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The Total Economic Impact™ Of IBM OpenPages

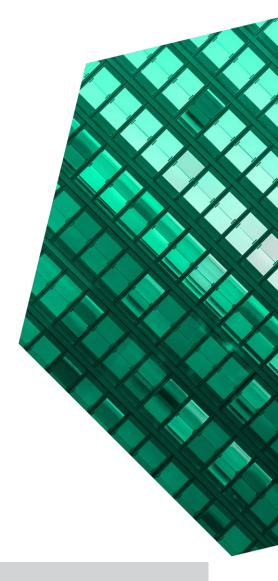
Cost Savings And Business Benefits Enabled By IBM OpenPages

JULY 2023

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ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

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Executive Summary

Global organizations face ongoing governance, risk, and compliance challenges. OpenPages is a governance, risk, and compliance (GRC) solution that uses business analytics and intelligence to assess enterprise risk across an organization. OpenPages centralizes risk management functions to improve operational risk responses, make more risk-aware decisions, and satisfy regulatory compliance requirements.

IBM commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying IBM OpenPages.¹ The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of IBM OpenPages on their organizations.

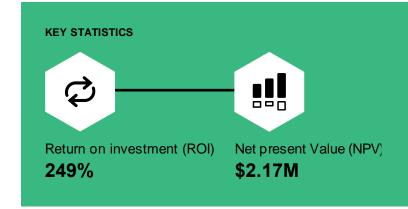
To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using OpenPages. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that is a global organization with 35,000 employees and revenue of \$19 billion per year.

Prior to using OpenPages, these interviewees noted how their organizations were unable to view their risk data holistically. Additionally, prior attempts yielded limited success, leaving them with disparate reporting and business intelligence (BI) tools and many manual

Reduction in risk management effort

50%





processes. These limitations led to siloed risk management processes and complex level of effort to satisfy compliance requirements.

After the investment in OpenPages, the interviewees' organizations replaced legacy tools with the GRC platform. Key results from the investment include digital transformation at the enterprise level, improved data quality, and a transparent and holistic view across the OpenPages GRC platform.

KEY FINDINGS

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

A 50% reduction in risk management effort.
 The composite organization standardizes and automates risk management processes across the organization. It reduces overall effort in risk reporting, testing internal controls, and supporting audit processes.

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- At least a 20% reduction in the likelihood of regulatory penalties. With IBM OpenPages, the composite organization focuses on risk management and mitigation, decision-making, and creating risk-aware cultures. This reduces the likelihood of regulatory and financial penalties.
- Nearly \$200,000 in legacy tool cost savings annually. The composite retires legacy tools after adopting IBM OpenPages, which results in savings in license and subscription costs, training, maintenance, and repurposing teams.

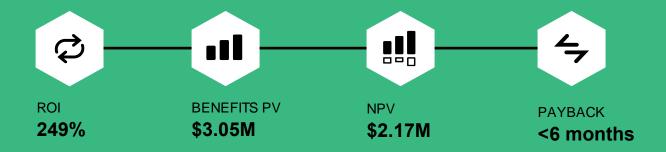
Unquantified benefits. Benefits that provide value but are not quantified in this study include:

- A reliable GRC platform. Interviewees reported that the OpenPages platform is consistently reliable, and their business and technology teams trust OpenPages and its data.
- Improved data quality and decision-making.
 Interviewees noted that consistent data formats and reporting improved their organizations' overall data hygiene, completeness, and trust.
 Data was more actively used and relied upon to communicate with regulators.
- Reduced siloes and improved transparency across the enterprise. After implementing OpenPages, interviewees reported that their risk and compliance teams gained the same view of data internally as operation teams. Users could view risks, issues, and mitigation plans across units.
- Essential tool for digital transformation.
 Implementing the OpenPages platform as part of its larger enterprise architecture was a critical step in the digital transformation process.
 Interviewees' organizations required a single platform that supported digital transformation on the front end.

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

- Software-as-a-service (SaaS) contract costs totaling \$424,000. Interviewees reported licensing costs for the OpenPages SaaS contract.
- Implementation and ongoing support costs of \$450,000. Costs included internal and external implementation efforts, ongoing support, and training.

The representative interviews and financial analysis found that a composite organization experiences benefits of \$3.05 million over three years versus costs of \$874,000, adding up to a net present value (NPV) of \$2.17 million and an ROI of 249%.





"With a single platform, everyone has a view and we're assured of the data quality and can quickly mitigate risks."

— Risk manager, banking

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact ™ framework for those organizations considering an investment in IBM OpenPages.

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 IBM OpenPages 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 an investment in OpenPages.

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 stakeholders and Forrester analysts to gather data relative to IBM OpenPages.



INTERVIEWS

Interviewed four representatives at organizations using IBM OpenPages 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 OpenPages Customer Journey

Drivers leading to the OpenPages investment

Interviews				
Role	Industry	Geography	Revenue	Employees
Senior technology audit team lead	Banking	Asia	\$3.6 billion	3,500
Operational risk lead	Financial services	South Africa	\$14 billion	60,000
Risk manager	Banking	Europe	\$9.4 billion	46,000
Director of GRC transformation	Financial services	North America	\$18.5 billion	32,000

KEY CHALLENGES

The interviewees noted how their organizations struggled with common challenges prior to using OpenPages, including:

- Siloed risk data. Interviewees reported that they
 did not have a holistic view of risk data. Users
 logged into multiple tools to access and manage
 risk and issue data. Processes and workflows
 were complex and required extensive importing
 and exporting to and from legacy tools.
- Poor data quality. Interviewees reported incomplete data and poor data quality prior to OpenPages. Manual reporting resulted in different data formats as well as inconsistent field values.
- Lack of holistic enterprise risk management.
 The interviewees noted their organizations could not manage corporate risk management data in one place. This resulted in money and time spent locating data and complex reporting across the organization.
- High level of effort to satisfy compliance requirements. Interviewees reported significant effort and time understanding regulatory requirements, tracking regulations and risk mitigation actions, and satisfying internal audit requests.

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 organization is a global organization with \$19 billion in annual revenue. It is part of the financial services industry and has 35,000 employees.

Key Assumptions

- Financial services
- \$19B annual revenue
- 35K employees

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	Reduced risk management effort	\$777,920	\$777,920	\$777,920	\$2,333,760	\$1,934,572		
Btr	Penalty avoidance	\$225,000	\$281,250	\$337,500	\$843,750	\$690,552		
Ctr	Avoided legacy tool costs	\$170,000	\$170,000	\$170,000	\$510,000	\$422,765		
'	Total benefits (risk-adjusted)	\$1,172,920	\$1,229,170	\$1,285,420	\$3,687,510	\$3,047,889		

REDUCED RISK MANAGEMENT EFFORT

Evidence and data. Interviewees reported that the OpenPages GRC platform streamlined and automated processes across risk areas to reduce time and effort spent identifying, assessing, monitoring, and reporting risks. Interviewees noted:

- Reporting effort was reduced by half by leveraging automated processes and moving away from manual reporting tools.
- OpenPages integrated with third-party tools to export live data to auditors and regulators faster.
- OpenPages enabled risk management teams to perform root-cause analysis to prevent future issues.
- Their organizations reduced effort supporting internal audits. Additionally, they minimized interactions with external auditors who directly accessed their OpenPages environments.

Time saved on reporting

50%



Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- The composite organization assigns 100 risk analysts across the organization to manage reporting tasks.
- The composite organization spends 8 hours per week on reporting efforts without OpenPages.
- The composite organization reduces time spent on reporting efforts by 50% with OpenPages.

Risks. Reduced risk management effort benefits experienced by other organizations may vary based on:

- The level of effort required to develop reports and support audits may vary based on current processes.
- Fully burdened salary differences.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$1.9 million.

Redu	iced Risk Management Effort				
Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of risk analysts managing reports	Composite	100	100	100
A2	Fully burdened hourly salary for risk analyst	TEI standard	\$44	\$44	\$44
А3	Hours spent on reporting without OpenPages	Interviews	416	416	416
A4	Reduction in reporting effort with OpenPages	Interviews	50%	50%	50%
At	Reduced risk management effort	A1*A2*A3*A4	915,200	\$915,200	\$915,200
	Risk adjustment	↓15%			
Atr	Reduced risk management effort (risk-adjusted)		\$777,920	\$777,920	\$777,920
	Three-year total: \$2,333,760		Three-year	present value: \$1,93	4,572

PENALTY AVOIDANCE

Evidence and data. Interviewees stated that OpenPages' integrated GRC platform combined multiple benefits to reduce the likelihood of incurring regulatory penalties or fines. Interviewees noted:

- Their organizations' risk management teams saved time reviewing data and reporting. These teams spent more of their time managing and analyzing risks with OpenPages, improving the organizations' ability to react quickly to risk areas.
- Their leadership could proactively respond to risk and make better, risk-informed decisions.
- Their risk-aware culture improved overall compliance and encouraged ownership and accountability for risk teams.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- Prior to OpenPages, there is a 5% chance annually that the composite organization will incur a \$30 million regulatory penalty or fine.
- With OpenPages, the composite organization reduces the likelihood of penalty or fine by 20% in the Year 1.

 The reduction in likelihood of penalty or fine increases to 25% in Year 2 and 30% in Year 3 as the composite organization improves its overall risk management strategy and decision-making.

Risks. Penalty avoidance may vary based on the penalty size and likelihood.

Results. To account for these risks, Forrester adjusted this benefit downward by 25%, yielding a three-year, risk-adjusted total PV of \$691,000.

Pena	alty Avoidance				
Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Potential regulatory fines or penalties	Composite	30,000,000	30,000,000	30,000,000
B2	Likelihood of penalties without OpenPages	Composite	5%	5%	5%
В3	Reduction of likelihood with OpenPages	Composite	20%	25%	30%
Bt	Penalty avoidance	A1*A2*A3	\$300,000	\$375,000	\$450,000
		↓25%			
Btr	Penalty avoidance (risk-adjusted)		\$225,000	\$281,250	\$337,500
Three-year total: \$843,750			Three-yea	r present value: \$690),552

AVOIDED LEGACY TOOL COSTS

Evidence and data. Interviewees reported that their organizations retired multiple legacy BI tools after implementing IBM OpenPages. They noted:

- Their organizations sunset manual and automated BI tools over time.
- There was an overall savings related to training and maintenance of those previous tools.
- A reduction in their organizations' overall system license and management costs annually.

Modeling and assumptions. The composite organization saves \$200,000 annually on the retired legacy systems.

Risks. Avoided legacy system costs may vary due to:

- The number of legacy tools used.
- The cost of legacy tools.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$423,000.

Reduction of penalties



20%

Ref.	Metric	Source	Year 1	Year 2	Year 3
Kei.	Wellic	Source	i Cai i	i eai Z	i ear 3
C1	Legacy system license and management costs	Composite	\$200,000	\$200,000	\$200,000
Ct	Avoided legacy tool costs	C1	\$200,000	\$200,000	\$200,000
	Risk adjustment	↓15%			
Ctr	Avoided legacy tool costs (risk-adjusted)		\$170,000	\$170,000	\$170,000
	Three-year total: \$510,000		Three-year pro	esent value: \$422,76	5

UNQUANTIFIED BENEFITS

Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

- A reliable GRC platform. Interviewees reported that the OpenPages platform is consistently reliable, and business and technology teams trust OpenPages and its data.
- Improved data quality and decision-making. Interviewees noted that consistent data formats and reporting improved their organizations' overall data hygiene, completeness, and trust. Data was more actively used and relied upon to communicate with regulators. Interviewees reported that improved data quality demonstrated internal control and confidence of processes and risks.
- Reduced siloes and improved transparency across the enterprise. After implementing OpenPages, interviewees reported that their risk and compliance teams gained the same view of data internally as operation teams. Users could view risks, issues, and mitigation plans across units. Additionally, internal teams received access to the same data as regulators and auditors.
- Essential tool for digital transformation.
 Implementing the OpenPages platform as part of their larger enterprise architecture was a critical step in the digital transformation process for the interviewees' organizations. The interviewees' organizations required a single platform that supported digital transformation on the front end.

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement OpenPages and later realize additional uses and business opportunities, including AI capabilities. Interviewees reported that IBM OpenPages has AI capabilities that they are in

"Investing in OpenPages was a key component of our digital transformation strategy. It is an essential part of our digital architecture."

Senior technology audit team lead, banking

process of testing and/or exploring future use cases. This includes a natural language translator, Alpowered chatbots, and Alpredictions.

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
Dtr	SaaS contract cost	\$0	\$170,500	\$170,500	\$170,500	\$511,500	\$424,008
Etr	Implementation and ongoing support cost	\$286,000	\$66,000	\$66,000	\$66,000	\$484,000	\$450,132
	Total costs (risk adjusted)	\$286,000	\$236,500	\$236,500	\$236,500	\$995,500	\$874,140

SAAS CONTRACT COST

Evidence and data. Interviewees reported the estimated SaaS contract costs for their OpenPages deployments, which included an annual contract cost and ongoing support contract costs.

- Interviewees stated their annual contract costs were \$140,000.
- The interviewees' organizations paid \$15,000 annually for ongoing support contracts.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

 The composite organization scales OpenPages to as many users as needed under the licensing agreement. Pricing may vary. Contact IBM for additional details.

Risks. The SaaS contract cost incurred by other organizations may vary based on the following factors:

- The size of the organization and number of users.
- The level of support required.
- Established processes, taxonomies, reporting needs and workflows.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$424,000.

SaaS	Contract Cost					
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
D1	Contract cost	Composite	0	\$140,000	\$140,000	\$140,000
D2	Ongoing support contract	Composite	0	\$15,000	\$15,000	\$15,000
Dt	SaaS contract cost	D1+D2	\$0	\$155,000	\$155,000	\$155,000
	Risk adjustment	<u></u> 10%				
Dtr	SaaS contract cost (risk-adjusted)		\$0	\$170,500	\$170,500	\$170,500
	Three-year total: \$511,500			e-year present v	alue: \$424,008	

IMPLEMENTATION AND ONGOING SUPPORT COST

Evidence and data. Interviewees stated that one internal resource was required over the six-month implementation period.

- Interviewees reported total contract costs of \$140,000 annually.
- Interviewees noted that ongoing support cost their organizations \$15,000 annually.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

 The composite pays an initial professional services cost of \$200,000.

- One internal implementation resource provides ongoing support for OpenPages with 50% of time for implementation.
- Implementation takes six months.

Risks. Implementation and ongoing support costs experienced by other organizations may vary based on:

- Professional service costs.
- · Required internal support.
- Required training.
- Internal resource costs.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$450,000.

Total implementation time



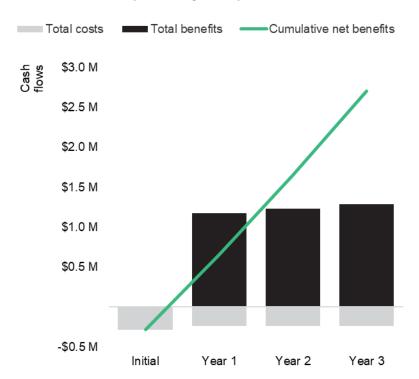
6 months

Imple	Implementation And Ongoing Support Cost						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3	
E1	Implementation professional services	Composite	\$200,000	\$0	\$0	\$0	
E2	Number of months for implementation	Composite	6	0	0	0	
E3	Internal implementation resources	Composite	1	1	1	1	
E4	Percentage of time spent supporting OpenPages	Composite	50%	50%	50%	50%	
E5	Internal implementation resource cost	Composite	\$120,000	\$120,000	\$120,000	\$120,000	
Et	Implementation and ongoing support cost	E1+(E4*E5)	\$260,000	\$60,000	\$60,000	\$60,000	
	Risk adjustment	↑10%					
Etr	Implementation and ongoing support cost (risk-adjusted)		\$286,000	\$66,000	\$66,000	\$66,000	
	Three-year total: \$484,000	Three-year total: \$484,000 Three-year present value: \$450,132					

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.

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$286,000)	(\$236,500)	(\$236,500)	(\$236,500)	(\$995,500)	(\$874,140)
Total benefits	\$0	\$1,172,920	\$1,229,170	\$1,285,420	\$3,687,510	\$3,047,889
Net benefits	(\$286,000)	\$936,420	\$992,670	\$1,048,920	\$2,692,010	\$2,173,749
ROI						249%
Payback						<6 months

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

¹ 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.

