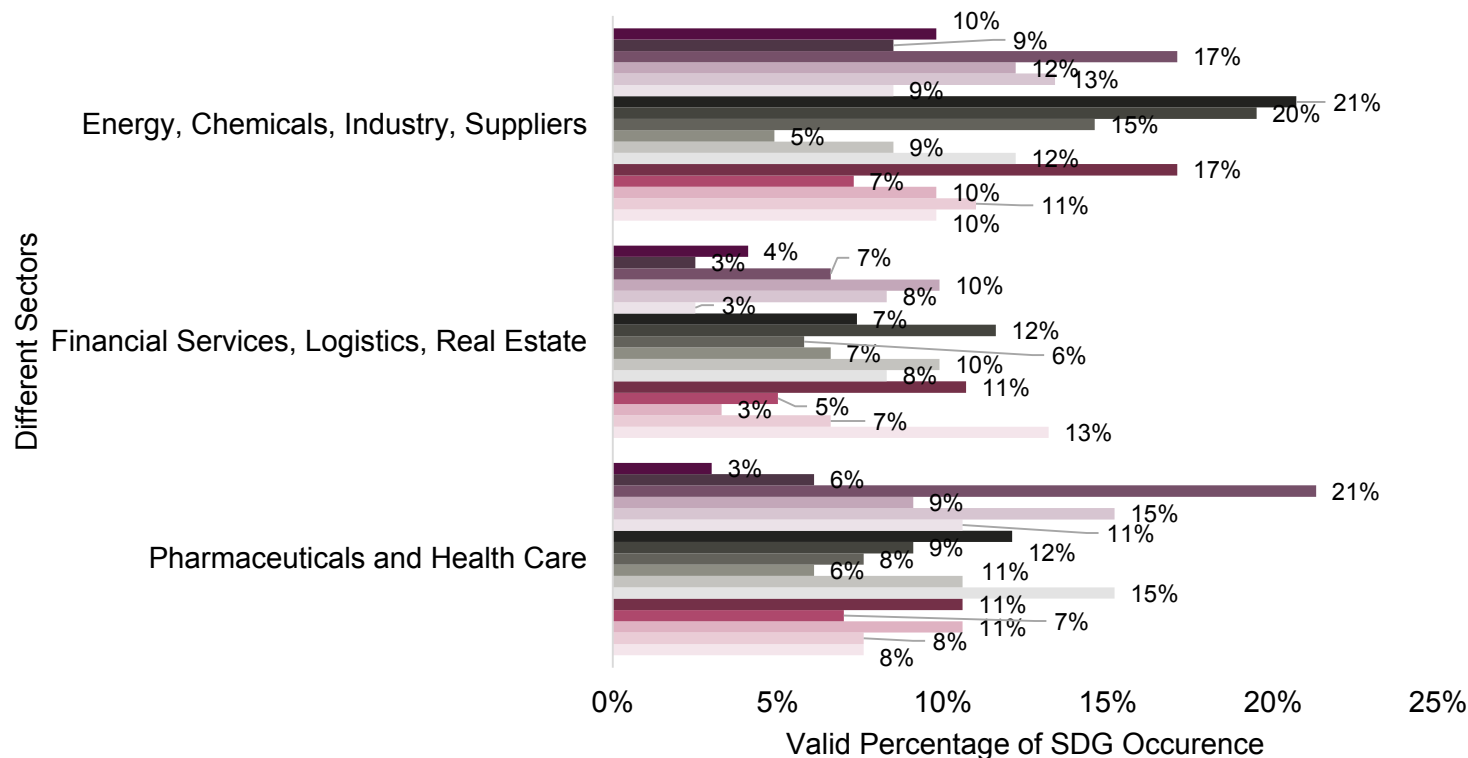
- Good Health, Well-Being (SDG 3)
- Affordable, Clean Energy (SDG 7)
- Sustainable Cities (SDG 11)
- Life on Land (SDG 15)

- Quality Education (SDG 4)
- Decent Work, Growth (SDG 8)
- Consumption and Production (SDG 12)
- Peace, Justice (SDG 16)

Own presentation: Valid percentage including all DAX and DJ sectors, all kind of documents/ website section, beginning with SDG 1 (first bar), ending with SDG 17 (last bar), n = 563.

References to SDGs per Business Sector (2/2)

Different Business Sectors emphasize different SDGs within their corporate communication activities



Different Sectors focusing on different SDGs

- The Energy, Chemicals, Industry and Suppliers Sector mainly mentions SDG 7 Affordable and Clean Energy
- The Financial Services, Logistics and Real Estate Sector mainly refers to the SDG 17 Partnership for the Goals
- The Pharmaceuticals and Health Care Sector mainly references SDG 3 Good Health and Well-Being

- No Poverty (SDG 1)
- Gender Equality (SDG 5)
- Industry and Innovation etc. (SDG 9)
- Climate Action (SDG 13)
- Partnerships for the Goals (SDG 17)

- Zero Hunger (SDG 2)
- Clean Water, Sanitation (SDG 6)
- Reduced Inequalities (SDG 10)
- Life Below Water (SDG 14)

- Good Health, Well-Being (SDG 3)
- Affordable, Clean Energy (SDG 7)
- Sustainable Cities (SDG 11)
- Life on Land (SDG 15)

- Quality Education (SDG 4)
- Decent Work, Growth (SDG 8)
- Consumption and Production (SDG 12)
- Peace, Justice (SDG 16)

Own presentation: Valid percentage including all DAX and DJ sectors, all kind of documents/ website section, beginning with SDG 1 (first bar), ending with SDG 17 (last bar), n = 563.

Financial Performance and References to SDGs

For certain business sectors, companies referring to the SDGs have a higher EBITDA-margin

	Including only DAX companies	Including only DJ companies
Non-Significant Results	<ul style="list-style-type: none">• No significant differences of EBITDA-margin 2018 and 2019 among groups (1) mentioning SDGs and groups (2) not mentioning SDGs including only DAX companies• No significant differences of EBITDA-margin 2018 and 2019 among groups (1) mentioning SDGs and groups (2) not mentioning SDGs in their Annual Reports 2018 and 2019• No significant differences between EBITDA-margin among groups (1) mentioning or (2) not mentioning action related key words	<ul style="list-style-type: none">• No differences of EBITDA-margin 2018 and 2019 among groups (1) mentioning SDGs or (2) not mentioning SDGs• No significant differences of EBITDA-margin 2018 among groups (1) mentioning SDGs or (2) not mentioning SDGs in their Annual Reports 2018 and 2019• No differences between EBITDA-margin among groups (1) mentioning or (2) not mentioning SDGs related key words
Significant Results	<ul style="list-style-type: none">• In the Information Technology, Media and Telecommunication Sector: Higher EBITDA-margin 2018 of companies mentioning SDGs than of companies not mentioning SDGs	<ul style="list-style-type: none">• Significant differences of EBITDA-margin 2019 among groups (1) mentioning SDGs or (2) not mentioning SDGs in their Annual Reports 2019 and 2019• In the Automotive, Aerospace and Machinery Sector: Higher EBITDA-margin 2018 of companies mentioning SDGs than of companies not mentioning SDGs

Summary of Findings

- DAX companies refer more frequently and more encompassing to SDGs than DJ companies; this is particularly the case for Annual Reports.
- Siemens Healthineers, Fresenius, United Health Group, United Technologies, Boeing and Travelers don't take reference to the SDGs in any written document or on any website section according to this analysis
- Climate Action (SDG 13), Decent Work and Economic Growth (SDG 8), Responsible Consumption and Production (SDG 12) are the most frequently mentioned SDGs among both groups of listed companies
- Different business sectors emphasize different SDGs, with SDG 13 (Climate Action) being dominant in both groups
- "Society/ Nation" and "Consumer" are the most frequently mentioned stakeholders in relation to the SDGs
- "Action" and "Strategy" are the most frequently mentioned action-related key words in relation to the SDGs
 - Assumption: Companies nowadays do not only talk about SDGs, but they take urgent action
 - They are concerned about the disclosure of their real contribution to the SDGs.
- The Information Technology, Media and Telecommunication Sector of DAX, as well as the Automotive, Aerospace and Machinery Sector of DJ mentioning the SDGs have a higher EBITDA-margin 2018 than companies not mentioning the SDGs

Outlook on Further Research

- The study was limited to the 30 largest stock-listed companies in Germany and the US. We expect further differences when extending this study to other countries and mid-size companies. We also expect to see a different level of emphasizing SDGs among family owned companies and companies that emphasize their ethical purpose in general.
- A subsequent qualitative study comprising all world regions and countries with different levels of economic development as well as companies of different size and ownership structure shall elucidate the diverse approaches to SDGs as they are addressed in corporate communication.
- Furthermore, we think it deserves some in depth analysis how companies organize their SDG-related corporate communication, and how exactly it is embedded into general CSR communication as well as in investor relations.
- Last but not least, it remains interesting whether communication on SDGs also reflects in better financial performance. The results of this study were not yet fully conclusive in this respect. We expect such effects (if at all) only to show up in longer term. And if they show up, they may just reflect that the company is more sensitive to future developments in general. Whether concern for SDGs is leading to better management will be difficult to prove as many other variables would have to be checked in parallel.

Bibliography

- Bundesministerium der Justiz und für Verbraucherschutz. (2019). *Aktiengesetz. § 286 Jahresabschluss Lagebericht*. Retrieved July 22, 2020 from https://www.gesetze-im-internet.de/aktg/__286.html
- Bundesministerium der Justiz und für Verbraucherschutz. (2019). *Handelsgesetzbuch § 315 Inhalt des Konzernlageberichts*. Retrieved July 22, 2020 from https://www.gesetze-im-internet.de/hgb/__315.html
- Carroll, A. B. (2009). A History of Corporate Social Responsibility: Concepts and Practices. *The Oxford Handbook of Corporate Social Responsibility, Vol(Nr)*, 1-20. doi:10.1093/oxfordhb/9780199211593.003.0002
- CED. (1971). *Social Responsibilities of Business Corporations*. New York, USA: CED.
- Fayol, H. (1994). *General And Industrial Management*. London, GB: Sir Isaac Pitman & sons, LTD.
- Kates, R. W., et al. (2001). Sustainability Science. *American Association for the Advancement of Science*, 292(5517), 641-642, DOI: 10.1126/science.1059386
- Sachs, J. (2012). From Millennium Development Goals to Sustainable Development Goals. *Viewpoint*, 379(9832), 2206-2211. [https://doi.org/10.1016/S0140-6736\(12\)60685-0](https://doi.org/10.1016/S0140-6736(12)60685-0)
- U.S. Securities and Exchange Commission. (2014). *Annual Report*. Retrieved July 22, 2020 from <https://www.sec.gov/fast-answers/answers-annrephtm.html>
- United Nations. (2018). *Sustainable Development Goals*. Retrieved on July 4, 2020 <https://sustainabledevelopment.un.org/?menu=1300>
- United Nations. (2019). *The Sustainable Development Goals Report 2019*. New York, USA: United Nations.
- Further related literature, not mentioned on slides:**
- CED. (1971). *Social Responsibilities of Business Corporations*. New York, USA: CED.
- GRI (n.d.). *About Sustainability Reporting*. Retrieved on July 4, 2020 <https://www.globalreporting.org/information/sustainability-reporting/Pages/default.aspx>
- GRI, United Nations Global Compact and wbcSD. (2017). *SDG Compass. The guide for business action on the SDGs*. Retrieved on July 2, 2020 https://sdgcompass.org/wp-content/uploads/2016/05/019104_SDG_Compass_Guide_2015_v29.pdf
- Khojastehpour, M. and Johns, R. (2014). CSR Issues on corporate/brand reputation and corporate profitability. *European Business Review*, 26(4), 330-339, <https://doi.org/10.1108/EBR-03-2014-0029>
- Matten, D. and Moon, J. (2009). Implicit and Explicit CSR. A conceptual framework for understanding CSR in Europe.
- Morrell, H. (1970). *The Social Responsibilities Of Business: Company And Community 1900-1960*. New Brunswick, USA: Transaction Publishers.
- Sachs, J. (2012). From Millennium Development Goals to Sustainable Development Goals. *Viewpoint*, 379(9832), 2206-2211. [https://doi.org/10.1016/S0140-6736\(12\)60685-0](https://doi.org/10.1016/S0140-6736(12)60685-0)
- United Nations. (n.d.). *Report of the World Commission on Environment and Development – Our Common Future*. Retrieved on July 4, 2020 <https://sustainabledevelopment.un.org/milestones/wced>
-

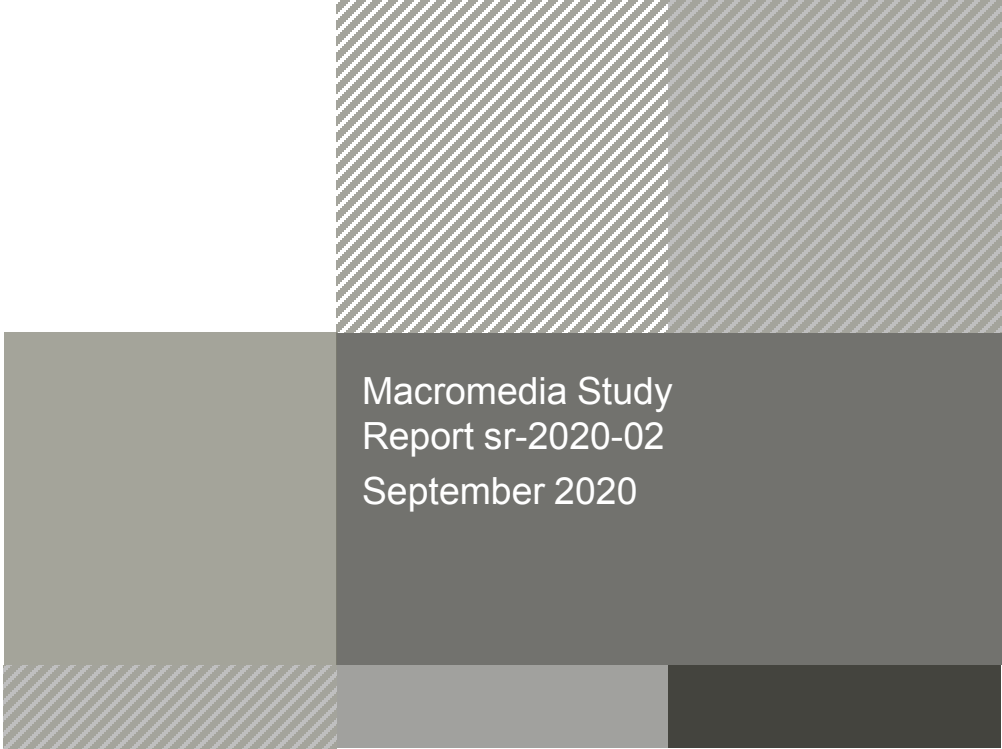


macromedia university
of applied sciences

Recommended Citation:

Kolo, C., Haumer, F., Hellriegel, O. & Matt, S. (2020). Addressing the United Nations SDGs in Large German and US Listed Companies – Analysis of Formal and Informal Corporate Communication Activities Referring to SDGs. Macromedia Study Report sr-2020-02. Munich: Macromedia University of Applied Sciences.

For more information www.macromedia-university.com



Macromedia Study
Report sr-2020-02
September 2020