The Total Economic Impact™ Of ACL
Cost Savings And Business Benefits Enabled By ACL GRC And ACL Analytics Exchange
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## ABOUT FORRESTER CONSULTING

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Executive Summary

ACL commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying ACL GRC and ACL Analytics Exchange. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of ACL on their organization by improving transparency in internal and external auditing processes. Audit functions can have an impact on the business bottom line beyond avoiding regulatory fines and associated risks, such as delivering valuable business recommendations to internal teams and improving employee, partner, and customer confidence in the business. The age of the customer, in Forrester’s view, should apply to all facets of the business. An improved set of audit tools and processes, including ACL GRC and ACL Analytics Exchange, can help organizations win, serve, and retain customers.

To better understand the benefits and costs associated with an ACL implementation, Forrester interviewed an existing customer with several years of experience with ACL GRC and ACL Analytics Exchange. It is a regional bank based in the US, and its audit processes and functions are vital to the business’ ongoing success and customer confidence. The audit team uses Analytics Exchange to collect and analyze audit results, which it collects and distributes in customized, dynamic reports using GRC.

Prior to ACL GRC, the customer had already been a longtime ACL Analytics and Analytics Exchange customer. But reporting was based on pen-and-paper processes that delivered static reports and were documented in three-ring binders. This led to limited knowledge of auditing processes, and it was difficult to make changes or implement best practices. Completed audits uncovered symptoms and issues, but it was hard to point to underlying causes. Business managers knew leaving these issues unresolved could lead to significant business risks including regulatory criticism, but there was an overall feeling that things would be “OK” and that current processes worked well enough to deliver business success.

ACL HELPS DELIVER BUSINESS VALUE FROM THE AUDIT DEPARTMENT

The organization realized it was opening itself up to potential costs, such as regulatory criticism, time-consuming internal processes, and the potential reduction or loss of customer confidence, leading to fewer sales. The interview with the organization was followed with a cost-benefit analysis, which found that the organization, since adopting ACL GRC, has experienced the risk-adjusted ROI, benefits, and costs shown in Figure 1.¹

The analysis points to benefits of $345,654 to $741,654 per year versus implementation costs of $162,750 and annual costs of $168,000, adding up to a net present value (NPV) of $903,843.

FIGURE 1
Financial Summary Showing Three-Year Risk-Adjusted Results

<table>
<thead>
<tr>
<th>ROI: 156%</th>
<th>NPV: $903,843</th>
<th>Payback: 11 months</th>
<th>Audits completed: ▲ 45% to 60%</th>
</tr>
</thead>
</table>

Source: Forrester Research, Inc.
Benefits. The interviewed organization experienced the following risk-adjusted benefits:

- **Increased audit completion from six audits per year to 11 to 15 audits without an increase in staffing, which would have cost $297,000 to $693,000 per year to deliver the same number of audits without ACL.** The organization is able to conduct and complete more audits (including post-audit reporting and analysis) with the same amount of people on the audit team. The number of audits has increased from six before ACL to 11 in the first year and 15 in years 2 and 3. The organization estimates that to deliver that number of completed audits without ACL, it would have had to hire an additional three to seven new employees on the audit team.

- **Reduced regulatory issues with ACL estimated to save $48,654 per year.** With ACL GRC, the organization is able to identify the root causes of business and regulatory risks — not just the symptoms. The audit team is able to deliver more useful results to business operations, so when outside industry auditors and regulators arrive, issues they would have raised have already been identified and resolved. Additionally, regulators recognize the organization’s proactive approach; that understanding helps build trust with regulatory bodies.

- **Improved audit delivery quality and improved audit results.** The most important benefit is the hardest to quantify. At this time the organization is not able to quantify improvements in productivity and sales in other departments but has definitely identified overall business improvements through better decision-making and identification of issues to resolve or opportunities to exploit.

Costs. The interviewed organization identified the following risk-adjusted costs:

- **Implementation costs of $162,750.** ACL GRC and ACL Analytics Exchange are cloud-based solutions with subscription-based licensing. But while upfront licensing costs are low, the implementation of GRC involved significant internal process changes that, if not communicated clearly and carefully, could have led to low adoption and even employee resistance. For that reason, the organization invested in extra training time along with implementation time and third-party consulting costs.

- **Annual licensing, management, and support costs of $168,000 per year.** ACL licensing, ongoing training and change management, and audit-specific third-party consulting costs are estimated on an annual basis.

Disclosures

The reader should be aware of the following:

- The study is commissioned by ACL 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 report to determine the appropriateness of an investment in ACL GRC.

- ACL 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.

- ACL provided the customer name for the interview but did not participate.
TEI Framework And Methodology

INTRODUCTION
From the information provided in the interview, Forrester constructed a Total Economic Impact (TEI) framework that organizations considering implementing ACL GRC can review and apply to their own situation. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision, to help organizations understand how to take advantage of specific benefits and reduce costs, leading to the overall business goal of winning, serving, and retaining customers.

APPROACH AND METHODOLOGY
Forrester took a multistep approach to evaluate the impact that ACL GRC can have on an organization (see Figure 2). Specifically, Forrester:

› Interviewed ACL marketing, sales, and/or consulting personnel, along with Forrester analysts, to gather data relative to GRC and the marketplace for GRC.

› Interviewed an organization currently using ACL GRC to obtain data with respect to costs, benefits, and risks.

› Constructed a financial model representative of the interview using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interview.

› Risk-adjusted the financial model based on issues and concerns highlighted by the interviewed organization. While the interviewed organization provided cost and benefit estimates, some categories included a broad range of responses or had a number of outside forces that might have affected the results. Risk adjustment is a key part of the TEI methodology, and some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

› Forrester employed four fundamental elements of TEI in modeling ACL GRC’s service: benefits, costs, flexibility, and risks.

Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester’s TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

FIGURE 2
TEI Approach

Source: Forrester Research, Inc.
Analysis

INTERVIEWED ORGANIZATION

For this study, Forrester conducted an interview with a representative from a current ACL GRC and ACL Analytics Exchange customer based in the US. The interviewed organization has the following characteristics:

› It is in the financial services industry.
› It is headquartered and operates in the United States.
› It is a regional bank that provides consumer, corporate, and investment banking services.
› It employs about 1,000 people across 50 offices and financial centers.
› It was already a customer of ACL Analytics Exchange and used it to collect audit results and information, but it had not taken advantage of that solution to its fullest potential.

The organization has a long history of ethical and intelligent business dealings through its many decades of operation. The chief auditor at the organization points out that it is “one of the few banks that [weathered the financial crisis]; it’s a very ethically and operationally sound organization and has been for many, many years.”

Based on the interview, Forrester constructed a TEI framework and an associated ROI analysis that illustrates the areas financially affected by the organization’s decision to license ACL GRC and review and update a number of internal processes. Implementation of GRC and integration with ACL Analytics Exchange included the following characteristics:

› Implementation began in late 2013. The audit department was the main focus of that initial rollout, though GRC reports and information have affected a number of business groups. The use of GRC for other department review/audit processes (such as tracking HR processes and policies) is under consideration to be added in the next few years.
› ACL licensing included the audit team of key users plus about 200 executives and managers who can access, view, and use reports and data from GRC.

INTERVIEW HIGHLIGHTS

The organization shared a number of details involved in its decision to add ACL GRC to its audit processes and the benefits that solution has since provided.

Situation

The organization was successful and, as a business that prides itself on responsibility and ethical work, had not incurred any significant regulatory fines or had to deal with any negative customer issues due to a lack of transparency. But as a responsible and ethical organization, it also recognized some risks it had left unchecked, and agreed that several changes were needed:

› Audit processes were mainly paper-based. Not just audit checklists, but data collection as well; the organization knew it needed to modernize. “Spreadsheets, Lotus spreadsheets, Excel spreadsheets, Word, a lot of paper,” said the chief auditor.

“[It is] one of the few banks that weathered the financial crisis; it’s a very ethically and operationally sound organization and has been for many, many years.”

~ Chief auditor
• Audits too often identified symptoms of an issue, not the issue itself. So instead of actually fixing a process, the audit recommendations included extra steps, extra layers of approvals, and other task-intensive requirements.

• Because of these audit results, employees saw the audit group as an antagonist, not just an adversary. The audit group helped keep the business running, but their involvement meant more work for everyone.

• While at a low risk of regulatory fines, the organization saw value in improving its standing with regulators.

• While losses associated with fraud and mistakes were low; the organization recognized that anything less than full transparency into these areas could increase the risk of associated costs.

• Finally, the organization recognized that it was not able to take advantage of — or even identify — new opportunities that could help cut unnecessary costs, improve productivity, and improve sales. While the organization already had ACL Analytics Exchange, ACL GRC would help improve risk management identification, as the chief auditor pointed out: “The more data you have and the better you can slice and dice it, which ACL Analytics allows you to do, the better you can zero in on where there might be process weaknesses, or transactional weaknesses.”

Solution
The organization selected ACL GRC for its ability to easily integrate with its existing ACL implementation. GRC was also the best tool to help implement better, more flexible, and more mature audit processes throughout the organization.

Results
The interview revealed the following benefits:

• The organization was able to complete more audits with the same number of resources. This avoids the need to hire additional auditors to complete the same amount of work the auditors can now do with ACL GRC.

• With ACL GRC, the organization is able to identify the root causes of business and regulatory risks — not just the symptoms. The audit team is able to deliver more useful results to business operations, so when outside industry auditors and regulators arrive, issues they would have raised have already been identified and resolved. Additionally, regulators recognize the organization’s proactive approach; that understanding helps build trust with regulatory bodies.

• Higher-quality audit processes and more completed audits mean more business decision-makers are able to take advantage of deeper analysis and can drill in to more detailed data. The organization has identified several business improvements through better decision-making. “We are able to aggregate all of the work that’s done around certain risks and be able to say what exposure is there, what controls have been tested, what has not been tested, and what that means,” said the chief auditor.

“The more data you have and the better you can slice and dice it, which ACL Analytics allows you to do, the better you can zero in on where there might be process or transactional weaknesses.”
— Chief auditor

“We are able to aggregate all of the work that’s done around certain risks and be able to say what exposure is there, what controls have been tested, what has not been tested, and what that means.”
— Chief auditor
BENEFITS

The interviewed organization experienced a number of quantified benefits of ACL GRC in this case study:

› Without GRC, the organization would have had to hire three to seven more people to deliver the same number of audits it can now.

› With ACL GRC’s reporting and analysis tools, the organization is able to deliver more useful audit recommendations to business groups, leading to proactive issue resolution and faster outside regulatory audits, which demonstrate the organization’s maturity and transparency to regulatory officials.

› Since implementing GRC, the audit team has delivered more informative and useful reports and custom data sources that help managers and executives make better decisions to reduce or eliminate the right issues and invest in the right opportunities.

Avoided Increased Headcount To Meet Audit Delivery Capacity Enabled By ACL GRC

The organization completed six audits per year before it implemented ACL GRC. “Since GRC as well as the audit process improvements that we’ve made, we have increased the number and quality of audit reports that go out,” said the chief auditor. After implementing GRC, it delivered 11 audits in the first year, and is on track to deliver 15 in the second and third years.

### TABLE 1
Resource Costs Avoided With ACL GRC

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Internal audits per year</td>
<td>6</td>
<td>6</td>
<td>11</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>A2</td>
<td>Reports delivered per year</td>
<td>13</td>
<td>13</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>A3</td>
<td>Full-time equivalents (FTEs) on audit team</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>Percent of time spent specifically on audits</td>
<td></td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>Hours spent on each audit</td>
<td>A3 * (2,080 / A1) * A4</td>
<td>1,907</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>FTEs on audit team required to meet results with ACL</td>
<td></td>
<td>14</td>
<td>18</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>Audit team FTE salary (fully burdened)</td>
<td></td>
<td>$110,000</td>
<td>$110,000</td>
<td>$110,000</td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>Resource costs avoided to match ACL audit productivity</td>
<td>(A6 - A3) * A7</td>
<td>$0</td>
<td>$330,000</td>
<td>$770,000</td>
<td>$770,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atr</td>
<td>Resource costs avoided to match ACL audit productivity (risk-adjusted)</td>
<td>10%</td>
<td>$0</td>
<td>$297,000</td>
<td>$693,000</td>
<td>$693,000</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
To deliver a similar number of audits without GRC, the organization estimates it would have had to hire between three and seven new employees on the audit team, as shown in Table 1. While the increase from six to 11 audits in the first year shows only minimal additional headcount, it is assumed that the current team has some bandwidth to pick up additional audits. Once that bandwidth is used up, adding more employees would have been the only option.

Based on a typical US internal auditor salary, the organization estimates it saved $330,000 in Year 1 and will save $770,000 each year in years 2 and 3. Given that typical salaries are included in this analysis, a risk adjustment of 10% has been applied. This allows for the possibility of one or more senior auditors being needed among the new hires or an overall increase in auditor salaries. The risk-adjusted benefits are $297,000 in Year 1 and $693,000 each year in years 2 and 3.

**Improved Regulatory Relationships And Reduced Issues Enabled By ACL GRC**

Not only are more audits now completed, but the results and recommendations provide business groups more specific and useful directions to deal with issues and close off potential risks. This means the organization is better prepared when outside and regulatory auditors visit, and it can either demonstrate that key issues are already dealt with or are more easily resolved. “The meaningful value to the organization is the time and resources; they no longer have to spend time explaining to anybody why we do what we do, and then having to fix things after,” said the chief auditor, “We can help the business preempt regulator criticisms because of the approach that we take; the GRC process helps us with that a lot.”

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Regulatory audits per year</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>Issues uncovered per audit (on average)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>Total FTE time to resolve each issue (in hours, on average)</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B4</td>
<td>Audit team FTE hourly rate</td>
<td>$53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bt</td>
<td>Reduced regulatory issues with ACL</td>
<td>B1 * (B2 Initial - B2 Current) * B3 * B4</td>
<td>$54,060</td>
<td>$54,060</td>
<td>$54,060</td>
<td></td>
</tr>
<tr>
<td>Btr</td>
<td>Reduced regulatory issues with ACL (risk-adjusted)</td>
<td>↓ 10%</td>
<td>$0</td>
<td>$48,654</td>
<td>$48,654</td>
<td>$48,654</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
The organization estimates it saves about $54,060 per year by avoiding extra work involved with dealing with regulatory issues, including the rushed efforts and time spent with the regulator on their return visit.

An average of 60 hours of total work is estimated to resolve each issue, but in reality, resolving an issue can span a very wide range from a few hours to hundreds of hours. A 10% risk adjustment has been applied to more conservatively estimate the average issue resolution time. The risk-adjusted benefit is estimated to be $48,654 per year, as shown in in Table 2.

Improved Business Transparency And Reporting Enable Better Management Decision-Making

The most important benefit of the organization’s improved audit processes with ACL GRC is the overall impact on the business. With ACL GRC, the organization’s audit team is able to deliver recommendations and directives that target the root issue, not the symptoms. Better audit results deliver a number of benefits to the organization. These benefits are recognized by the organization, though they are hard (or even impossible) to measure financially. These benefits include:

- Improved knowledge management where audit policies and process documentation stored in GRC (instead of in binders stored in a file cabinet) allow employees visibility into the audit team’s work as well as audit results. Better understanding of the audit team’s efforts by more people helps define the audit team’s mission and limits, instead of the common assumption that they are looking over everyone’s shoulders. “All of our reports have templates; all of our audit work is very defined; all of that is housed in GRC,” said the chief auditor.

- Audits that deliver resolutions that target issues at the source, and not the symptoms, are more likely to be met with support from those departments, instead of being met with frustration when departments are told they need to add another task or approval to a process.

- Common task results can be identified and analyzed to help identify needed policies. For example, one department had a specific process exception request policy and would review every unapproved request. However, it did not track approved exception requests. The audit team was able to help highlight what was happening and suggest a review of approved exception policies — if all these exceptions were approved, and many were basically the same request, then maybe the policy needed to change so these exceptions would now be considered within the process policy. This and other similar discussions actually helped reduce the amount of paperwork and review time.

- In these process-specific as well as broader business issues, the audit team has become more of a business advisor or partner with the teams it works with. “It was an eye-opener for employees in business groups that something like that [the recommendations based on ACL analysis] could come out of an audit department, because traditional audit departments don’t do that stuff,” said the chief auditor. Instead of being seen as an adversarial environment, the audit team is seen as a business partner that is there to help.
The organization also saw value in improving its standing with regulators. Improved regulatory audit results not only mean quicker and cheaper external audits, but the organization hopes that regulators reduce overall criticism and even start seeing the organization as more of a trustworthy entity. The chief auditor recalled one specific example: “When the regulators came in, they saw that we had identified a key policy issue that management was already working on. So instead of having to criticize the organization for not doing it, the regulators complimented the organization for doing the right thing and encouraged them to complete the changes quickly.” Therefore, in the future, the regulatory auditor might give the organization the benefit of the doubt that an issue is due to a mistake or oversight and not assume fraudulent or unethical activity.

That trust can go beyond regulators. By setting policies and delivering results in a transparent, clear manner, the organization hopes to be seen as a trusted entity to its business partners and customers, leading to new business partnership opportunities, new customers, and more business from existing customers.

Finally, the organization can identify and take advantage of new opportunities that can help cut unnecessary costs and improve productivity and sales, such as identifying and developing new products, services, and lines of business, or reviewing and adjusting current ones. ACL GRC has helped collect and deliver data in new ways to help the organization identify the risks and issues inherent with common processes, policies, and tasks, which could lead to a service price adjustment. For example, GRC can help identify a task that stretches across departments and takes longer than realized, or a time-consuming task that can be shortened or eliminated. If that task is related to a product or service, the price may be adjusted, leading to additional revenue or savings. The organization was not able to quantify the value of this benefit at this time, but readers should consider their own sales revenue and net income; if ACL GRC can have an impact on even a fraction of a percentage of income, this could mean hundreds of thousands or even millions each year.

## Total Benefits

Table 3 shows the annual totals for each benefit, as well as present values (PVs) discounted at 10%. Over three years, the organization expects risk-adjusted total benefits to be a PV of $1,484,384.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Benefit</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atr</td>
<td>Resource costs avoided to match ACL</td>
<td>$0</td>
<td>$297,000</td>
<td>$693,000</td>
<td>$693,000</td>
<td>$1,683,000</td>
<td>$1,363,388</td>
</tr>
<tr>
<td></td>
<td>audit and report productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Btr</td>
<td>Reduced regulatory issues with ACL</td>
<td>$0</td>
<td>$48,654</td>
<td>$48,654</td>
<td>$48,654</td>
<td>$145,962</td>
<td>$120,995</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total benefits (risk-adjusted)</strong></td>
<td><strong>$0</strong></td>
<td><strong>$345,654</strong></td>
<td><strong>$741,654</strong></td>
<td><strong>$741,654</strong></td>
<td><strong>$1,828,962</strong></td>
<td><strong>$1,484,384</strong></td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
COSTS

The interviewed organization experienced the following costs associated with the GRC solution:

› Implementation costs including some small one-time ACL licenses, implementation resources, third-party consulting, and broader employee training.

› Annual costs including ACL subscription licensing, ongoing training and change management, and third-party consulting.

These represent the mix of internal and external costs experienced by the interviewed organization for initial planning, implementation, and ongoing licensing and maintenance associated with the solution.

Deployment And Implementation Costs

Implementation costs include all investments required before deploying and using ACL GRC. The organization assigned several internal resources and some external consultants (in addition to GRC’s field team) to help implement the solution, integrate it with existing ACL and other systems, and facilitate training and support with the broader group of GRC users. For that broader group, the organization invested in significant support and training costs. It wanted to not only ensure that everyone learned how to use GRC and reports, but also mitigate any change management risks by taking the time to communicate the GRC solution, changes to audit processes, and changes to how the audit team works with business groups. Also included is a small up-front licensing cost for the GRC Administration Console; as it is a one-time cost it is included with other implementation costs.

### TABLE 4

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>ACL licensing</td>
<td></td>
<td>$5,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>Implementation resource costs</td>
<td></td>
<td>$20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>Training/change management costs</td>
<td></td>
<td>$80,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>Other costs</td>
<td></td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>Third-party consulting costs</td>
<td></td>
<td>$50,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ct</td>
<td>Deployment and implementation costs</td>
<td>$155,000 (C1 + C2 + C3 + C4 + C5)</td>
<td></td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Ctr</td>
<td>Deployment and implementation costs (risk-adjusted)</td>
<td>$162,750 (Ct \times 1.05)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.

Annual Software, Support, And Resource Costs

Annual costs include ACL subscription costs, which include software licenses plus support and maintenance; some ongoing change management efforts to ensure business employees understand the solution and are properly trained; and ongoing external consulting resources brought in to support the audit team. It should be
noted that while the consulting costs are more than they were before ACL GRC, the organization actually sees this as a good result. Before, the organization would bring in some audit consultants to help with report preparation and periods of over-capacity auditing tasks. Since implementing GRC, the auditing team actually needs more specialized assistance to help fine-tune audit processes, learn about best practices from other organizations, and analyze data from an outside perspective. The consultants have become more senior, and thus more expensive. But the results of their work, included in the benefit analysis above, are even greater.

### TABLE 5
**Annual Software And Other Costs**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>ACL subscription costs</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Change management</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>Audit-specific third-party</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>consulting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dt</td>
<td>Ongoing costs</td>
<td>D1+D2+D3</td>
<td>$160,000</td>
<td>$160,000</td>
<td>$160,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Risk adjustment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$0</td>
<td></td>
<td>$168,000</td>
<td>$168,000</td>
<td>$168,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.

**Total Costs**

Table 6 shows the total of all costs as well as associated present values, discounted at 10%. Over three years, the organization expects risk-adjusted total costs to total a net present value of $580,541.

### TABLE 6
**Total Costs (Risk-Adjusted)**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Benefit</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctr</td>
<td>Deployment and implementation costs</td>
<td>$162,750</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$162,750</td>
<td>$162,750</td>
</tr>
<tr>
<td>Dtr</td>
<td>Ongoing costs</td>
<td>$0</td>
<td>$168,000</td>
<td>$168,000</td>
<td>$168,000</td>
<td>$504,000</td>
<td>$417,791</td>
</tr>
<tr>
<td></td>
<td><strong>Total costs (risk-adjusted)</strong></td>
<td></td>
<td>$168,000</td>
<td>$168,000</td>
<td>$168,000</td>
<td>$666,750</td>
<td>$580,541</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
FLEXIBILITY

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the “right” or the ability to engage in future initiatives but not the obligation to do so. There are multiple scenarios in which a customer might choose to implement GRC and later realize additional uses and business opportunities. Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

For the organization, a regional bank, ACL GRC was primarily focused on financial auditing controls, policies, and processes. Policies for other departments at the organization, such as HR, will be added in future years. While this and other departments may not include quite as much regulatory oversight, significant benefits are expected from an expanded GRC implementation from new productivity benefits and additional avoided costs.

RISKS

Forrester defines two types of risk associated with this analysis: “implementation risk” and “impact risk.” Implementation risk is the risk that a proposed investment in GRC may deviate from the original or expected requirements, resulting in higher costs than anticipated. Impact risk refers to the risk that the business or technology needs of the organization may not be met by the investment in GRC, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

### TABLE 7

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoided resource costs to meet new audit output</td>
<td>↓ 10%</td>
</tr>
<tr>
<td>Reduced regulatory issues</td>
<td>↓ 10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Costs</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment and implementation costs</td>
<td>↑ 5%</td>
</tr>
<tr>
<td>Ongoing costs</td>
<td>↑ 5%</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.

Quantitatively capturing implementation risk and impact risk by directly adjusting the financial estimates results provides more meaningful and accurate estimates and a more accurate projection of the ROI. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as “realistic” expectations since they represent the expected values considering risk.

The following impact risks that affect benefits are identified as part of the analysis:

- Avoided resource hire costs are risk-adjusted to allow for the fact that fewer employees might be able to meet completed audit expectations, or that resources may be more expensive than expected (including the possible need to hire more resources, including some that are more senior or experienced).

- Time and cost savings from reduced regulatory issues are based on averages that span a wide range — some issues are quick to resolve; some might take weeks. A few more of the difficult issues can shift that average significantly.
The following implementation risks that affect costs are identified as part of this analysis:

› Initial training and consulting costs could have been much higher than planned, especially if employees were more resistant to the organization’s changes. However, it had already invested a significant amount on training and change management, so the risk impact was already lessened.

› The high upfront training and change management costs were expected to mitigate the need for high ongoing change management and training costs. Some time was budgeted for these efforts, but more might have been needed. Like initial training costs, current investments should keep this risk impact low.

Table 7 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates for the interviewed organization. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.
Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the interviewed organization’s investment in GRC. Keep in mind that these results do not include some benefits that are expected to be quite significant, such as the impact on business decision-making and the development of new and improved products and services.

Table 8 below shows the risk-adjusted ROI, NPV, and payback period values, and Figure 3 visually shows the cash flows over the three-year analysis period. These values are determined by applying the risk-adjustment values from Table 7 in the Risks section to the unadjusted results in each relevant cost and benefit section.

FIGURE 3
Cash Flow Chart (Risk-Adjusted)

Source: Forrester Research, Inc.

TABLE 8
Cash Flow (Risk-Adjusted)

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>($162,750)</td>
<td>($168,000)</td>
<td>($168,000)</td>
<td>($168,000)</td>
<td>($666,750)</td>
<td>($580,541)</td>
</tr>
<tr>
<td>Benefits</td>
<td>$0</td>
<td>$345,654</td>
<td>$741,654</td>
<td>$741,654</td>
<td>$1,828,962</td>
<td>$1,484,384</td>
</tr>
<tr>
<td>Net benefits</td>
<td>($162,750)</td>
<td>$177,654</td>
<td>$573,654</td>
<td>$573,654</td>
<td>$1,162,212</td>
<td>$903,843</td>
</tr>
<tr>
<td>ROI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>156%</td>
</tr>
<tr>
<td>Payback period (months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
ACL GRC And ACL Analytics Exchange: Overview

The following information is provided by ACL. Forrester has not validated any claims and does not endorse ACL or its offerings.

FOCUS ON WHAT MATTERS WITH MODERN, COLLABORATIVE AUDIT MANAGEMENT AND RISK ANALYSIS SOFTWARE

ACL GRC and ACL Analytics Exchange together give you an integrated platform for assessing risk, managing projects, continuously monitoring big transactional data, collaborating to obtain attestation on anomalies, and creating reporting visibility into your work. It’s the data-driven audit management solution.

RISK-BASED AUDITING SHOWS LEADERSHIP YOU’RE ALIGNED ON STRATEGIC RISK

Identify and assess risk that actually matters to your organization. Understand what could go wrong, who owns it, as well as the status of mitigation. Show your leadership with powerful reports and visualizations.

IMPROVE YOUR WORKPAPER AND PROJECT MANAGEMENT, PLANNING, AND EXECUTION

Your (not-so-secret) love affair with spreadsheets is holding you back. Break up with your project spreadsheets and let technology do your heavy lifting. Plan, manage, execute, and report on your assurance projects in one system.

WHEN SNIFFING OUT DATA IS YOUR JOB, THE BIG DOGS RUN WITH A SERVER

Centralize and secure your knowledge, assets, and data securely. Analyze 100% of your transactional data, and supercharge your team by allowing them to collaborate on one platform. Big servers are used for big processing, and ACL delivers performance by allowing your system to scale as your usage grows.

DATA ANALYSIS SAYS THERE’S SMOKE, BUT IS THERE FIRE?

Wouldn’t it be amazing if a remediation workflow was triggered when data analysis uncovered a potential issue? ACL’s results management workflow helps you collaborate, keep tabs on remediation statuses, and track it all in a single system designed around you.

REFEREE YOUR RECOMMENDATION WITH DATA

Tap into your activities and generate one-click reports that resonate with your leadership. Report on your customized fields in graphical or tabular format and output in HTML, Word, Excel, or PDF.

Learn more about ACL’s proven audit management solution at acl.com/solutions/audit-management/.
Appendix A: Total Economic Impact™ Overview

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. TEI assists organizations in winning, serving, and retaining customers.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, flexibility, and risks.

BENEFITS

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often, product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place 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. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

COSTS

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the form of fully burdened labor, subcontractors, or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

FLEXIBILITY

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprise-wide upgrade of an office productivity suite can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point. However, having the ability to capture that benefit has a PV that can be estimated. The flexibility component of TEI captures that value.

RISKS

Risks measure the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections and 2) the likelihood that the estimates will be measured and tracked over time. TEI risk factors are based on a probability density function known as “triangular distribution” to the values entered. At a minimum, three values are calculated to estimate the risk factor around each cost and benefit.
Appendix B: Forrester And The Age Of The Customer

Your technology-empowered customers now know more than you do about your products and services, pricing, and reputation. Your competitors can copy or undermine the moves you take to compete. The only way to win, serve, and retain customers is to become customer-obsessed.

A customer-obsessed enterprise focuses its strategy, energy, and budget on processes that enhance knowledge of and engagement with customers and prioritizes these over maintaining traditional competitive barriers.

CMOs and CIOs must work together to create this companywide transformation.

Forrester has a four-part blueprint for strategy in the age of the customer, including the following imperatives to help establish new competitive advantages:

- Transform the customer experience to gain sustainable competitive advantage.
- Accelerate your digital business with new technology strategies that fuel business growth.
- Embrace the mobile mind shift by giving customers what they want, when they want it.
- Turn (big) data into business insights through innovative analytics.
**Appendix C: Glossary**

**Discount rate:** The interest rate used in cash flow analysis to take into account the time value of money. Companies set their own discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organizations to determine the most appropriate discount rate to use in their own environment.

**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.

**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.

**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.

**Return on investment (ROI):** A measure of a project’s expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

**FRAMEWORK ASSUMPTIONS**

Table 9 provides the model assumptions that Forrester used in this analysis.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Discount rate</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>C2</td>
<td>Weeks per year</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>C3</td>
<td>Hours per year (M-F, 9-5)</td>
<td></td>
<td>2,080</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.

**A NOTE ON CASH FLOW TABLES**

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at “time 0” or before the beginning of Year 1. Those costs are not discounted. All other cash flows in years 1 through 3 are discounted using the discount rate (shown in the Framework Assumptions section) at the end of the year.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Metric</th>
<th>Calculation</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
</table>

Source: Forrester Research, Inc.
PV calculations are calculated for each total cost and benefit estimate. NPV calculations are not calculated until 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.

Appendix D: Endnotes

1 Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates. For more information, see the section on Risks.