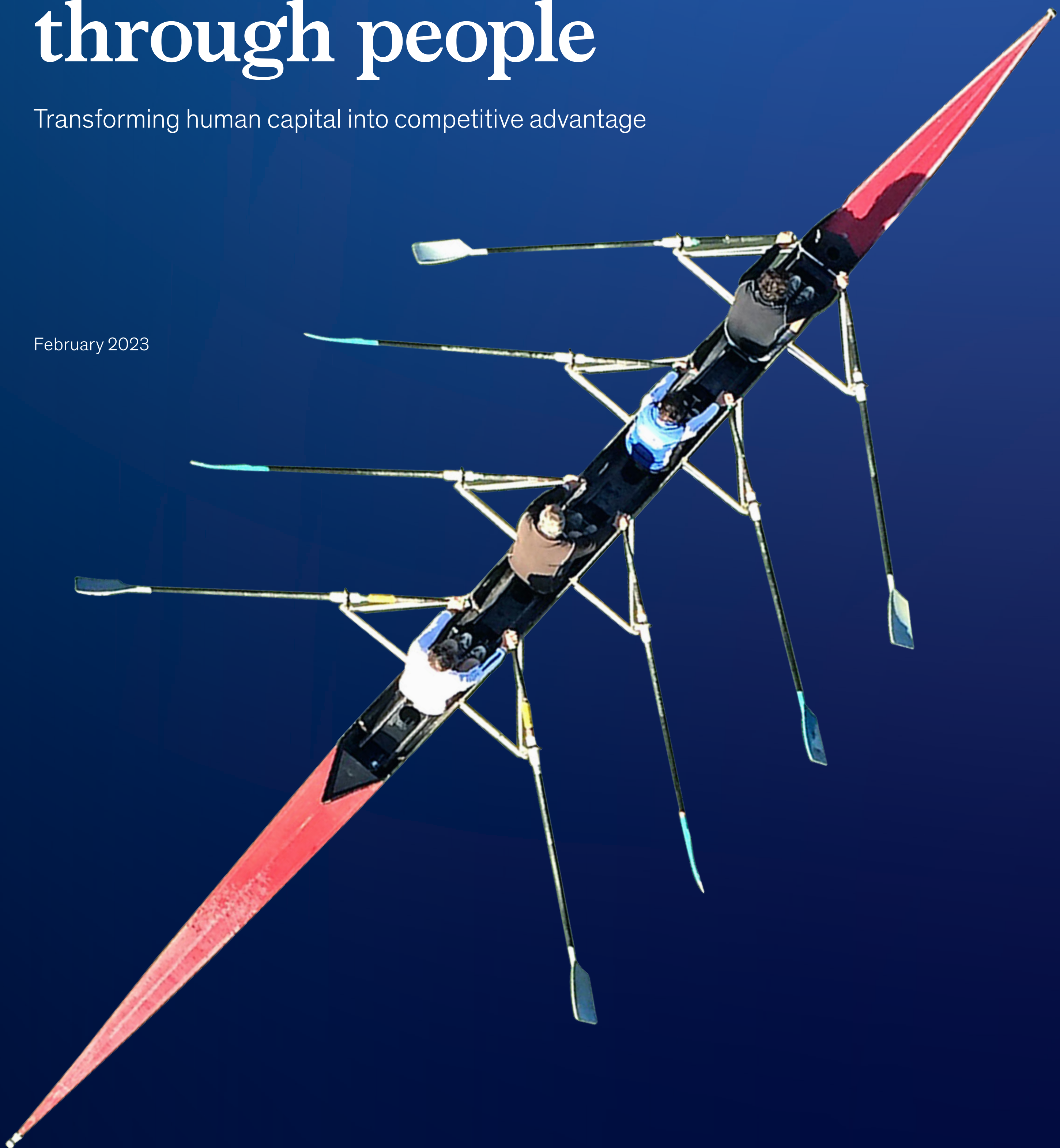
McKinsey Global Institute

Technical Appendix

Performance through people

Transforming human capital into competitive advantage

February 2023



Technical appendix

This appendix provides methodological details on the following analyses:

1. Categorizing companies
2. Measuring P+P Winners against other categories of companies
3. Estimating the efficacy of investment in different types of capital
4. Identifying organizational capital signature

1. Categorizing companies

We classify companies into four categories based on two dimensions: financial performance and human capital development. To characterize financial performance, we use economic profitability, measured by average economic profit as a share of revenue from 2010 to 2019, as the primary metric. To identify true outperformers, we examined ~22,500 companies with revenue of more than $100 million for which this data was available. These companies operate in 15 countries and all sectors. Ninety-five percent of them have data available for all ten years; the remainder have data for at least seven years. We identify top-quintile performers by evaluating each company against peers within its own industry to account for sector-level differences.

To benchmark human capital development, we identify three input metrics: internal moves as a share of all moves (measured from 2015 to 2019 for companies based in the United States), average training hours per full-time employee (averaged over 2017 to 2019), and the overall score from McKinsey's proprietary, survey-based Organizational Health Index diagnostic (latest available since 2016). We chose these three markers of human capital development because they are correlated with upward mobility for employees, based on our previous human capital research.[1]

We regard companies as top performers in human capital development if they are in the top quintile in their sector on at least one of the three input metrics. We further verify that these three human capital inputs move together—a company in the top quintile of one of the three metrics is likely to be in the top quintile of the other two metrics, and vice versa.

We then sorted the 1,793 companies with both economic profitability and human capital development data into four categories based on whether they are top performers on both dimensions, on only one of the dimensions, or on neither dimension (Exhibit A1).

[1] *Human capital at work: The value of experience,* McKinsey Global Institute, June 2022.

Exhibit A1

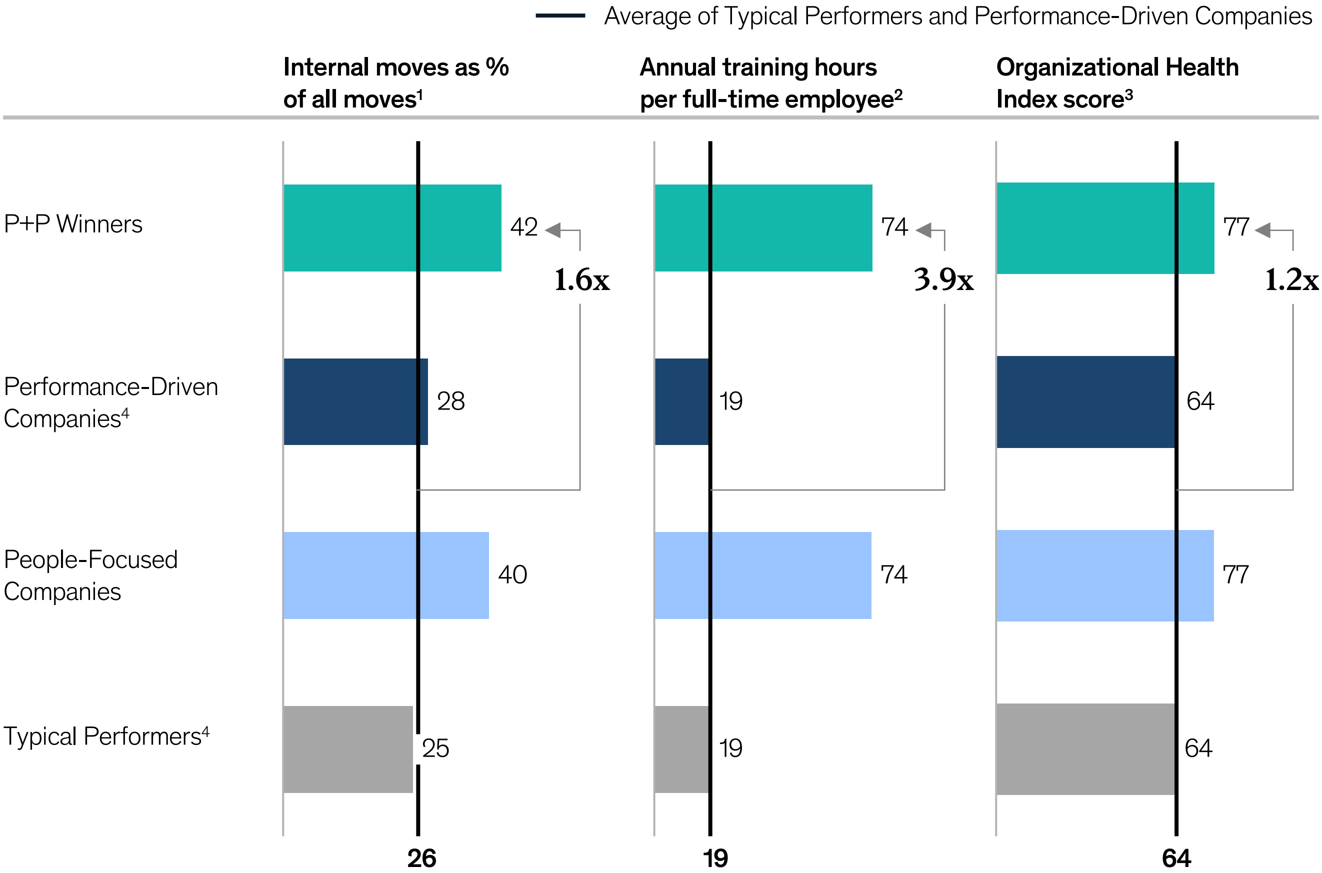
Type of company	Definition	Total number of companies	Share of companies, %
P+P Winners	Top quintile in both financial performance and human capital development	169	9
Performance-Driven Companies	Top quintile in financial performance and bottom four quintiles in human capital development	374	21
People-Focused Companies	Bottom four quintiles in financial performance and top quintile in human capital development	261	15
Typical Performers	Bottom four quintiles in both financial performance and human capital development	989	55

By definition, both P+P Winners and People-Focused Companies stand out across the three input metrics considered for human capital development—internal moves, annual training hours, and OHI score (Exhibit A2).

Having established the four categories of companies, we can see that P+P Winners exist across all sectors, though they are more common in healthcare, consumer staples, and technology (Exhibit A3).

Exhibit A2

P+P Winners and People-Focused Companies both focus on human capital development.



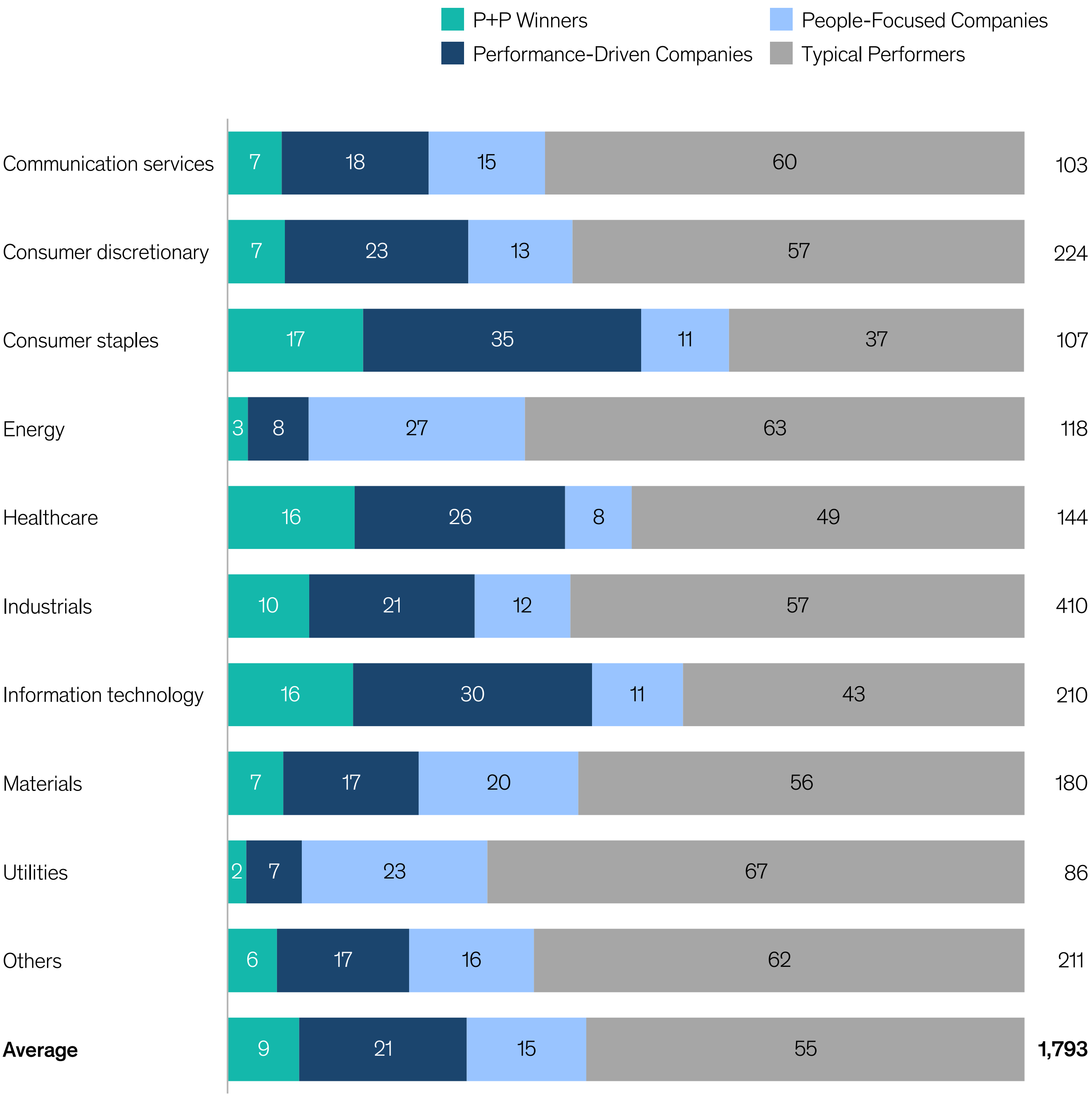
[1] Measured from 2015 to 2019 for companies based in the United States.
[2] Averaged over 2017 to 2019.
[3] Latest available since 2016.
[4] Values represent statistically significant differences with respect to corresponding values of P+P Winners (at confidence interval of 95% with p-value <0.05).
Note: Due to data availability, sample sizes for each metric vary as follows: internal moves = 782, training hours = 808, OHI scores = 479. All values are sectorally reweighted.

Source: Organizational Health Index by McKinsey; Refinitiv; McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data; McKinsey Global Institute analysis

Exhibit A3

P+P Winners exist in all sectors.

Share of sample companies by category by sector, %



Note: Companies are benchmarked against peers within their own sector to account for differences between industries when evaluating financials. Figures may not sum to 100% because of rounding.
Source: Organizational Health Index by McKinsey; Refinitiv; McKinsey's Corporate Performance Analytics; S&P Global; McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data; McKinsey Global Institute analysis

The shares of companies in the top quintile of human capital development or financial performance may add up to more or less than 20 percent, depending upon data availability. For each of the four metrics (economic profit/revenue, training hours, internal moves, and overall OHI score), we set performance cutoffs on a universal basis for all data available. While we had data for both economic profitability and at least one human capital metric for only 1,793 companies, we considered some 22,500 companies for which we had data to estimate quintiles for financial performance (with about 4,800 companies, or roughly 20 percent, in the top quintile). Each company was benchmarked against its own sector peers to avoid introducing distortions through cross-industry comparisons.

We then overlay the availability of human capital metrics, resulting in our sample set of 1,793 companies. Due to data availability, the share of companies in the top quintile of financial performance is about 30 percent of this set. This indicates that financial outperformers are overrepresented in our sample of 1,793 companies as compared to the larger superset. Similarly, human capital developers are overrepresented in our sample, with 24 percent of companies in the top quintile by at least one metric.

2. Measuring P+P Winners against other categories of companies

We analyze a number of metrics to identify what differentiates P+P Winners from People-Focused and Performance-Driven Companies. For each category, we carry out one of three types of analysis: averages of metrics, share of companies in each category performing well on a metric, and corresponding likelihood. Additionally, we measured attrition, volatility, financial outperformance, and resilience metrics across key sectors, with similar directional results.

Metrics and sample sizes

Financial returns

— **Overall financial performance:** We tested a wide range of metrics of financial performance. These included average economic profitability (economic profit/revenue), average return on invested capital (ROIC), average compound annual growth of EBITDA, and average compound annual growth of revenue, all for 2010 to 2019; total returns to shareholders over ten years as of 2019; and average EBITDA margin (EBITDA/revenue) in 2019. Across metrics, we had data for at least 1,500 companies.

— **Consistency in financial performance and earnings volatility:** We use two metrics: sustained financial performance and volatility. We define sustained financial performance as remaining in the top quintile by economic profitability and ROIC for at least nine out of the ten years in our data set. We use average standard deviation of ROIC for 2010 to 2019 as a measure of volatility.

— **Resilience in financial performance:** We use three metrics for resilience: average revenue growth from 2019 to 2021; the share of companies in each category that sustained a drop in ROIC greater than 0.5 percentage point from 2019 to 2020; and the share of companies in each category that achieved an increase in ROIC of more than 0.5 percentage point from 2019 to 2020.

Human capital returns

— **On-the-job coaching:** We use the practice "talent development" in the OHI as a proxy for on-the-job coaching and look for companies in each category whose OHI respondents ranked it among their top 15 practices. We identify the priority rank for a practice by using a standardized score among the entire sample of ~1,000 companies with OHI data. Rank 1 refers to the practice prioritized the most, while rank 37 refers to practice prioritized the least. OHI data is available for a subset of roughly 480 companies.

— **Growth in lifetime earnings:** We measure the average share of employees in each category of company on track to move into higher earning quintiles from their starting earnings quintile, using a data set and methodology from our previous research on human capital and the individual.[2] Data on upward mobility is available for a subset of roughly 190 companies.

— **Employee satisfaction and employer reputation:** We use the average net promoter score (the share of people who express an overall positive sentiment about a company's work environment minus the share of people who express an overall negative sentiment on surveys from McKinsey's proprietary Organizational Data Platform, which draws on licensed data from several sources) over 2017 to 2019 as a proxy for employee satisfaction. Data is available for roughly 200 P+P Winners, Performance-Driven Companies, and People-Focused Companies. We analyze the share of companies in Fortune's 100 Best Companies to Work For in 2019 among all categories of companies in the United States as the proxy for employer reputation.

— **Talent attrition:** We measure average total attrition as well as a breakdown of voluntary and involuntary attrition for 2017 to 2019. To measure the impact of the pandemic, we also look at turnover from 2020 to 2021. Data on attrition is available for a subset of roughly 200 to 250 companies.

Across metrics, the sample sizes mentioned are the overlap between the availability of data for the metric and our sample set of 1,793 companies across the four categories. While the sample sizes for metrics on human capital returns are notably smaller, the differences across the categories of companies were statistically significant at a confidence interval of 95 percent with p-value <0.05.

Measurement methodology

We carry out one of three types of analysis to measure the different metrics.

— **Average of the metrics:** We measure average values across the different categories of companies for overall financial performance, volatility, resilience, employee satisfaction, and talent attrition.

— **Share of companies performing well:** We calculate the share of companies performing well in each category for sustained financial performance, resilience, on-the-job coaching, growth in lifetime earnings, and employer reputation.

— **Likelihood of performing well:** We compare likelihood of performing well on a metric across different categories of companies. For example, we measure the likelihood of P+P Winners showing sustained financial outperformance by dividing the proportion of P+P Winners among all companies showing sustained financial outperformance by the sample share of P+P Winners.

We then reweight all values by average sectoral shares in the sample to ensure consistent sectoral distribution across the four categories of companies. This mitigates the risk of potential sectoral bias. To check for statistical significance across findings, we carry out a t-test for averages and a z-test for shares and likelihood.

[2] See the technical appendix of *Human capital at work: The value of experience,* McKinsey Global Institute, June 2022.

Robustness checks

To substantiate the robustness of our approach, we tested different metrics for classifying companies. We employed other financial metrics such as return on invested capital. We also tested other human capital development metrics: each of the three input metrics individually, or only using training hours and OHI. In the latter, we excluded internal moves because it could imply a bias toward large companies, which may have a greater ability than smaller companies to promote or move employees laterally. In addition, we used more fundamental measures of human capital development (such as earnings outcomes of employees, measured as the share of employees on track to move into higher earnings quintiles). We also examined country-level variations (using only companies based in the United States) and threshold sensitivities (considering quartile thresholds instead of quintiles and comparing bottom-quintile companies rather than companies in the bottom four quintiles with those in the top quintile). We also tested for causality (that is, whether financial outperformance led companies to invest in human capital development) by using economic profitability from 2016 to 2019 instead of over the entire prepandemic decade. A majority of our findings remained valid across all the tests.

The table below highlights the human capital development input and financial performance metrics used for the different tests (Exhibit A4).

Exhibit A4

Robustness check	Human capital development	Financial performance
Different metrics for classification	At least one of the following: training hours, internal moves, OHI score	Average ROIC (2010–19)
	At least one of the following: training hours, OHI score	Average EP/revenue (2010–19)
	Only OHI score	Average EP/revenue (2010–19)
	Only training hours	Average EP/revenue (2010–19)
	Only share of internal moves	Average EP/revenue (2010–19)
	Share of upward mobility in earnings	Average EP/revenue (2010–19)
Country-level variation	At least one of the following: training hours, internal moves, OHI score (for the United States only)	Average EP/revenue (2010–19) for the United States only
Threshold sensitivity	Top quartile or bottom three quartiles; data for at least one of the following: training hours, internal moves, OHI score	Top quartile or bottom three quartiles: average EP/revenue (2010–19)
	Top quintile or bottom quintile (instead of bottom four quintiles); data for at least one of the following: training hours, internal moves, OHI score	Top quintile or bottom quintile (instead of bottom four quintiles): average EP/revenue (2010–19)
Causality	Data for at least one of the following: training hours, internal moves, OHI score	Average EP/revenue (2016–19)

3. Estimating the efficacy of investment in different types of capital

To understand the investment efficacy of different types of companies, we analyzed two metrics. First, we estimated the absolute increase in revenue for 2010 to 2019 per dollar increase in investment in the following different types of capital:

— human capital, measured as estimated compensation of the workforce, based on O*NET occupation-level average wages aggregated at the sector level, multiplied by number of employees at the company level

— organizational capital, measured as selling, general, and administrative (SG&A) expenses excluding compensation of the workforce, sales and marketing expenses, and R&D expenses, wherever included

— physical and financial capital, measured as property, plant, and equipment assets; net loans; and investment into securities

— other intangible capital, measured as sales and marketing expenditures and R&D expenses

Second, we used a regression approach to quantify sensitivities of growth in revenue to growth in the different drivers mentioned above, by sector, controlling for all other drivers. We used a large sample of roughly 20,000 companies in the regression, with model R-square of 60 percent. Using this approach, we identified three categories of companies: high efficacy, representative, and low efficacy. High-efficacy companies are those with disproportionately high revenue growth compared to growth in human and organizational capital investment, keeping all other investments constant; low-efficacy companies have disproportionately low revenue growth in relation to growth in human and organizational capital. We then measured the proportion of high-efficacy companies within P+P Winners and Performance-Driven Companies.

4. Identifying organizational capital signature

To characterize distinctive elements of organizational capital, we used McKinsey's proprietary Organizational Health Index and other firm-level metrics available from external databases (Exhibit A5). These include items such as inclusivity policies, speed of decision making, and share of employees recruited from top employers and top universities, among others.

Exhibit A5

To characterize distinctive elements of organizational capital, we used data from McKinsey's Organizational Health Index and other firm-level indicators.

Organizational Health Index indicators

- Overall OHI score
- 9 OHI outcomes and 37 practices
  - **Direction:** Shared vision, strategic clarity, employee involvement
  - **Work environment:** Open and trusting, performance transparency, operationally disciplined, creative and entrepreneurial
  - **Leadership styles:** Authoritative, consultative, supportive, challenging
  - **Accountability:** Role clarity, performance contracts, consequence management, personal ownership
  - **Coordination and control:** People performance review, operational management, financial management, professional standards, risk management
  - **Capabilities:** Talent acquisition, talent development, process-based capabilities, outsourced expertise
  - **Motivation:** Meaningful values, inspirational leaders, career opportunities, financial incentives, rewards and recognition
  - **Innovation and learning:** Top-down innovation, bottom-up innovation, knowledge sharing, capturing external ideas
  - **External orientation:** Customer focus, competitive insights, business partnerships, government and community relations
- **Organizational health recipe:** Strength of recipe alignment, share of companies aligned to different recipes
- Cohesion score

Other indicators

- Average training hours per full-time employee
- Rate of internal talent migration
- Employee perception score on work environment
- Voluntary, involuntary, and total attrition
- Speed of decision making, execution, adaptability score
- Share of employees from top 100 universities
- Share of employees in roles with above-average wages
- Environmental, social, and governance (ESG) score, corporate responsibility awards
- Diversity representation (women, ethnic, and cultural) at executive and management levels
- Inclusivity policies (gender pay gap, childcare support, Corporate Equality Index, etc)
- R&D expenditure

Source: Organizational Health Index by McKinsey; Refinitiv; McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data; McKinsey Global Institute analysis

OHI data is available for roughly 480 companies, of which 50 are P+P Winners, 94 are Performance-Driven Companies, and 79 are People-Focused Companies.

To identify prioritized OHI practices, we calculate the standardized Z-score for each practice, using a sample of ~1,000 companies for which we have data through the OHI diagnostic. Z-score is measured as

$$Z = (x - \mu)/\sigma$$

$$where\ x = observed\ value;\ \mu = sample\ mean;\ \sigma = sample\ standard\ deviation$$

We then take the average scores for each category of company and rank them, with the highest rank being the practice most prioritized. We select all practices for P+P Winners that have a standardized score greater than or equal to one, resulting in 11 prioritized practices. We then identify the top ten to 12 practices prioritized by Performance-Driven and People-Focused Companies (Exhibit A6).

Data on other firm-level metrics is available for roughly 200 to 1,500 companies across metrics. For these metrics, we measured both averages and likelihoods.

— **Averages of measures:** We measure the average values across the different categories of companies for metrics such as the gender pay gap and diversity.

— **Share of companies performing well:** We calculate the share of companies that provide childcare support or host employee affinity and resource groups in each category of company.

We then reweight all values by average sectoral shares in the sample to ensure consistent sectoral distribution across the four categories of companies. This mitigates the risk of potential sectoral bias. Finally, we check for the statistical significance across findings at a confidence interval of 95 percent with p-value <0.05. For averages, we carry out a t-test; for shares and likelihood, we carry out a z-test.

Exhibit A6

Different types of companies emphasize different elements of organizational capital.

■ Prioritized practices

OHI outcome	OHI practice	P+P Winners	Performance-Driven Companies	People-Focused Companies
Direction	Shared vision		■	
	Employee involvement	■		
Leadership	Consultative leadership	■	■	
	Challenging leadership	■	■	
Work environment	Open and trusting		■	
	Performance transparency	■		■
	Creative and entrepreneurial	■		■
Coordination and control	Professional standards		■	
	Risk management			■
Accountability	Performance contracts		■	
	Consequence management	■		■
	Personal ownership			■
Motivation	Inspirational leaders			■
	Career opportunities	■		■
	Financial incentives	■		■
	Rewards and recognition	■		■
Capabilities	Talent development[1]	■		■
	Outsourced expertise		■	
Innovation and learning	Bottom-up innovation	■		
	Knowledge sharing	■		
External orientation	Customer focus		■	
	Competitive insights		■	
	Government/community relations		■	

[1] Not prioritized as a top 10 practice by P+P Winners, but their scores closely match People-Focused Companies on this practice.
Note: Sample size: P+P Winners = 50; People-Focused Companies = 79; Performance-Driven Companies = 94. About 80 percent of prioritized practices are shown (not exhaustive).
Source: Organizational Health Index by McKinsey; McKinsey Global Institute analysis

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