

Rising Leaders on Environmental Sustainability and Climate Change: A Global Survey of Business Students

Extended Methodology Notes

Overview:

This survey was conducted by the Yale Center for Business and the Environment and the Yale Project on Climate Change Communication, in collaboration with the World Business Council for Sustainable Development and the Global Network for Advanced Management (GNAM), with input and analysis from Jennifer Wang (Emmett Interdisciplinary Program in Environment and Resources, Stanford University).

Business School participation:

Data was collected from a survey distributed to participants from 29 business schools located in 25 countries on five continents, representing approximately 17,600 students globally. The total population of eligible business students for this survey was estimated based on school administrator reports of the total number of students they approximated the survey was distributed to at their school, minus an estimate of the number of students who would not have the English language proficiency required to complete the survey. These total school population estimates were used to calculate the school participation rates described below.

The 29 business schools surveyed comprised the 27 members of the Global Network for Advanced Management (as of September 2015¹), as well as two additional schools that were recruited to participate in this survey: Duke Fuqua School of Business (USA) and MIT Sloan School of Management (USA). The latter two additional schools were recruited into the survey given close partnerships between these two MBA programs and the Yale Center for Business and the Environment. For each participating school, approval for survey participation by the school was granted by the Dean of the respective business school. An additional three American business schools were originally recruited to participate in the survey, but due to various recruitment issues any results from these three schools or any other schools outside of the final population set of 29 business schools was excluded from analysis.

A full list of participating schools is listed in Table 1 below, sorted by the region groupings we used for analysis. The region grouping listed below was based on other conventional regional groupings, as well as to ensure a minimum number of schools representing each region.

Table 1: Full List of Participating Schools, grouped by Region

Business School Name	Country	Region
Asian Institute of Management	The Philippines	Asia and Pacific Islands
Fudan University School of Management	China	Asia and Pacific Islands
Hitotsubashi University, Graduate School of International Corporate Strategy	Japan	Asia and Pacific Islands
Hong Kong University of Science and Technology Business School	China	Asia and Pacific Islands
Indian Institute of Management Bangalore	India	Asia and Pacific Islands
INSEAD	France, Singapore	Asia and Pacific Islands
Renmin University of China School of Business	China	Asia and Pacific Islands

¹ The University of California Berkeley's Haas School of Business became the 28th member of GNAM on November 5, 2015, but were not part of this survey.

Seoul National University Business School	South Korea	Asia and Pacific Islands
Universitas Indonesia Faculty of Economics	Indonesia	Asia and Pacific Islands
ESMT European School of Management and Technology	Germany	Europe
HEC Paris	France	Europe
IE Business School	Spain	Europe
IMD	Switzerland	Europe
Koç University Graduate School of Business	Turkey	Europe
London School of Economics and Political Science, University College London	United Kingdom	Europe
National University of Singapore Business School	Singapore	Europe
UCD Michael Smurfit Graduate Business School	Ireland	Europe
EGADE Business School, Tecnológico de Monterrey	Mexico	Latin America
FGV Escola de Administração de Empresas de São Paulo	Brazil	Latin America
INCAE Business School	Costa Rica, Panama	Latin America
Pontificia Universidad Católica De Chile School of Business	Chile	Latin America
Lagos Business School, Pan-Atlantic University	Nigeria	Middle East & Africa
Technion-Israel Institute of Technology	Israel	Middle East & Africa
University of Cape Town Graduate School of Business	South Africa	Middle East & Africa
University of Ghana Business School	Ghana	Middle East & Africa
Duke Fuqua School of Business**	USA	North America
MIT Sloan School of Management**	USA	North America
Sauder School of Business, University of British Columbia	Canada	North America
Yale School of Management	USA	North America

***non-GNAM school*

Weighting all schools equally ($N = 29$), the median school response rate was 23% and the mean school response rate was 28%. The middle 50% of school response rates fell between 17% and 34%.

Survey Instrument:

The survey comprised questions asking business students about environmental sustainability in relation to three key topics: knowledge and views on environmental sustainability and climate change, career choices, and business school education.

Fourteen substantive questions were administered to the full student population. An additional 18 substantive questions were each administered to approximately half of the student population; these 18 questions were grouped into pairs and each respondent was randomly assigned one question from each of these nine pairs of questions. Each survey participant was thus presented with 23 substantive questions. Data from six of the questions administered to the full student participation and 11 of the paired questions are presented in the final report.

Every respondent received the full set of 22 demographic questions. In compliance with Institutional Review Board requirements², identities of all individual respondents are anonymous and responses to all questions were voluntary.

The survey instrument was developed by researchers at the Yale Center for Business and the Environment and the Yale Project on Climate Change Communication, in collaboration with a Stanford collaborator (Jennifer Wang). The survey instrument was developed and pre-tested over a period of several months, between June and September

² IRB project approval was granted by the IRB Boards at Yale and at Stanford.

2015. Survey questions were generated from a number of sources, including 19 questions adapted³ from five prior surveys:

- Gallup Poll, 2012, 2015 (three questions)
- Jennifer Wang, Emmett Interdisciplinary Program in Environment and Resources Dissertation Protocol, Stanford University, July 2015 (four questions)
- The United Nations Global Compact-Accenture CEO Study on Sustainability, 2013 (three questions)
- The Yale Project on Climate Change Communication, Climate Change in the American Mind Project, April 2014 (seven questions)
- The Associated Press-NORC Center for Public Affairs Research and The Yale School of Forestry & Environmental Studies Environment Poll, November 2014 (two questions)

To keep consistent with previous surveys conducted by the Yale Center for Climate Change Communications, as well as to increase potential comparability to other previous surveys, the term “global warming” was chosen for use in this survey, with the observation that the terms “global warming” and “climate change” are frequently used interchangeably. Note that the term “climate change” is used instead in the final report to describe all of the reported findings.

The initial survey design was refined in an iterative process, incorporating feedback from users, researchers, and other stakeholders at every stage. Survey questions were pre-tested with business school students from different regions, with various levels of English language proficiency. The complete bank of survey questions was pre-tested with a dozen students (including at least one student from each of the five study continents), in one-to-one, in-person settings, using cognitive pre-testing methods. Students were asked open-ended questions about key terms used in the survey, completed the entire survey, and provided additional feedback on any aspects of the survey that proved confusing (e.g. question wording, terminology, user experience, survey structure, etc). Select faculty members from participating schools were also invited to review the survey questions and provide feedback.

The final survey was administered online using the third-party survey platform Qualtrics. Pre-testing with a new group of respondents indicated that the full survey took approximately 15-20 minutes to complete.

Survey Implementation

The survey was distributed in each school through official administrative channels such as by a senior staff administrator, faculty member, or Dean. Administrators were given a series of template recruitment e-mails to send out to their students, as well as instructions on when to send these communications out. To reduce self-selection bias, the e-mail templates only specified the general nature of the survey’s interest in asking about the business school experience, and did not specifically indicate a focus on environmental sustainability or climate change. The template message indicated that this survey was part of a global research study exploring the attitudes and opinions of business students around the world on pressing global issues, and mentioned that the survey was being led by researchers from Yale University in collaboration with participating business schools. Respondents were also informed that the aggregate results from the study would be published and distributed globally to senior business executives. Respondents were also told that the survey would take approximately 15-20 minutes. Although all care was given to make explicit that the survey responses were collected anonymously, we recognize that participant responses may also reflect desirability bias. Respondents were not compensated for their participation in the survey.

The invitation to complete the survey was distributed to students in mid-September 2015, primarily via e-mail and social media. Survey distribution at each school was managed by a survey coordinator—typically a senior staff administrator, faculty member, or Dean—who was appointed by the business school’s Dean. Survey coordinators were provided with e-mail templates (and instructed not to alter the key message of these templates) to distribute to their students, inviting them to complete the survey. In virtually all cases, the survey invitation was distributed via e-mail to all graduate business students at each school, regardless of the degree program students were pursuing. In some cases, the survey was also distributed using school web pages, e-newsletters, social media (Facebook, Baidu, Twitter, LinkedIn, or similar sites), or via text, WeChat, or similar messaging programs. The survey was also promoted through the Global Network for Advanced Management, via their website and social media platforms. We know anecdotally that the survey, once live, was additionally shared through other informal channels such as through student clubs and social networks; however the majority of students indicated that they had heard about this survey through an e-mail from a Dean, Director, or other senior person at their business school.

³ Existing questions were adapted in various manners: to reflect a global participant audience, to adapt to potential variation in levels of English proficiency, and to better reflect questions relevant to a graduate business participant population.

Survey responses were collected between September 13 and October 18, 2015, during which time the Yale research team distributed two additional e-mail reminder templates to survey administrators. To incent increased participation rates, a table of participating schools with current school participation percentages was included in the reminder e-mail. A number of external factors may have reduced the rate of participation at certain schools. These factors include cultural and normative differences in communication norms, different academic schedules and national holidays, as well as extenuating circumstances that we could not have anticipated⁴.

Report Analysis

The descriptive findings cited in the final report come from 3,711 survey responses collected between September 13 and October 18, 2015. The total set of survey responses ($N = 5,135$) was cleaned to remove unreliable or invalid responses (e.g. listing a school outside of our sample population) and responses that were missing key demographic information (e.g., school name, graduate degree status). We did not prevent multiple responses from the same IP addresses, as students may have needed to use the same school computer to complete their survey. The final data set of 3,711 survey responses represent 72% of the total number of responses submitted by participants. All individual responses were weighted equally in all analyses presented in the final report.

All results in the main report show percentages among all respondents who completed the question given (excluding non-responses and unseen questions in instances where the question was only presented to half of the respondent population due to randomization). Due to rounding, percentages may not add up to 100% in every instance. Not that the total number of respondents that responded to each question varies by question⁵. All analyses were conducted using R (version 3.2.0).

All question and answer text relevant to the final report is listed in the last section of this methodology.

Final report:

The final public report was released on November 19, 2015. Please see [this link](http://cbey.yale.edu/global-survey-methodology) for more details. This page (<http://cbey.yale.edu/global-survey-methodology>) hosts the extended methodology for the final report.

Other notes:

As a thank you for their participation in this initiative, each participating school will receive a short summary report of key findings comparing the responses of their students to the average response of students across all schools; the analysis for these school-specific reports follows a separate methodology.

In addition to preserving individual-level anonymity, the research team has agreed to maintain school-level anonymity in reporting any results, preserving the focus of these reports on areas for learning and opportunities for improvement.

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⁴ Chile was struck by the devastating 2015 Illapel earthquake on September 16, 2015.

⁵ This variance in the total number of respondents helps to explain findings that may otherwise seem contradictory (e.g. 96% of business students think that businesses should be leading efforts to address climate change, while 92% of business students believe that climate change is happening).

Survey Questions

Below are all of the questions (including full question and answer text) referenced in the final report, grouped by report section. Questions that were randomized (and shown to approximately half of the student population) are indicated below. Questions are listed in the order that they are featured in the finding graphics, followed by any additional questions used in the main finding text. The number presented under the name of the data label is the total number of respondents who completed the question; this number was used as the denominator for all percentage calculations under that data label. Data labels were not shown to survey respondents.

Respondent Demographics		
Data	Description	
Region, number of schools	<i>(from the Business Participation Section above.)</i> The region grouping listed below was based on other conventional regional groupings, as well as to ensure a minimum number of schools representing each region. See Table 1 above for regional groupings of business schools.	
Percent of Respondents by region (N = 3,711)	Calculated by counting the total sum of student respondents from schools in each region, and dividing by the total number of student respondents overall.	
Data	Demographic Question	Answer Format
Age (N = 2,758)	In what year were you born?	<i>Single-answer choice:</i> Choices listed from 2000 to 1900.
Gender (N = 2,763)	What is your gender?	<i>Single-answer choice:</i> <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Other
Degree Program (N = 3,711)	At [current business school], which business degree program(s) are you currently enrolled in or did you complete? <i>Please select all that apply.</i>	<i>Multiple-answer choice from the following list:</i> Bachelor's, Doctor of Business Administration (DBA), Doctor of Philosophy (PhD), Executive education general coursework, Executive Master of Business Administration (EMBA), Executive Master in Consulting and Coaching for Change (EMCCC), Executive Post Graduate Program (EPGP), Fellow Program in Management (FPM), Master of Accounting (MAcc), Master of Advanced Management (MAM), Master of Arts (MA), Master of Business Administration (MBA), Master of Business and Management (MBM), Master of Commerce (MCom), Master of Development Management (MDM), Master of Entrepreneurship (MsE), Master of Finance (MIF), Master of Financial Engineering (MFE), Master of International Management (MIM), Master of Management (MM/MiM), Master of Management Studies (MMS), Master of Philosophy (MPhil), Master of Planning and Public Policy (PNPM), Master of Public Administration (MPA), Master of Professional Accounting (MPAcc), Master of Science (MS/MSc), Master of Science in Management Studies (MSMS), Master of Supply Chain Management (MSCM), Master of Systems Design & Management (MSDM), Postgraduate Diploma (PGDip), Post Graduate Program (PGP), Professional Masters in Management (MPA), Professional Masters Program in International Management (MPGI), Professional Masters Program in Management and Public Policies (MPGPP), Visiting student/ exchange/ study abroad (Please specify your home institution – open text box), Other Masters (Please specify – open text box), Other (Please specify)
Full-Time vs. Part-Time (N = 3,711)	Are you completing or did you complete this business degree program as a...	<i>Single-answer choice:</i> <input type="radio"/> Full-time student <input type="radio"/> Part-time student

Finding #1

Global economy operating within global environmental and resource constraints

(Randomized question; N = 1618 responses; analysis was compared to results from the United Nations Global Compact-Accenture CEO Study on Sustainability, 2013):

To what extent do you agree with the following statement: “The global economy is on track to meet the demands of a growing population within global environmental and resource constraints”

Five-point bipolar Likert scale (final report results present binned percentages for “Strongly Disagree” and “Disagree”):

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Sufficient business efforts to address sustainability challenges

(Randomized question; N = 1564 responses; analysis was compared to results from the United Nations Global Compact-Accenture CEO Study on Sustainability, 2013):

To what extent do you agree with the following statement: “Business as a whole is making sufficient efforts to address global environmental sustainability challenges”

Five-point bipolar Likert scale (final report results present binned percentages for “Strongly Disagree” and “Disagree”):

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Corporate engagement with environmental issues

(Randomized question; N = 1520 responses; analysis was compared to results from the United Nations Global Compact-Accenture CEO Study on Sustainability, 2013)

To what extent do you agree with each of the following statements about environmental, social and corporate governance issues for large corporations?

- Include sustainability objectives in employee performance assessment and compensation/remuneration
- Incorporate sustainability issues into discussions with financial analysts
- Practice integrated reporting of financial and sustainability metrics
- Incentivize managers to prioritize the achievement of long-term sustainability goals over short-term sales/profits
- Measure both positive and negative impacts of their activities on sustainability outcomes
- Engage in industry collaborations and multi-stakeholder partnerships to address sustainable development goals
- Seek to move responsibility for sustainability from a separate department toward integration throughout corporation functions and divisions
- Discuss and act on sustainability issues at the board level

Single-answer choice:

- Companies should
- Companies Should not
- I don't know

Environmental risks to corporations

(Randomized question; N = 1570 responses)

Think about the industry you have the most work experience in. Throughout your career, how much do you think that large corporations in that industry will be positively or negatively impacted by... *(presentation order of sub-question choices was randomized)*

- Air issues (e.g. air quality)
- Biodiversity issues (e.g. species extinction)
- Depletion of the ozone layer
- Energy issues (e.g. access to energy)
- Global warming issues (e.g. temperature change, sea level rise, extreme weather)
- Land/habitat issues (e.g. land quality, habitat degradation)
- Natural resources/materials issues (e.g. access to natural resources, quality of natural resources)
- Water issues (e.g. access to water, water quality)

Seven-point bipolar Likert scale (final report results refer to binned percentages for “Extreme negative impact”, “Moderate negative impact”, and “Slight negative impact”):

- Extreme negative impact
- Moderate negative impact
- Slight negative impact
- No impact
- Slight positive impact
- Moderate positive impact
- Extreme positive impact

Finding #2

Government and Company responsibility

(N = 3142 responses)

Whose responsibility is it to ensure that companies are not harming the environment – companies themselves, or governments?

What is your opinion? Please pick the point on the scale below that best represents your opinion.

Five-point scale (scale order was reversed by randomization):

- It is entirely the responsibility of companies
- It is mostly the responsibility of companies
- Companies and governments have equal responsibility
- It is mostly the responsibility of governments
- It is entirely the responsibility of governments

Doing more or less to address global warming

(Randomized question; N = 1611 responses; the order of the scale was randomized)

Do you think each of the following parties should be doing more or less to address global warming? *(presentation order of sub-question choices were randomized)*

- The local, municipal, or city government of the place you grew up in
- The regional, state, or provincial government of the place you grew up in
- The national, central, or federal government of the country you grew up in
- The head of state/government (e.g. President, Prime Minister) of the country you grew up in
- Corporations, businesses, and industry
- Citizens and individual consumers
- Non-profit and non-governmental organizations
- Developing countries
- Developed countries

Seven-point bipolar Likert scale (final report results refer to binned percentages for “A moderate amount more” and “A significant amount more”):

- A significant amount less
- A moderate amount less

- A little less
- Neither less nor more
- A little more
- A moderate amount more
- A significant amount more

Businesses leading efforts to address global warming

(Randomized question; N = 1578 responses)

How much should businesses be leading efforts to address global warming?

Five-point unipolar Likert scale (final report results refer to binned percentages for “A little”, “A moderate amount”, “A lot”, and “A significant amount”):

- Not at all
- A little
- A moderate amount
- A lot
- A significant amount

Roles responsible for environmental impacts

(Randomized question; N = 1448 responses)

To what degree do you think that people in each of the following roles at a large corporation should be responsible for reducing that company’s environmental impacts? *(presentation order of sub-question choices were randomized)*

- Environment, sustainability, or corporate social responsibility (CSR) department
- Board of Directors
- C-suite/CXO (e.g. CEO, CFO, COO)
- Executive leadership team (e.g. Vice Presidents)
- Middle management (e.g. managers)
- Front line employees (e.g. workers)
- Suppliers/vendors
- Retailers/stores
- Customers/consumers
- Shareholders/investors

Five-point unipolar Likert scale (final report results refer to percentages for “A lot” and “A significant amount”; report statements hold when considering these percentages binned, or the “A significant amount” category on its’ own):

- Not at all
- A little
- A moderate amount
- A lot
- A significant amount

Economic Growth and Jobs

(N = 3182 responses)

Please indicate which one of these statements comes closest to your own views - even if it is not exactly right. In the long-run, protecting the environment will.

Scale (scale order was reversed by randomization):

- Improve economic growth and provide new jobs
- Have no impact on economic growth or jobs
- Reduce economic growth and cost jobs

Benefits of excellent environmental performance

(Randomized question; N = 1445 responses)

Think about the industry you have the most work experience in. In the next ten years, to what degree do you think that excellent environmental performance by a large corporation in that industry will... (presentation order of sub-question choices were randomized)

- Improve its financial performance (e.g. increase sales/revenues, profitability, or stock price)
- Improve its operations and supply chain management (e.g. reduce operating costs, increase operational efficiency)
- Improve its human resources (e.g. reduce employee recruitment costs, increase employee retention and engagement)
- Improve its marketing (e.g. increase brand value, strengthen corporate reputation/trust)
- Improve its market competitiveness (e.g. increase access to markets, reduce customer acquisition and retention costs)
- Improve its regulatory compliance (e.g. reduce fees for violations of government laws and regulations)
- Improve the quality of its products or services
- Improve its research and development (e.g. enhance innovation and entrepreneurship)
- Improve its risk management (e.g. reduce liabilities)
- Improve its employee health and safety (e.g. reduce accident and incident rates)
- Improve its community relations (e.g. reduce conflicts, strengthen partnerships)
- Improve its strategic planning (e.g. improve long-term planning, reduce uncertainty)

Five-point unipolar Likert scale:

- Not at all
- A little
- A moderate amount
- A lot
- A significant amount

Finding #3

Comparing two equivalent job offers

(N = 2915 responses)

Imagine that you have received two equivalent job offers in your desired industry from the following companies:

- Company A, which has very good environmental sustainability practices
- Company B, which has very bad environmental sustainability practices

Assuming that everything else about the two offers is the same and that both companies are offering a salary that you could live on that is within the typical range for this role, would you...

Scale (order of scale choices were randomized):

- Accept the offer with Company A even if the salary was lower than the offer with Company B
- Accept the offer with Company A only if the salary was equivalent to the offer with Company B
- Accept the offer with the higher salary, regardless of the company's environmental sustainability practices

Comparing two equivalent job offers – part 2

(N = 1269 responses; This question was only presented if the answer to the previous question was "Accept the offer with Company A even if the salary was lower than the offer with Company B")

All else being equal, how much higher would the salary need to be for you to accept the offer with Company B?

Scale:

- 1-10% higher (1)
- 11-20% higher (2)
- 21-30% higher (3)
- 31-40% higher (4)
- 41-50% higher (5)
- 50% higher or more (6)

- I would not accept a job at a company with very bad environmental sustainability practices, regardless of how high the salary was (7)

Incorporating environmental sustainability considerations regardless of job

(Randomized question; N = 1470 responses)

How strongly do you feel about each of the following statements?

- I want to work for a company or organization with environmentally sustainable practices (in any industry)
- I want to make the business practices of the company or organization I work for more environmentally sustainable
- I want to pursue a role focused on environmental sustainability (in any industry)
- I want to work in a more environmentally sustainable industry
- I want to incorporate environmental sustainability considerations into whatever job I end up in, regardless of my role/industry
- I want to learn more about environmental sustainability
- I want to improve my individual/personal impact on the environment

Five-point bipolar Likert scale (final report results refer to binned percentages for “Agree” and “Strongly Agree”):

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Engagement with companies with excellent environmental sustainability practices

(Randomized question; N = 1454 responses)

All else being equal, if a company has excellent environmental sustainability practices, to what degree would this make you more or less likely. *(presentation order of sub-question choices were randomized)*

- To apply for a job at that company
- To accept a job at that company
- To stay employed longer at that company
- To do business with that company
- To invest financially in that company
- To buy a product/service from that company

Seven-point bipolar Likert scale (final report results refer to binned percentages for “A little more likely”, “A lot more likely”, and “A significant amount more likely”):

- A significant amount less likely
- A lot less likely
- A little less likely
- Undecided
- A little more likely
- A lot more likely
- A significant amount more likely

Finding #4

Occurrence of global warming

(N = 3400)

Recently, you may have noticed that global warming has been getting some attention in the news. Global warming refers to the idea that the world’s average temperature has been increasing over the past 150 years, may be increasing more in the future, and that the world’s climate may change as a result. “Global warming” and “climate change” both refer to the same idea and these two terms are often used interchangeably. What do you think: Do you think that global warming is happening?

Scale:

- Yes
- No
- Don't Know

Knowledge about environmental sustainability and business

(N = 2817)

How knowledgeable would you say that you are about each of the following topics?

- Environmental sustainability
- Business risks related to environmental sustainability
- Ways in which business practices can be more environmentally sustainable
- Ways in which environmental sustainability can be a competitive advantage for businesses
- Examples of environmentally sustainable businesses that have strong financial performance
- Where to find information about environmentally sustainable business practices
- How my individual behaviors impact the environment

Five-point unipolar Likert scale (final report results refer to binned percentages for “Not at all knowledgeable”, “Slightly knowledgeable”, “Moderately knowledgeable”):

- Not at all knowledgeable
- Slightly knowledgeable
- Moderately knowledgeable
- Very knowledgeable
- Extremely knowledgeable

Integrating environmental sustainability into curricula and career services

(Randomized question; N = 1380 responses)

At the business school you currently attend or most recently attended, do you feel that there should be more or less of the following?

- Business school core curriculum/coursework incorporating environmental sustainability
- Elective curriculum/coursework focused on environmental sustainability
- Business school faculty/staff with expertise in environmental sustainability
- Case studies highlighting environmental sustainability issues for business
- Career services/counseling for environmental sustainability jobs
- School events/guest speakers focused on environmental sustainability
- Joint degrees/majors/concentrations focused on environmental sustainability
- Experiential learning opportunities (e.g. client projects, trips) focused on environmental sustainability
- Number of students with education, work experience, or career interests related to environmental sustainability

Scale (final report results refer to binned percentages for “A little more”, “A lot more”, “A significant amount more”, “I don’t know”):

- A significant amount less
- A lot less
- A little less
- Neither less nor more
- A little more
- A lot more
- A significant amount more
- I don’t know

Business leadership knowledge

(N = 2876)

How important is it for business leaders to be knowledgeable about the following topics?

- Finance, accounting, and economics
- Operations and supply chain management
- Sales and marketing

- Risk management
- Human resources (i.e. people/team management, organizational behavior)
- Environmental sustainability
- Strategy and strategic management
- Corporate and board governance
- Innovation and entrepreneurship (e.g. research and development)
- Business ethics
- Corporate philanthropy (i.e. donations) and social responsibility
- Government regulations and policies

Five-point unipolar Likert scale (final report results refer to binned percentages for “Somewhat important”, “Very important”, “Extremely important”):

- Not at all important
- Slightly important
- Somewhat important
- Very important
- Extremely important