



FORRESTER®

# **Better Data Skills: A Win-Win for Employees And Organizations: A Spotlight On Asia Pacific And Japan**

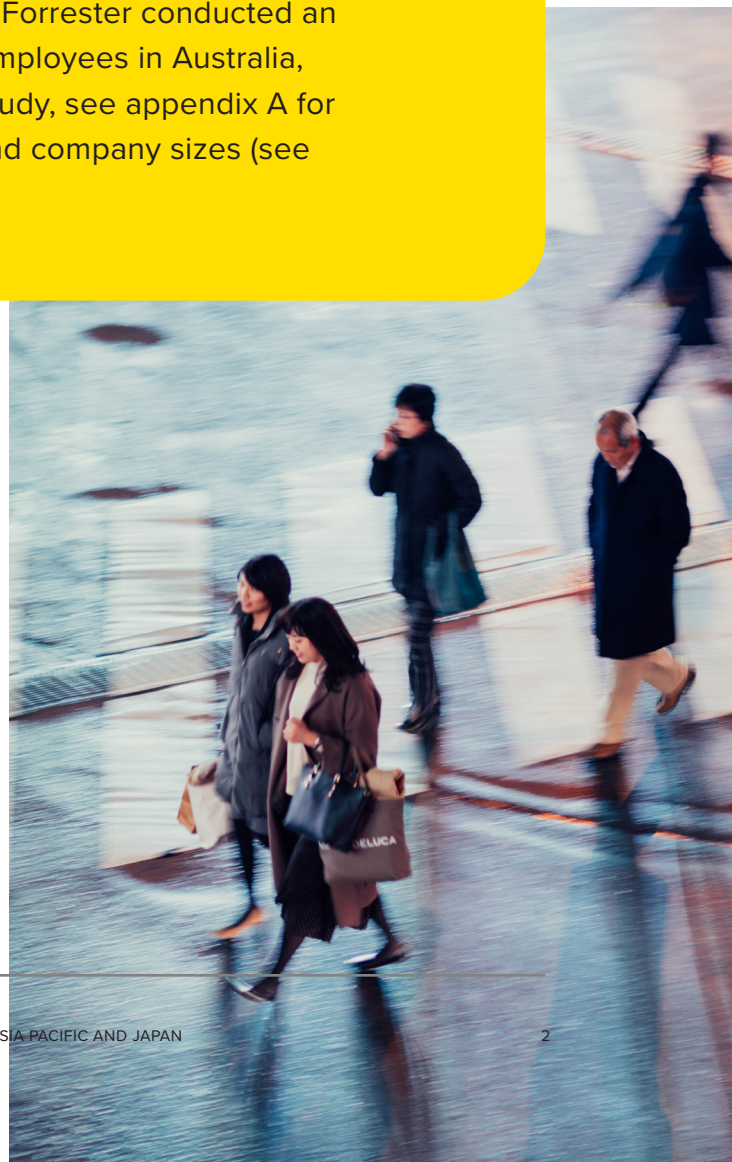
APJ Results From The February 2022 Thought Leadership Paper, “Building Data Literacy”

## Executive Summary

Data is the language of modern business. So, to succeed, organizations need people who can effectively speak it. Our study found that enterprises in Asia Pacific and Japan (APJ) understand better than those in any other region that there's broad and deep value in a workforce empowered by improved data skills and literacy. Even with limited training initiatives, many have seen benefits in productivity, revenues, employee satisfaction, and retention from better understanding and acting on key, timely data.

Yet, APJ decision-makers and rank-and-file workers disagree sharply about the adequacy and reach of existing data skills training. This disconnect threatens to hinder expansion and maturation of data literacy efforts and cripple development of a data-driven culture (data culture) that maximizes benefits and ultimately harms digital transformation and competitiveness.

In November 2021, Tableau commissioned Forrester Consulting to explore the state of enterprise data literacy and culture and the organizational issues, challenges, and benefits that come with it. Forrester conducted an online survey with 310 decision-makers and 313 employees in Australia, Japan, and Singapore (as part of a larger global study, see appendix A for more details), across a wide range of industries and company sizes (see appendix B) to explore this topic.





## Definitions

**Data literacy:** Possessing the skills necessary to understand, explore, use, make decisions with, and communicate using data.

**Data skills:** The techniques used to extrapolate meaning from and to communicate discoveries with data. Basic data skills include data literacy and basic data analysis abilities. Advanced skills include data science, AI, machine learning, and advanced analysis techniques.

**Data culture:** The collective behaviors and beliefs of people that weaves data into the operations, mindset, and identity of an organization. Having a data culture improves decision-making by equipping everyone in the organization with the insights they need to be truly data-driven and to tackle complex business challenges.



## Key Findings

**Data literacy dramatically improves innovation, decision-making, and employee retention.** Employees who said they are highly satisfied with their organization’s data program were 10 times more likely to be highly satisfied with their organization overall, and nearly twice as likely to predict they would be at their organization in two years. Respondents from APJ enterprises said data training also improved employee satisfaction and work performance while reducing costs and increasing revenue. Respondents from organizations with high-maturity data skilling programs reported benefits 10% to 50%, higher than organizations with low-maturity initiatives across customer experience, innovation, employee retention, revenue increase, and more (see Appendix C for details about maturity levels).

**The data skills interests and expectations of Singapore and Japan are the highest in the world.** Surveyed leaders and employees clearly recognize that data literacy is increasingly crucial for personal and organizational success now and during the next three years. Ninety-one percent of surveyed decision-makers from Singapore and Japan said they expect at least basic literacy within their department. However, Australia lags far behind the region and the world, with only 71% of respondents from that country saying the same. Surveyed APJ leaders said they expect nearly 70% of employees to use data heavily in their jobs by 2025, which is nearly double the 38% rate in 2018.



**Many APJ workers feel under-skilled.** Data training in the APJ region tends to be reserved for specific employees in traditional data roles. Across the countries surveyed, Japan leads in training for basic data skills and overall, and it is considerably above the global average for it, but the country lags its neighbors in advanced training. Singapore concentrates on advanced skills, primarily for traditional data-focused roles, and Australia is relatively balanced between the two levels. Thirty-eight percent of surveyed workers in the region said they have no access to training at all. So, unsurprisingly, only 36% of surveyed APJ employees said they believe their organization has equipped them with the data skills they need. Japan does slightly better than other APJ countries in this metric with 40% compared to with 35% in Singapore and only 33% in Australia.

**Top obstacles include deficits of in-house resources and undeveloped data cultures.** Surveyed APJ decision-makers said lack of staff knowledge on how to improve data skills is the biggest hindrance to basic and advanced data literacy. Lack of a data culture and organizational support round out the top-three challenges. Nearly 80% of surveyed decision-makers said their department successfully provides its workers with needed data skills, but only 36% of employees said they feel the same. Some 78% of APJ organizations say employees should be responsible for their own training, which is the highest level worldwide.

**Well-funded, centralized programs using outside expertise deliver maximum value.** Our research shows that data upskilling initiatives, scaled across the organization with top management support can close skills gaps and produce clear benefits for employees, departments, organizations, and customers. These programs position enterprises for ongoing success and form a firm foundation for a vibrant data culture.

# Fast-Growing Need For Data Skills Outpaces Training

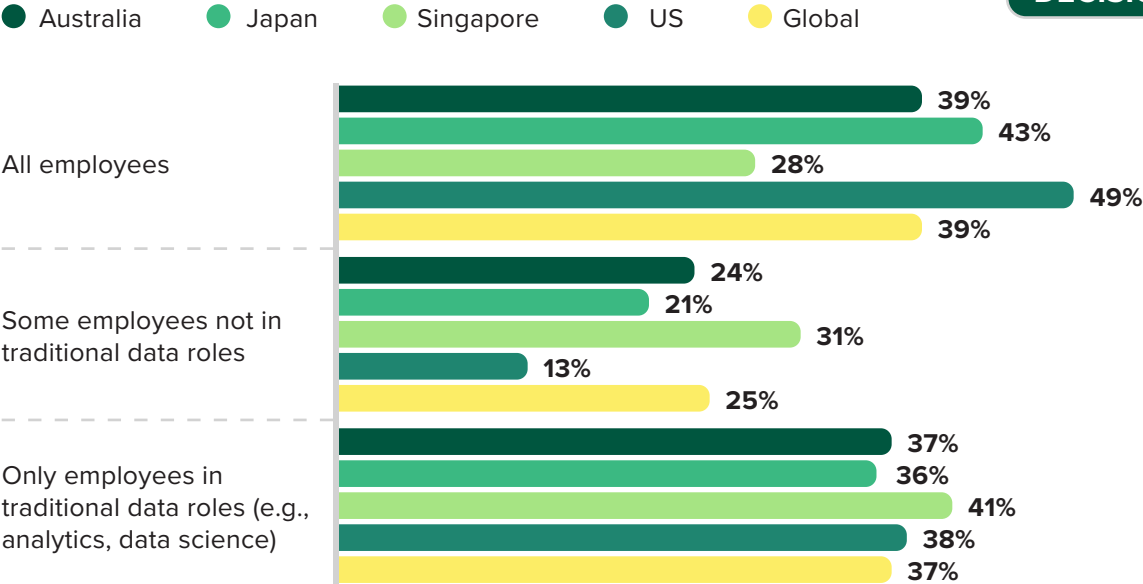
Surveyed APJ leaders and employees said they understand that the vast amounts of data harvested by their organizations greatly exceeds their ability to understand and use to advance key goals. Many said they recognize the continued, fast-growing importance of data literacy in a wide variety of jobs across the entire organization. Once required only of specialists, rank-and-file workers from human resources to product now need data skills to succeed in their daily work.

However, despite the clear need and value, Forrester uncovered several concerning issues that APJ organizations must address. These include:

- Existing training lacks reach.** Only 37% of APJ organizations make data training available to all employees and 38% only offer training to employees in traditional data roles (see Figure 1), leaving these workers to pick up knowledge through ad-hoc, on-the-job learning, including from coworkers (see Figure 1). This stands in stark contrast to the 80% of decision-makers who said they feel their organization successfully equips its employees with the data skills they need.

**Figure 1**

**“Which employees are offered data training?”**



Base: 1,032 director+ decision-makers at companies with 500+ employees offering data training Australia, Japan, or Singapore  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

- **Skilled staff and companywide support are lacking.** For basic data training, APJ organizations (especially in Japan) are far more likely to use courses designed in-house than from a service or technology partner. Unfortunately, many respondents from APJ enterprises said their organization lacks the skilled staff and subject knowledge needed to design and deliver effective data courses, especially in advanced topics. Thirty-nine percent said training materials are inadequate, which was the top challenge in our survey (see Figure 2).

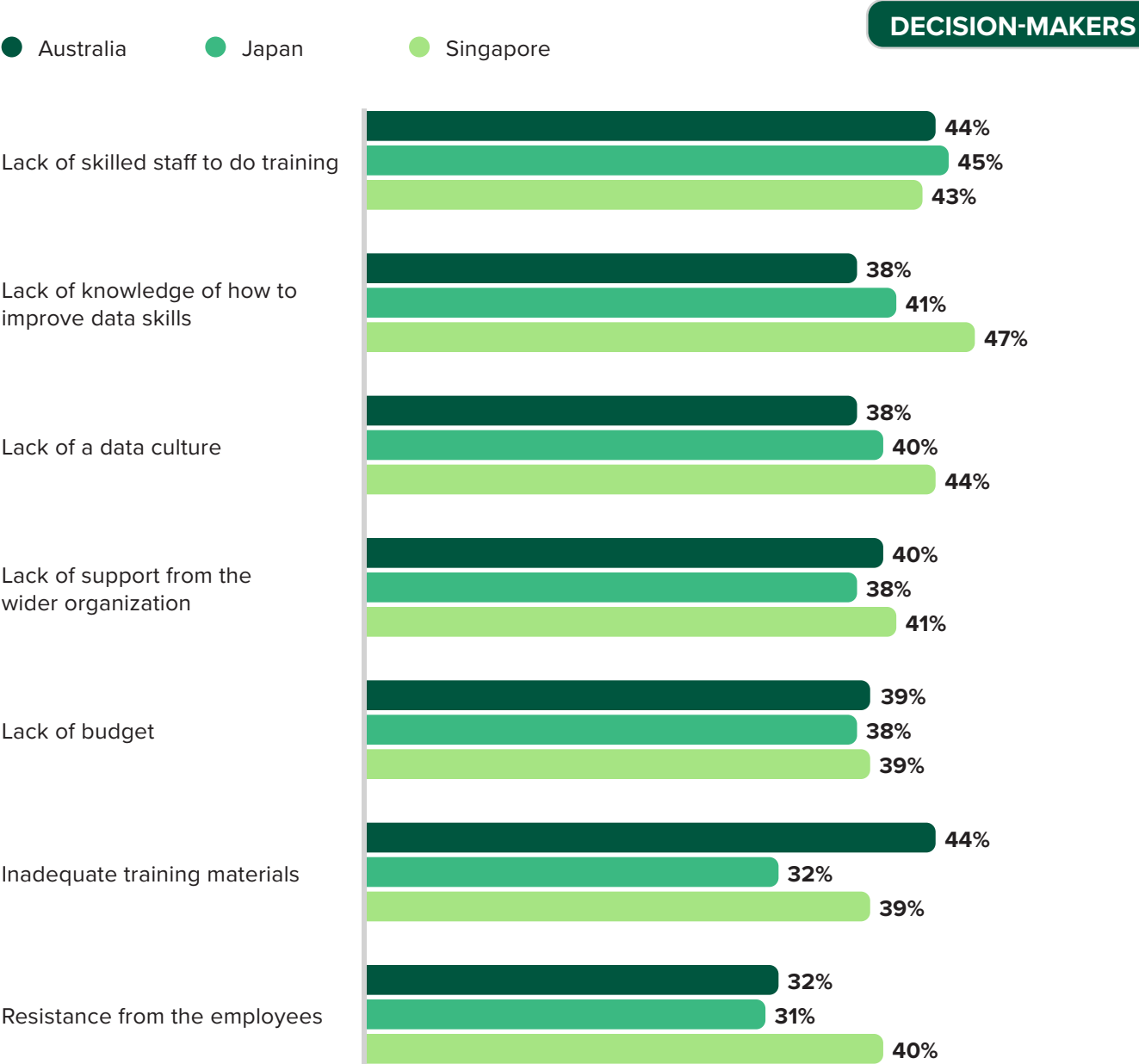
Other big challenges are organizational. Despite the crucial role of top leadership in creating strong data cultures, only 22% of data initiatives come from companywide mandates or programs. Furthermore, 40% of surveyed decision-makers said their organization struggles to secure the organizational support and culture needed to offer effective data-training initiatives.

- **Leaders and employers disagree strongly about a data training gap.** Despite the low percentage of workers who receive formal data training, 79% of APJ decision-makers said their department successfully equips its workers with needed skills. In contrast, only 36% of employees think this. And dissatisfaction is greatest in Australia.

This huge disconnect presents a serious obstacle to the maturing of data-literacy efforts and the more mature data-driven culture that many workers and organizations desire. Some 67% percent of surveyed APJ employees (topped by those from Singapore) said they have voiced criticisms to managers about their data training, company data culture, and their own use of data. If data literacy and skilling programs are to evolve to meet growing needs, organizations must make it an ongoing priority to hear and analyze employee feedback on strengths and weaknesses.

**Figure 2**

**“Which of the following challenges has your department faced or currently faces in trying to improve its level of data skills (both basic and advanced)?”**



Base: 310 director+ decision-makers at companies with 500+ employees offering data training in Australia, Japan, or Singapore  
Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021



## Data Culture Improves Innovation, Decisions, And Customer Experience

To truly leverage data for better results, APJ organizations need to move beyond the recognition that data literacy is imperative and keep operationalizing. The next step is committing to strategic scaling of efficient and effective companywide upskilling that can undergird a robust data culture. Organizations that do will see significant benefits in innovation, decision-making, and employee retention.

Our research shows that both formal and informal data upskilling initiatives produce clear benefits across the board for employees, departments, and entire organizations as well as for customers and stakeholders. While all respondents from organizations with initiatives to improve employee data skills realized clear benefits, the greatest gains came from high-maturity programs that offered training for a wide range of skills in multiple styles of training and to all employees — not just those in traditional data roles. Among the countries in this study, organizations from Australia had the highest maturity initiative levels followed by Japan with Singapore having the lowest on average.

In surveying 623 APJ employees and decision-makers across departments, industries, and regions, we found that data literacy is a win-win for organizations and employees.

### EMPLOYEES FEEL MORE DECISIVE AND LIKELY TO STAY

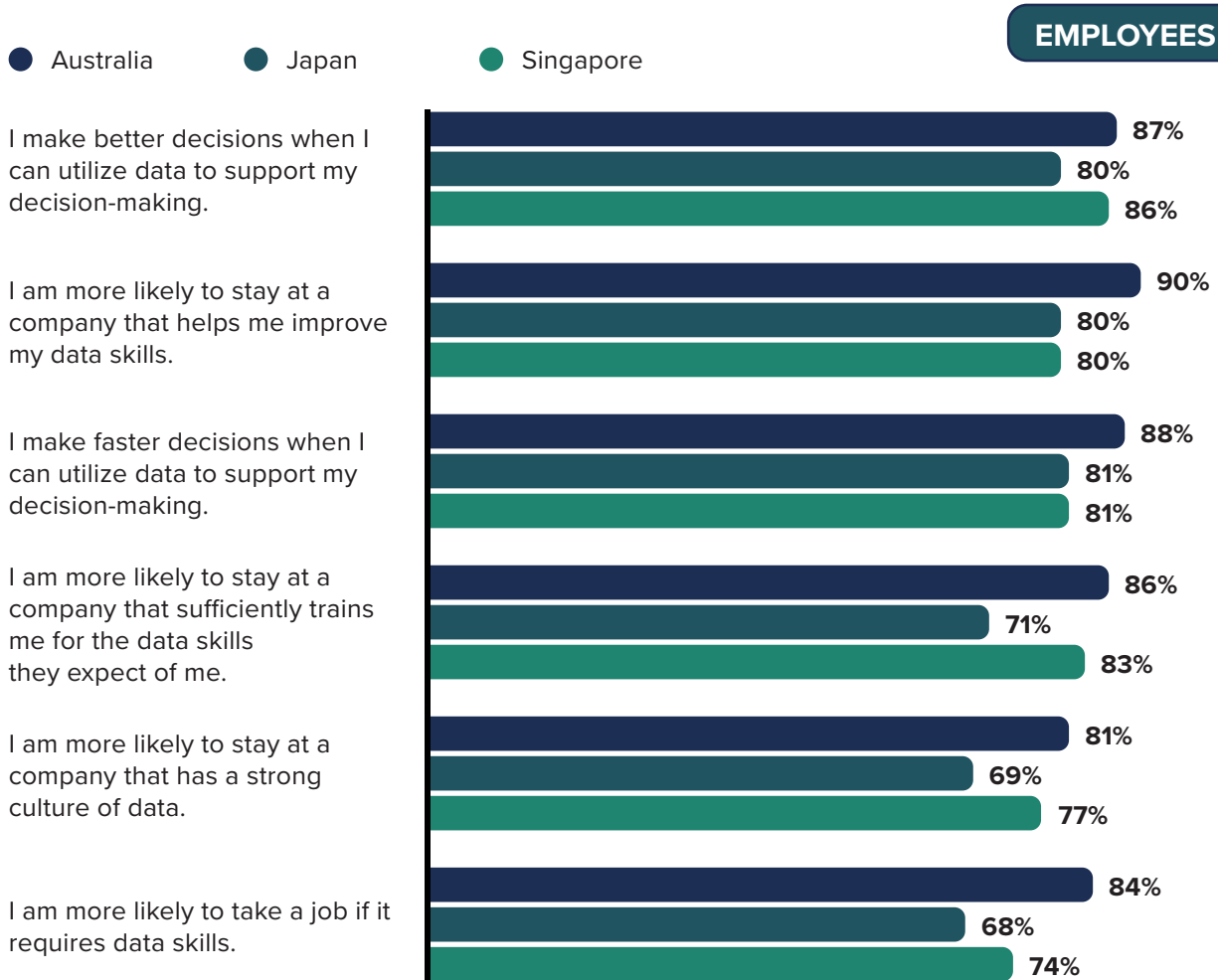
Like their counterparts worldwide, surveyed APJ workers see many motivations and benefits of improved data literacy, including increased employability (49%), pay raises (48%), perceived competency (43%), chances for promotion (40%), more responsibility (39%), and —topping all — interesting self-betterment (52%). Organizations and employees who use data benefit by regularly making better and more innovated decisions, and employees who are given the data skills they need are more likely to stay at their organizations (see Figure 3).

## DEPARTMENTS AND ORGANIZATIONS ALSO BENEFIT

For their part, surveyed APJ decision-makers said they highly value not only the improved performance of individual data-literate employees, but the combined benefits they bring to their departments. These benefits include better customer experiences, increased revenue, and reduced cost (see Figure 4). Note that improved confidence in dealing with customers and providing a better overall customer experience is the most highly valued benefit.

**Figure 3**

**“Please indicate to what extent you agree with each of the following statements regarding benefits of data use.”**



Base: 313 employees in all roles with three+ years experience at companies with 500+ employees in Australia, Japan, or Singapore  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

**Figure 4**

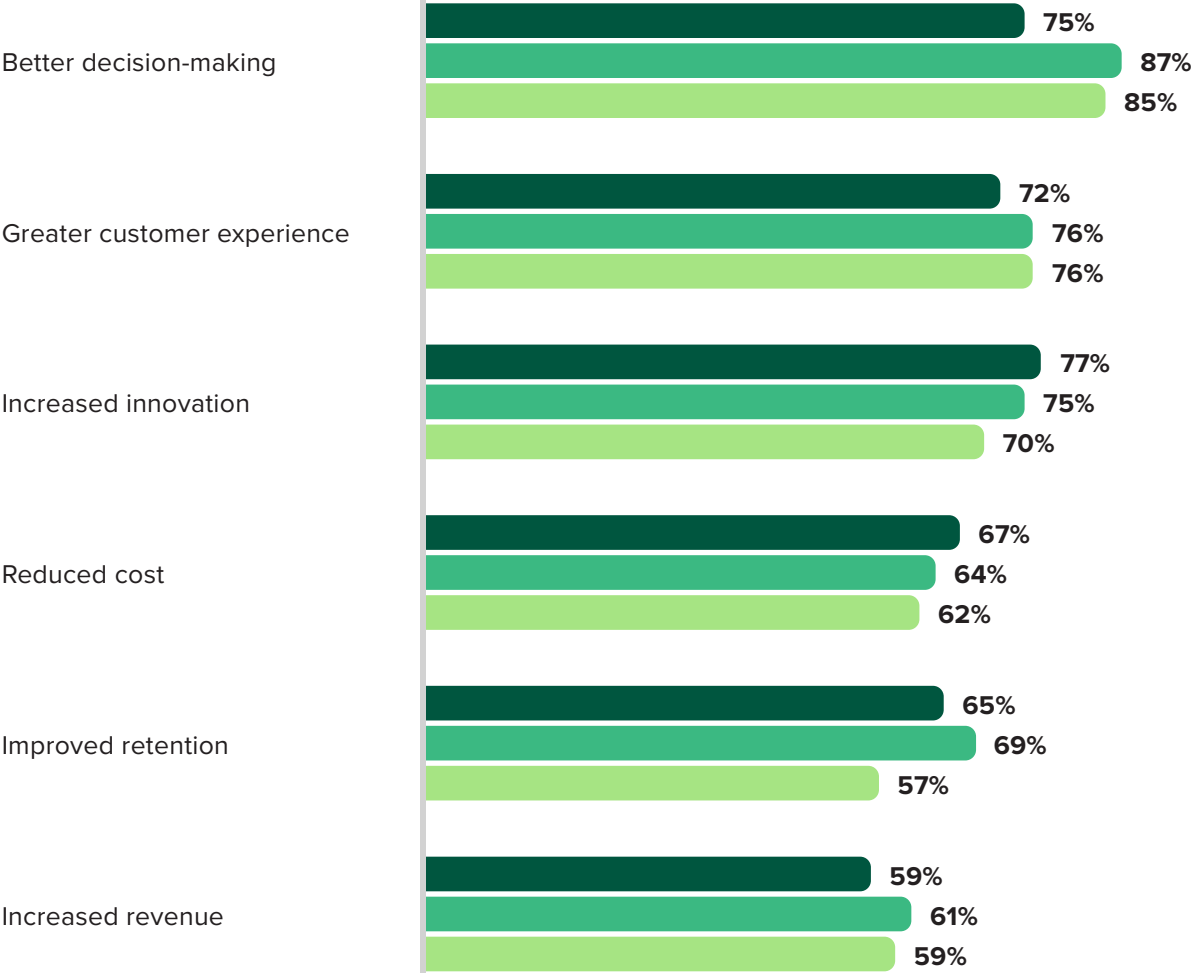
**“To what extent has your department received the following benefits from its specific data skills initiatives?”**

● Australia

● Japan

● Singapore

**DECISION-MAKERS**



Base: 310 director+ decision-makers at companies with 500+ employees offering data training in Australia, Japan, or Singapore  
Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

## Key Recommendations

APJ organizations that invest in data literacy and upskilling at scale across all departments see dramatic benefits, including improved decision-making and productivity, as well as greater employee satisfaction and retention.

Forrester's in-depth survey of decision-makers and employees yielded several important recommendations for APJ organizations working to build data competencies and transformational, data-driven cultures:

### **Think beyond training to build data skills and culture.**

Training is an important primary tool, but other interactive approaches also are critical. More than half of surveyed employees said they improved data skills through several types of knowledge sharing. Approaches can include office hours during which data experts with good consulting and teaching skills help colleagues with questions and challenges. Communities of practice unite people with common interests in specific data skills (e.g., analytics or visualization) for regular interactions, shared activities, and learning from each other. Organizations committed to data should explore and pursue these powerful training complements. Equally important: Managers should lead by example and use data effectively to support their decisions.

### **Seek strategic partners focused on relevant training.**

Sidestep internal resource and skills constraints with consulting partners, technology vendors, data literacy specialists, and others who can supply a wide variety of on-demand, in-person, individual or group training for specific technologies and roles. Make sure training is relevant to an individual's job role and daily tasks.



## Appendix A: Methodology

In this study, Forrester conducted two online surveys to evaluate organizational culture around data literacy. One survey included 1,032 director+ data program decision-makers at global companies with 500 or more employees, and 310 are based in APJ. The second survey included 1,036 employees in all roles who have three or more years of experience at global companies with 500 or more employees, and 313 of are based in APJ. Respondents were offered a small incentive as a thank you for the time spent on the survey. The study began in October 2021 and was completed in November 2021.

To read the full results of this study, please refer to the Thought Leadership Paper commissioned by Tableau, a Salesforce company, “Building Data Literacy.”

Project Director: Josh Blackborow,  
Market Impact Consultant

Contributing Research: Forrester’s  
technology executives and business  
insights research groups

## Appendix B: Demographics/Data

### EMPLOYEE SURVEY

REGION	
APJ	30%
EMEA	30%
LATAM	20%
NA	20%

EMPLOYEES	
20,000 or more	14%
5,000 to 19,999	20%
1,000 to 4,999	38%
500 to 999	27%

POSITION	
Manager	45%
Project manager	22%
Full-time practitioner	34%

### DECISION-MAKER SURVEY

REGION	
APJ	30%
EMEA	30%
LATAM	20%
NA	20%

EMPLOYEES	
20,000 or more	9%
5,000 to 19,999	25%
1,000 to 4,999	40%
500 to 999	26%



### INDUSTRIES (TOP 7)

Financial services and/or insurance	9%
Technology and/or technology services	9%
Retail	9%
Manufacturing and materials	8%
Transportation and logistics	7%
Business or professional services	6%
Travel and hospitality	6%

### DEPARTMENT (TOP 7)

IT	13%
Marketing/advertising	13%
Operations	11%
Finance/accounting	10%
Analytics/business intelligence	10%
Human resources/training	10%
Customer experience	9%

### POSITION

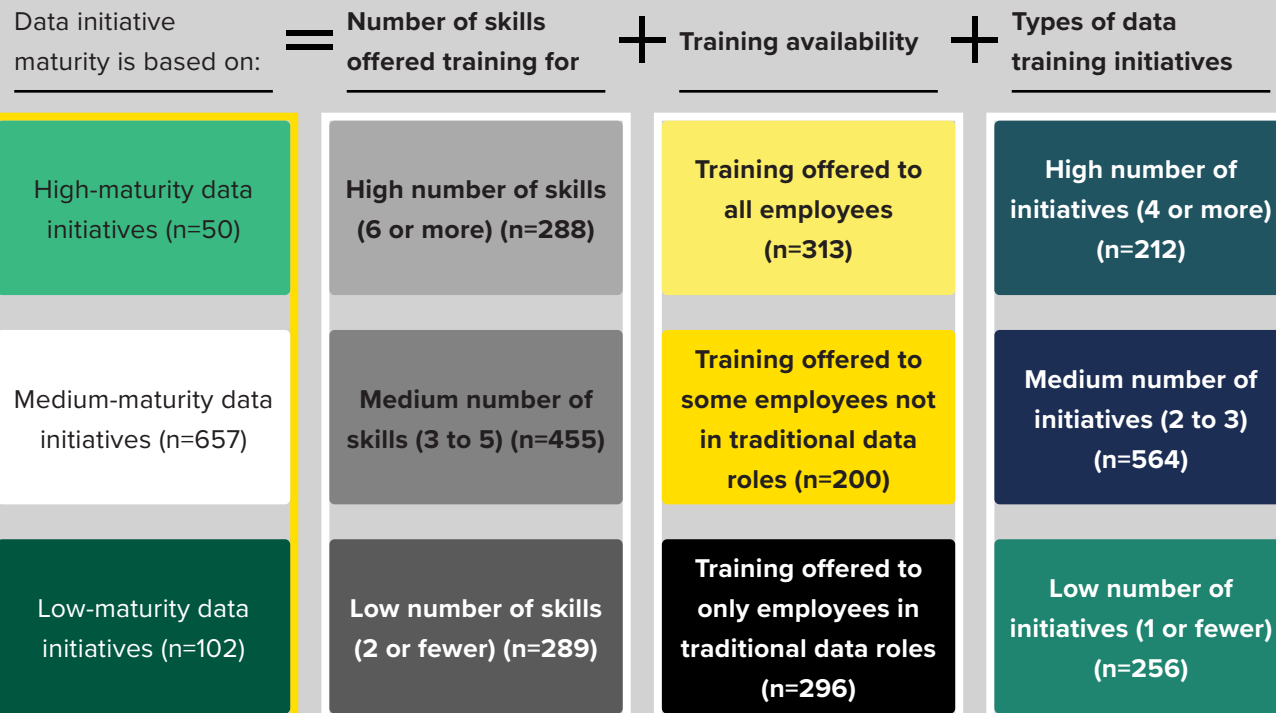
VP	29%
Director	71%

### ANNUAL REVENUE (USD)

More than \$5 billion	7%
\$1 billion to \$5 billion	15%
\$500 million to \$999 million	22%
\$400 million to \$499 million	13%
\$300 million to \$399 million	11%
\$200 million to \$299 million	12%
\$100 million to \$199 million	10%
\$1 million to \$99 million	9%

# Appendix C: Maturity Definitions

## DEFINING DATA INITIATIVE MATURITY



Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

### ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit [forrester.com/consulting](https://forrester.com/consulting).

© Forrester Research, Inc. All rights reserved. Unauthorized reproduction is strictly prohibited. Information is based on the best available resources. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, RoleView, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. [E-52183]