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MAKING LEADERS SUCCESSFUL EVERY DAY

Prepared for Aia Software

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The Total Economic Impact™ Of Aia Software's ITP Document Platform

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Executive Summary

In July 2009, Aia Software commissioned Forrester Consulting to examine the total economic impact and potential return on investment (ROI) enterprises may realize by deploying the ITP Document Platform in financial services. The ITP Document Platform automates complex document production and management functions to streamline primarily print-based output systems and prepare them for multichannel delivery. The product can be used to create high-volume statement, transaction, and various correspondence documents as well as electronic communications. ITP document production is template-based, and the templates can contain sophisticated logic that enables conditional data retrieval, conditional user input, conditional formatting, and derived data fields. The templates are augmented by ITP's data handling facilities that can retrieve data from a host of sources, including XML, Web services, and ODBC-enabled data sources.

To understand the financial impact of investing in the ITP Document Platform, Forrester conducted in-depth interviews with five Aia Software customers that have deployed the product and compiled their results into a case study depicting a composite of the insurance companies that Forrester interviewed. Forrester found that these companies achieved benefits in key areas, including: 1) fewer IT resources required when business users assume ownership for and manage their own documents; 2) an increase in productivity for business users when document creation and delivery are made more flexible and efficient; 3) reduced risk of errors and more assured compliance with regulations resulting from greater document accuracy and standardization of text; and 4) postage cost savings when documents can be combined into fewer mailings.

With the ITP Document Platform, benefits accrue from transferring ownership of documents from IT to the business units that are responsible for customer communication. By removing IT as the "broker of document construction" — while maintaining IT's role as the controller of the document systems and infrastructure — organizations can gain speed, agility, and customer intimacy while making gains toward assuring regulatory and internal compliance.

Purpose

The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the ITP Document Platform on their organizations. Forrester's aim is to clearly show all calculations and assumptions used in the analysis. Readers should use this study to better understand and communicate a business case for investing in Aia Software's ITP Document Platform.

Methodology

Aia Software selected Forrester for this project because of its industry expertise in document output for customer communication management (DOCCM) and Forrester's Total Economic Impact™ (TEI™) methodology. TEI not only measures costs and cost reduction (areas that are typically accounted for within IT) but also weighs the enabling value of a technology in increasing the effectiveness of overall business processes.

For this study, Forrester employed four fundamental elements of TEI in modeling the ITP Document Platform:

1. Costs.
2. Benefits to the entire organization.
3. Risk.
4. Flexibility.

Given the increasing sophistication that enterprises have regarding cost analyses related to IT investments, Forrester's TEI methodology serves an extremely useful purpose by providing a complete picture of the total economic impact of purchase decisions. Please see Appendix B for additional information on the TEI methodology.

Approach

Forrester used a five-step approach for this study:

1. Forrester gathered data from existing Forrester research relative to the ITP Document Platform and the market for document output for customer communications management (DOCCM) products in general.
2. Forrester interviewed Aia Software marketing and sales personnel to fully understand the potential (or intended) value proposition of the ITP Document Platform solutions.
3. Forrester conducted a series of in-depth interviews with five organizations currently using Aia Software's ITP Document Platform.
4. Forrester constructed a financial model representative of the interviews. This model can be found in the TEI Framework section below.
5. Forrester created a composite organization based on the interviews and populated the framework using data from the interviews as applied to the composite organization.

Key Findings

Forrester's study yielded a number of key findings:

- **ROI.** Based on the interviews with the five existing ITP customers, Forrester constructed a TEI framework for a composite organization (see Appendix A) and the associated ROI analysis illustrating the financial impact areas. As seen in Table 1, the ROI for our composite company is 277% with a breakeven point (payback period) of nine months after deployment.
- **Benefits.** The main benefit to the composite organization presented in this study is the incremental productivity of professional staff and business users, conservatively estimated to total \$4 million (\$3.1 million in risk-adjusted, present value [PV] terms) over three years. Additional categories of quantified benefits include reassignment of IT resources, reduction of exposure to compliance and error risk, and postage cost savings. Total benefits over three years are estimated to be \$4.4 million (or \$3.4 million on a risk-adjusted, PV basis).

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- Costs.** The largest initial cost for this implementation was \$200,000 for the license of the product, plus 18% per year in software maintenance fees, based on standard pricing without discounts. Hardware, professional services, internal labor, and training fees amounted to approximately \$513,000. Total costs after three years are estimated to be just over \$900,000 (risk-adjusted, PV).

Table 1 illustrates the risk-adjusted cash flow for the composite organization, based on data and characteristics obtained during the interview process. Forrester risk-adjusts these values to take into account the potential uncertainty that exists in estimating the costs and benefits of a technology investment. The risk-adjusted value is meant to provide a conservative estimation, incorporating any potential risk factors that may later impact the original cost and benefit estimates. For a more in-depth explanation of risk and risk adjustments used in this study, please see the Risk section.

Table 1: Composite Company ROI, Risk-Adjusted

Summary of financial results	Original estimate	Risk-adjusted
ROI	356%	277%
Payback period (months)	7.5	9.3
Total costs (PV)	\$792,076	\$901,529
Total benefits (PV)	\$3,609,737	\$3,398,929
Total (NPV)	\$2,817,661	\$2,497,400

Source: Forrester Research, Inc.

Disclosures

The reader should be aware of the following:

- The study is commissioned by Aia Software and delivered by the Forrester Consulting group.
- Aia Software 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 its meaning.
- The customers for the interviews were provided by Aia Software.
- Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers should use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Aia Software/ITP Document Platform.
- This study is not meant to be used as a competitive product analysis.

The ITP Document Platform: Overview

According to Aia, the ITP Document Platform provides sophisticated document production services via one solution to create batch, transaction, interactive documents, and electronic forms. ITP enables fully automated high-volume document production while the interactive interview process facility enables electronic forms as well as document creation through a combination of user input and automatically populated fields. All ITP document production is template-based, and the templates can contain sophisticated logic that enables conditional data retrieval, conditional user input, conditional formatting, and derived data fields. The templates are supported by ITP's data handling facilities that can retrieve data from multiple and various sources, including but not limited to XML, Web services, and ODBC-enabled data sources.

Template design is done in the client's word processor of choice, including but not limited to Microsoft Word and OpenOffice.org. High-quality documents can be produced containing text, graphics, and any object that is supported by the word processor. In addition, "postproduction" processing is available to transform the "result documents" into a wide variety of other formats — e.g., print, PDF, TIFF, LXF, fax, email, etc.

The ITP products are designed to integrate with existing applications and can easily be invoked directly from an existing business application using the active data set and the appropriate template. Finally, the integral application programming interfaces (APIs) also allow ITP to integrate with third-party applications, thus enabling, for example, the client's preferred document storage regime to be supported. ITP has been integrated with numerous customer-specific vertical applications like insurance, leasing, mortgage and public sector applications, and bespoke solutions. It has also been integrated with business applications such as SAP, PeopleSoft, and Microsoft SharePoint.

Analysis

Forrester's multistep approach to evaluate the impact that implementing the ITP Document Platform can have on an organization includes:

- Interviews with Aia Software marketing personnel and executive management.
- In-depth interviews of five organizations currently using the ITP Document Platform.
- Construction of a composite organization based on characteristics of the interviewed organizations.
- Construction of a common financial framework for the implementation of the ITP Document Platform.

Interview Highlights

A series of interviews with five ITP Document Platform customers were conducted for this study, involving IT and business representatives from:

1. The travel insurance division of a multinational insurer.
2. A European property and casualty insurer.
3. A European provider of insurance for legal assistance.
4. A global banking and financial services firm.
5. A regional Dutch mutual insurance company.

The interviews revealed a number of valuable insights on the implementation and use of the ITP Document Platform within the customers' organizations.

Prior to implementing ITP, these organizations typically employed older-generation document composition software, often a "homegrown" system built atop a legacy collaboration and networking platform. Usually, previous tools interacted directly with mainframe or midrange "green screen" insurance systems. These tools were judged to be very complex to manage, error-prone, slow to produce documents, inflexible in producing new documents or incorporating modifications, and weak on customization or personalization.

Key reasons cited for investing in the ITP Document Platform were:

- **Maintenance cost.** To address the high cost of maintaining older document composition systems or tools that were created in ad hoc fashion over time.
- **Ease of integration.** To invest in a newer system that would more readily tie to planned or new insurance/financial analysis systems. Also, customer organizations sought the ability to more easily link with existing or to-be-developed Web-based capabilities.

- Customers also cited ITP's ease of integration with existing document tools like MS Word and Aia Software's strong commitment to open source editing tools so that ITP user organizations are not locked into their current or future word processor vendor. This can create value when negotiating licensing agreements with current vendors.
- **Speed.** To hasten the development of new document models (templates) in order to keep pace with changes in the business. Where it formerly took days or weeks (or even months for complicated documents) to create a new document model, with ITP it now typically takes hours or days.
- **Compliance.** An organization can use standard footers and headers — and standard text blocks — and can always know that those elements are correct. The organization can simultaneously restrict particular paragraphs or specialized wording that has been agreed with legal staff and is known to meet regulatory requirements. Before ITP, most organizations had much less control over what text could be sent to clients.
- **Version management.** ITP objects are version-controlled, enabling rollback to earlier versions if required. The objects are also audit-controlled for automatically recording the "created by" user, date/time of each version, and a textual version description.
- **Flexibility and document intelligence.** These organizations were lacking sufficient capability to produce individual, custom-composed correspondence that could be based on many repeatable standard text modules and templates. If documents can be easily linked to enterprise data stores, then more of the knowledge and judgment of the loan officer, salesperson, underwriter, claims adjuster, or service rep can be effectively utilized.
 - Customers reported significant improvement in their organization's ability to deploy and maintain a consistent house style across business units, products, etc. The ITP Document Platform enabled them to make wholesale changes to branding elements, logos, etc., and to deploy those changes across the entire span of letterheads, forms, and online customer-facing touchpoints.
- **IT staffing costs.** Previous document output management practices demanded high levels of IT resources to be available for document output management. Organizations sought to reduce the number of IT staff required to manage documents, thus shifting document ownership from IT to the business units.
 - In cases where the number of IT FTEs responsible for document output management remained constant, the same number of staff was able to maintain more models and templates. Further, IT departments can maintain their document composition responsibilities using less-experienced resources. New recruits can replace senior technical staff who earn more because of the automation and process efficiencies created by ITP.
 - Customers reported that IT has been relieved of much of the work it had to do previously in creating, maintaining, and troubleshooting primitive links to customer data repositories and enterprise applications.
- **Business unit staffing.** One customer interviewed for this study stated the company was able to reassign 18 FTEs with the document output management efficiency gained from its implementation of ITP. Other customers saw similar staffing changes relative to the scale of

their organizations. All agreed that the same or fewer staff were able to produce a higher number of — as well as more accurate (fewer errors) — documents and to serve internal or external customers more effectively when they became the owners of their own document output capabilities.

- **Business agility.** Customers in this study described their newfound abilities to react to their markets faster than they could prior to their investment in ITP. For example, one customer described its prior difficulty in reacting to a rival company reducing premium rates; where previously it took weeks to get documents synced with new pricing, it now takes only a few days. Other areas of advancement include faster changes in policy wording or even product offerings that can result from market, product, or regulatory changes.

TEI Framework

Introduction

From the information provided in the customer interviews, Forrester has constructed a TEI framework for those organizations considering the implementation of the ITP Document Platform. The objective of the framework is to identify the cost, benefit, risk, and flexibility factors that impact the investment decision.

Composite Organization

Based on the interviews with the five existing customers provided by Aia Software, Forrester constructed a composite company, a TEI framework, and an associated ROI analysis that illustrates the areas impacted financially. The composite organization in this study represents an insurance and financial products firm with 750 employees, 200 of whom are users of ITP. The company produces 8,000 documents per day via ITP, most without any user interaction, while other documents require a high degree of user interaction and resulting customization. The company provides conventional property and casualty insurance as well as coverage for distinctive homes, unique automobiles and watercraft, fine art, and other valuable property. Providing such insurance requires document customization in order to provide the highest quality of customer care.

Like other insurance companies, this organization is very document-intensive, producing voluminous business-critical policies, proposals, claims traffic, general correspondence, and statements for its customers. With the implementation of ITP, the company has been able to significantly improve the speed, accuracy, appearance, personalization, and the overall economics of its document output.

Prior to investing in ITP, the company recognized the need for large improvements in the speed, quality, accuracy, and degree of customization in its customer correspondence. The rationale for replacing the previous proprietary (“homegrown”) document output management system and investing in ITP document platform included the following drivers:

- Creating new document models was difficult, and the degree of customization and personalization was severely limiting; the editing function with the previous document software was not user-friendly.
- Changes to document models and text blocks required assistance from the IT department, increasing the time needed to respond to business and regulatory changes. The number of document models available was limited by IT resources rather than determined based on market needs.

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- Correspondence with the previous system was prone to errors, exposing the company to regulatory risks, incorrect premium payments or claims dispersals, and customer dissatisfaction. Reducing document errors would reduce corresponding exposure to legal and regulatory incidents, as well as incorrect premium payments or claims dispersals — and customer dissatisfaction.
- A new system would integrate with bar coding of documents and automated enveloping to enable selective insertion of flyers, coverage descriptions, and marketing pieces.

Breaking off these constraints — by shifting ownership of document output management to business units and enabling business users to customize text and respond to business and regulatory changes — would result in greater business agility and shorter time-to-market. Other drivers included:

- A planned new insurance system prompting requirements for a document output management system that could easily integrate with the new system as well as link to the CRM and finance systems.
- Automating enveloping and customized insertion of flyers, coverage descriptions, and marketing pieces.
- Improving and expanding document capabilities for its Web applications and enabling customer self-service of online applications and interactive documents like price quotes and documents such as legal correspondence based on structured text blocks.

Framework Assumptions

Table 2 lists the discount rate used in the PV and net present value (NPV) calculations and time horizon used for the financial modeling.

Table 2: General Assumptions

Ref.	General assumptions	Value
	Discount rate	10%
	Length of analysis	Three years

Source: Forrester Research, Inc.

Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with finance to determine the most appropriate discount rate to use within their own organizations.

In addition to the financial assumptions used to construct the cash flow analysis, Table 3 provides salary assumptions used within this analysis.

Costs

The main costs associated with the implementation of the ITP Document Platform are in the following categories: 1) software and maintenance fees; 2) server hardware; 3) internal labor costs; 4) professional services; and 5) training costs. The following are the cost inputs to the financial analysis.

ITP Software

This insurer has licensed the ITP Document Platform at a cost of \$200,000, plus annual maintenance of 18% per year.

Server Hardware

This insurer has purchased two additional midrange Windows servers on which to run the ITP Document Platform for a total cost of \$20,000 in server maintenance costs annually.

Internal Labor For Implementation

The customers interviewed for this study described the internal labor required to set up and launch the ITP Document Platform. For this insurance carrier, five IT administrators will be 75% dedicated to the project for six months. Each earns \$105,000 in annual fully loaded (including benefits) compensation, so the total is \$295,313 (5 x \$105,000 x 9/12 x 75%).

Table 3: Internal Labor For Implementation

Ref.	Metric	Year 0	Year 1	Year 2	Year 3	Total
A1	Number of staff	5				
A2	Annual compensation	\$105,000				
A3	Months	9				
A4	Percent dedicated	75%				
At	Internal labor for implementation	\$295,313				
Ato	Total (original)	\$295,313	\$0	\$0	\$0	\$295,313

Source: Forrester Research, Inc.

Professional Services

An implementation of this scale will be faster and more assured with the assistance of professional services from either Aia or an integration partner. Service includes expert assistance in converting preexisting document models to ITP text blocks, creating the links to CRM and finance systems, and key user training. Two consultants working on-site for 50 days at \$1,500 per day would generate a cost of \$150,000.

Training Fees

To transfer new understanding and competency around the functionality and capabilities of the ITP Document Platform, one IT administrator would be required to attend five days of off-site training, at a cost of \$1,500 per day. The total for these training fees equals \$7,500.

Training for business users can be conducted somewhat informally in “lunch and learn” sessions and by using online self-help aids as needed, and thus no cost is assessed. As one customer recounted, after two power user/model builders gave informal workshops to their business unit colleagues, “People returned to their desks, made their first letters, and did not return to [use] the old system (which was still in place). Users immediately migrated to their new ITP system capabilities, making a clean switch.”

Total Costs

Total initial costs for this implementation are shown in Table 4 below.

Table 4: Total Costs (Non-Risk-Adjusted)

Costs	Initial	Year 1	Year 2	Year 3	Total
Software license and maintenance	\$200,000	\$36,000	\$36,000	\$36,000	\$308,000
Hardware costs: two additional servers		\$20,000	\$20,000	\$20,000	\$60,000
Internal labor for implementation	\$295,313				\$295,313
Professional services	\$150,000				\$150,000
Training fees	\$7,500				\$7,500
Total	\$652,813	\$56,000	\$56,000	\$56,000	\$820,813

Source: Forrester Research, Inc.

Benefits

“ITP has resulted in less work for IT. [Previous tools] were very [dependent] on IT. It was very hard to change standard document forms. Editing text was really hard; key users couldn’t do it. They were [dependent] on IT all the time. Basically, editing required programming. Now, with ITP, text block editing can be done by key users, and it is very easy. Business users can now create new letters or forms without help from IT. The quality of the documents is so much higher, but rather than adding any staff, we use less IT time, and business users — claims adjusters, for example — probably see 15% to 20% of their time saved because of ITP.” — Claims department director

In interviews with Aia Software customers, Forrester identified the following key benefits of the ITP Document Platform: 1) fewer (and lower-cost) IT resources required when business users assume

ownership for and manage their own documents; 2) an increase in productivity for business users when document creation and delivery are made more flexible and efficient; 3) reduced risk of errors and more assured compliance with regulations resulting from greater document accuracy and standardization of text; and 4) postage cost savings when documents can be combined into fewer mailings. Customers also cited potential benefits in terms of business agility, time-to-market, and customer satisfaction. Forrester did not quantify the benefits of these latter categories in this study because they are highly specific to each organization and because of Forrester's bias toward a very conservative financial framework and ROI analysis. Users of this case study are nevertheless encouraged to include their own estimates of these kinds of benefits, cited below, in any replication of this financial framework or assessment of the impact of an investment in the ITP Document Platform.

Reassignment Of IT Staff

As Forrester learned from Aia Software's customers, an organization resembling the composite company might have had three IT staff who were responsible for text models and managing documents and the document editing tools. With the advent of the ITP Document Platform within an organization, IT staff can now direct their efforts to other priorities as they are freed from maintaining and creating text models. Where the business had several dozen text models prior to ITP, they now can work with text blocks. Static models are replaced with small blocks of text, sometimes up to several hundred in number. They can thus cope with specific document requirements themselves, and they no longer need to work via the IT group to add and change documents. Indeed, IT staff save time, and thus the company can reassign resources, here conservatively estimated at 0.5 FTEs in Year 1 and 1 FTE thereafter as the organization learns to work differently using ITP. Further, customers reported that by leveraging the high document IQ in ITP, enabling business users to create and change documents according to business needs, IT staff no longer need to be document experts.

Calculations of this value are based on an average annual fully loaded compensation of \$105,000 (€70,000), as shown in Table 5 below.

Table 5: Reassignment Of IT Staff

Ref.	Metric	Year 1	Year 2	Year 3	Total
C1	Number of FTEs	0.5	1	1	
C2	Annual compensation	\$105,000	\$105,000	\$105,000	
Ct	Reassignment of IT staff	\$52,500	\$105,000	\$105,000	\$262,500

Source: Forrester Research, Inc.

Incremental Productivity For Underwriting, Claims, And Sales Staff

“When you offer [business, financial, or legal] services, we only make money if we are efficient in structured text processing,” explained one of the interviewees for this study. “So using ITP like we do — it’s practically a requirement for doing business at all. Hit a button and [the document] is printed with electronic signature. ITP is a very efficient system [that] enables our staff to deliver an affordable service in an insurance policy. An average [professional staff] would produce at least 10% less, not having to think about where you save a document, not typing the name and the header, [and] not having to think about the very basic content.”

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Aia Software's customers that participated in this study were asked to describe and estimate the magnitude of the productivity improvements created by the ITP Document Platform among their professional staff. They described large improvements over their previous systems and shared their accounts of eliminating manual steps and email workflows around document creation and delivery. Users, rather than IT, now create document models faster in order to more effectively serve the needs of their customers. And with increased standardization and centralization of data (an ITP repository holds day-to-day documents, confirmation letters, terms and conditions, and other materials in Word formats), they are able to complete individual, custom-composed correspondence faster. "There is less paper confusion," noted one interviewee. By relying on links to enterprise data stores, time previously needed for downloading, preprocessing, or copying/typing of data is eliminated (along with many errors). More time is available to apply the knowledge and judgment of the underwriter, claims adjuster, salesperson, or service rep. ITP also streamlines document delivery; policies and other correspondence in PDF or Word can be sent instantly to clients by email, Web, or fax.

Forrester calculates annual benefit amounts relative to the composite company, based on the customer interviews. The 200 ITP users in the composite customer organization would be expected to benefit by an aggregate time savings of 10% in the first year of use, rising to 15% annually thereafter, as shown in Table 6 below.

Table 6: Incremental Productivity For Underwriting, Claims, And Sales Staff

Ref.	Metric	Year 1	Year 2	Year 3	Total
D1	Number of knowledge/administration workers	200			
D2	Annual compensation including benefits, taxes	\$100,000			
D3	Productivity improvement	10%	15%	15%	
D4	Percent captured	50%	50%	50%	
Dt	Incremental productivity for underwriting, claims, and sales staff	\$1,000,000	\$1,500,000	\$1,500,000	\$4,000,000

Source: Forrester Research, Inc.

Note on percent captured: Forrester assumes that for information workers, only a portion of the time gained from improved productivity — ranging from 50% to 75% — will actually be realized by the organization; not all of the time saved will be converted into productive output. This percentage is higher for workers engaged in more task- and process-related activities.

Compliance And Risk Reduction

Customers interviewed for this study relayed to Forrester that with the introduction of the ITP document output management system, their organizations benefit from systematized workflows and text content that are supported by multilevel approvals. Documents are stored and retrieved in a planned fashion, which supports document audit capabilities. Insurance and other financial services are required to exhibit strong control of customer communications, to meet regulatory requirements, and to provide an audit trail. The ITP system also supports the ability to quickly address *new* requirements. ITP provides the ability to conform around formats, provide workflow

management for multilevel approvals, and employ business process management (BPM) capabilities for additional business rules to address regulation.

“ITP enables us to have standard footers and headers and other text elements,” explained one of the insurance professionals interviewed by Forrester. “Staff can just pull that segment in and know that it is correct. We can restrict particular paragraphs to specific wording that has been agreed with Legal. Before, we had much less control over what was actually sent to a client.” Another manager interviewed explained that a big area for improvement with the implementation of ITP has been strengthening the policy wording, which he expects “could reduce claims payouts when policy wording is tighter.”

In this study, Forrester conservatively assumes that the composite company will confront a dozen instances where the firm could be exposed to a compliance failure. The ITP Document Platform is assumed to reduce the risk of exposure to such instances from 10% to just one-half of 1%. Assuming the cost to address the compliance failure at \$25,000 per instance (the cost to fix errors or a fine, for example), then the value of the reduction of this risk is \$28,500 annually, as shown in Table 7. Note that this calculation is based on Forrester estimates and not on any estimates provided by the interviewed companies.

Table 7: Compliance And Risk Reduction

Ref.	Metric	Per period	Year 2	Year 3	Total
F1	Possible noncompliance events	12			
F2	Potential exposure per event	\$25,000			
F3	Probability of exposure	10%			
F4	Probability of exposure — improved document processes	0.5%			
Ft	Compliance and risk reduction	\$28,500			
Fto	Total (original)	\$28,500	\$28,500	\$28,500	\$85,500

Source: Forrester Research, Inc.

Postage Cost Savings

Customer correspondence management can easily reduce the number of mailings by coordinating, consolidating, and selective envelope feeding as part of statement delivery. Offers and other timely, relevant materials can be included in regular outgoing mailed envelopes. Customers reported savings of \$0.07 or \$0.08 per item for the pieces that are no longer mailed separately, as shown in Table 8.

Table 8: Postage Cost Savings

Ref.	Metric	Per period	Year 2	Year 3	Total
G1	Number of mailed documents consolidated	250,000			
G2	Cost per document saved	\$0.08			
Gt	Postage cost savings	\$20,000			
Gto	Total (original)	\$20,000	\$20,000	\$20,000	\$60,000

Source: Forrester Research, Inc.

Business Agility And Time-To-Market

Customers also cited potential benefits in terms of business agility and time-to-market (or time-to-value), coupled with resultant boosts to customer satisfaction. These benefit categories are the areas of greatest potential value, yet they are the most difficult to quantify and attribute to an investment in improved document output management tools. Some of the value is embedded in the increased productivity calculation above. More value would be gained from incremental sales, lower customer losses, market share gains, or new initiatives as described in the example in the Flexibility section below.

“ITP is far more adaptable [than the previous document output management tools],” noted one of the interviewees in this study. “It enables us to react to the market faster than we used to. Before, it was difficult to react to a rival company reducing [its] rates, for example. It took weeks to get documents to counter [its] pricing changes. Now we can do it in a week.” Thus, the management of document output shifts from weeks to days and from days to hours.

“Our old system took so long,” noted another business unit manager, “that by the time the document was ready, the moment (business opportunity) had passed. ITP allows us to develop models faster, so when the business comes with a request for a new document, we can create it in hours.” Hours instead of days or weeks is a common theme heard throughout this case study. “It used to take days or weeks, and one of our more complicated docs took three to four months,” noted another interviewee. “Every department head is authorized to edit the text blocks. If [a] user needs a change, he can change a document in 10 minutes,” so oversight and output governance does not have to be sacrificed for the sake of speed.

The ability to make faster changes to corporate identity and branding elements is another benefit of ITP. Several companies described the ability to consistently deploy and change their house style on correspondence. “With ITP, we introduced a new house style, which is now very important. The ITP solution gives us the opportunity to maintain a house style with a high degree of quality [and to] have a lot of freedom to deploy that style.”

One respondent noted: “The main rationale [for investing in ITP] was to raise the quality of output, and customer satisfaction is up as we have measured recently. And the overall speed of our company [is greater]. We settle claims fast. And now we can make sure that our letters get there fast, too.” This speed and agility, while difficult to measure and attribute directly to ITP, can result in new business.

Another manager interviewed for this study put it this way:

“Our growth comes from customer satisfaction. We don’t have great budgets for marketing and promotion, yet we are still growing at 4% to 5% per year because of customer satisfaction. So the quality of our output is very important. We are now more sure of ourselves, and the users are proud of their output. If your words are strong, but the letter looks bad, then your words [lose] their effect. ITP in combination with our new house style offers us the opportunity to [get the most benefit from] our customer-focused correspondence.”

Forrester did not quantify the benefits of these latter categories in this study because they are highly specific to each organization. Users of this case study are encouraged to include their own estimates as they replicate this financial framework to gauge the financial impact of an investment in the ITP Document Platform for their own organizations.

Total Quantified Benefits

Table 9 summarizes the benefits gained by the composite organization from implementing the ITP Document Platform for each quantified benefit category.

Table 9: Total Benefits (Non-Risk-Adjusted)

Benefits	Year 1	Year 2	Year 3	Total
Reassignment of IT staff	\$52,500	\$105,000	\$105,000	\$262,500
Incremental productivity For underwriting, claims, and sales staff	\$1,000,000	\$1,500,000	\$1,500,000	\$4,000,000
Compliance and risk reduction	\$28,500	\$28,500	\$28,500	\$85,500
Postage cost savings	\$20,000	\$20,000	\$20,000	\$60,000
Total	\$1,101,000	\$1,653,500	\$1,653,500	\$4,408,000

Source: Forrester Research, Inc.

Risk

Risk is the third component within the TEI model; it is used as a filter to capture the uncertainty surrounding different cost and benefit estimates. If a risk-adjusted ROI still demonstrates a compelling business case, it raises confidence that the investment is likely to succeed because the risks that threaten the project have been taken into consideration and quantified. The risk-adjusted numbers should be taken as “realistic” expectations, as they represent the expected values considering risk. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates.

For the purpose of this analysis, Forrester risk-adjusts cost and benefit estimates to better reflect the level of uncertainty that exists for each estimate. The TEI model uses a triangular distribution method to calculate risk-adjusted values. To construct the distribution, it is necessary to first estimate the low, most likely, and high values that could occur within the current environment. The risk-adjusted value is the mean of the distribution of those points.

For example, in the case of the benefit calculations for improvement in productivity, the percentage values shown in Table 6 above can be considered the “most likely” values. This benefit will vary based on several factors, including the overall technical success of the implementation as well as technical and adoption factors that are difficult or impossible to forecast before putting ITP into production. This variability represents a risk that is captured as part of this study. Forrester uses a risk adjustment factor of 133% of the original estimates on the high end, 100% as the most likely, and 50% of the original estimate on the low end. This has the effect of decreasing the benefit estimate to take into account the fact that original benefit estimates are likely to be revised downward. Forrester then creates a triangular distribution to reflect the range of expected benefit, with 94% as the mean (equal to the sum of 133%, 100%, and 50%, divided by three). Forrester applies this mean to the productivity improvement estimate, which is then multiplied by an average annual fully loaded compensation rate of \$105,000 to arrive at the risk-adjusted value in each year depicted in the analysis.

The following tables show the values used to adjust for uncertainty in cost and benefit estimates. Different cost and benefit estimates have different levels of risk adjustments. Readers are urged to apply their own risk ranges based upon their own degrees of confidence in the cost and benefit estimates.

The table below shows the risk adjustment factors used for this financial framework:

Table 10: Risk Adjustment Factors

Risk adjustment factors	Low	Most likely	High	Mean
Costs				
Internal labor for implementation	100%	100%	200%	133%
Professional services	100%	100%	150%	117%
Benefits				
Reassignment of IT staff	50%	100%	120%	90%
Incremental productivity for underwriting, claims, and sales staff	50%	100%	133%	94%
Compliance and risk reduction	50%	100%	200%	117%
Postage cost savings	50%	100%	120%	90%

Source: Forrester Research, Inc.

Flexibility

Flexibility, as defined by Forrester’s TEI methodology, represents an investment in additional capacity or capability today that could be turned into future business benefits for some future additional cost. 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 the ITP Document Platform for a focused purpose and later discover additional uses and/or activate additional functionality inherent in the platform. The flexibility to

subsequently deploy the ITP Document Platform in other business areas and/or create additional capabilities for the organization has quantifiable value.

One such option, for example, was described in one of the study interviews and is currently under consideration but not yet built. This option involves automating the documentation required for an insurance sales rep to present and solicit a policy/program renewal for key clients. As related by one organization interviewed by Forrester, the option would be to extend the company's ITP investment to offer the capability to assemble various document types and client background data into a renewal package for the rep to carry to a client meeting. Currently, such material is assembled manually by an administrative assistant who types account information, cuts and pastes screen shots, and collects Word and PDF documents into a report. Automating the report would be "a massive time savings" equal to at least one person per day for each of the company's local offices. An automated, consistently assembled client renewal report would also result in "a more timely, more accurate, better renewal," according to the manager of this company.

The flexibility component of TEI captures this value using the financial-industry-standard Black-Scholes option pricing model. Forrester calculated the value of this flexibility option to arrive at a value of approximately \$1.9 million, based on assumptions similar to those used to calculate benefits and costs in Tables 4 and 9. For the sake of clarity and because flexibility option value is highly variable for each customer, Forrester has not included the value of this option in the ROI calculations demonstrated throughout this study. This value exists in addition to risk-adjusted benefits described in this analysis.

Table 11: Valuation Of Flexibility Option — Renewal Package Automation

Ref.	Metric	Calculation	Value
A1	Asset value (benefit)	Labor for eight admin staff over three years	\$2,089,000
A2	Cost to acquire option	Development, integration	\$200,000
A3	Expiration (time-to-expire, in years)		2
At	Flexibility	Black-Scholes option pricing model	\$1,901,000

Source: Forrester Research, Inc.

This is an illustration of just one flexibility option as described by one ITP customer. There are other flexibility options, which were described in interviews for this study, including:

- Having the IT staffing resource flexibility to assign staff to a major project to replace the main insurance system. One customer quantified this value as equivalent to four IT staff, 80% dedicated to the project, for nine months.
- Piloting and developing the capabilities of ITP/OnLine Server, Aia's solution for interactive document composition. One customer described the prospect of giving its customers more opportunities to send their claim reports via the Web site, for example, or to leverage ITP's capabilities to send email to clients. Increasing the speed at which an insured can complete

a damage report online and then receive confirmation and additional instructions has value to the insurer and the insured.

- Shifting more documents from batch to on-demand and interactive processing.
- Expanding digital capabilities for the business and eliminating paper where possible. Paper files are still required in many cases by those insured and the regulators. Yet correspondence via Web platforms is becoming more pervasive, and files can become more digital. “We are only one step away from going digital, especially with connections to a new back-office system,” noted an interviewee. “So correspondence will be linked digitally, probably within a year. When we had [the previous system], the archive was not connected to the back-office system, but ITP is compatible with new back-office systems, so we are only a few steps away from the all-digital file.”
- Upgrading to version 3.5 of the ITP Document Platform for organizations using an older version. Many of the benefits of deskillling, relieving IT of document output management, and empowering business users by owning their documents are greatly facilitated by the newer ITP features and capabilities, as evidenced to Forrester by case study customers. One such customer using an older version described a road map that will include some benefits that have already accrued to those on newer versions, including:
 - Creating more specialized text blocks and letters related to specific clients.
 - Emphasizing more customer focus — and less product focus — with correspondence or collateral showing only the specific products or coverage sought by the insured.
 - Putting more responsibility on the business users to manage their own documents: shifting IT's responsibility now from 80% to 20% — and vice versa for the business units.

The value of flexibility is unique to each organization, and the willingness to measure its value varies from company to company (see Appendix A for additional information regarding the flexibility calculation).

TEI Framework: Summary

Considering the financial framework constructed above, the results of the Costs, Benefits, Risk, and Flexibility sections using the representative numbers can be used to determine the ROI, NPV, and payback period. Table 14 shows the consolidation of the numbers for the composite organization.

Tables 12 and 13 below show the risk-adjusted values, applying the risk adjustment method indicated in the Risk section and the values from Table 10 to the numbers in Tables 4 and 9.

It is important to note that values used throughout the TEI framework are based on in-depth interviews with five organizations and the resulting composite organization built by Forrester. Forrester makes no assumptions as to the potential return that other organizations will receive within their own environment. Forrester strongly advises that readers use their own estimates within the framework provided in this study to determine the expected financial impact of implementing the ITP Document Platform.

The Total Economic Impact™ Of Aia Software's ITP Document Platform

Table 12: Total Risk-Adjusted Costs

Costs	Initial	Year 1	Year 2	Year 3	Total	Present value
Software license and maintenance	\$200,000	\$36,000	\$36,000	\$36,000	\$308,000	\$289,527
Hardware costs: two additional servers		\$20,000	\$20,000	\$20,000	\$60,000	\$49,737
Implementation labor costs	\$392,766				\$392,766	\$392,766
Professional services	\$162,000				\$162,000	\$162,000
Training fees	\$7,500				\$7,500	\$7,500
Total	\$762,266	\$56,000	\$56,000	\$56,000	\$930,266	\$901,529

Source: Forrester Research, Inc.

Table 13: Total Risk-Adjusted Benefits

Benefits	Year 1	Year 2	Year 3	Total	Present value
Reassignment of IT staff	\$47,250	\$94,500	\$94,500	\$236,250	\$192,053
Incremental productivity for underwriting, claims, and sales staff	\$940,000	\$1,410,000	\$1,410,000	\$3,760,000	\$3,079,189
Compliance and risk reduction	\$33,345	\$33,345	\$33,345	\$100,035	\$82,924
Postage cost savings	\$18,000	\$18,000	\$18,000	\$54,000	\$44,763
Total	\$1,038,595	\$1,555,845	\$1,555,845	\$4,150,285	\$3,398,929

Source: Forrester Research, Inc.

Study Conclusions

The data collected in this study indicate that an investment in the ITP Document Platform has the potential to provide a solid ROI. The risk-adjusted ROI of 277% for the composite company, along with a rapid payback period (breakeven point), raises confidence that the investment is likely to succeed, especially after the risks and uncertainty that may threaten the project have been considered and quantified.

Forrester's interviews with Aia Software customers yielded valuable observations. Forrester found that organizations can realize benefits in the form of:

- Lower resource requirements for IT staff who are able to hand over responsibility for document output management to business users.
- Incremental productivity for business users and professional staff.
- Reduced exposure to compliance failures and business risk.
- Postage cost savings.

In addition to the benefits quantified in this study, Forrester believes that an investment in the ITP Document Platform can generate significant value in terms of business agility, time-to-market/time-to-value, and ultimately, higher customer satisfaction. In the words of one interviewee:

“Quality increases customer satisfaction, and that means growth. New clients come to us because other clients are very satisfied.”

Based on these findings, companies looking to implement the ITP Document Platform can see large productivity benefits and cost savings. Using the TEI framework, many companies may find the potential for a compelling business case to make such an investment.

Table 14: ROI, Original And Risk-Adjusted

Summary of financial results	Original estimate	Risk-adjusted
ROI	356%	277%
Payback period (months)	7.5	9.3
Total costs (PV)	\$792,076	\$901,529
Total benefits (PV)	\$3,609,737	\$3,398,929
Total (NPV)	\$2,817,661	\$2,497,400

Source: Forrester Research, Inc.

Appendix A: Composite Organization Description

In this TEI study, Forrester has created a composite organization to illustrate the quantifiable costs and benefits of implementing the ITP Document Platform. The composite company depicts a Europe-based insurance and financial products firm with 750 employees, 200 of whom are users of ITP. The company produces 8,000 documents per day via ITP, most without any user interaction, and yet other documents require a high degree of user interaction and resulting customization. The company provides conventional property and casualty insurance as well as coverage for distinctive homes, unique automobiles and watercraft, fine art, and other valuable property. Providing such insurance requires document customization in order to provide the highest quality of customer care.

With the implementation of ITP, the company has been able to significantly improve the speed, accuracy, appearance, personalization, and the overall economics of its document output.

Organization Size And Dimensions

- 750 office workers, 200 of whom are users of the ITP Document Platform.
- \$600 million in premiums written annually; \$1.5 billion in assets.
- 450 templates in use.

Initial Reasons For Investment In ITP Document Platform

With its investment in the ITP Document Platform, the composite company has the following objectives:

- Create text/document models faster in order to more effectively serve the needs of the users and customers.
- Eliminate manual steps and email workflows in document creation and delivery.
- Increase standardization and centralization of data.
- Create the ability to create and edit text modules without IT resources, shift ownership of document output management to business units, and enable business users to customize text and respond to business and regulatory changes.
- Enable the integration of the document output management system with a planned new insurance system, as well as current and future CRM and finance systems.
- Reduce document errors and corresponding exposure to legal and regulatory risks, incorrect premium payments or claims dispersals, and customer dissatisfaction.
- Automate enveloping and customized insertion of flyers, coverage descriptions, and marketing pieces.
- Improve and expand document capabilities for its Web applications.

Benefits Realized/Achieved

- Increased productivity from underwriting, claims, and sales of 5% to 10%, amounting to \$1 to \$1.5 million annually.
- Reassignment of IT resources previously engaged in document output management, text model creation, and editing.
- Improvement in data quality and associated risks, which is critical for Basel II compliance.
- Consolidation of document mailings, resulting in an annual cost savings as a result of automated enveloping and customized insertion of flyers.
- Greater business agility and time-to-market/time-to-value, as well as resultant increases in customer satisfaction and/or new business.

Appendix B: 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.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility. For the purpose of this analysis, the impact of flexibility was not quantified.

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 forms 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.

Risk

Risk measures the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: the likelihood that the cost and benefit estimates will meet the original projections and the likelihood that the estimates will be measured and tracked over time. TEI applies a probability density function known as “triangular distribution” to the values entered. At a minimum, three values are calculated to estimate the underlying range around each cost and benefit.

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 enterprisewide 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 in time. However, having the ability to capture that benefit has a present value that can be estimated. The flexibility component of TEI captures that value.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Although the Federal Reserve Bank sets a discount rate, companies often set a 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 organization 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 an interest rate (the discount rate). The PV of costs and benefits feed into the total net present value of cash flows.

Payback period: The breakeven point for an investment. 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.

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 at 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 Table 2 at the end of the year. Present value (PV) calculations are calculated for each total cost and benefit estimate. Net present value (NPV) calculations are not calculated until the summary tables and are the sum of the initial investment and the discounted cash flows in each year.

Example Table

Ref.	Category	Calculation	Initial cost	Year 1	Year 2	Year 3	Total

Source: Forrester Research, Inc.

Appendix D: About The Project Director

Jeffrey North **Principal Consultant**

Jeffrey North is a principal consultant with Forrester's Total Economic Impact™ (TEI) consulting practice. The TEI methodology focuses on measuring and communicating the value of IT and business decisions and solutions, as well as providing an ROI business case based on the costs, benefits, risk, and flexibility of investments.

Jeff came to Forrester with consulting and operating experience, notably working with fast-growth companies. He was a founding member of the digital strategy practice at Cambridge Technology Partners (acquired by Novell), where he specialized in business value justification of technology investments and customer advocacy for enterprise clients. As a director in the international and catalog business units at Staples, Jeff built and managed metrics and reporting programs in North America and Europe as the company experienced significant growth. He has also consulted in a business-IT capacity to retailers and life sciences companies.

Jeff holds a B.A. from St. Lawrence University and an M.B.A. with a concentration in international management and finance from the Thunderbird School of Global Management.

Appendix E: Supplemental Material

Related Forrester Research

"Best Practice: Mastering Output Options For Customer Communications," Forrester Research, Inc., September 29, 2009.

"Case Study: ABN AMRO Cuts Costs, Improves Data Quality In Document Output And Core Apps," Forrester Research, Inc., September 29, 2009.

"The Forrester Wave™: Document Output For Customer Communications Management, Q2 2009," Forrester Research, Inc., June 25, 2009.

"The ROI Of Correspondence Management," Forrester Research, Inc., February 13, 2009.