The importance of value streams in the age of AI

KPMG. Make the Difference.

Contents

In a rapidly evolving business environment, organizations should continually seek ways to enhance value creation, improve competitiveness, and drive cost efficiency. The advance in artificial intelligence (AI) has the potential to rapidly accelerate value creation through AI-powered value stream analysis and AI-enabled continuous improvement.

By focusing on value streams and the services that support them, organizations can achieve operational excellence, deliver superior customer experiences, and drive sustainable growth.

Value streams provide a structured framework for delivering core products and services efficiently. The concept of value steams is rooted in Lean, Six Sigma and Agile methodologies and is the series of steps involved in delivering products or services to customers.

AI can significantly accelerate the cost, time and quality benefits derived from value streams by enhancing data integration and analysis, enabling real-time monitoring and insights, and automating and optimizing processes.

AI is also proving to be a catalyst for customer-centric transformation, revolutionizing the way organizations create value for customers. AI can also be the stimulus for transforming business models and creating new industrial ecosystems. From predictive analytics to personalized recommendations, AI-powered tech solutions have the potential to reshape every aspect of the value creation process.

66 Organizations need to answer some fundamental questions. What do your customers want? What does your brand stand for? And how do you deliver value for your customers? The execution of AI-enabled transformation can't just happen. It must be focused, considered, understood, and then streamlined right through the business. 99

Jenny Roche
Partner, Digital Transformation Lead
KPMG Australia

What are value streams?

Value streams represent the end-to-end processes that deliver value to customers and the organization. They encompass the activities required to transform inputs into valuable outputs. Whether it's developing a product, providing a service, or delivering a tech solution operational value streams map out the flow of work from trigger to delivery.

How an organization creates value for itself and its customers has become a preoccupation for C-suite members. In a survey of 160 companies in six countries that are focusing on value streams

80%

of C-suite executives said they had identified value streams for key products and services. Yet only 35 percent have developed strategies for incorporating AI into value streams.[1]

---

1 KPMG International survey on April 2024 of 160 C-level executives from Australia, Canada, Germany, India, US, and the UK across the banking, insurance and healthcare sectors involved with key decisions regarding their company's value streams.

70%

of C-suite executives state that value stream mapping has positively impacted organizational effectiveness.[2]

Value streams are present in every business. For example, in financial services the value streams for a loan may look like this:

Loan needed → Attract customer → Complete application → Underwrite → Award loan → Repay loan → Loan repayment with interest

Value streams cut across departments and functions, and each contains the steps necessary to convert the trigger to the delivery of value. For the loan example they would include:

- The people who perform these steps, for example the marketing teams that promote the product or the finance team that evaluates the suitability of the customer for a loan.

- The AI-enabled technology solutions they use, for example the systems that show what type of loan can be provided or what interest can be returned.

- The flow of information and materials that are necessary, for example the loan type and how it will be paid back.

Streamlining these processes with AI can help to eliminate waste, reduces lead times, and enhances overall efficiency. It's like fine-tuning the engine of a well-oiled machine, ensuring that every cog and gear works seamlessly together to drive success.

When AI is added to the mix it has the potential to supercharge the loan "engine". AI can automate repetitive tasks within value streams, allowing for faster processing and reduced human intervention. By quickly identifying patterns and insights within the data, AI enables organizations to make data-driven underwriting decisions more rapidly, leading to improved customer outcomes. By leveraging predictive analytics, organizations can detect potential fraud or anticipate potential issues or opportunities and take proactive action.

AI algorithms can continuously monitor and analyze performance metrics within value streams to identify areas for improvement. By providing real-time feedback and insights, AI enables organizations to iterate and optimize their loan processes more effectively, leading to ongoing enhancements in process efficiency and customer experience quality.

Case study

AI-powered value streams

One of the world's largest payment providers is utilizing AI-powered value streams, tapping into a host of data from across its customer ecosystem, encompassing end users of credit cards through to merchants and banking partners. Every single time a card is used around the world, it uses a machine-learning-powered fraud detection model to monitor transactions in real time, generating a fraud decision in milliseconds.[3]

Users also benefited from AI-driven offers, personalized opportunities to save money on purchases, and data scientists used AI to develop algorithms that determined in microseconds the most relevant offers to put in front of a customer. The provider estimates that customers saved over US$7 million in its first year of operation.

---

[3] https://kpmg.com/uk/en/home/services/consulting/customer-consulting/customer-experience-excellence.html

What are the sources of organizational value with AI?

Value is created through innovation, technology, operational excellence and an engaged workforce, for example:

Delivering high-quality AI-enabled products or services that are reliable, consistent, and meet or exceed industry standards.

Innovating and developing new products, services or processes that address unmet needs or improve existing solutions.

Reducing cycle time with AI, getting products to market quickly and efficiently.

Providing exceptional customer experiences with AI, that meet or exceed customer expectations.

Reshaping the workforce of the future. Augmenting roles through a combination of automation, skill evolution, and the need to collaborate effectively with AI tools.

Improving operational efficiency with AI reducing costs, improving productivity, and optimizing supply chain management to enhance profitability.

Managing compliance and risk using AI, ensuring the organization acts responsibly and ethically.

For many organizations identifying and defining their operational underlying value streams can be problematic. AI can help here too. AI can identify patterns and relationships within the organization's data that indicate value streams. AI models can build on techniques such as clustering, classification, regression, or process mining to surface and reveal critical value streams.

> "It is important to focus on value and to be value-driven. This starts with defining what value is and where and how value is created in the business. Organizations need to grapple with data, analytics, automation, workflows, aligning the workforce and ensuring they have the right skills to collaborate effectively. Focusing first on operational value streams and their supporting capabilities provides a structured approach to creating and delivering value across all of these areas."

Adrian Clamp
Global Head of Connected Enterprise
KPMG International

The role of business support services

While operational value streams focus on delivering core products or services, business support services, enhanced with AI, can provide the necessary support and infrastructure to facilitate value creation. These services include examples like order to cash, procure to pay, target to lead and invoice generation and payment collection.

When services are optimized and aligned with operational value streams, they can become catalysts for value creation. By investing in automation, standardization, and continuous improvement within support services, organizations can minimize bottlenecks, reduce overhead costs, and enhance overall agility.

Using value streams to optimize costs

Value stream mapping allows organizations to identify and categorize various types of waste within their processes. It can also prioritize AI investments that reduce costs associated with idle capacity, underutilized resources, and unnecessary expenditures. It helps organizations identify bottlenecks, delays, and non-value-added activities. By removing unnecessary steps, organizations can reduce cycle times and increase productivity.

By examining the value stream maps organizations can create "Benefits Hypotheses". These are potential areas where cost can be removed. By launching a minimum viable product (MVP), organizations can dual run processes and validate whether in fact the new way of working is delivering the cost benefit envisaged.

However, value stream mapping is not a one-time exercise; it's an ongoing process of continuous improvement. By regularly reviewing and refining value streams, organizations can identify new opportunities for cost optimization and drive sustainable cost savings over time.

84%

of C-suite executives believe that managing value streams has driven cost efficiencies across the organization.[4]

---

[4]   KPMG International survey on April 2024 of 160 C-level executives from Australia, Canada, Germany, India, US, and the UK across the banking, insurance and healthcare sectors involved with key decisions regarding their company's value streams.

Creating value-driven, customer-centric experiences

Customer journeys within the value stream record the sentiment of the customer as they experience touchpoints at different stages enabling the identification of pain points and blockages.

Value streams and customer journeys are therefore closely linked, and value streams define the steps required to deliver value to customers, while customer journeys provide insight into how customers experience those steps. Employee journeys also have a role to play in aligning the right skills and competences to each touchpoint. Employees execute tasks and activities that directly contribute to creating the value promised to customers.

By mapping employee journeys into both value streams and customer journeys organizations can understand how AI can help improve employee experiences, and AI-driven insights and AI-orchestrated actions can contribute to delivering value and enhancing the overall customer experience.

Collectively value streams, employee journeys and customer journeys when aligned together, ensure that the organization is meeting the needs and expectations of their employees and their customers, improving productivity, efficiency, effectiveness, and ultimately, customer satisfaction.

81%

of executives state that focusing on value streams has positively impacted customer satisfaction.[5]

[5] KPMG International survey on April 2024 of 160 C-level executives from Australia, Canada, Germany, India, US, and the UK across the banking, insurance and healthcare sectors involved with key decisions regarding their company's value streams.

Case study

Organizational alignment along value streams

A global automotive business had devolved over time into a series of functional mini businesses, and each had become a silo leading to a fragmented view of the customer and their needs.

The organization started its transformation by implementing a lean four-step problem-solving process to understand how a lean supply chain affects the product quality and cost. Value stream mapping was then used to identify the value-added (VA) and non-value-added (NVA) activities as well as their impact on lead time in the supply chain from the unloading of the raw materials to the shipment of the final vehicle. The result was shorter lead times, higher quality, and lower cost.

Data was central to their value stream transformation; supply chain data, vehicle data, lifestyle data and usage data were all needed to deliver value for the customer and the organization. This meant this business needed to connect across silos and have a 360-customer view.

Achieving this required a clear definition of the value streams that spanned the life cycle and the creation of enterprise-wide capabilities independent of functions and supporting technology that provided a single version of the truth.[6]

---

[6]   AI and the orchestrated customer experience — KPMG Global

Modular technologies are improving value streams and accelerating speed to value

New technologies like AI are increasing the flexibility of organizations by providing the tools and platforms necessary for modularization, automation, and rapid integration. In fact, leading analysts contend that the organization of the very near future will be "composable" comprised of a set of interchangeable components that can be reconfigured to meet evolving business needs and market dynamics.

The move to the cloud and widespread adoption of microservices is breaking down monolithic IT applications into small, independently deployable services that can be rapidly developed and scaled. This architecture promotes modularity and allows businesses to quickly assemble and reassemble applications to meet changing requirements.

These organizations have learned that as they modularize their technology infrastructure, they can also modularize their value streams, breaking down value streams into smaller, more manageable components or stages, each with clear inputs, outputs, and responsibilities. These can then be reconfigured quickly when new opportunities arise, or customer needs change.

Content streaming organizations exemplify a new type of business, one where the front, middle and back-office operations are connected through value streams that in turn are built on a modular IT architecture, which when coupled with AI allows them to deliver highly personalized experiences to users.

Such organizations have been early adopters of this revolutionary microservices architecture. Each of these services operates independently and communicates with each other through interface APIs creating a symphony of small, independent services all working together. Updates and changes are easier to implement, and new applications can be developed in record time through reusing existing microservices, leading to much more adaptive and responsive organizations.

79%
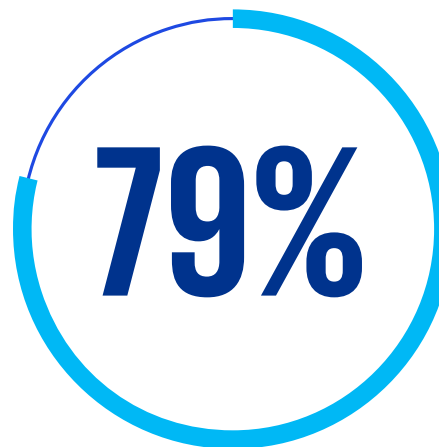
of executives state that silos get in the way of delivering value to customers and 77 percent are actively breaking down silos to deliver greater value to customers.[7]

---

7 KPMG International survey on April 2024 of 160 C-level executives from Australia, Canada, Germany, India, US, and the UK across the banking, insurance and healthcare sectors involved with key decisions regarding their company's value streams.

Designing for value-driven customer-centricity

When looking at value creation and customer-centricity it is helpful to do so at three levels:

Enterprise level

At this level value streams are the key enabler. There will be multiple value streams supporting the portfolio of products and services that when defined and optimized, will enable the rapid flow of value through the organization.

Operational level

At this level it is about building and connecting capabilities in a way that enables the smooth functioning of the operational value streams and the customer journeys. The focus is on removing pain points by optimizing and enhancing capabilities.

Technology level

It is vital to identify and then implement the right technology solutions for digitizing the organization; this should span data and analytics, operational systems, customer engagement systems and back-end enterprise support systems. A focus will be required on cybercrime, risk management and controls.

Organizations have limited time, resources and capital; not everything can be changed at once, so prioritization decisions need to be made. It makes sense to focus on those areas that lead to greatest value for the organization and the customer.

Improving the flow of value across the end-to-end value stream

To fully harness the advantages of operational value streams and business support services, organizations should prioritize integration and collaboration across all functions. Siloed functions, disjointed processes and isolated capabilities can significantly impede value delivery and hinder organizational agility.

Establishing these crucial connections entails linking value streams and business support services to core business capabilities. Previous research conducted jointly by KPMG and Forrester has outlined eight capabilities that delineate the operational framework for modern organizations.[8] These capabilities encapsulate the requisite skills, knowledge, processes, architecture and resources necessary for executing strategic objectives and delivering value to customers.

73% of executives state that they know where value is created and lost in their customer journeys.[9]

---

8   A commissioned study conducted by Forrester Consulting on behalf of KPMG, September 2018. Base: 1,299 professionals involved with customer-centric strategy decisions.

Organizations that diligently cultivate all eight capabilities typically yield twice the value compared to those that neglect them.

Insight-driven strategies and actions:
Harness data, advanced analytics and actionable AI-driven insights with real-time understanding of the customer and the business to shape integrated business decisions.

Responsive operations and supply chains:
Operate the business with efficiency and agility, using AI to fulfil the customer promise in a consistent and profitable way.

Innovative products and services:
Develop compelling customer value propositions on price, products and services using AI to engage the most attractive customers and drive profitable growth.

Integrated partner and alliance ecosystem:
Engage, integrate and manage third parties through AI orchestration to increase speed to market, reduce costs, mitigate risk and close capability gaps to deliver the customer promise.

Experience centricity by design:
Design seamless, intentional AI-orchestrated experiences for customers, colleagues and partners, supporting the customer value propositions and delivering business objectives.

Aligned and empowered workforce:
Build a customer-centric organization and culture that inspires people to deliver on the customer promise and drive up business performance using AI.

Seamless interactions and commerce:
Interact and transact with customers and prospects across marketing, sales and services using AI in a way that achieves measurable results.

Digitally enabled technology architecture:
Create intelligent and agile services, technologies and AI platforms, enabling the customer agenda with solutions that are secure, scalable and cost effective.

This concerted effort leads to enhanced automation, advanced utilization of data and analytics, and the identification of key areas where AI and digitization can generate the most significant value.

9   KPMG International survey on April 2024 of 160 C-level executives from Australia, Canada, Germany, India, US, and the UK across the banking, insurance and healthcare sectors involved with key decisions regarding their company's value streams.

How KPMG can help

AI is key to unlocking exciting new opportunities and new revenue streams to drive sustainable growth. At KPMG we believe that AI will be transformative, generating new business models, transforming industries and reshaping the workplace of the future. We are committed to helping organizations navigate the opportunities, challenges and long-term impact of AI and realize its value.

By combining our deep industry and functional expertise with the right technology, we can help you prioritize where to unlock business value and harness the power and potential of AI with speed, agility, and confidence.

Identifying sources of value, mapping value streams, customer journeys, and employee experiences requires an integrated approach one that enables line of sight between the aspirational direction set by the business strategy and how value is created, and enabled by AI, day to day, interaction by interaction.

Managed services can also play a crucial role in helping value creation acceleration and enabling organizations to harness the full potential of AI. By providing domain experience and a focus on continuous improvement, managed services can help AI models to remain effective and deliver ongoing value, empowering organizations to optimize value streams through data-driven insights, automation of repetitive tasks, and predictive maintenance.

> "Continual innovation and customer-focused value creation are essential in today's competitive business environment KPMG professionals strive to leave our clients with the tools to always stay market relevant with a mature capability around organizational agility."

Rick Rose
Americas Region Connected Enterprise Lead and Commercial, Principal, Advisory KPMG in the US

Transforming for a future of value

KPMG's digital transformation suite is designed to help clients get to a more productive and sustainable future. The solutions are designed to address different client challenges and different parts of a business or an operating model. Each one contains rich insights and is underpinned by our leading transformation methodology.

These solutions include:

"Future of": At the strategic level KPMG publishes "Future of" reports for individual sectors. These highlight key trends, value-creation opportunities and potential winning business models.

Elevate

The KPMG Elevate toolset provides a structured approach to value identification. This helps unlock value — quickly.

Connected

Connected Enterprise is KPMG's customer-centric, agile approach to digital transformation. Preconfigured sector-specific enablers include:

- **Value streams:** Identifying and mapping Connected Value Streams.

- **Customer journeys:** A visual tool that depicts the sentiment of customers at every stage and every touchpoint as they experience the end-to-end value stream.

- **Capabilities:** The eight key capabilities that define successful transformations. Investing in these eight capabilities can result in a connected, customer-centric organization.

- **Blueprints:** These depict a logical architectural model of all the future capabilities, sub-capabilities and technology architecture of the enterprise.

- **Products:** The AI-driven technology products that enable the journeys and Value Streams.
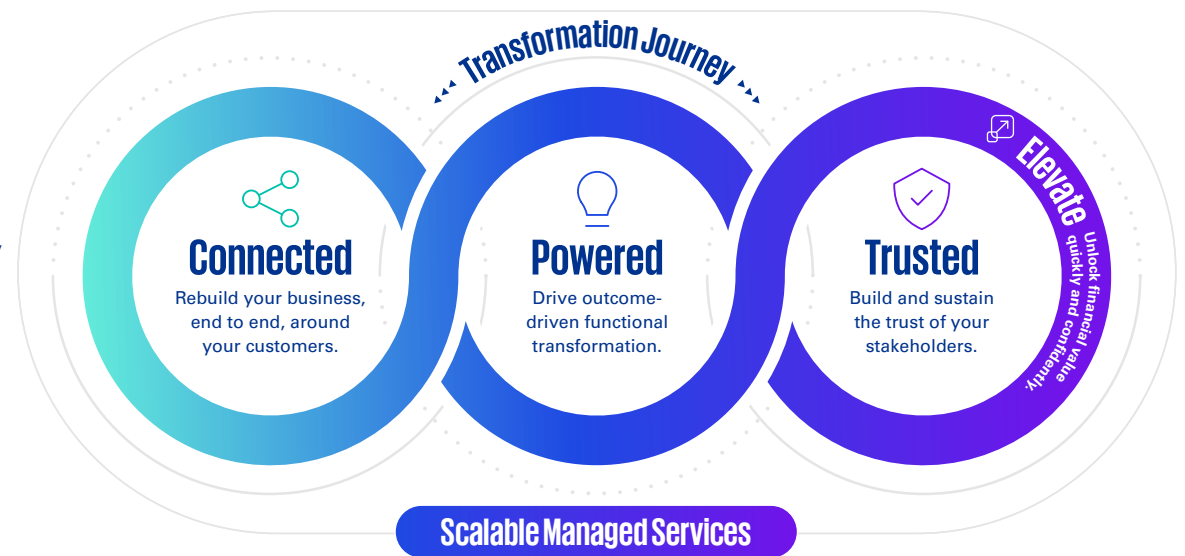
Powered

Powered Enterprise includes KPMG's Target Operating Model, Powered Technology and Powered Evolution. Operating Model assets within the KPMG Target Operating Model (TOM) enable accelerated delivery of a business capability.

Trusted

KPMG's Trusted Imperative embeds a balanced approach to risk and regulation into every part of your organization, while securing stakeholder confidence.

Whatever stage you are at on your transformation journey, KPMG professionals can help you find the right model, and build the practical steps to get you there.

KPMG digital transformation suite

Transformation Journey

Connected
Rebuild your business, end to end, around your customers.

Powered
Drive outcome-driven functional transformation.

Trusted
Build and sustain the trust of your stakeholders.

Elevate — Unlock financial value quickly and confidently.

Scalable Managed Services

Contacts

Adrian Clamp
Global Head of Connected Enterprise
KPMG International
adrian.clamp@kpmg.co.uk

Rick Rose
Americas Region Connected
Enterprise Lead and
Commercial, Principal, Advisory
KPMG in the US
emrose@kpmg.com

Silvester Liu
ASPAC Region Connected Enterprise
Lead and Partner
KPMG China
silvester.liu@kpmg.com

Urvashi Roe
Global Head of Sales Enablement
Connected Enterprise
KPMG International
urvashi.roe@kpmg.co.uk

kpmg.com