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# The Total Economic Impact™ Of IBM iX Digital Commerce Services

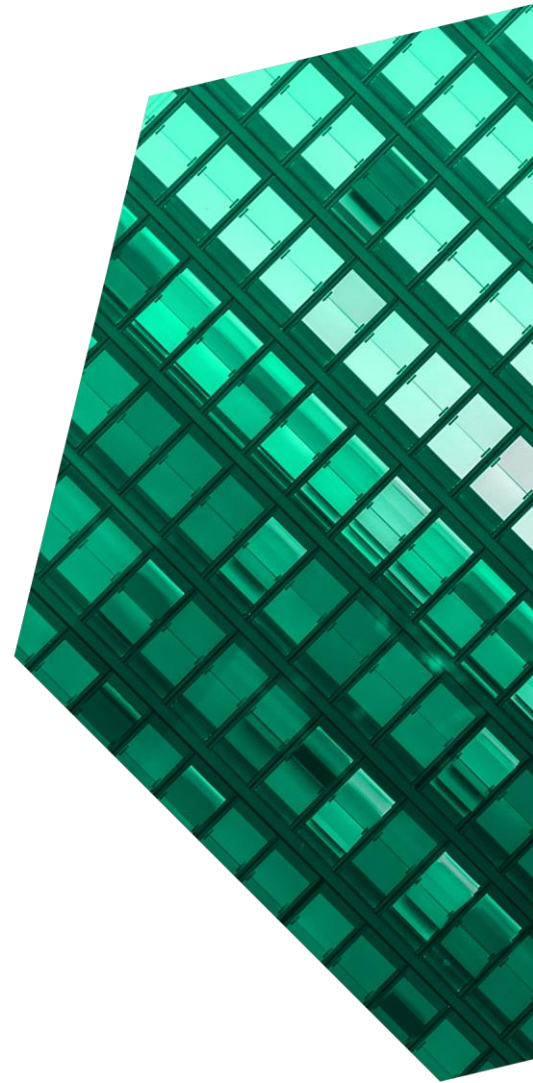
Delivering Strategic Growth With  
Experience-Led Commerce Solutions

**DECEMBER 2022**

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## ABOUT FORRESTER CONSULTING

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## Executive Summary

As consumer preferences for commerce engagement continue to evolve, organizations that successfully design frictionless and powerful omnichannel experiences will be highly rewarded. IBM iX's Digital Commerce consulting services can transform commerce and drive growth at organizations by activating data, AI, and automation across the technology ecosystem to establish and orchestrate seamless and effective customer experiences (CX).

A part of IBM Consulting, IBM iX's Digital Commerce practice partners with medium- to large-sized organizations to design, develop, and deploy experiences that take an end-to-end view of the commerce journey in order to optimize customer and client outcomes. IBM iX advises clients on the growth strategy best aligned with their overall business objectives and activates seamless omnichannel commerce experiences delivered with modern technology and architecture, fully orchestrated within the technology ecosystem.

IBM commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by partnering with IBM iX to modernize and transform their customer commerce experiences.<sup>1</sup> The purpose of this study is to provide readers with a framework to evaluate the potential financial upside of engaging IBM iX for similar engagements.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six stakeholders from four organizations that engaged IBM iX on commerce experience engagements. These organizations were from the manufacturing, retail, and pharmaceutical industries, and from the government. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single [composite organization](#) with both B2B and B2C

### KEY STATISTICS



Return on investment (ROI)

**159%**



Net present value (NPV)

**\$31.2 million**

businesses, \$67 billion in revenue, and a total of 40,000 employees.

Prior to their engagement with IBM iX, interviewees noted that their companies did not have the internal expertise to establish, scale, and modernize omnichannel commerce experiences. The interviewees' commerce technologies were also unable to meet their growing omnichannel commerce needs, while interviewees felt ill-equipped to update this commerce technology and associated internal practices to deliver strong CX. As a result, commerce solutions were prone to failure and significant downtime, both of which led to overall poor CX and constrained revenue.

After the investment in IBM iX, the interviewees successfully modernized their omnichannel commerce ecosystems, thus enjoying improved CX and increased revenue. They established seamless commerce experiences across existing channels and even launched new lines of commercial business.

They also reduced overall costs by increasing efficiencies across the entire commerce journey.

### KEY FINDINGS

**Quantified benefits.** Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **New business value from omnichannel experiences worth \$20.3 million.** IBM iX helps its clients establish omnichannel commerce experiences while enabling new commerce businesses, which improves revenue by between 0.01% (\$6.7 million) and 0.12% (\$97 million) of total revenue, and an additional 0.04% (\$27 million) to 0.07% (\$57 million) of total revenue from a new digital business.
- **Modernization of commerce technology ecosystem worth \$17.5 million.** IBM iX improved the performance and resilience of commerce technology platforms and ecosystems, negating downtime events and recouping between \$180 million and \$228 million in revenue annually. This equates to \$6.6 million to \$8.3 million annually when accounting for gross margin and IBM iX's contribution to this benefit.
- **Reduced support costs worth \$11.5 million.** An improved omnichannel customer experience from designing and deploying options for self-service decreases customer support costs and reduces annual support calls by between 15% and 20%, while reallocating between 18 and 48 employees to higher-value tasks.
- **Content activation flexibility worth \$1.5 million.** The composite enjoys more flexibility related to their omnichannel commerce content activation, enabling commerce content to go live between 40% and 50% faster, while reducing the resource cost of this work by between 40% and 50%.

**Unquantified benefits.** Benefits that are not quantified in this study include:

- **Improved employee satisfaction.** Employees felt they became a part of the solution to serious internal challenges as their work became more efficient and better met customer and stakeholder needs.
- **Increased customer and stakeholder satisfaction.** The establishment of advanced options for customer support and the overall improvement of the omnichannel commerce experience enhanced customer and stakeholder satisfaction.

**Costs.** Three-year, risk-adjusted PV costs for the composite organization include:

- **Engagement fees.** The composite pays engagement fees associated with the full breadth of IBM iX-delivered projects of between \$5.7 million and \$9.7 million annually. Consult with IBM for costs specific to the scope of work for your organization as these will vary.
- **Internal costs of ongoing commerce services.** The composite experiences internal costs from the engagement, which includes the use of program managers at a rate of 0.7 to 1.1 FTEs annually and 50% of an IT professional FTE.

The financial analysis based on customer organization interviews found that a representative composite organization experiences benefits of \$50.8 million over three years versus costs of \$19.6 million, adding up to a net present value (NPV) of \$31.2 million and an ROI of 159%.

Time to value from IBM iX

**50% - 61% faster**



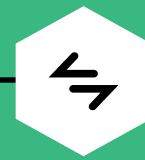
ROI  
**159%**



BENEFITS PV  
**\$50.8M**

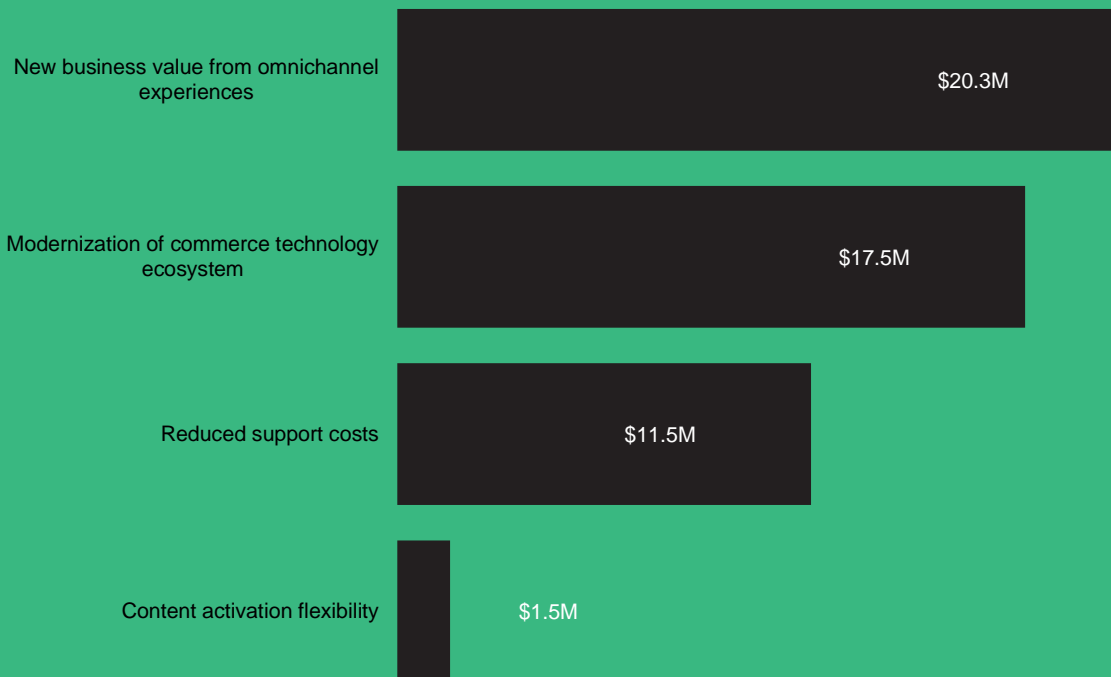


NPV  
**\$31.2M**



PAYBACK  
**14 months**

### Benefits (Three-Year)



**“Thanks to IBM iX, our digital commerce went from less than 1% of revenue to over 10% in just three years.”**

— CIO and CDO, manufacturing

## TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering partnering with IBM iX for digital commerce services.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the digital commerce capabilities of IBM iX can have on an organization.

### DISCLOSURES

Readers should be aware of the following:

This study is commissioned by IBM and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of partnering with IBM iX for digital commerce services.

IBM reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

IBM provided the customer names for the interviews but did not participate in the interviews.



### DUE DILIGENCE

Interviewed IBM iX stakeholders and Forrester analysts to gather data relative to IBM iX's digital commerce services.



### INTERVIEWS

Interviewed six representatives at four organizations using IBM iX for digital commerce services to obtain data with respect to costs, benefits, and risks.



### COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees' organizations.



### FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.



### CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.



# The IBM iX Digital Commerce Services Customer Journey

■ Drivers leading to the partnership with IBM iX for digital commerce services

Interviews			
Role	Industry	Region	Revenue
Executive director of client service delivery	Government	North America	\$13 million (program budget)
Director of maintenance enforcement	Government	North America	\$13 million (program budget)
Senior manager of maintenance enforcement	Government	North America	\$13 million (program budget)
CIO and CDO	Manufacturing	Global	\$3.8 billion
Head of e-commerce	Retail	North America	\$121 billion
Vice president of IT	Pharmaceutical	Global	\$214 billion

## KEY CHALLENGES

Before engaging with IBM iX, the interviewees' organizations were in different stages along their commerce transformation journeys. Some organizations had almost no digital presence aside from a website and used manual processes with a heavy emphasis on spreadsheets. Other organizations had already implemented digital commerce technologies and internal best practices but had not designed and deployed the appropriate omnichannel architecture and experiences to keep up with both customer demand and consumer preferences for engagement.

Despite these differences, the interviewees noted how their organizations struggled with common challenges, including:

- **Poor customer or stakeholder experience.** The interviewees noted that customer or stakeholder experience was severely lacking. The executive director of client services from the government organization said: "Almost any stakeholder that wanted to interact with us would first make the attempt via a digital channel, but eventually had to resort to contacting us by

phone, working through their engagement live with a representative. We didn't have the labor force required to keep up with calls and had already failed at providing any kind of self-service digitally. This led to a lot of frustration from our stakeholders."

**"Before engaging with IBM iX, we were trying to establish digital commerce capabilities. It was not integrable, scalable, or efficient."**

*CIO and CDO, manufacturing*

- **Lack of scalability and resiliency.** Even when the interviewees were using relatively up-to-date technologies, initial deployments fell short on planning for scalability and resiliency. The head of e-commerce from the retail firm said: "Our initial technology architecture had a successful

pilot stage that we then tried to scale in a big way. But it could not keep up with growth. Pretty soon, customer orders were negatively impacted by failures and downtime. Then, COVID accelerated the problem and we realized we needed help to modernize.”

- **Outdated technology.** The interviewees noted that their prior environments were plagued with problems stemming from outdated technology and narrowly confined CX. The executive director of client service delivery from the government organization noted: “We had a legacy system that could only provide limited service. It only worked with a certain version of browser, with no access for any other browser type, much less mobile. This led us to mostly handling our stakeholder interactions via the phone.”
- **Lack of internal expertise.** The interviewees also noted a lack of internal expertise regarding the latest technologies and best practices for establishing or revamping their digital commerce efforts. The vice president of IT from the pharmaceutical firm said: “We needed subject matter expertise for our commerce platform. Particularly, we didn’t have the right internal talent to best design and deploy promotions or low-code or no-code templates. These were complex endeavors, where variations could grow exponentially.”
- **Poor performing prior partnership.** Some customers attempted to solve their challenges by reaching out to existing technology suppliers, only to come up short on solutions. The CIO and CDO from the manufacturing firm said: “Our pre-existing platform was fit for purpose, but we needed a holistic platform approach. Unfortunately, our prior tech supplier was not providing us the capabilities to really scale up our new digital services and CX with the efficiency and speed-to-market that we expected.”

**“We needed to update our digital services offerings to get closer to our customers and become number one in their minds. We wanted to establish deeper customer intimacy, while also making it easier to do business with us.”**

*CIO and CDO, manufacturing*

### SERVICE PROVIDER REQUIREMENTS

The interviewees’ organizations searched for a services provider that could:

- Provide the necessary subject matter expertise, regardless of industry, to recommend the best-suited technologies, platforms, ecosystems, architecture, and internal processes to meet their commerce transformation goals.
- Take a long-term view of people, processes, and technology to enable both the scalability and the longevity and seamlessness of their new omnichannel CX.
- Complete their commerce transformation on an accelerated timeline without sacrificing functionality or the resulting CX.

### COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four interviewees, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:



**Description of composite.** The composite is an organization with both B2B and B2C commercial businesses, and is undergoing a highly visible strategic initiative aimed at updating its commerce capabilities with a focus toward a modern and frictionless omnichannel CX. It has a total of 40,000 employees and generates \$67 billion in revenue annually.

**Deployment characteristics.** The composite's engagement with IBM iX is focused on solving several core issues: 1) supplementing their existing offline commerce with omnichannel experiences; 2) leveraging digital commerce efficiencies to expand into new business lines; 3) ensuring reliability of commerce technology platforms and ecosystems; and 4) establishing more efficient internal processes related to these new capabilities.

As the engagement with IBM iX typically involves multiple projects, it takes a little over two years to complete, with low IBM iX and client involvement in the early stages, which raises to higher involvement in the middle stages, and then flattening toward the end of the engagement. The engagement initially targets high value wins to ensure the maximum impact in the short term followed by strategic initiatives.

#### Key Assumptions

- **\$67 billion in revenue**
- **40,000 total employees**
- **One downtime event monthly**
- **12 million annual support calls**

# Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	New business value from omnichannel experiences	\$3,182,500	\$7,702,350	\$14,637,392	\$25,522,242	\$20,256,050
Btr	Modernized commerce technology ecosystem	\$6,258,600	\$7,093,080	\$7,927,560	\$21,279,240	\$17,507,779
Ctr	Reduced support costs	\$3,804,750	\$4,695,375	\$5,586,000	\$14,086,125	\$11,536,183
Dtr	Content optimization savings	\$547,200	\$596,363	\$641,250	\$1,784,813	\$1,472,097
	Total benefits (risk-adjusted)	\$13,793,050	\$20,087,168	\$28,792,202	\$62,672,420	\$50,772,109

## NEW BUSINESS VALUE FROM OMNICHANNEL EXPERIENCES

**Evidence and data.** The interviewees shared that their engagements with IBM iX made their existing offline-only commerce business omnichannel and established new revenue-generating commerce businesses faster. For these customers, the establishment of seamless omnichannel commerce experiences led to various improvements in income.

The interviewees shared that establishing modern omnichannel commerce experiences:

- Encouraged existing customers to purchase more frequently, thus improving loyalty.
- Increased share of wallet among existing customers, especially by enabling commerce across product groups by breaking down product group-specific offline siloes.
- Improved customer acquisition.

On purchase frequency, the CIO and CDO from the manufacturing organization noted: “Our commerce channels, which are mostly B2B, now act like they’re B2C. It’s easier to purchase, so our customers purchase more frequently.” They continued, “With omnichannel commerce, we have much more

**“IBM iX not only had the expertise but also the trust required to get our organization behind investing in omnichannel commerce.”**

*Vice president of IT, pharmaceutical*

customer information available, so we can deliver on their needs more precisely and more quickly, creating more loyal customers.”

On increased share of wallet, the same interviewee said: “If a customer wanted to build a house, they would buy materials piecemeal, either from us or from other vendors, or both. We wouldn’t know the details, so we couldn’t offer to supply the entire project. Now with our omnichannel experiences, we know these details and can supply whole projects. Our average share of wallet has doubled from 5% to 10%.”

On customer acquisition, the same interviewee shared: “When it comes to new customers, our

commerce channels follow an 80/20 rule: 80% of customers that have converted to our digital channel are pre-existing customers, while 20% are completely new.”

Customers that engaged IBM iX to help develop entirely new omnichannel business lines experienced similar benefits. For example, the pharmaceutical firm was able to establish a new digital storefront targeting smaller long tail customers with a new B2C omnichannel experience.

The vice president of IT from the pharmaceutical firm said: “The B2C-like experience is different for us but is very much a successful commercial play. It gives us the flexibility to keep the experience relevant, intuitive, and productive. This enables us to not only entice new customers but develop customer loyalty as well.”

As previously noted, the right expertise may enable these organizations to establish capabilities on their own or via other partnerships, but the core benefits of their engagement with IBM iX were its subject matter expertise and ability to deliver on their modernization needs successfully in a much shorter timeframe.

Regarding the time to value of engaging with IBM iX, the CIO and CDO of the manufacturing firm that had established new omnichannel commerce experiences shared: “To do this work on our own, it would have taken us at least 3.5 years, but potentially more than four. With IBM iX, this timeline was shortened by 50%, with all the main capabilities delivered within 2 years.” The same interviewee said: “IBM iX got the first release of our new B2C-like digital storefront out the door in just 16 weeks. Given time constraints on our staff, if we tried to do this ourselves the first release would have taken at least 30 weeks.”

**Modeling and assumptions.** For the composite organization, Forrester models:

- Annual revenue of \$67 billion, organically growing at 10%. Additional revenue from the prior

year is also added to this total for the following year.

- Additional revenue from modernized omnichannel commerce experiences of between 0.01% and 0.12%.
- A gross margin of 20%.
- Additional revenue from a new omnichannel business of between 0.04% and 0.07%.
- A time-to-value improvement from partnering with IBM iX of 50%.

**Risks.** The business value from omnichannel experiences will vary with:

- The total starting revenue.
- The exact dollar value of added revenue and their relation to total revenue.
- The gross margin.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of almost \$20.3 million.

**“Modernizing our commerce experiences with IBM iX has added between \$50 billion and \$70 billion in business value annually.”**

*Vice president of IT, pharmaceutical*

New Business Value From Omnichannel Experiences					
Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Annual revenue	Composite	\$67,000,000,000	\$73,706,700,000	\$81,093,585,474
A2	Added revenue from modernization of omnichannel experiences	Composite	0.01%	0.06%	0.12%
A3	Gross margin	Composite	20%	20%	20%
A4	Subtotal: Added income from modernization of omnichannel experiences	A1*A2*A3	\$1,340,000	\$8,844,804	\$19,462,461
A5	Additional revenue from new omnichannel business	Interviews	0.04%	0.05%	0.07%
A6	Subtotal: Added income from new omnichannel business	A1*A5*A3	\$5,360,000	\$7,370,670	\$11,353,102
A7	Time-to-value improvement from IBM iX	Interviews	50%	50%	50%
At	New business value from omnichannel experiences	(A4+A6)*A7	\$3,350,000	\$8,107,737	\$15,407,781
	Risk adjustment	↓5%			
Atr	New business value from omnichannel experiences (risk-adjusted)		\$3,182,500	\$7,702,350	\$14,637,392
<b>Three-year total: \$25,522,242</b>			<b>Three-year present value: \$20,256,050</b>		

### MODERNIZATION OF COMMERCE TECHNOLOGY ECOSYSTEM

**Evidence and data.** The interviewees also shared how their engagement with IBM iX improved the resiliency of their commerce technology platforms and ecosystem with improved design and integration. Early implementations of commerce technologies failed to account for how quickly digital channels would grow, causing technology ecosystems to become overloaded as more customers were onboarded and orders accelerated. The head of e-commerce from the retail industry said: “It wasn’t necessarily our core commerce software that was the challenge, but its integration into the wider commerce ecosystem. Queues were not sized properly, the data was getting pushed at too fast of a rate, and some messages got lost or arrived out of order.” According to the same interviewee, downtime occurred at least once a month for between 30 minutes and half a day or more, as the technology ecosystem became

overwhelmed, which led to negative consequences for both customers and the business.

Firstly, customers’ orders were negatively impacted. The number of customers affected varied with the scale of the downtime event, which could be localized to one store or as broad as a whole region. This caused the business to suffer. Customers sometimes canceled entire orders, finding a replacement elsewhere. In other cases, they might keep their order but choose to begin shopping elsewhere more regularly. When the commerce experience was negatively affected, the business incurred serious costs.

Aside from customer loss, the business also incurred both labor and productivity costs. Resiliency was not a core feature of the previous architecture — if part of the commerce technology ecosystem went down, there was no failover or backup to keep operations running smoothly. The head of e-commerce said: “Our commerce ecosystem was originally running on

a single data center, and it had a lot of failures. If there was any issue, we didn't have resiliency."

When downtime events occurred, workers fulfilling e-commerce orders were unable to complete their work, thus impacting their productivity. They then became overwhelmed with the number of orders they needed to fulfill once they were back online, potentially causing human error. The business also incurred costs for IT teams to recover from downtime, with a minimum of one to two engineers and sometimes the involvement of senior executives if the downtime event was severe.

After the investment in IBM iX, interviewees were able to establish and orchestrate their omnichannel commerce experiences on modern, integrated commerce platforms and ecosystems that share data dynamically and that account for future growth and flexibility, all in a reduced amount of time. Regarding the time to value of engaging with IBM iX, the head of e-commerce of the retail firm that made their commerce technology ecosystem more reliable said: "We appreciated IBM iX's aggressive timeline. If we had done the work ourselves, it would have taken 1.5 years. If we went with another partner, it would have taken over 9 months. With IBM iX, we got it done in 7 months, and that was with expanding the scope of work."

**"IBM iX provided the expertise needed to improve the overall commerce experience, regardless of channel, whether digital or physical. The results far exceeded my expectations."**

*Head of e-commerce, retail*

**Modeling and assumptions.** For the composite organization, Forrester models:

- One downtime event occurs monthly before engaging with IBM iX.
- Thirty percent of these downtime events negatively impacted revenue.
- A cost to revenue per downtime event of \$15,000,000 in Year 1, \$17,000,000 in Year 2, and \$19,000,000 in year 3.
  - Forrester has only modeled the average cost of a downtime event to e-commerce revenue. Any given event might impact a larger portion of revenue, for example a downtime event occurring during a big sale.
- A time-to-value improvement of partnering with IBM iX to improve digital commerce reliability of 61%.

**Risks.** The value of improving the performance of digital commerce will vary with:

- Current total annual downtime.
- The impact of this downtime on revenue.
- The gross margin.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of over \$17.5 million.

Modernization Of Commerce Technology Ecosystem					
Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Total annual downtime events	Interviews	12	12	12
B2	Percentage of downtime events impacting revenue	Interviews	30%	30%	30%
B3	Average cost per downtime event to revenue	Composite	\$15,000,000	\$17,000,000	\$19,000,000
B4	Gross margin	A3	20%	20%	20%
B5	Subtotal: Improved revenue from reduced downtime	$B1*B2*B3*B4$	\$10,800,000	\$12,240,000	\$13,680,000
B6	Time-to-value improvement from IBM iX	Interviews	61%	61%	61%
Bt	Modernization of commerce technology ecosystem	$B5*B6$	\$6,588,000	\$7,466,400	\$8,344,800
	Risk adjustment	↓5%			
Btr	Modernization of commerce technology ecosystem (risk-adjusted)		\$6,258,600	\$7,093,080	\$7,927,560
<b>Three-year total: \$21,279,240</b>			<b>Three-year present value: \$17,507,779</b>		

### REDUCED SUPPORT COSTS

**Evidence and data.** IBM iX takes an intentionally broad view of omnichannel commerce, covering services as they directly relate to commercial transactions as covered above, and also the broader omnichannel CX. One piece of this broader experience for which the interviewees leveraged IBM iX’s expertise included improving omnichannel customer and stakeholder support.

For example, the government organization’s capabilities were extremely limited before engaging with IBM iX. Commerce experiences only worked on a certain version of one web browser, with no access from other versions or other browsers. This led to a majority of their stakeholder interactions occurring not via any number of possible digital channels, but rather via the phone, which occupied valuable employee time on frequently simple questions or tasks.

After designing and deploying a modern omnichannel stakeholder engagement experience, the government organization shared the following benefits:

- Call volume reduced by 25%.
- Digital engagement increased 500%.
- Payments made in full by their deadline increased by between 25% and 30%.
- Overall time cost of administrative professionals was reduced.

**“Our citizens engage with us when they are dealing with important life problems, like paying [for] child support. IBM iX helped us improve citizens’ experiences working with us, benefiting their everyday lives.”**

*Director of maintenance enforcement, government*



The CIO and CDO from the manufacturing firm also saw an improvement in their customer support function with IBM iX. Prior to IBM iX, this organization utilized support staff to not only cover their 24/7 customer support line but also to manually enter commercial orders that came through the phone. After investing in IBM iX, the manufacturing firm was able to establish a modern omnichannel experience, thus removing the need for manual order entries. They started to deploy digital self-service, and thus reduced the number of support calls received. This organization hence reallocated three FTEs and an additional of two to three FTEs for each digital storefront that was designed and deployed, which totaled 18 by the end of the engagement.

**Modeling and assumptions.** For the composite organization, Forrester models:

- Twelve million annual support calls.
- An average cost per call of \$4.
- A reduction of calls between 15% and 20%.
- A reallocation of support staff between 18 and 48 FTEs.
- An average fully burdened annual rate of this staff of \$45,000 each.
- A time-to-value improvement of partnering with IBM iX of 50%.

**Risks.** The value of improving the costs of support will vary with:

- The number of annual support calls.
- The average cost per call.
- The fully burdened annual rate of support staff.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of over \$11.5 million.

**“IBM iX’s use of an Agile approach was instrumental to getting the project done on time and on budget.”**

*Executive director of client service delivery, government*

Reduced Support Costs					
Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Annual support calls	Interviews	12,000,000	12,000,000	12,000,000
C2	Cost per call	Composite	\$4	\$4	\$4
C3	Reduction in calls	Interviews	15.0%	17.5%	20.0%
C4	Subtotal: Cost savings from self-service	C1*C2*C3	\$7,200,000	\$8,400,000	\$9,600,000
C5	Reduction in FTEs from automation	Interviews	18	33	48
C6	Fully burdened annual rate of support FTEs	Interviews	\$45,000	\$45,000	\$45,000
C7	Subtotal: Cost savings from automation	C5*C6	\$810,000	\$1,485,000	\$2,160,000
C8	Time-to-value improvement from IBM iX	Interviews	50%	50%	50%
Ct	Reduced support costs	(C4+C7)*C8	\$4,005,000	\$4,942,500	\$5,880,000
	Risk adjustment	↓5%			
Ctr	Reduced support costs (risk-adjusted)		\$3,804,750	\$4,695,375	\$5,586,000
<b>Three-year total: \$14,086,125</b>			<b>Three-year present value: \$11,536,183</b>		

### CONTENT ACTIVATION FLEXIBILITY

**Evidence and data.** Lastly, the interviewees shared that they were able to activate their commerce content more flexibly after their engagement with IBM iX. For example, the pharmaceutical organization experienced improved efficiencies in designing and deploying digital content for their products. Before the IBM iX engagement, taking this content from conception to production took two months and required six employees. After engaging with IBM, content activation only took one month for two to three employees.

Similarly, the manufacturing firm experienced improved efficiencies to its commerce catalog and content activation process. The CIO and CDO from this firm said, “We have significantly improved the efficiency and reusability of our digital catalogs and content. We use these for multiple entry points, so it’s not just for our commerce shops but also for

attracting partners to work with us. Where it used to take our team days to build up a catalog, it can now be done in just minutes.”

**“Thanks to IBM iX helping to modernize our end-to-end commerce experiences, we’ve been able to reduce the burden on developers, assign them to more important tasks, and start a flywheel of improvements internally.”**

*Vice president of IT, pharmaceutical*

**Modeling and assumptions.** For the composite organization, Forrester models:

- Twelve commerce webpages and the associated content are developed annually at a time cost of six FTEs for two months at an average fully burdened annual rate of \$150,000.
- Time to develop commerce content and webpages and the resources needed to do so both reduce by between 40% and 50%.
- A time-to-value improvement from using IBM iX of 50%.

**Risks.** The value of content activation flexibility will vary with:

- The current cost to develop, design, and activate commerce content.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of almost \$1.5 million.

Content Activation Flexibility					
Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Number of commerce webpages developed annually	Composite	12	12	12
D2	Prior months needed to activate commerce content	Interviews	2	2	2
D3	Reduction in time to activate commerce content	Interviews	40%	45%	50%
D4	Prior FTEs needed for commerce content activation	Interviews	6	6	6
D5	Reduction in FTEs needed for commerce content activation	Interviews	40%	45%	50%
D6	Average fully burdened annual rate per FTE	Composite	\$150,000	\$150,000	\$150,000
D7	Subtotal: Gross content activation savings	$(D1 \cdot D2 \cdot D4 \cdot D6 / 12) - (D1 \cdot D2 \cdot D3 \cdot D4 \cdot D5 \cdot D6 / 12)$	\$1,152,000	\$1,255,500	\$1,350,000
D8	Time-to-value improvement from IBM iX	Interviews	50%	50%	50%
Dt	Content activation flexibility	$D7 \cdot D8$	\$576,000	\$627,750	\$675,000
	Risk adjustment	↓5%			
Dtr	Content activation flexibility (risk-adjusted)		\$547,200	\$596,363	\$641,250
<b>Three-year total: \$1,784,813</b>			<b>Three-year present value: \$1,472,097</b>		

**UNQUANTIFIED BENEFITS**

Additional benefits that customers experienced but were not able to quantify include:

- **Improved employee satisfaction.** The interviewees shared that employee satisfaction improved internally after IBM iX helped

modernize their omnichannel commerce experiences. For example, the executive director of client service delivery from the government organization said: “The changes IBM iX helped make were very well received. Our employees felt they were a part of the solution to what had

been a challenging problem. They felt they could not be more responsive to citizens' needs."

- **Increased customer and stakeholder satisfaction.** Customer and stakeholder satisfaction also improved post-engagement. The head of e-commerce from the retail firm said: "Due to downtime, customer wait times were hurting our customer satisfaction scores. With IBM iX's help, we have improved across the board. We can proudly say our customer wait time on an average is five minutes or less."

The executive director of client service delivery from the government organization said, "We've seen a decreased number of complaints about our programs and our clients have shared their happiness at being able to interact with us digitally."

- **IBM support and ongoing services.** The interviewees also consistently mentioned the benefits of working with IBM iX, their support team, and their ongoing services delivery team. The head of e-commerce from the retail firm said: "The engagement far exceeded our expectations. They were flexible with us when we needed to make changes after the budget was already approved, finding a solution that worked within our timeline that didn't require us asking finance for more money."

## FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might use IBM iX for digital commerce services and later realize additional benefits and business opportunities, including:

- **Headless architecture.** The interviewees noted that they planned to utilize IBM to design and deploy a headless architecture for their omnichannel commerce experience orchestration in the future, which would help these experiences become more flexible. For example, the CIO and

CDO from the manufacturing firm said: "We've extended our collaboration with IBM iX to provide headless capability for different consumers and channels. We will now be able to offer targeted omnichannel experiences for different markets and customer segments, each one tailored to a market or customer segment's unique needs."

- **Improved understanding of innovation.** The engagement with IBM iX also helped some of the interviewees' organizations to develop a better understanding of and additional confidence with innovation. The CIO and CDO from the manufacturing organization shared "With IBM iX's help, our management team now understands what is needed to be successful in an omnichannel world. We have to professionalize, invest money, and we understand there is going to be a financial benefit that comes out of any learning processes."

The head of e-commerce from the retail organization said, "We're now a lot more confident we can meet our aggressive customer experience goals and scale to meet evolving customer expectations."

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

# Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Etr	Engagement costs	\$5,670,000	\$9,660,000	\$5,670,000	\$0	\$21,000,000	\$19,137,769
Ftr	Internal costs of ongoing commerce services	\$144,900	\$201,600	\$144,900	\$0	\$491,400	\$447,925
	Total costs (risk-adjusted)	\$5,814,900	\$9,861,600	\$5,814,900	\$0	\$21,491,400	\$19,585,694

## ENGAGEMENT COSTS

**Evidence and data.** Engagements with IBM iX and IBM Consulting were priced to reflect the amount of work required to meet the needs of clients. The nature of these engagements typically followed a bell curve in terms of costs, with work increasing and then decreasing over time. However, benefits of this work outweighed costs early on as the highest value work is targeted first.

**Modeling and assumptions.** For the composite organization, Forrester models:

- Since estimated costs are determined by customer-specific factors, consult with IBM for costs specific to the scope of work for your organization. Fees may differ from those of the composite organization.

- Engagement costs of \$5.4 million in the Initial period and Year 2.

- Engagement costs of \$9.2 million in Year 1.

**Risks.** The costs of IBM iX Digital Commerce engagements will vary with:

- The initial scope of work.
- Any potential expansions of this scope of work.

**Results.** To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of under \$19.2 million.

Engagement Costs						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Engagement fees	IBM	\$5,400,000	\$9,200,000	\$5,400,000	\$0
Et	Engagement costs	E1	\$5,400,000	\$9,200,000	\$5,400,000	\$0
	Risk adjustment	↑5%				
Etr	Engagement costs (risk-adjusted)		\$5,670,000	\$9,660,000	\$5,670,000	\$0
<b>Three-year total: \$21,000,000</b>			<b>Three-year present value: \$19,137,769</b>			

### INTERNAL COSTS OF ONGOING COMMERCE SERVICES

**Evidence and data.** The interviewees noted that they incurred internal time costs associated with their IBM iX Digital Commerce engagements. These costs included time from internal program managers and IT professionals engaging with and assisting IBM iX in the design and deployment of the omnichannel experiences work.

**Modeling and assumptions.** For the composite organization, Forrester models:

- Between 0.7 and 1.1 program manager FTEs at a fully burdened annual rate of \$120,000.
- IT professional FTEs of 0.5 at a fully burdened annual rate of \$120,000.

**“For us, the technology and operations costs are only about 1% of new revenue generated.”**

*CIO and CDO, manufacturing*

**Risks.** The internal costs of ongoing commerce services will vary with:

- The scope of work.
- The potential expansion of this scope of work.

**Results.** To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of under \$500,000.

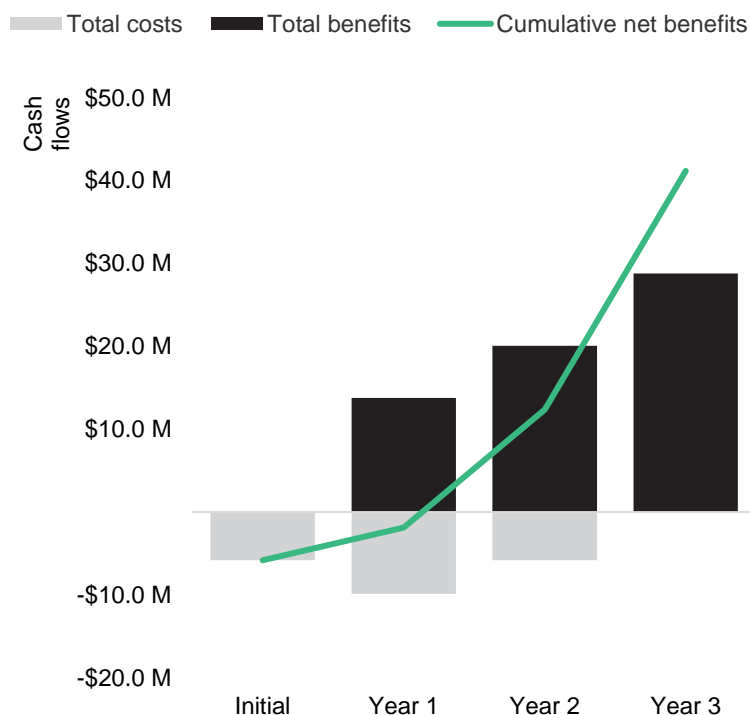
Internal Costs Of Ongoing Commerce Services						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Number of program manager FTEs needed	Interviews	0.7	1.1	0.7	0
F2	Fully burdened annual rate of program manager	Interviews	\$120,000	\$120,000	\$120,000	\$0
F3	Number of IT professional FTEs needed	Interviews	0.5	0.5	0.5	0
F4	Fully burdened annual rate of IT professional	Interviews	\$120,000	\$120,000	\$120,000	\$0
Ft	Internal costs of ongoing commerce services	$F1 \cdot F2 + F3 \cdot F4$	\$138,000	\$192,000	\$138,000	\$0
	Risk adjustment	↑5%				
Ftr	Internal costs of ongoing commerce services (risk-adjusted)		\$144,900	\$201,600	\$144,900	\$0
<b>Three-year total: \$491,400</b>			<b>Three-year present value: \$447,925</b>			



# Financial Summary

## CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

### Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

### Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$5,814,900)	(\$9,861,600)	(\$5,814,900)	\$0	(\$21,491,400)	(\$19,585,694)
Total benefits	\$0	\$13,793,050	\$20,087,168	\$28,792,202	\$62,672,420	\$50,772,109
Net benefits	(\$5,814,900)	\$3,931,450	\$14,272,268	\$28,792,202	\$41,181,020	\$31,186,415
ROI						159%
Payback period (months)						14.0

## Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

### TOTAL ECONOMIC IMPACT APPROACH

**Benefits** represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

**Costs** consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

**Flexibility** represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

**Risks** measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



### PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



### NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made unless other projects have higher NPVs.



### RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



### DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



### PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

## Appendix B: Endnotes

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<sup>1</sup> Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

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