# HOW RETAILERS ADAPT WITH ANALYTIC AGILITY

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We thought, coming out of COVID, supply chain volatility would subside. Instead, geopolitical and macroeconomic unrest continue to cause profound disruptions on many levels. When asked about major obstacles to business, over 1,600 small and medium-sized business (SMBs) leaders cited the geopolitical landscape, the high growth of inflation, and high energy/oil prices.

In addition, changing consumer habits and expectations have transformed the retail landscape. Product shortages due to COVID-related disruptions made it clear that consumers choose stock availability and price over brand loyalty. Escalating inflation has also had a chilling effect on consumer spending.

This e-book explores how retailers use artificial intelligence and machine learning in SAS Intelligent Planning Cloud, Predict and Plan Demand, and SAS Viya on Microsoft Azure to make intelligent, data-driven decisions during unpredictable times.

Obstacles to shopping[1]

64% Geopolitical landscape

46% High growth of inflation
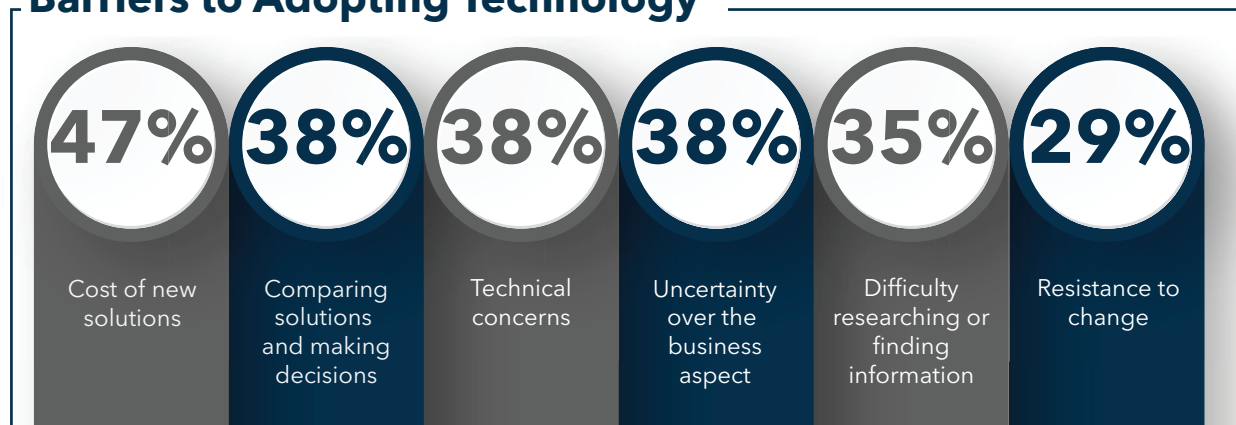
42% High energy/oil prices
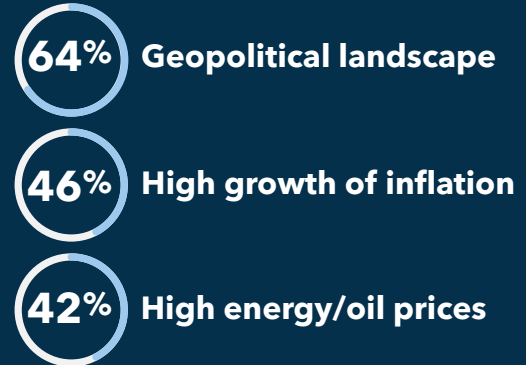
TECHNOLOGY UNLOCKS DATA

Gaining access to crucial data requires cloud-based technology solutions. A move to the cloud unlocks increased efficiencies and business agility. Better access to data, improved security, and performance are quantifiable results. So, what holds retailers back from making the change? Cost, technical concerns, and uncertain impacts on business are major concerns. Sometimes, it is just resistance to change. But we also know that businesses that do not pursue a digital transformation will be left behind.

Successful retail organizations will need to tap into real-time channels of information to augment their ability to sense, predict, and adapt to disruptions that impact business operations. Going from a **reactive** mindset to a **proactive** one is how organizations will stay ahead of the challenges of delivering product to shelves at the right time and at the right price. Data, coupled with artificial intelligence (AI) and machine learning, create a digital transformation that makes this possible.

Barriers to Adopting Technology[2]

47%	38%	38%	38%	35%	29%
Cost of new solutions	Comparing solutions and making decisions	Technical concerns	Uncertainty over the business aspect	Difficulty researching or finding information	Resistance to change

[1]*Microsoft small and medium business (SMB) voice and attitudes to technology study*
[2]*MS X SAS Workstreams - Microsoft SMB Voice And Attitudes To Technology Study 2022*

MEETING CONSUMERS WHEREVER AND WHENEVER THROUGH SMART ANALYTICS

Retailers have detailed streams of data across their multiple customer and product channels. By unifying data across channels, they have the ability to create personalized customer experiences. However, gathering data isn't enough. There is too much of it all the time and historical data cannot be used to plan for or around new disruptions.

Cloud accelerates transformation

By unifying data sources across the entire shopper journey, cloud-based solutions turbocharge a retailer's ability to effectively reach their customers. Other key cloud benefits include the ability to balance inventory against demand indicators and improve staff productivity and collaboration.

AI and machine learning for smart decisions

AI and machine learning are enablers that help organizations predict and plan around volatility. Analytics sense changes in demand signals. System-generated recommendations based on this data provide actionable ways to plan and pivot. Out-of-the-box analytics models allow SMBs to tap into data analytics without having a data scientist on call.

Impacts of AI on your business

1 Streamlining supply chain and logistics

2 Understanding your customers

3 Revolutionizing the in-store customer experience

4 Streamlining store operations

5 Behavior analytics and forecasting
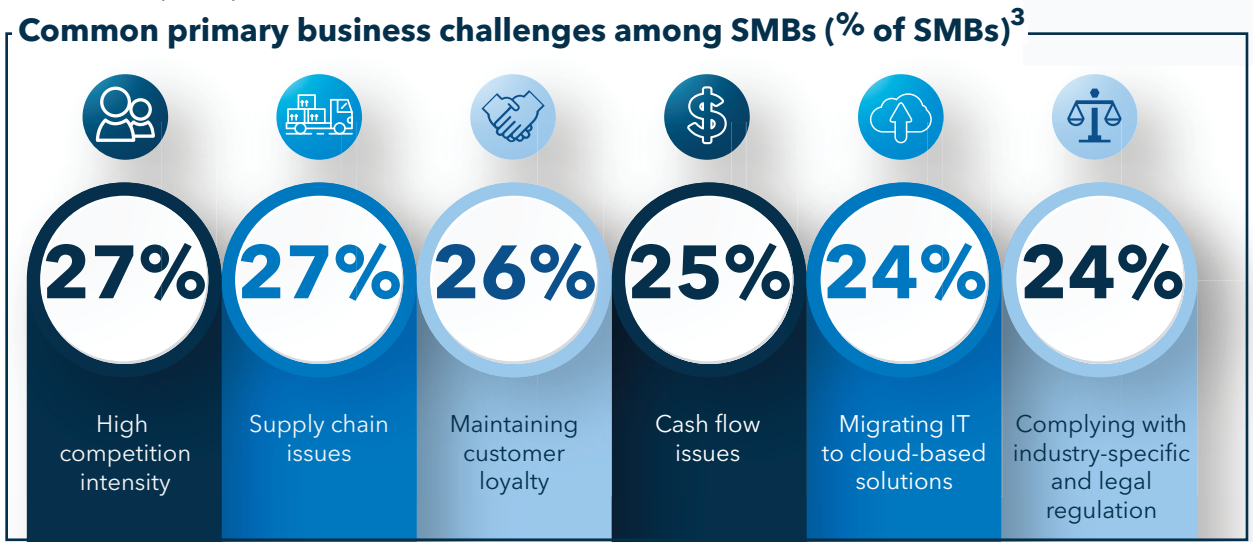
DATA DRIVES BUSINESS GROWTH

Enhanced access to data is rewriting the playbook for business growth. Retailers have options like the **SAS Intelligent Planning Cloud** to start integrating data into their daily decisions. This software as a service (SaaS) pulls data into **prebuilt dashboards** with analytics modules built on industry best practices.

Deep insights provide real-time views of demand, **keep products** on shelves, and even let businesses create local product offerings based on individual market demands. Because it is a cloud-hosted solution, software deployment is pre-configured and fast to deploy.

Conversations conducted with **decision-makers** on the impact of SAS cloud-based solutions offer reasons into why executives see a move to the cloud as critical to business growth. The cloud-based capabilities opened up new insights that contributed to new products, new revenue streams, and overall topline and business growth. Faster and enhanced analytics insights were differentiators for their business.

OPTIMIZE AGILITY AND RESILIENCY WITH ANALYTICS

When SMBs were asked about major obstacles that get in the way of reaching their current business goals, there were some consistent challenges: competition, supply chains, customer satisfaction, IT migrations, cash flow, and regulations. Cloud-based solutions like SAS Viya on Microsoft Azure—an AI, analytics, and data management platform—enable organizations to solve these complex problems with data-driven decisions.

Common primary business challenges among SMBs (% of SMBs)[3]

27%	27%	26%	25%	24%	24%
High competition intensity	Supply chain issues	Maintaining customer loyalty	Cash flow issues	Migrating IT to cloud-based solutions	Complying with industry-specific and legal regulation

[3]*Microsoft Small And Medium Business (SMB) Voice And Attitudes To Technology Study*

With access to smart analytics, retailers can optimize all aspects of their business.

- Deeper customer insights allow for personalized marketing across digital and physical channels.

- Real-time demand analytics improve planning of when and where product needs—or doesn't—need to be.

- Edge technologies expand customer touch points for even more immediate and personal feedback.

- Improved analytics around suspicious transactions and inventory anomalies uncover fraud or merchandise losses.

A recent Forrester **study** commissioned by Microsoft, The Total Economic Impact™ of SAS Viya on Azure, quantifies the agility, resiliency, and cost-saving benefits organizations realized by implementing SAS Viya on Microsoft Azure. Faster and more complete analytics meant quicker time-to-market. More sophisticated and automated model building and management improved overall operational efficiencies. Retiring on-premises analytics infrastructure in favor of scalable cloud environment reduced maintenance and operations costs. Less quantifiable, but equally important, was the transformation into data-driven organizations ready for the challenges—and the opportunities—of economic and political turmoil.

FOR MORE INFORMATION

Retail innovators look to technology solutions to stay competitive and agile. **Rapidly shifting consumer demand and supply chain uncertainty: How retails can adapt analytic agility** provides a closer look at how cloud-based solutions with sophisticated analytics support faster and smarter decision-making. This 30-minute joint SAS Institute and Microsoft webinar shows how retail businesses proactively harness data to be ready for the volatile pace of change.

Watch to learn more

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