BANKING AND INSURANCE:
AI IN OVERDRIVE

By: Rob Murray and John Suminski

SPARQ

EXECUTIVE SUMMARY

With accelerating advancements in artificial intelligence (AI), digital sensors, big data analytics and cloud computing, businesses have begun an epic shift: using digital technology to advise employees on making decisions, and in some cases making decisions for them. Our study of 310 U.S. companies in financial services, transportation and healthcare found many are using AI to guide sales, service, marketing, and other employees on how to deal with customers. Some even give AI-generated advice directly to customers themselves. And more than a few companies have developed systems that act on behalf of employees or customers who don't act quickly enough. These AI-infused systems, as we refer to them, take control.
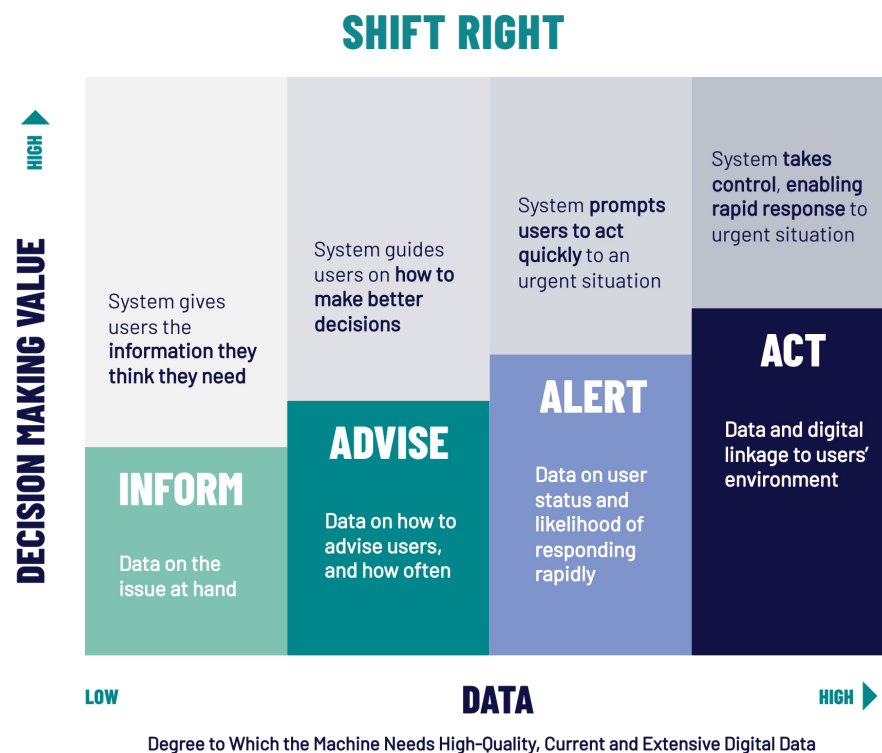
After surveying these companies in January and February of this year, these were among our biggest learnings:

- **AI-infused systems represent seven out of 10 applications implemented in the last three years.** For the average company, 71% of all applications software they implemented from 2020 to 2023 used AI to provide advice, issue alerts or take control of user decisions. That is up sharply from 55% prior to 2020. What's more, companies expect that percentage to grow to 76% of all applications implemented in 2024- 2025.

- **They're spending, but cautiously.** The average spending per company in 2023 on AI-infused systems was $14.1 million, or 0.1% of average revenue (which was $12.3 billion). Healthcare services and health insurance companies led the way, spending an average $23.4 million. Across the three sectors, companies expect their investments in these applications to rise to $20.9 million per company in 2024-25. The average company implemented five AI-infused applications in 2023, and they plan to implement another seven over this year and next.

- **The majority (55%) said their most successful AI-infused application generated strong or extremely strong benefits.** On average, those whose most successful application was in the sales function reported a 32% increase in revenue; those who said it was in finance and accounting reported an average 32% cost reduction; and those in customer service said service quality improved an average 27%. Companies whose most successful AI system was in strategic planning reported an average 34% reduction in the time it took to develop and implement a new plan.

- **The most successful companies in developing AI-infused systems are more likely to design them to take control – if necessary – of user decisions.** On average, 29% of the AI systems they're building in 2024-25 will act on behalf of users. In contrast, of the companies whose most successful AI-infused application generated only moderate, minor or no benefits, on average only 24% of their AI-infused systems will be able to take control of user decisions.

Our full report compares the most successful companies in leveraging AI-infused systems to those companies that have struggled. "Leaders" are companies that said their most successful AI-infused application generated extremely strong benefits. Overall, they were 21% of the companies that had developed AI-infused systems since 2020. Less successful companies, or "Laggards," are companies whose most successful AI-infused system produced zero, minor or only moderate benefits. They comprised 45% of the sample.

In looking at how Leaders, Laggards and the rest of our survey respondents answered our questions, the following became clear to us: Moving to more advanced AI-infused systems that can take control isn't easy. It requires pristine data and enormous computational power to train AI models to deliver insights on demand. Moreover, companies must master algorithmic thinking. That starts with deeply understanding the business rules of a business process – rules necessary to provide meaningful, timely advice that users will embrace. It also requires making a rapid but informed decision of determining when the machine must act on behalf of the user.

Given the sizable complexities to overcome – especially employee resistance to having AI make decisions for them – the challenges are daunting. So what must banking and insurance companies do to propel their businesses with artificial intelligence? We surveyed 118 firms in these industry sectors. This report dives deeply into what they've accomplished this decade with AI, and where they are headed over the next few years.

SHIFT RIGHT

DECISION MAKING VALUE

HIGH

System gives users the **information they think they need**

INFORM

Data on the issue at hand

System guides users on **how to make better decisions**

ADVISE

Data on how to advise users, and how often

System **prompts users to act quickly** to an urgent situation

ALERT

Data on user status and likelihood of responding rapidly

System **takes control, enabling rapid response** to urgent situation

ACT

Data and digital linkage to users' environment

LOW

DATA

HIGH

Degree to Which the Machine Needs High-Quality, Current and Extensive Digital Data

As AI-infused systems become more capable (from left to right),
they require vast amounts of clean and accessible data

BANKING AND INSURANCE: AI IN OVERDRIVE

Nearly three-quarters (72%) of financial services and insurance companies have aggressively been implementing AI-infused apps and software products since 2020. That's much higher than the 61% of companies surveyed across our three major sectors. Some 77% of insurance companies (life and property & casualty) deployed such software between 2020 and 2023. A lower percentage (68%) of financial services firms (retail, commercial and investment banks) said the same.

And both sectors show no sign of slowing down in developing AI-infused software. In each industry, roughly two-thirds are currently building new AI-infused apps, and 78% say they will go live with them this year. Half the financial services firms and 43% of the insurance companies plan to deploy them in 2025 or after.

% OF BANKS AND INSURANCE COMPANIES
THAT HAVE DEPLOYED AND WILL DEPLOY AI-INFUSED APPLICATIONS

SECTOR	% That Implemented AI-Infused Apps from 2020-2023	% Developing Such Apps in 2024	% That Expect to Deploy the Apps in 2024	% That Expect to Deploy the Apps in 2025	% That Expect to Deploy the Apps in 2026 or After
BANKS	68%	65%	78%	35%	15%
INSURERS	77%	66%	78%	24%	19%

MAJORITY OF AI-INFUSED APPS ARE FOR EXTERNAL USERS

Who will use these systems – employees, customers, suppliers or other parties? Over the last three years, a slight majority of the banks and insurers developed these apps for external audiences including customers. (Developing systems to be used directly for customers is, of course, a riskier proposition.) For the banks, 29% of the AI-infused apps were for customers to use, and another 22% were for other external users (for example, suppliers and business partners). For insurance companies, 30% were developed for customers, and 24% for other external users.

However, these sectors also focused on apps for employees to use. Some 41% of the banks and 37% of the insurance companies developed these apps for employees.

TARGET USERS: WHO ARE BANKS AND INSURANCE COMPANIES BUILDING THEIR AI-INFUSED APPLICATIONS FOR?

SECTOR	External Users		Internal Users	Other Users
	Customers	Suppliers, Partners and Others	(Employees and Contract Workers)	
BANKS	29%	22%	41%	8%
INSURERS	30%	24%	37%	9%

AVERAGE NUMBER OF APPS PER COMPANY: 5; AVERAGE SPEND (PER COMPANY): $11 MILLION

But exactly how many AI-infused apps are we talking about? In 2023, the average financial services and insurance company surveyed implemented five such apps. The average total cost of them per company was $11.8 million (for financial services firms) and $10.6 million for the insurance companies.

Their ambition shows no signs of slowing down. Asked to project how many AI-infused apps they'll implement this year and next, our survey respondents said the number would increase: 6 per company on average in each sector. The average spend per company was also sizable: $17.7 million for banks, and $17.2 million for insurers.

BANKING AND INSURANCE: AVERAGE PER COMPANY NUMBER AND SPENDING ON AI-INFUSED APPS IN 2023

SECTOR	No. of Apps Deployed in 2023	Spending on Apps in 2023	No. of Apps to be Deployed in 2024-25	Projected Spending on Apps in 2024-25
BANKS	5	$11.8 million	6	$17.7 million
INSURERS	5	$10.6 million	6	$17.2 million

MORE THAN A THIRD OF AI-INFUSED APPS WILL TAKE CONTROL (IF USERS DON'T)

Neither banks nor insurers surveyed are reluctant about designing their AI-infused apps to make decisions and act on behalf of users on behalf of users who aren't acting quickly enough to stave off a problem (or pursue an opportunity. Asked to categorize their apps by whether they will be designed to a) merely give advice, b) give advice and issue alerts

to act, and c) give advice, alert and act (i.e., take control and act on behalf of the user), the banks told us 37% of their apps would fit the third category. Some 32% of the insurance companies said the same.

BANKS AND INSURANCE COMPANIES: CAPABILITIES OF AI-INFUSED APPS IMPLEMENTED IN 2024-25

SECTOR	Capabilities of AI-Infused Apps to be Implemented in 2024 and 2025		
	% That Will Advise Users	% That Will Advise and Alert Users	% That Will Advise, Alert, and Take Control for Users
BANKS	35%	28%	37%
INSURANCE COMPANIES	38%	30%	32%

A good example of a bank developing AI applications that (if necessary) will act on behalf of users is JPMorgan Chase. Jamie Dimon, chairman of America's largest bank, recently said the company has 2,000 people developing AI systems – 100 alone in research – and 400 use cases including risk, fraud, marketing, and customer agents. "You might have a customer complaint and it decides to give you a new debit card."[i] That's a great example of an AI-infused app that can take control.

USAGE IS BROAD: FROM STRATEGIC PLANNING TOOL TO SERVICE ENHANCER

We asked banks and insurance companies to tell us in what business functions they implemented their AI-infused apps last year. Largely in customer service? Or as a marketing tool? On the contrary, the technology appears to have widespread use across these companies.

The average bank deployed five such applications in 2023. And on average those applications overall served the interests of 10 business departments in their companies. In other words, some applications were cross-functional. For example, an AI-infused app that provides customer service can also suggest products and services the customer could use. In that case, a survey respondent would indicate the app is serving both service and marketing.

WHERE THE AVERAGE BANK AND INSURANCE COMPANY USED THEIR AI-INFUSED APPS IN 2023

BANKS		INSURANCE COMPANIES	
Function	Locus of Activity	Function	Locus of Activity
Customer Service	2	IT	2
IT	2	Product Development	1
Finance and Accounting	1	Customer Service	1
Strategy	1	Marketing	1
Product Development	1	Finance and Accounting	1
Purchasing	1	Strategy	1
Marketing	1	Sales	1
Human Resources	1		

WHERE'S THE PAYBACK? FUNCTIONS GETTING THE GREATEST VALUE

Where are banks and insurers getting the most value from their AI-infused apps? Where is it having the most impact on costs, revenue, cycle time and quality? The answers were revealing.

In banking, the two most frequently cited functions were IT, as well as finance and accounting. The insurance companies said AI-infused apps were having the greatest value in marketing and It.
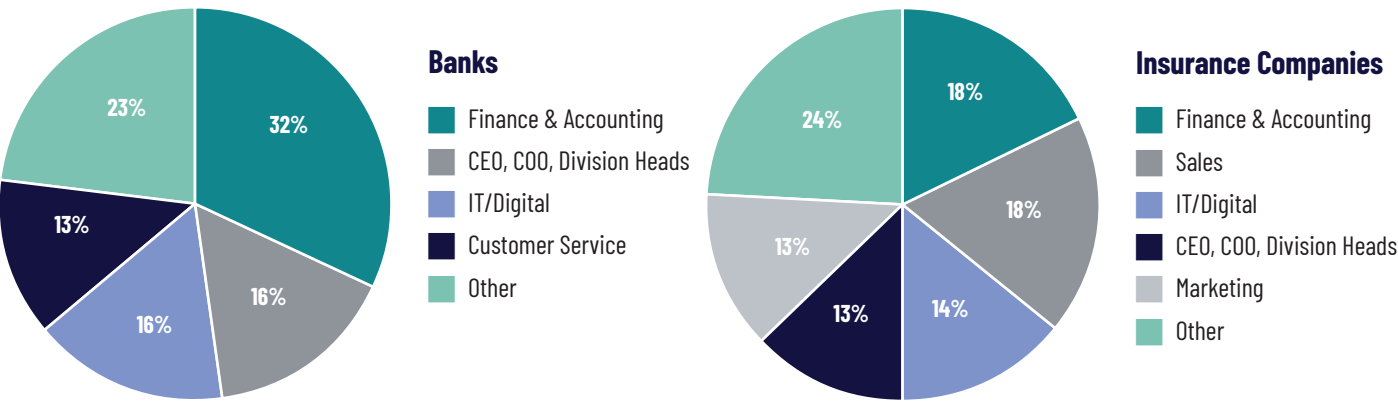
Here's what the companies said:

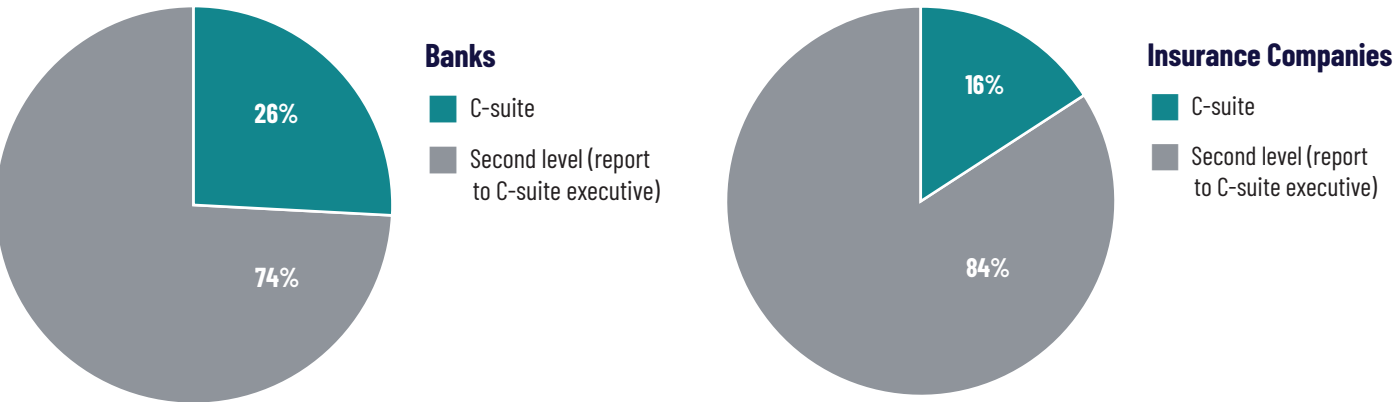| SECTORS & FUNCTIONS		REDUCTIONS		INCREASES	
		COSTS	CYCLE TIME	REVENUE	QUALITY
BANKS	IT	-29%	-22%	+18%	+20%
INSURANCE COMPANIES	Marketing	-24%	-32%	+33%	+21%
	IT	-39%	-21%	+14%	+25%

SURVEY DEMOGRAPHICS

Our 118 U.S. financial services industry survey participants includes retail, commercial and investment banks (62) and insurance companies (56). They share the following demographics:
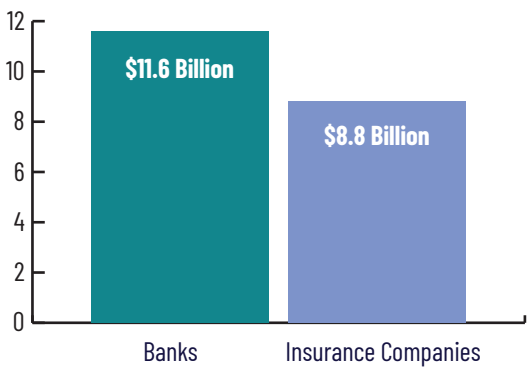
JOB ROLES

Banks
- Finance & Accounting
- CEO, COO, Division Heads
- IT/Digital
- Customer Service
- Other

32%, 16%, 16%, 13%, 23%

Insurance Companies
- Finance & Accounting
- Sales
- IT/Digital
- CEO, COO, Division Heads
- Marketing
- Other

18%, 18%, 14%, 13%, 13%, 24%

ORGANIZATION LEVEL

Banks
- C-suite
- Second level (report to C-suite executive)

26%, 74%

Insurance Companies
- C-suite
- Second level (report to C-suite executive)

16%, 84%

COMPANY SIZE (AVERAGE ANNUAL REVENUE)

Banks: $11.6 Billion
Insurance Companies: $8.8 Billion

ABOUT THE AUTHORS

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With responsibility for driving growth within Sparq's Banking, Financial Services and Insurance (BFSI) business unit, Rob leads the development, implementation and execution of the group's go-to-market strategy, including oversight of its sales organization.

He brings over 20 years of financial services experience, having previously worked for firms such as Bank of America and Wells Fargo. Most notably, he served in leadership roles including Treasury/Payment Sales and Client Services, Digital Sales Funnel Optimization and Enterprise Digital Transformation. More recently, Rob led BFSI verticalization for Quantum Metric and 3Pillar Global.

Rob has a Bachelor of Arts from Pfeiffer University.

JOHN SUMINSKI
Client Partner

In this role, John is a strategic advisor and partner with his clients in financial services and is responsible for helping them to achieve exceptional outcomes.

He has over 25 years of leadership experience in the financial services industry, having held executive positions at organizations including John Hancock, Public Consulting Group and Infosys McCamish.

John has a Bachelor of Arts in Economics from College of the Holy Cross.

Footnote

i   *The Wall Street Journal*, video interview with JPMorgan Chase published on April 25, 2024. (See 22-minute mark.) https://www.wsj.com/video/series/in-depth-features/jamie-dimon-on-the-economy-geopolitical-risks-and-ai-full-interview/5145E3B2-B2C4-4CAA-866D-B4792504E7BB

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