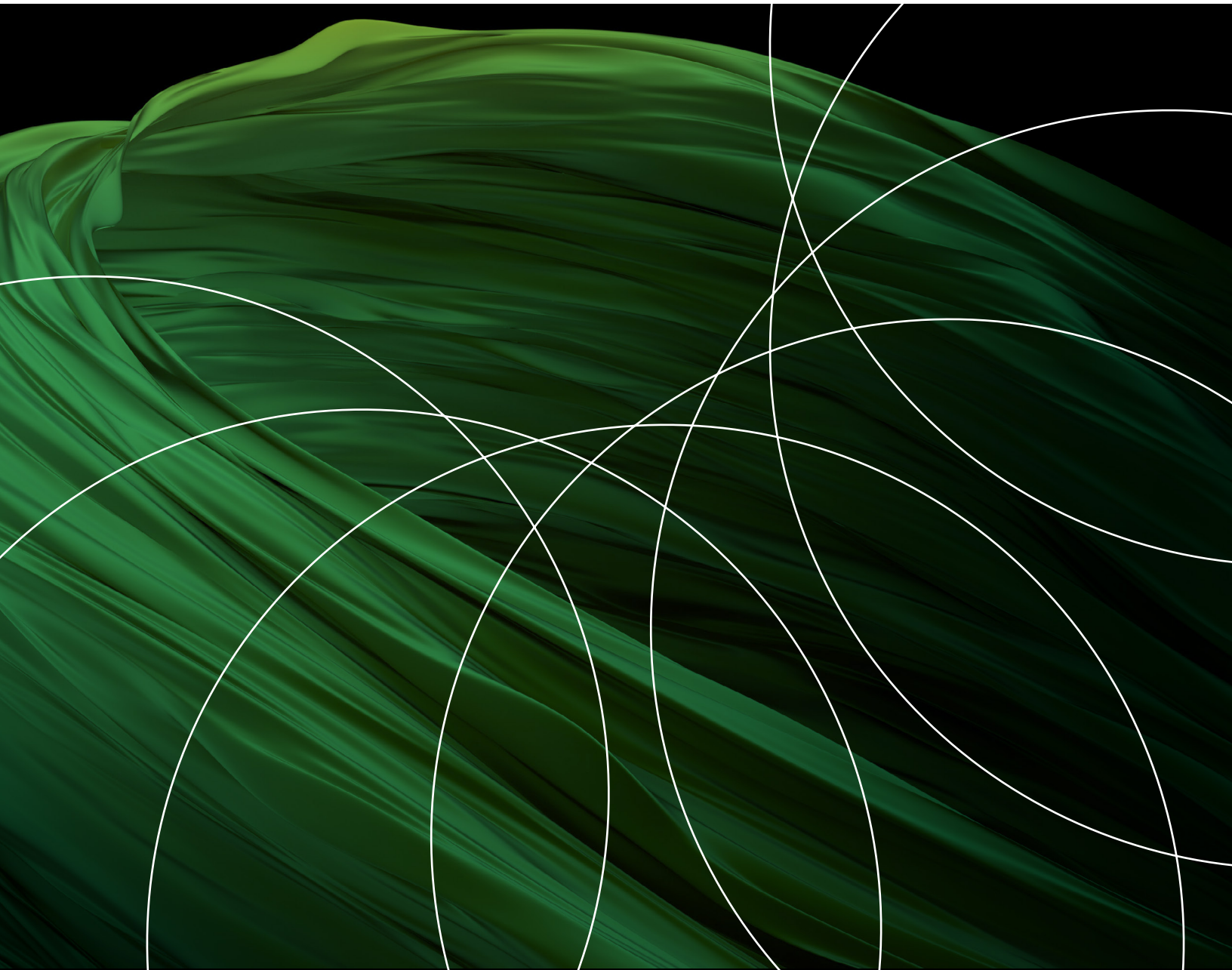


# The Competitive Advantage Of Data And Analytics For SMBs

Untapped Data And Analytics Opportunities For Small And Medium  
Businesses Offer Growth, Resilience, And A Competitive Edge

A FORRESTER CONSULTING THOUGHT LEADERSHIP PAPER COMMISSIONED BY AWS, AUGUST 2023



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## Executive Summary

Small and medium-sized businesses (SMBs) are vital for economic growth and employment, but they must adapt to enhance their resilience in a changing market. Embracing insights-driven decision-making can offer fresh opportunities for SMBs to strengthen their positions.

Small SMBs focus on using data to enhance customer experience (CX) and differentiate themselves, while mid-sized SMBs also concentrate on growth, cost management, and compliance. Despite differing approaches, SMBs face common challenges in effectively utilizing data, such as skill shortages and limited knowledge about data solutions.

To overcome these challenges, SMBs evolve their priorities and strategies as they grow. Small SMBs invest more in data integration, stewardship, and fostering a culture of data sharing.<sup>1</sup> Mid-sized SMBs explore business-led governance, collaboration, and innovation with data.<sup>2</sup> Investing in experienced data and analytics IT service providers is key to bridging the skills and knowledge gap, expediting progress, and enabling insights-driven decision-making for enhanced resilience.

Amazon Web Services commissioned Forrester Consulting to assess cloud data and analytics at SMBs in June 2023. Forrester surveyed 320 data and analytics decision-makers in healthcare, manufacturing, retail, technology, and media/leisure, with a focus on businesses establishing or consolidating their data and analytics environments. The study aims to provide insights for SMB business and technology leaders planning data and analytics investments.



## Key Findings

**The data and analytics priorities and choices SMBs make evolve as they grow.** Small SMBs tend to prioritize customer-centric initiatives such as more personalization and product improvement. While customer-centricity is also important for mid-sized SMBs, they additionally prioritize initiatives like those of larger organizations.

**At their core, SMBs have the same underlying challenges.**

Fundamental capabilities around data management and literacy and tools to generate and utilize insights are lacking, which hampers SMBs' ability to build insights-driven business practices.

**New expectations from different stakeholder groups are driving change.** Investments in data and analytics capabilities are driven by rising expectations of business leaders, employees, and customers instead of internal vision and strategy.

**Skills and knowledge gaps are delaying the speed to value from data.**

Missing technology skills and guidance to navigate market noise and adopt business-fit solutions reduces the speed to derive value from data.

**Partnerships with IT providers are essential to getting quicker value from data.** Identifying high-value data priorities and developing foundational capabilities to enable insights-driven business decisions needs support from external IT service providers.

**“Insights-driven business”** refers to an organization that takes a strategic approach to making data and information central to its decision-making processes and overall operations. The approach involves collecting, analyzing, and interpreting large volumes of data from various sources to gain valuable insights and to drive key business decisions.<sup>3</sup>



## SMBs Strive For Insights-Driven Decision-Making

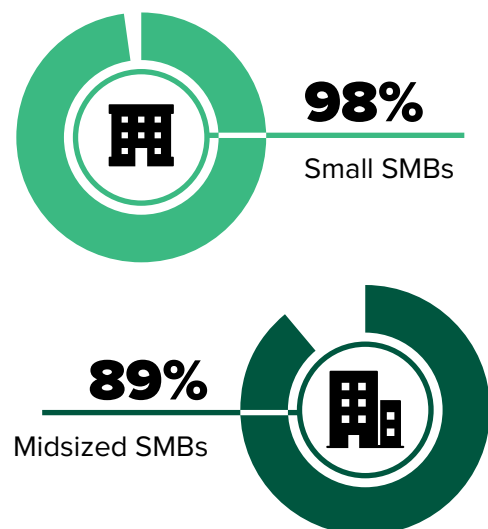
Organizations that are insights-driven possess a distinct advantage when it comes to making strategic decisions that directly impact their business outcomes. Research conducted by Forrester shows that organizations with a higher level of maturity in being insights-driven are more likely to reap substantial benefits in terms of both their top- and bottom-line results.<sup>4</sup> For instance, advanced insights-driven businesses are 2.8 times more likely to achieve double-digit growth year-over-year when compared to beginner firms. Similarly, these organizations are 1.5 times more adept at mitigating compliance risks than their less insights-driven counterparts.

Our survey shows consensus on the value of data in decision-making within SMBs. Among SMBs, an overwhelming majority of decision-makers (92% from small SMBs and 89% from mid-sized SMBs) expressed a strong preference for basing their business decisions on quantitative information and analysis rather than relying on intuition or “gut” feelings. This underscores the significance that SMBs place on insights in their decision-making processes (see Figure 1).

However, while the survey results highlight the considerable interest SMBs have in becoming insights-driven, delving deeper into their approaches and motivations reveals some intriguing differences. It becomes evident that the journey toward becoming an insights-driven organization is multifaceted and presents numerous challenges along the way.

FIGURE 1

**“To what extent do you agree with the following statement: ‘Business decisions in my company are made based on quantitative information and analysis rather than gut feeling?’”**



Base: 320 data and analytics decision-makers at SMBs  
Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## **SMALL SMBS PRIORITIZE CUSTOMER EXPERIENCE WHILE MIDSIZED SMBS EXTEND CUSTOMER EXPERIENCE PRIORITIES TO ALSO STRENGTHEN RESILIENCE**

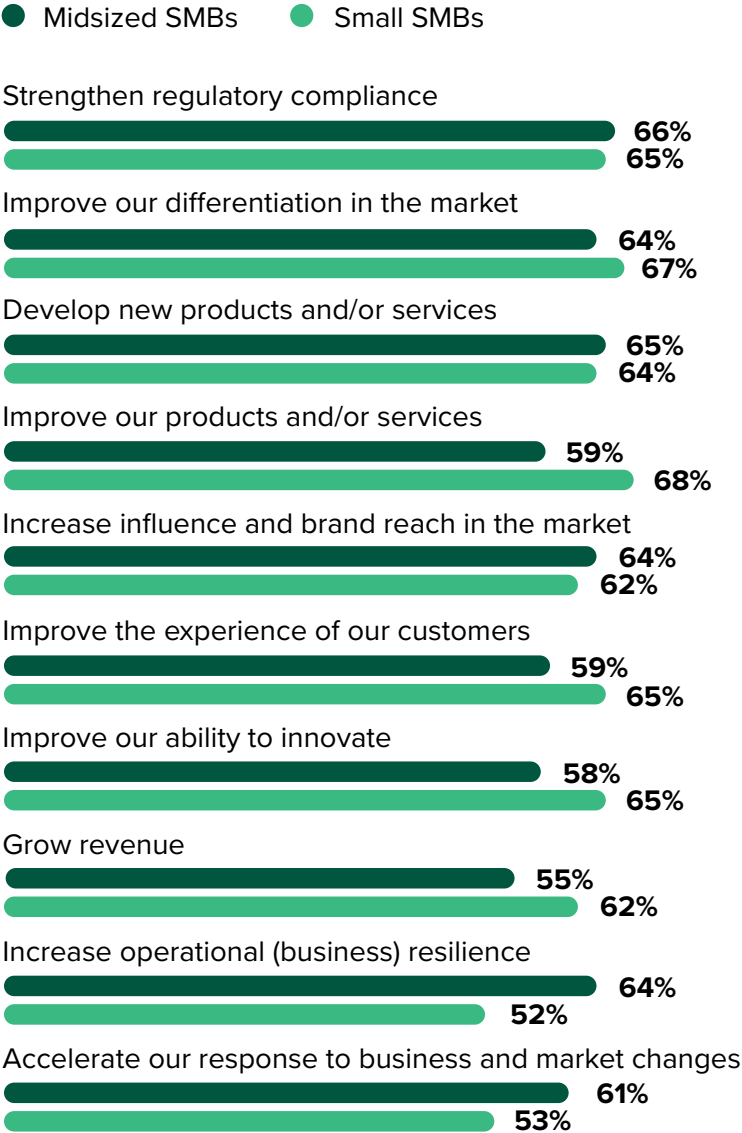
Data presents an enormous opportunity for SMBs. Through informed customer insights and market intelligence, they can pivot to meet shifting customer needs, pinpoint pertinent opportunities, and cultivate enduring relationships. Moreover, the insights SMBs glean from data equip them with a competitive edge and empowers them to distinguish their offerings and gear up for market disruptions. Interestingly, the focal areas of small and mid-sized SMBs reveal differences that echo their distinctive operational philosophies (see Figure 2). Our survey revealed:

- **Small SMBs are firmly oriented toward their customers.** The majority of decision-makers from small SMBs (67%) said their company prioritizes market differentiation. These businesses are very invested in enhancing their innovative capabilities (65%), refining their products or services (65%), and delivering exceptional CX (65%). This emphasis highlights their commitment to the customer and that they aspire to offer unique, superior-quality products or services.
- **In contrast, mid-sized SMBs extend their focus on customers with strategies for operational excellence.** A significant proportion of decision-makers from mid-sized SMBs said their company is committed to fortifying its operational resilience (64%), which underscores their dedication to consistent, high-performance delivery. They place substantial weight on strengthening regulatory compliance (66%) and show a concerted commitment to developing new products and services (66%).
- **Strategically, small SMBs prioritize revenue growth while mid-sized SMBs accentuate adaptive responsiveness.** Mid-sized SMBs appear to be nimbler in adjusting to business and market shifts. Our survey showed that 61% of decision-makers from mid-sized SMBs said their company is adept at accelerating its response to such changes compared to 53% from small SMBs. This suggests that mid-sized SMBs might possess superior agility or readiness to adapt their strategies swiftly in response to evolving business landscapes. Meanwhile, small SMBs focus on revenue growth (62%) as a primary goal compared to their mid-sized counterparts (55%).

Whether their emphasis is on customer orientation, operational resilience, or adaptability, SMBs are under pressure to harness the power of data to inform and drive their strategic decision-making.

**FIGURE 2**

**“Which of the following initiatives are likely to be your company’s top business priorities over the next 12 months?”**



Organizations in North America prioritize differentiation (70%), which offers growth, profitability, and business resiliency. While companies in APAC prioritize CX (69%), which can lead to higher customer satisfaction, increased loyalty, and improved customer lifetime value.

Organizations in EMEA primarily prioritize product improvement (69%), which helps them meet customer expectations, drive sales, and remain competitive in the market.

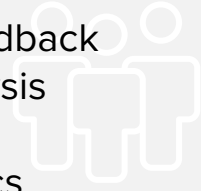
Base: 320 data and analytics decision-makers at SMBs  
 Note: Showing top 10.  
 Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## **DESPITE THEIR DIFFERENT APPROACHES, SMALL AND MIDSIZED SMBS FOCUS ON THE SAME SET OF CAPABILITIES.**

In previous research, business leaders told Forrester that SMBs often foster more intimate relationships with their customers, which is a result of their direct engagement, local focus, and customer-centric service ethos.<sup>5</sup> This close proximity yields a bounty of customer data derived from everyday interactions and transactions. When leveraged effectively, this data can be a game changer and drive better customer understanding and more informed decision-making (see Figure 3). It can help organizations:

- **Foster customer-centric operations.** Our survey findings show that decision-makers from both small SMBs (39%) and midsize SMBs (35%) are keen on implementing the “voice of the customer” in their strategies. This customer-centric approach translates to a deeper understanding of customer preferences and behaviors. In turn, having this insight can pave the way for improved engagement strategies and service enhancements. This demonstrates an SMB’s commitment to refining its operations based on customer feedback.
- **Maximize value from existing data.** Rather than seeking new, unfamiliar data sources, SMBs focus on unlocking the potential of their existing, rich customer data. A significant number of decision-makers from small SMBs (48%) and midsize SMBs (44%) said their company uses customer analytics (42%) and leverages market and competitive intelligence (41%). This utilization of readily accessible data underscores the intent to maximize its potential value and drive business growth.
- **Emphasize data privacy and management.** A noteworthy difference between small and midsize SMBs is their assessment of data privacy and data management capabilities. Small SMBs appear to prioritize these capabilities more than their larger counterparts, with 43% focused on data privacy and 44% focused on data management. This is as opposed to midsize SMBs, which are less focused on data privacy (34%) and data management (33%). This divergence highlights the different strategic priorities in which the potential risk for small SMBs is far higher. Therefore their focus on this capability is also higher.

Decision-makers from SMBs in retail said their company uses customer feedback the most (68%), followed by customer analytics (62%). For example, customer feedback in retail businesses includes survey-based data analysis to improve products, gauge CX, and set pricing and promotions strategies. Examples of customer analytics include segmenting customers, customer lifetime value analysis, and churn predictions.



**FIGURE 3**

**“Which of the following data and analytics capabilities does your company use?”**

● Midsized SMBs    ● Small SMBs

Customer analytics



Consumer intelligence and market research



Market and competitive intelligence



Data privacy



Data management



Customer feedback management/voice of the customer



Artificial intelligence and machine learning



Data security



Digital analytics (e.g., experience analytics, web analytics, location intelligence, etc.)



Predictive analytics



Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## Interest To Expand Data Capabilities Is Driven By Stakeholder Expectations Rather Than Internal Vision

Our survey highlighted that, in the past 24 months, there has been a significant decline in how much SMBs are investing in data and analytics. Given the turmoil of the last two years, this reduction largely represents a short-term response to the unpredictability surrounding customer demand and market conditions during the post-pandemic period. As a semblance of stability begins to return to the business landscape, SMBs are reassessing the value of data utilization. When asked about their organization's intentions for the next 24 months, an overwhelming majority of decision-makers from SMBs (98%) said their company intends to increase its investment in data. This implies that the impetus to escalate investment in data capabilities primarily arises from the need to meet the expectations of key stakeholders (e.g., customers, business leaders, employees) (see Figure 4). This includes:

- **Accommodating the new generation.** SMBs often grapple with challenges in recruiting and retaining talent compared to their larger counterparts. This is particularly true when it comes to younger professionals who specialize in data and analytics and who seek organizations that prioritizing insights-driven initiatives. Their expectations are compelling businesses to keep their IT capabilities current, which is a sentiment expressed by decision-makers from both small SMBs (40%) and midsized SMBs (45%).
- **Responding to customer expectations and the need for insights-driven practices.** As customer expectations continue to shift, SMBs find it increasingly crucial to develop insights-driven strategies to make changes. The ability to deliver personalized experiences that are tailored to individual needs and preferences has become a key differentiator that profoundly impacts the overall CX. In a landscape in which customer expectations are continuously evolving, decision-makers from both small SMBs (39%) and midsized SMBs (42%) said their company is taking strides to stay ahead.

- **Meeting the expectations of mid-sized SMB leaders who expect more regarding data and analytics.** One notable divergence is the role of management in spurring data investment within mid-sized SMBs. Decision-makers from companies of this size demonstrated a distinct difference in their leaders' expectations from technology (42%) and understanding of technology (40%) compared to their counterparts from small SMBs (39% and 30%, respectively). This discrepancy emphasizes the unique strategic approach mid-sized SMBs take with data investments.

SMBs' renewed commitment to increasing investment in data and analytics signifies the evolving importance of insights-driven practices in order to meet the expectations of customers, business leaders, and employees.

Decision-makers from retail organizations said their company's business investment decisions are largely driven by IT's lack of understanding of how the business operates (50%). IT departments may invest in technologies or solutions, but they don't always effectively address the core challenges or support the strategic business objectives. This misalignment can result in inefficient processes, wasted resources, and missed opportunities for growth.

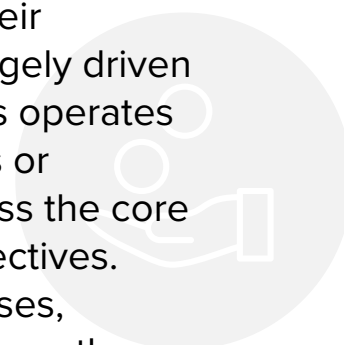
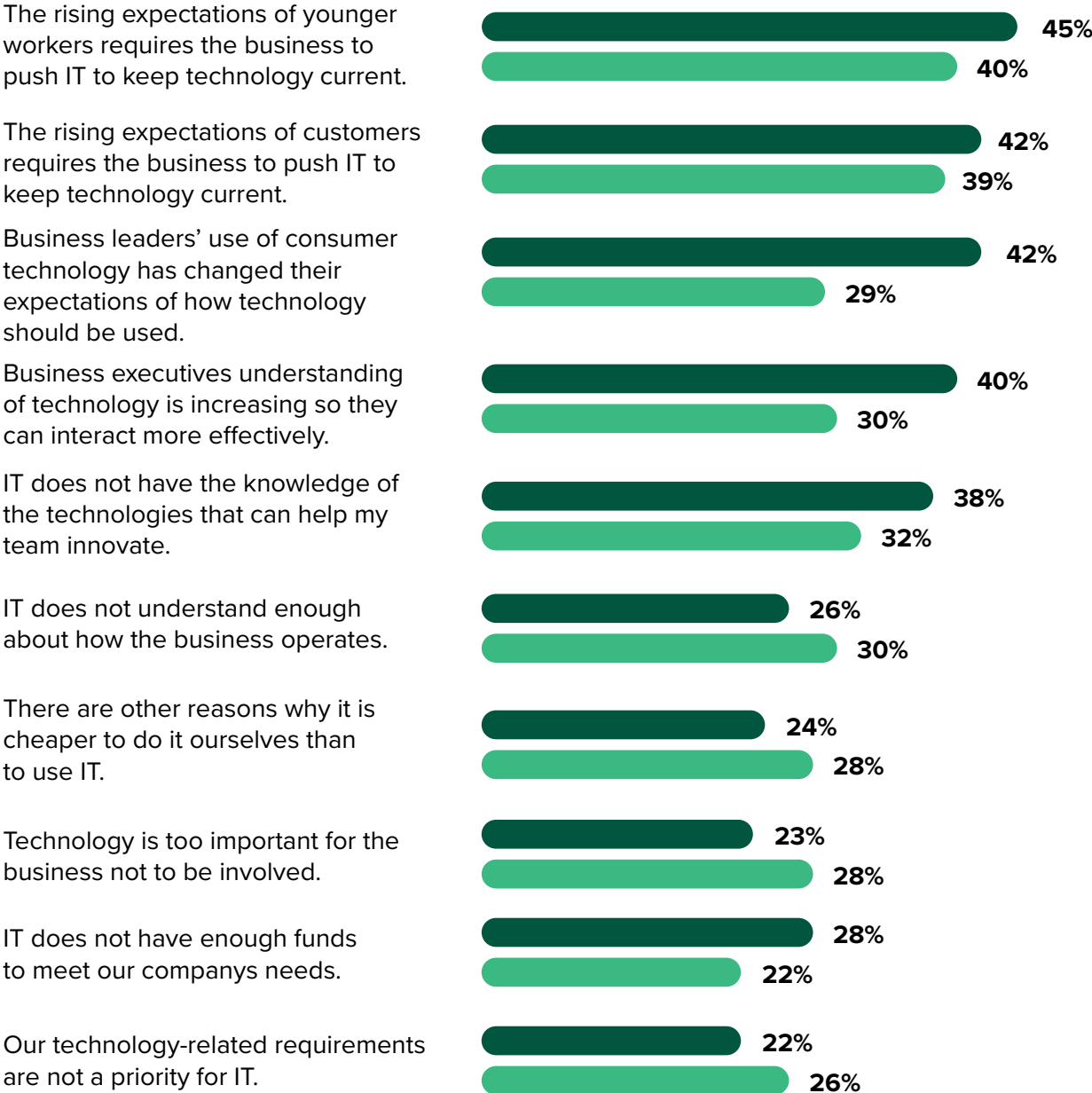


FIGURE 4

**“Which of the following reasons best justify why your business departments in the company spends more of its own budget on data and analytics products and services?”**

● Midsized SMBs    ● Small SMBs



Base: 320 data and analytics decision-makers at SMBs  
Note: Showing top 10.  
Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## SMBs Experience Fundamental Challenges In Harnessing Insights-Driven Capabilities

Transitioning to an insights-driven business model demands that organizations instill certain foundational practices and prerequisites. Unfortunately, our survey data shows SMBs often fall short of these critical elements and lack a coordinated approach to managing data assets, organizationwide standards, and investment in an insights-driven culture.

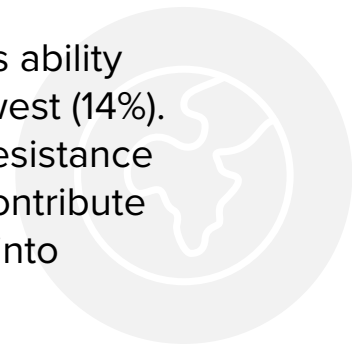
Our survey results reveal that in many cases, the low levels SMBs score for foundational capabilities regardless of size are due to the following (see Figure 5):

- **Struggling with effective data management.** Only a limited number of decision-makers from SMBs are confident about the secure management of their data assets, which include customer data and analytic models. Specifically, just 30% of those from midsized and 24% of small SMBs expressed this confidence, which underlines the difficulties these organizations encounter in data security as their operations expand. Compounding this issue, SMBs lack standardized protocols for data use and management. This can increase manual effort, reduce people's willingness to work more with data, and increase the time it takes to get value from data.

When compared to decision-makers from other regions, those in EMEA have the lowest confidence level with regard to data management (18%). With stringent regulations around data protection, data sovereignty, and cross-border data transfer and data localization requirements, EMEA's data landscape is more complex than others.



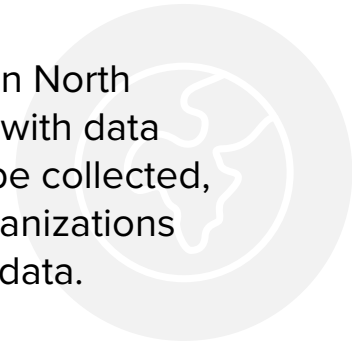
Decision-makers from APAC rank their company's ability to connect insights to business outcomes the lowest (14%). For example, siloed data, insufficient skills, and resistance to changing the way data is managed could all contribute to an organization's inability to translate insights into actionable initiatives.



- **Having insufficient capabilities to generate insights.** Despite their aspiration for insights-driven decision-making, SMBs often lack the necessary technology and tools. A mere 19% of decision-makers from midsize SMBs and 24% from small SMBs reported confidence in their firm's technology and its tooling environment's capacity to facilitate insights generation. This may also exacerbate the challenge in which people working with data often draw conclusions from raw data rather than insights (i.e., raw data that has been validated, analyzed, and interpreted), thereby increasing the risk of wasting time and funding.
- **Experiencing difficulty linking insights to business outcomes.** There's a notable shortfall in SMBs' ability to leverage data and insights to optimize business outcomes: Only 19% of decision-makers from small SMBs and 22% from mid-sized SMBs reported proficiency. This deficiency is also mirrored in firms' capacity to harness data to guide crucial business outcomes (22%). Not having confidence in the ability of data and insights to optimize results will impact the decision-making process and make funding decisions more difficult.

Although many challenges are similar for small and mid-sized SMBs, data from our survey also illustrates that the maturity of data and analytics capabilities increases as SMBs grow. For instance, a larger proportion of decision-makers from mid-sized SMBs (23%) feel their company is implementing robust data management practices and leveraging a solid technology architecture (20%) compared to those from small SMBs: Only 13% and 12% feel the same way, respectively. Furthermore, 21% of respondents from mid-sized SMBs place a strong emphasis on a top-down mandate for data-driven decision-making compared to 15% from small ones. This underscores a more strategic approach to fostering insights-driven decisions.

Compared to companies in other regions, those in North America struggle more in building differentiation with data (17%). Without a clear roadmap for how data will be collected, analyzed, and utilized to drive differentiation, organizations may struggle to save time and effort when using data.



**FIGURE 5**

**“Thinking of your company’s ‘insights-driven business’ efforts, how much do you strongly agree with the following?”**

● Midsized SMBs    ● Small SMBs

We encourage employees to experiment in innovative ways to get their jobs done.



Our most valuable data informs critical business functions and outcomes.



Our data and analytics assets (e.g., customer data, analytic models, business rules) are managed securely and compliantly.



We develop enterprisewide standards for the management and use of data and analytics to drive cross-team collaboration.



We extensively use advanced data science technology (e.g., machine learning, deep learning).



Technology is too important for the business not to be involved



Our company monetizes data assets through our products and services.



We act on insights at scale that gives us significant differentiation within the markets we compete in.



We use data, analytics, and insights to create differentiated experiences, products, and services.



We connect data, insights, and action within closed loop learning cycles to optimize business and operational outcomes.



Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## The Underdeveloped Practice Of Data Management Is Holding SMBs Back

While SMBs might be characterized by fewer layers of complexity than larger organizations, the path toward actualizing an insights-driven vision is still fraught with challenges. The predominant obstacles, as identified by our survey, bear testimony to the emerging state of data management and utilization within SMBs (see Figure 6). These include:

- **Solving the tech-talent conundrum.** The quest for technology-skilled talent is a steep uphill journey for SMBs. Our survey highlights that this is more acute for small SMBs (50%) than mid-sized ones (39%), which indicates different staffing strategies. The lack of formal training and development programs to nurture technology skills among employees may further diminish the appeal of SMBs as potential employers and exacerbate talent acquisition and retention issues.
- **Mastering the data beast.** The struggle to maintain high-quality data is a universal concern for businesses, particularly those grappling with master data management, which forms the backbone for data-driven business processes. However, our survey suggests that decision-makers from both small SMBs (39%) and mid-sized SMBs (45%) find this area to be challenging, which signifies a key obstacle preventing substantial improvements in data and analytics practices.

Technology skill pain points are highest for companies in the retail (68%) and healthcare (58%) industries. Technology professionals are typically attracted to industries known for their innovation, cutting-edge technologies, and exciting project opportunities. Skilled-people shortages or limited technology focus may reduce the appeal for the newer-generation technology workforce.



- **Addressing the imperative for data governance and stewardship.** The management and control of data usage poses a formidable challenge, and many decision-makers from midsized SMBs (32%) and small SMBs (29%) acknowledge the need for robust data governance and stewardship. This emphasizes the need for effective policies, procedures, and mechanisms to ensure the safe and ethical handling of data assets. These measures may seem laborious, but they are crucial for building trust in the data and the valuable insights it provides.

Data and stewardship are significantly larger challenges for organizations in media and leisure (53%) compared to those in other industries. This is the result of data fragmentation because data in these industries often resides in diverse systems, platforms, and formats, which makes it challenging to consolidate and integrate.

- **Navigating hype and market noise.** With the rapid transformation in the field of data and the overwhelming influx of trends, tools, and buzzwords, the landscape can be complex and confusing for businesses. Our survey reveals this confusion is a significant hurdle, especially for small SMBs (33%) compared to midsized SMBs (23%). This suggests an absence of specialized data expertise within smaller businesses and indicates the necessity for external support and guidance to help SMBs decipher the noise and adopt appropriate data strategies, tools, and technologies.

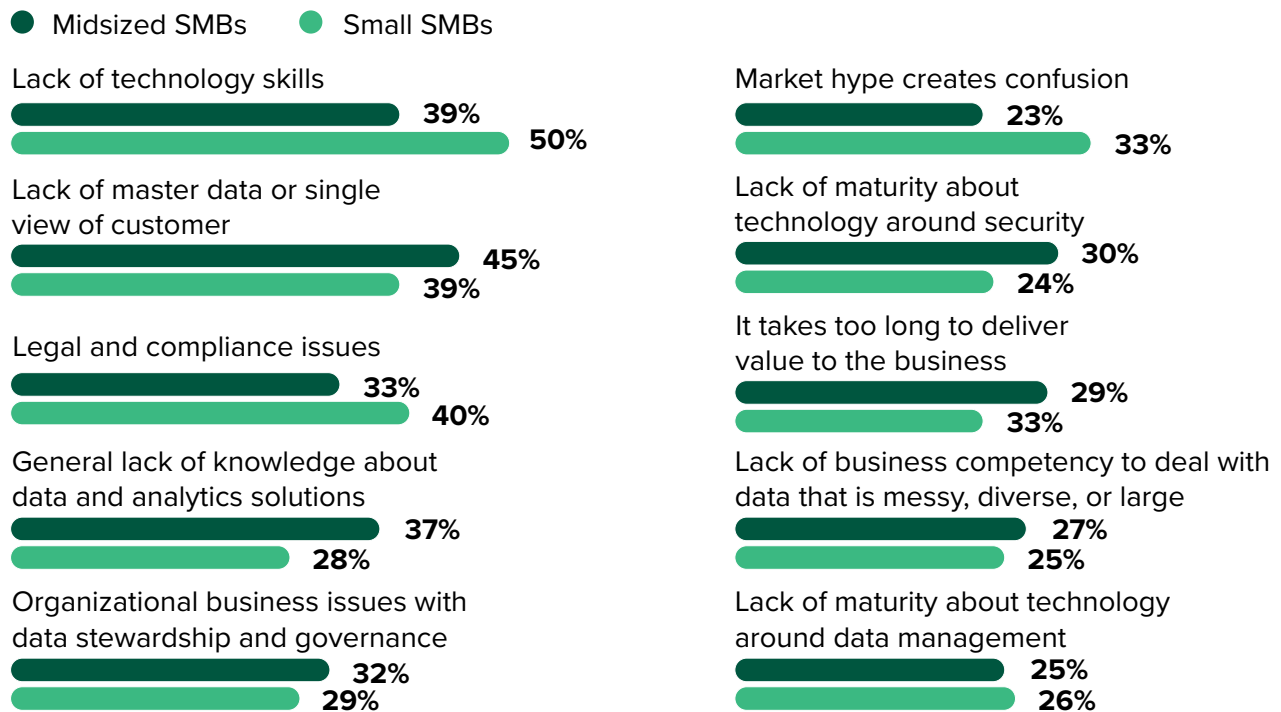
Market hype causes the most confusion in retail (60%) compared to other industries. The pressure to stay competitive could make retailers feel compelled to invest in the latest technologies, trends, or buzzworthy strategies without proper due diligence. Without proper verification, it could lead to inefficient resource allocation and missed opportunities that truly align with the retailer's unique value proposition.

- Overcoming legal and compliance roadblocks.** Beyond the question of which technology to adopt, SMBs face challenges understanding the legal boundaries of data usage. Regulatory requirements surrounding data collection, storage, processing, and sharing present significant challenges for both small SMBs (40%) and mid-sized SMBs (33%). These hurdles reveal the need for a structured governance mechanism to monitor the regulatory landscape and ensure compliance when handling data.

In summary, SMBs face a myriad of challenges in their quests to gain insights from their data and deliver value rapidly and efficiently. Given the constraints related to talent, foundational capabilities, and the expertise required to navigate market complexities, it becomes apparent that this task could prove overwhelmingly time-consuming for SMBs to undertake independently. This predicament underlines the need for IT support and tailored solutions to help SMBs surmount these challenges and realize their insights-driven aspirations.

**FIGURE 6**

**“What are/were the biggest challenges in executing your vision for data, data management, data science, and analytics?”**



Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## SMBs Are Building Foundational Data Capabilities And Investing In Existing Talent

Recognizing the urgent need to be insights-driven and the acute challenges surrounding talent, SMBs are placing emphasis on enhancing their ability to retain and develop existing talent. This includes investing in core, foundational data capabilities. Our survey reveals that SMBs are creating more structure in their data ecosystems to accomplish the following (see Figure 7):

- **Formalizing governance programs.** Prioritizing the establishment of stewardship programs is a significant step that enables business stakeholders to take ownership and responsibility of data. This is a primary focus for small SMBs (73%) and mid-sized SMBs (69%). The intent to facilitate such programs is mirrored in their readiness to alter internal processes to promote data usage, as reported by 64% of decision-makers from small SMBs and 54% from mid-sized SMBs. The main benefits from these actions is increasing awareness of the value of well-maintained data. Data literacy will be crucial to scale the use of data.
- **Cultivating an insights-driven culture.** Decision-makers from both small SMBs (65%) and mid-sized SMBs (59%), expressed intent to ignite a cultural shift within their organizations that champion insights-driven decision-making. To realize this, SMBs plan to enrich organizational knowledge and skills by enabling their workforces to understand, interpret, and effectively utilize data, as indicated by 64% of respondents from small SMBs and 60% from mid-sized SMBs.

Organizations in both APAC (77%) and EMEA (78%) focus on governance more than those in North America (63%). In the evolving regulatory landscape around data, focus on governance can help organizations build trust, ensure data quality, and manage risks.

Expanding literacy is the highest priority for organizations in the retail industry (83%). Having data-literate employees helps to define standards, promote data usage, and define technology requirements. This helps retail companies that operate in a highly competitive market landscape to identify emerging trends and innovative opportunities that differentiate them from competitors.

- **Investing in tools for insights-driven decision-making.** Beyond investing in data skills, both small (63%) and midsize SMBs (61%) are keen on equipping their teams with self-service tools and technologies that enable data skills to be put into practice. These initiatives support SMBs' strong intentions to enhance their current data environments, which introduces structure and standardization to how data is understood and utilized.
- **Seeking external guidance to elevate use of data.** Alongside building internal foundational capabilities, SMBs are also setting their sights on external IT resources. A significant portion of decision-makers from both small SMBs (65%) and midsize SMBs (62%) said their firm plans to seek expert advice from industry thought leaders to resolve their data dilemmas. They anticipate targeted solutions for data and analytics, as well as guidance about the legal and compliance landscape surrounding data usage as specific areas of interest. This proactive approach to seek external guidance and best practices aims to alleviate these organizations' current challenges and elevate their data and analytics maturity levels.

**FIGURE 7**

**“What actions is your company currently taking or planning to take to improve the use of data and analytics to support business decision making?”**

● Midsized SMBs   ● Small SMBs



Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## SMBS WILL TURN TO CLOUD FOR FOUNDATIONAL CAPABILITIES SUCH AS STORAGE AND PROCESSING

In the pursuit of building foundational data capabilities, SMBs have shown definite interest in leveraging cloud services to completely replace or complement existing data environments with cloud-based tools and technology. All surveyed respondents from SMBs said they see cloud as a logical and convenient environment to step up their firm's data and analytics capabilities. The data revealed SMBs will turn to the cloud for the following reasons (see Figure 8):

- **Elevating data storage.** When considering the advantages of cloud-based services, decision-makers said data warehousing is a significant area of interest for both small SMBs (65%) and mid-sized SMBs (62%). The scalability of cloud storage and the appealing pay-as-you-go models offer SMBs the much-needed flexibility to manage growing customer data while optimizing infrastructure costs.

Organizations in the retail industry have the most interest in leveraging cloud for business intelligence (BI) (81%), followed by those in warehousing (66%). By using cloud infrastructure, businesses can benefit from scalability, cost-effectiveness, and enhanced collaboration capabilities. This enables them to derive valuable insights, monitor key performance indicators, and make data-driven decisions to optimize sales, inventory, and customer experiences.

- **Harnessing robust data processing.** Beyond storage, SMBs also value the cloud's capabilities for data orchestration and workflow management. This sentiment resonates with decision-makers from small SMBs (62%) and mid-sized SMBs (57%). Cloud-based extract, transform, load (ETL) solutions offer inherent features around data quality and governance, which presents a significant benefit to SMBs seeking to enhance their data management capabilities.

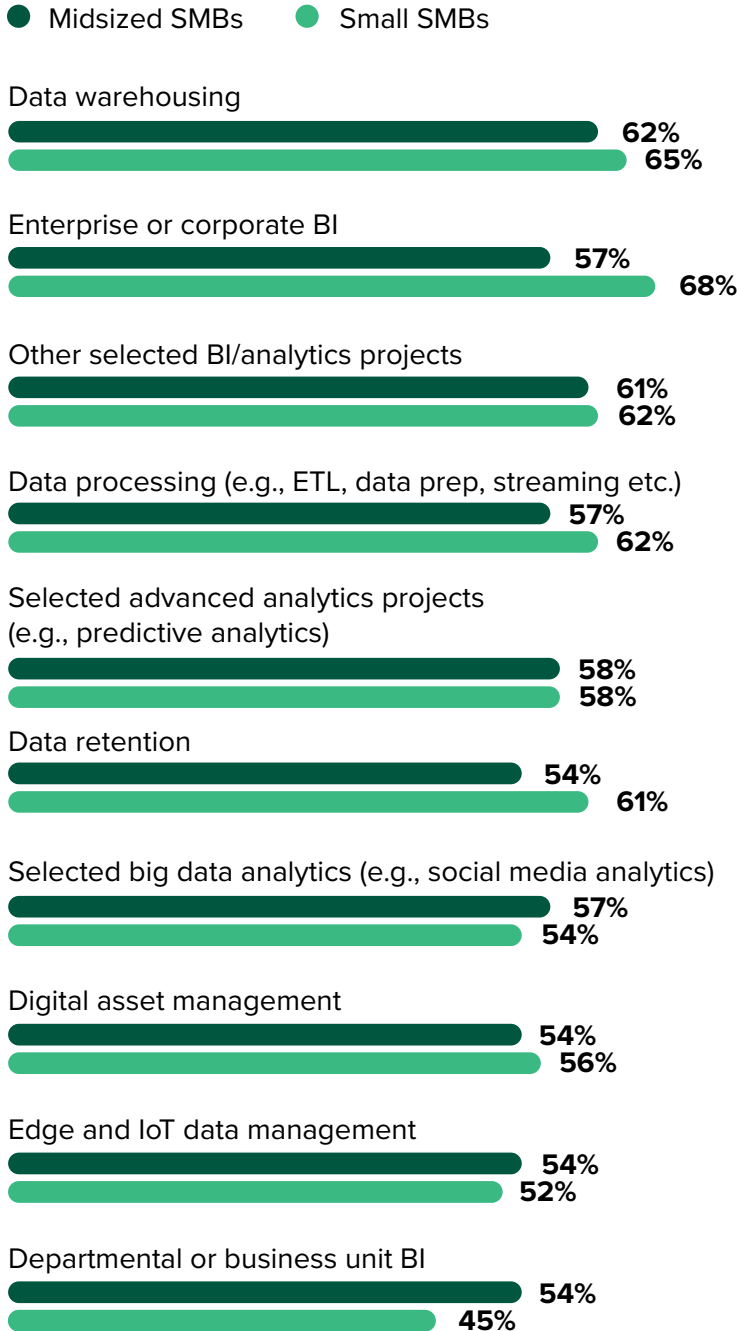
- **Empowering SMBs with BI tools.** The utilization of cloud-based BI tools is also a key priority for both small SMBs (68%) and mid-sized SMBs (57%). These tools' capabilities to deliver complex analytics and customer-insight reporting through user-friendly, self-service interfaces could provide a significant boost to SMBs striving for business-led data stewardship.

It should also be noted that despite the hype surrounding AI and machine learning (ML), decision-makers from both small SMBs (44%) and mid-sized SMBs (48%) said they have relatively low interest in leveraging the cloud for AI/ML capabilities. This reflects that SMBs are more focused on the foundational capabilities and skills given their current maturity levels.

Organizations in media and leisure have the most interest in data warehousing (72%) and the least interest in BI (42%) compared to those in other industries. Media and leisure companies can leverage data warehousing solutions to store, manage, and analyze large and diverse volumes of data from multiple sources, such as audience demographics, content consumption patterns, and advertising performance metrics from multiple sources.

**FIGURE 8**

**“What are your company’s plans to use cloud services to complement or replace each of the following?”**



Organizations in North America have the most interest in data warehousing (69%) and BI (68%). For instance, data warehousing initiatives centralize and optimize data storage and retrieval processes and enable efficient data analysis for reporting and/or decision-making.

Organizations in APAC prioritize data processing (64%) such as data orchestration and workflow management that automates data integration and transforms and validates processes to ensure fast and accurate data processing.

Organizations in EMEA are focused on analytics projects and data warehousing (60%). Leveraging advanced analytics techniques helps businesses uncover valuable insights to optimize and identify new growth opportunities.

Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

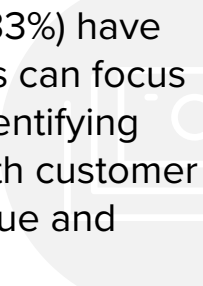
## OPPORTUNITY EXISTS TO OFFER DIFFERENTIATED PRODUCTS AND SERVICES

As decision-makers from SMBs express keen interest in leveraging the cloud to establish foundational capabilities, the anticipated benefits from these cloud-based data capabilities primarily focus on delivering customer-centric results. Improving customer experience is a shared priority for respondents from both small SMBs (30%) and mid-sized SMBs (28%). However, the priorities change for different-sized SMBs that anticipate distinct benefits from their cloud-enabled data capabilities (see Figure 9):

- **Small SMBs seek immediate customer outcomes.** Respondents from small SMBs said they anticipate that cloud capabilities will yield richer customer insights (33%) and will increase customer lifetime value (32%), thus generating increased revenue (38%) through cross-selling and upselling. The strategy of small SMBs primarily targets the enhancement of revenue through loyalty rather than exploring new revenue streams or bolstering business resilience.

Organizations in EMEA have the most focus on reducing compliance risk (33%). Since the introduction of more stringent data privacy and General Data Protection Regulation (GDPR), organizations must obtain explicit consent for data processing. That means implementing data policies and maintaining proper governance practices.

- **Mid-sized SMBs eye cost optimization and reduced risk.** In contrast, respondents from mid-sized SMBs place a greater emphasis on operational cost reduction (36%) and ensuring governance and reducing risk (28%). Considering these organizations' additional emphasis on increasing revenue (29%), we see their strategic mindsets being closer to that of much larger organizations.



Organizations in North America (41%) and APAC (33%) have the most focus on increasing revenue. Businesses can focus on cross-selling and upselling opportunities by identifying complementary products or services that align with customer needs. This increases the average transaction value and drives incremental revenue.

- **Differentiated expectations open doors to opportunities.** While both kinds of SMBs share a common interest in utilizing cloud capabilities to build similar foundations, the divergence in expected benefits underlines their distinct operational modalities. This divergence implies that the types of skills and technologies they will need to continue their data and analytics transformation will depend on their specific strategies.

In conclusion, the cloud serves as a powerful tool to bolster foundational capabilities and drive customer-centric outcomes. However, the varying expectations of SMBs highlight the need for a more context-specific approach when building out cloud-based solutions.

**FIGURE 9**

**“Which of the following are the primary benefits your company anticipates because of using cloud capabilities in data management, data science, and analytics?”**



Organizations in the media and leisure (30%) and financial services (31%) industries focus on data sharing the most.

Media and leisure examples include collaborative content sharing (i.e., sharing data across different departments or partners to facilitate collaborative content sharing).

Organizations in financial services, risk assessment, and fraud detection collaborate and share data related to customer transactions, credit history, etc. This thereby enhances the overall security and integrity of the financial system.

Retail organizations have more focus on lifetime value (49%) and the most focus on increasing revenue (68%). Retailers can leverage customer data such as purchase history and customer preferences to calculate customer lifecycle value, which they can then use to develop personalized marketing campaigns and targeted offerings to maximize customer retention and increase overall revenue.

Base: 320 data and analytics decision-makers at SMBs

Note: Showing top 10.

Source: A commissioned study conducted by Forrester Consulting on behalf of AWS, June 2023

## Key Recommendations

Investing in data investments may appear daunting, but our study suggests SMBs stand to gain much more with a committed approach. Previous research by Forrester that analyzed returns on data investments for 50 real-life business cases between 2017 and 2019 revealed a three- to five-fold return within three to 12 months, while investments in BI through analytics generated a two to six-fold return in six to 12 months.<sup>6</sup> In other words, a cohesive, well-thought-out strategy is proven to be key to effectively fortifying and leveraging data and analytics capabilities.

Forrester's detailed survey of business leaders at SMBs yielded several recommendations about data and analytics:

### **Adopt an agile approach when establishing a data and analytics practice.**

Rather than trying to solve for every use case, focus on one high-value use case first. This approach will shorten the time to value and provide early success to continue further investment. Keep three principles in mind: Streamline the operational process, empower self-service capabilities, and distribute stewardship and governance. This holistic approach maximizes the value of investments and allows the organization to remain agile to respond to ever-changing market conditions.

### **Increase efforts to upskill the people you have and use external expertise to fill gaps.**

To address the scarcity of skilled data and analytics professionals, focus on upskilling your current workforce and partnering with external experts. Invest in developing your employees' capabilities and identifying development areas for training and upskilling. Consider using or partnering with external IT specialists that do not need to possess specific knowledge related to your business. By combining internal upskilling and external collaboration, SMBs bolster their data and analytics capabilities and secure the right talent for successful data initiatives.

### **Avoid making data and analytics a technology problem.**

Based on the survey findings, it becomes evident that SMBs may encounter challenges in bridging the gaps and effectively leveraging the value of their data independently. The ability to swiftly access the necessary technologies, tools, and expert knowledge required for implementing data and analytics initiatives calls for trusted and ongoing partnerships with IT service providers. Forrester recommends SMBs prioritize establishing strategic IT service provider management capabilities or expanding them if they're already in place. It is advisable for SMBs to seek service providers that can provide end-to-end support throughout the process until they have established their own capabilities and require more specialized assistance to address any remaining gaps.

### **Embrace the power of the cloud for scalable and flexible data and analytics capabilities.**

SMBs can unlock the full potential of their data by leveraging cloud services that offer scalability, access to advanced analytics tools, and better cost management. By embracing the cloud, SMBs can tap into the vast computing power and storage capabilities it provides without the financial commitment of on-premise infrastructure. This enables them to quickly scale their data and analytics initiatives, adapt to changing business needs, and leverage existing cloud-based analytics solutions to gain valuable insights for decision-making. Embracing the cloud empowers SMBs to develop capabilities through experimentation with flexible financial commitments.

In summary, the recommendations provided present SMBs with an excellent opportunity to collaborate with reliable and knowledgeable strategic partners and IT service providers that can expedite their initiatives. It is crucial for SMBs to begin by assessing their strengths and weaknesses and then clearly defining their visions and strategies for data and analytics. Given the relatively low data and analytics maturity, SMBs can set themselves on a path to success and effectively gain competitive advantage over their less mature peers by taking these proactive steps.

## Appendix A: Methodology

In this study, Forrester conducted an online survey of 320 data and analytics decision-makers at SMBs in APAC, EMEA, and North America to evaluate opportunities for SMBs to leverage data and analytics capabilities in cloud. Survey participants included decision-makers in business and technology roles. Questions provided to the participants asked about their organizations' business priorities, current adoption of data and analytics, and appetite for the cloud. Respondents were offered a small incentive as a thank you for time spent on the survey. The study began in April 2023 and was completed in June 2023.

## Appendix B: Demographics

REGION	
APAC	26%
EMEA	27%
North America	47%

SIZE	
Small SMBs	52%
Midsized SMBs	48%

ROLE OF RESPONDENT	
Business	85%
Technology	15%

INDUSTRY	
Healthcare	26%
Manufacturing	27%
Retail	47%
Financial services	16%
Technology	15%
Media and leisure	13%

## Appendix D: Endnotes

<sup>1</sup> Forrester defines small SMBs as those that generate annual revenues between \$10 million a \$30 million.

<sup>2</sup> Forrester defines midsized SMBs as those that generate annual revenues between \$30 million and \$100 million.

<sup>3</sup> Source: "The Insights-Driven Business," Forrester Research, Inc., July 27, 2016.

<sup>4</sup> Source: "Build A Maturity-Based Business Case For Insights-Driven Investments," Forrester Research, Inc., May 18, 2020.

<sup>5</sup> Ibid.

<sup>6</sup> Source: "Build A Maturity-Based Business Case For Insights-Driven Investments," Forrester Research, Inc., May 18, 2020.



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